

**A Framework for Construction Business Recovery in
Small and Medium Sized Privately Owned
Companies**

by

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Abstract

In the summer of 2007, the UK financial market suffered a meltdown that drove many construction companies of all sizes out of business. The large construction companies seem to wither the storm while the small and medium sized companies closed shop in unprecedented numbers. According to the BBC, construction insolvency hit a record high of 6,355 in 2009. The Office of National Statistics (ONS) also reports that, 2009 was the first time business death outnumbered business births since the year 2000. In that year, construction accounted for 15-20% of all insolvencies in the UK. The adverse effect has changed the climate for Construction businesses in the UK. Firms are faced with tough decisions to make in order to secure their own survival. However, it is also true that, though there is an increased interest in reversing decline in construction, there isn't much rigorous and systematic research done on corporate level turnaround in construction companies. Failure studies in construction have focused more on explaining failure at the project level than on corporate level. This research asks the question 'how can a small or medium sized, privately owned construction company turnaround?' The research interest is to find out what happens at the critical stage of a turnaround – the decisions made, the actions taken, how they were taken, why they were taken, to know the strategies that have worked and those that did not work, and then, design an effective turnaround framework. Therefore, using Altman's Z-score bankruptcy prediction model, 9 successful turnaround companies were identified, and 12 unsuccessful turnaround companies were selected purposively but fit the criteria. Turnaround strategies of the two groups were looked at and compared.

The findings showed that the key factors necessary for a construction company to ensure a successful turnaround are: leadership and people; improving working capital; support of stakeholders; a functioning market; selective tendering; business development; use of technology, and access to advice. It was also found that the business model of having the banks as sole providers of leverage was flawed. The findings also revealed that in times of difficulty or recession, two distinct types of construction companies emerge; the Conservative Company and the Progressive Company. As such, it was also revealed that there are two distinct business recovery approaches in construction – the Conservative and the Progressive approach. The

Conservative companies, emphasize efficiency, tender for much smaller jobs, and make use of a mixture of, cutback and management turnaround strategies in almost every aspect of the business as they wait for the storm to pass – more like hibernation. On the other hand, the Progressive companies, though efficient, use growth strategy to take advantage of the market – buying other companies, tendering for much bigger jobs, and taking on new and experienced staff that other companies could not afford to keep. Restructuring strategies were seldom used as most companies stuck with the core strategy of their businesses.

It was also revealed that most of the recovered companies operated with; no debts, were self funded, had some type of framework contract and multi-phased or repeat projects that kept them afloat, reduced their margins and tried to breakeven in tighter situations. While the unsuccessful turnaround companies were found to have been plagued with a combination of high gearing, bad debt, and cash flow problems, which ultimately caused their demise. Although all sectors of the industry suffered, it was revealed that, companies with operations in the utilities/renewables, and commercial sectors of construction were more likely to recover quicker from a downturn than those with operations in residential development, and industrial sector.

Table of Contents

ACKNOWLEDGEMENT	I
ABSTRACT	II
LIST OF FIGURES	XI
LIST OF TABLES	XIII
GLOSSARY OF ACRONYMS	XV
1 CHAPTER 1 INTRODUCTION	I
1.1 INTRODUCTION	1
1.2 CONCEPTUAL FRAMEWORK OF BUSINESS TURNAROUND	2
1.3 AIMS AND OBJECTIVES OF THE RESEARCH	4
1.4 CONTRIBUTION TO KNOWLEDGE	4
1.5 STRUCTURE OF THE DISSERTATION	5
2 CHAPTER 2 REVIEW OF LITERATURE	6
2.1 BUSINESS RECOVERY	6
2.1.1 WHAT IS BUSINESS RECOVERY?	6
2.2 WHAT IS BUSINESS FAILURE?	7
2.2.1 BUSINESS FAILURE	7
2.2.2 INSOLVENCY MEASURES	9
2.3 CURRENT EVENTS	11
2.4 DETERMINANTS OF BUSINESS FAILURE	12
2.5 INPUT AND OUTPUT FRAMEWORK OF BUSINESS FAILURE/SURVIVAL IN THE CONSTRUCTION INDUSTRY	15
2.6 DETERMINANTS	15
2.6.1 HUMAN, ORGANISATIONAL AND FINANCIAL CAPITAL	21
2.6.2 MACROECONOMIC, SOCIAL AND NATURAL FACTORS	23
2.7 SYMPTOMS	24
2.7.1 BUDGETARY ISSUES	24
2.7.2 BUSINESS AND MARKET ADAPTABILITY ISSUES	25
2.8 FEEDBACK	25
2.9 BUSINESS SUCCESS IN THE CONSTRUCTION INDUSTRY	26
2.10 SUCCESS DEFINED	27

2.11	FACTORS TO ACHIEVING SUCCESS IN THE CONSTRUCTION INDUSTRY	30
2.12	TWO SIDES OF THE SAME COIN	40
2.13	MANAGEMENT	42
2.13.1	MANAGEMENT FUNCTIONS	42
2.14	LEADERSHIP	43
2.15	MANAGEMENT VS. LEADERSHIP	45
2.15.1	LEADERSHIP AND THE TURNAROUND ORGANIZATION	48
2.15.2	EMERGENT LEADER AS CHANGE CATALYST	49
2.16	ORGANISATIONAL CULTURE	50
2.17	PEOPLE/STAKEHOLDER MANAGEMENT	51
2.18	BUSINESS STRATEGIES AND TURNAROUND	56
2.19	COMPETITIVE STRATEGY CLASSIFICATIONS	57
2.20	STRATEGIC APPROACHES IN ORGANISATIONS	59
2.20.1	OFFENSIVE OR PROGRESSIVE STRATEGY	59
2.20.2	DEFENSIVE OR CONSERVATIVE STRATEGY	61
2.20.3	GUERRILLA OR NICHE STRATEGY	62
2.21	PUTTING TOGETHER A PLAN	62
2.22	BIDDING STRATEGY	64
2.23	COMPANY IMAGE/REPUTATION	67
2.23.1	FACTORS THAT IMPACTS A COMPANY'S REPUTATION	68
2.24	FINANCIAL MANAGEMENT AND THE TURNAROUND ORGANISATION	71
2.25	CASH FLOW AND LIQUIDITY	76
2.26	WORKING CAPITAL	80
2.26.1	POSITIVE AND NEGATIVE WORKING CAPITAL REQUIREMENTS	81
2.26.2	CHANGE IN OPERATING WORKING CAPITAL	83
2.27	INSOLVENCY IN CONSTRUCTION	85
2.28	CAPITAL STRUCTURE	86
2.28.1	CAPITAL STRUCTURE AND TYPES OF DEBTS	87
2.28.2	CORPORATE RESTRUCTURING	88
2.28.3	LEVERAGED BUYOUT (LBO)	89
2.28.4	THE ROLE OF FINANCIAL INSTITUTIONS	89
2.29	CORPORATE TURNAROUND STRATEGIES	91
2.30	RATIONALE FOR A CORPORATE TURNAROUND	93
2.30.1	IS THE COMPANY WORTH SAVING?	93
2.30.2	ASSESSING A FIRM'S FUTURE HEALTH	94
2.31	CORPORATE TURNAROUND FRAMEWORKS	96
2.32	FAILURE PREDICTION MODELS	107

2.33	ALTMAN Z-SCORE MODEL	108
2.34	CRITICISM, CREDIBILITY AND VALIDITY OF THE ALTMAN'S Z-SCORE	114
2.35	A TOOL FOR RECOVERY	116
2.36	SUMMARY	119
3	CHAPTER 3 RESEARCH METHODOLOGY	121
3.1	INTRODUCTION	123
3.2	RESEARCH PHILOSOPHY	123
3.2.1	ONTOLOGY	123
3.2.2	EPISTEMOLOGY	124
3.2.3	AXIOLOGY	125
3.2.4	PRAGMATISM	125
3.3	THE PHILOSOPHICAL STANCE OF THIS RESEARCH	126
3.4	RESEARCH APPROACH	126
3.4.1	DEDUCTIVE APPROACH	127
3.4.2	INDUCTIVE APPROACH	127
3.5	RESEARCH METHODS	127
3.5.1	EXPLORATORY STUDIES	128
3.5.2	DESCRIPTIVE STUDIES	128
3.5.3	EXPLANATORY STUDIES	128
3.6	RESEARCH STRATEGY	129
3.6.1	EXPERIMENT	129
3.6.2	SURVEY	129
3.6.3	CASE STUDY	129
3.6.4	ACTION RESEARCH	130
3.6.5	GROUNDNED THEORY	130
3.6.6	ETHNOGRAPHY	131
3.6.7	ARCHIVAL RESEARCH	132
3.7	RESEARCH CHOICES	132
3.8	RESEARCH DESIGN	133
3.9	SAMPLING	134
3.10	ADVANTAGES OF SAMPLING	135
3.11	PROBABILITY SAMPLING	135
3.11.1	RANDOM SAMPLING	135
3.11.2	SYSTEMATIC SAMPLING	135
3.11.3	STRATIFIED SAMPLING	136
3.11.4	CLUSTER SAMPLING	136

3.12	NONPROBABILITY SAMPLING	136
3.13	SAMPLING IN QUALITATIVE RESEARCH	138
3.13.1	THEORETICAL SAMPLING	138
3.13.2	PURPOSEFUL SAMPLING	139
3.14	THEORETICAL OR PURPOSIVE SAMPLING	141
3.15	SURVIVOR BIAS	141
3.16	SAMPLE SELECTION AND CRITERIA	142
3.17	CONSTRUCTING THE SAMPLING FRAME FOR THE STUDY	146
3.18	VALIDATION AND RELIABILITY OF THE STUDY’S SAMPLE	148
3.18.1	JUSTIFICATION OF SAMPLE SIZE	149
3.18.2	BIAS IN PURPOSEFUL SAMPLING	150
3.19	LIMITATIONS OF THE SELECTION PROCESS	151
3.20	VARIABLES	152
3.21	GROWTH AND MARKET PERFORMANCE	153
3.22	NON-FINANCIAL VARIABLES	153
3.23	RESEARCH TECHNIQUES	154
3.23.1	DATA COLLECTION	154
3.24	DATA ANALYSIS	155
3.25	VALIDITY AND RELIABILITY	156
3.26	SUMMARY	158
4	CHAPTER 4 PRESENTATION OF COMPANIES AND ANALYSIS	160
4.1	INTRODUCTION	161
4.2	COMPANY PROFILES	161
4.3	FINANCIAL HEALTH ANALYSIS	164
4.3.1	UNSUCCESSFUL TURNAROUND COMPANIES	164
4.3.2	SUCCESSFUL TURNAROUND COMPANIES	165
4.3.3	COMPARISON OF THE PERFORMANCE OF SUCCESSFUL AND UNSUCCESSFUL TURNAROUNDS IN THEIR RESPECTIVE DECLINE YEARS	168
4.3.4	COMPARISON OF THE PERFORMANCE OF SUCCESSFUL COMPANIES IN THEIR DECLINES AND TURNAROUND YEARS	171
4.4	RETURN TO FINANCIAL HEALTH	174
4.5	CASH FLOW	174
4.6	GEARING	181
4.7	PROFITABILITY	185
4.8	SUMMARY	189

5	CHAPTER 5 BUSINESS RECOVERY STRATEGIES	191
5.1	INTRODUCTION	190
5.2	IS THE BUSINESS WORTH SAVING?	190
5.3	FACTORS NECESSARY FOR CONSTRUCTION BUSINESS RECOVERY	192
5.4	OPERATING STRATEGIES	193
5.5	INCREASE WORKING CAPITAL/CASH FLOW	194
5.5.1	SHRINK COMPANY TO MANAGEABLE SIZE	195
5.5.2	DISCIPLINED CASH MANAGEMENT	198
5.5.3	PRIVATE EQUITY	200
5.5.4	BANK LOANS AND OVERDRAFT	201
5.5.5	NOVATE CONTRACTS/UNFINISHED SITES	206
5.5.6	RETAINED EARNINGS	206
5.6	ORGANIZATIONAL TURNAROUND STRATEGIES	207
5.7	THE RIGHT PEOPLE	207
5.7.1	LEADERSHIP AND MANAGEMENT COMPETENCE	209
5.7.2	MANAGEMENT CHANGE	215
5.7.3	BUSINESS SKILLS AND AN ENTREPRENEURIAL SPIRIT WITHIN THE MANAGEMENT TEAM	217
5.8	GETTING THE SUPPORT OF STAKEHOLDERS	219
5.9	GETTING THE SUPPORT OF YOUR STAFF	220
5.9.1	EMPHASIZE EFFICIENCY TO AVOID DEFECTIVE WORK	221
5.10	GETTING THE SUPPORT OF SUBCONTRACTORS AND SUPPLIERS:	222
5.10.1	DELAYING PAYMENT - PAY-WHEN-PAID	225
5.11	SUPPORT FROM THE BANKS AND CREDITORS	227
5.11.1	REDUCE GEARING	229
5.12	GETTING THE SUPPORT OF CLIENTS	230
5.13	A FUNCTIONING MARKET (BEING IN THE RIGHT AREA OF THE INDUSTRY)	232
5.13.1	DIVERSIFY AND EXPAND PORTFOLIO INTO OTHER SECTORS OF THE INDUSTRY	238
5.13.2	MAINTAIN THE MARKET PRESENCE.	242
5.13.3	MERGER AND ACQUISITION	243
5.14	SELECTIVE TENDERING	244
5.14.1	CHECKING THAT THE CLIENT/AGENCY CAN PAY	246
5.15	BIDDING STRATEGIES	249
5.15.1	BID ONLY ON PROJECTS THAT ARE PROFITABLE	250
5.15.2	REDUCE PRICES OR MARGINS TO WIN WORK	251

5.15.3	BELOW COST BIDDING	252
5.15.4	BID FOR SMALLER JOBS (MORE COMPETITION)	255
5.15.5	BID FOR BIGGER JOBS	256
5.15.6	ADOPT COMPETITIVE TENDERING FOR SUPPLY-CHAIN	257
5.15.7	REVIEW ECONOMIC ENGINE	259
5.16	BUSINESS DEVELOPMENT	262
5.17	USE OF TECHNOLOGY	263
5.18	ACCESS TO ADVICE	264
5.19	LUCK	265
5.20	COMPARISON OF RECOVERY STRATEGIES OF SUCCESSFUL AND UNSUCCESSFUL TURNAROUND COMPANIES	265
5.21	SUMMARY	268
6	CHAPTER 6 DEVELOPMENT OF FRAMEWORK	270
6.1	INTRODUCTION	270
6.2	STRATEGIES FOR CONSTRUCTION BUSINESS RECOVERY	270
6.3	LEADERSHIP AND PEOPLE	270
6.3.1	FACE THE FACTS	271
6.3.2	ACT QUICKLY	273
6.3.3	CHANGING THE MANAGEMENT TEAM	273
6.3.4	A CLEAR PLAN	275
6.4	IMPROVING CASH FLOW	276
6.5	SUPPORT OF STAKEHOLDERS	277
6.6	A FUNCTIONING MARKET	278
6.7	SELECTIVE TENDERING	278
6.8	BUSINESS DEVELOPMENT	280
6.9	USE OF TECHNOLOGY	281
6.10	ACCESS TO ADVICE AND CONSOLIDATING GAINS	281
6.11	CATEGORISATION OF TURNAROUND STRATEGIES	285
6.11.1	CUTBACK STRATEGIES	286
6.11.2	STABILIZATION STRATEGIES	286
6.11.3	PROACTIVE STRATEGIES	287
6.11.4	IMPROVEMENT STRATEGIES	287
6.12	TURNAROUND APPROACHES IN CONSTRUCTION SMEs	287
6.13	CONSERVATIVE TURNAROUND APPROACH	287
6.14	PROGRESSIVE TURNAROUND APPROACH	288
6.15	SUMMARY	294

7	CHAPTER 7 VALIDITY AND RELIABILITY OF RESEARCH	295
7.1	INTRODUCTION	296
7.2	MEMBER CHECKING	296
7.3	OVERALL COMMENTS ON THE FRAMEWORK AND FINDINGS	297
7.4	CONFIRMATIONS AND/OR ADDITIONS TO WHAT WAS ALREADY INCLUDED	298
7.5	SUMMARY	310
8	CHAPTER 8 CONCLUSION AND RECOMMENDATION	312
8.1	CONCLUSIONS	312
8.2	RECOMMENDATIONS	315
8.3	FURTHER RESEARCH	318
	REFERENCES	319
	APPENDICES	346
	APPENDIX 1	347
	APPENDIX 2	422
	APPENDIX 3	426
	APPENDIX 4	429
	APPENDIX 5	432

List of Figures

Figure 1.1: The Critical Phase (Source, Gopinath 1991).....	3
Figure 2.1: Input and Output framework of business failure/survival in the construction industry (<i>adopted from Koksai and Arditi, 2004</i>)	16
Figure 2.2: Culture types; the Competing Values of Leadership, Effectiveness and Organisational theory (Cameron and Quinn 1999).....	55
Figure 2.3: Project Cash flow (Source: Burtonshaw-Gunn, 2009).....	77
Figure 2.4: Financial intermediaries and the flow of funds (Eccles et al, 1999)	96
Figure 2.5: The evolving focus areas of a turnaround strategy over time (Source; Kirk, 2008)	97
Figure 2.6: Turnaround Stages (source; Balgobin and Pandit, 2001).....	98
Figure 2.7: The process of developing a turnaround strategy (Source; Chakraborty and Dixit, 1992).....	99
Figure 2.8: A multistage model of corporate transformation (source; Chakravarthy, 1996)	100
Figure 2.9: The critical phase (source: Gopinath, 1991)	101
Figure 2.10: The Failure/Turnaround Process (Source; Sheppard and Chowdhury, 2005)	101
Figure 2.11: Turnaround process (Source: Sheppard and Chowdhury, 2005)	102
Figure 2.12: The successful turnaround process (Source; Zimmerman, 1989)	104
Figure 2.13: Good-to-great ultimate flywheel (<i>Collins, 2001</i>)	105
Figure 2.14: Distress Project Assessment (<i>Langdon, 2008</i>)	106
Figure 2.15: Summary of literature review	119
Figure 3.1: The Ladder for Analytical Abstraction (<i>source: Carney, 1990</i>)	156
Figure 4.1: Average Z-score of Unsuccessful Turnarounds	164
Figure 4.2: Average Z-score Components of unsuccessful Turnaround Companies	165
Figure 4.3: Average Z-score of Successful Turnarounds	166
Figure 4.4: Average Z-score Components of Successful Turnaround Companies....	167
Figure 4.5: Profit Levels (based on Average F3 Z-score Components)	187
Figure 4.6: Operating Working Capital at Turnaround Stage for Contractors	190
Figure 5.1: Factors necessary for Construction Business Recovery	193
Figure 5.2: Increase Working Capital/Cash flow	195
Figure 5.3: The Right People.....	209

Figure 5.4:Level 5 Hierarchy	211
Figure 5.5:Comparison of a Level 5 and Level 4 Leader	212
Figure 5.6: Getting the support of Subcontractors and Suppliers	223
Figure 5.7: Support of Banks or Creditors.....	228
Figure 5.8: Support of Clients.....	231
Figure 5.9: A Functioning Market (The right industry sector	234
Figure 5.10: Three Circles Of The Hedgehog Concept (Source: Collins, 2001).....	237
Figure 5.11: Selective Tendering	246
Figure 5.12: Other Factors necessary for Recovery in Construction.....	262
Figure 6.1: Competence development in change (Source: Carnall, 2003)	283
Figure 6.2: Individual and collective learning in organisations. (Source: Hayes, 2002)	283
Figure 6.3: Strategies for Construction Business Recovery	284
Figure 6.4: Average Z-score of Conservative Vs Progressive Turnaround Companies	290
Figure 6.5: Framework for Construction Business Recovery.....	291
Figure 7.1: ‘Luck’ still not a success factor in construction	308

List of Tables

Table 2.1: Calculation of weighted average values of failure factors.....	14
Table 2.2: Ranking of determinants of failure in construction by Researchers.....	18
Table 2.3: Determinants of business failure in order of importance.....	21
Table 2.4: Symptoms/Indicators of business failure in order of importance.....	24
Table 2.5: Ranking of Success Factors in construction by researchers	32
Table 2.6: Ranking of Success Factors in construction	35
Table 2.7: Business success factors vs. Business failure success	40
Table 2.8: Comparison of Management and Leadership Competencies	46
Table 2.9: Leadership traits and Attributes.....	47
Table 2.10: Turnaround Strategies.....	92
Table 2.11: Questions before a Turnaround decision	95
Table 2.12: Comparison of Z-score against standard practice.....	117
Table 3.1: Purposeful sampling	140
Table 3.2: Sample Group Classification	144
Table 3.3: Total number of Unsuccessful Turnaround and Successful Turnaround companies	148
Table 4.1: Company Background	161
Table 4.2: Average Z-score of Successful Turnaround Companies	165
Table 4.3: Performance of Unsuccessful and Successful Turnaround Companies in their Decline Years	168
Table 4.4: Descriptive analysis associated with the performance of Unsuccessful and Successful Turnaround Companies' at Decline	170
Table 4.5: Performance of Successful Turnaround Companies at Decline and Turnaround Years	171
Table 4.6: Descriptive analysis associated with Successful Turnaround Companies	173
Table 4.7: Change in Working Capital: Decline Years	177
Table 4.8: Change in Working Capital: Turnaround Years.....	179
Table 4.9: Gearing of Turnaround Companies	184
Table 4.10: Average Profitability of Successful Turnaround Companies	186
Table 5.1: Factors necessary for Construction Business Recovery	192
Table 5.2: Increase Working Capital/Cash flow	194
Table 5.3: The Right People	208

Table 5.4: The Two Sides of Level 5 Leadership	211
Table 5.5: Getting the support of Subcontractors and Suppliers	222
Table 5.6: Support of Banks or Creditors	228
Table 5.7: Support of Clients	230
Table 5.8: A Functioning Market (The right industry sector)	233
Table 5.9: Selective Tendering	245
Table 5.10: Other Factors necessary for Recovery in Construction	261
Table 6.1: The Stockdale Paradox	272
Table 6.2: Turnaround Approaches Adopted by Companies	288
Table 6.3: Average Z-score of Progressive Turnaround Companies (ST)	289
Table 6.4: Average Z-score of Conservative Turnaround Companies (ST)	289
Table 6.5: Independent sample <i>t</i> -test for conservative and progressive turnaround companies	290
Table 6.6: Conservative Turnaround Approach	292
Table 6.7: Progressive Turnaround Approach	292
Table 7.1: Validated Conservative Turnaround Approach	308
Table 7.2: Validated Progressive Turnaround Approach	309

Glossary of Acronyms

GDP	Gross Domestic Product
SMEs	Small and Medium-sized Enterprise(s)
HC	House of Commons
JCT	Joint Council Tribunal
PFI	Private Finance Initiative
UKCG	United Kingdom Construction Group
ONS	Office of National Statistics
MC	Management Center
CEO	Chief Executive Officer
D&B	Design and Build
NEC	New Engineering Contract
OFT	Office of Fair Trading
SIC	Standard Industrial Classification
ETF	Egan Task Force
CIOB	Chartered Institute of Building
BIM	Building Information Modelling
ROI	Return On Investment
CCJ	County Court Judgements
CVA	Company Voluntary Agreements
FCF	Free Cash Flow
SWOT	Strengths Weaknesses Opportunities Threats
CBR	Construction Business Recovery
LMBO	Leveraged Management Buy-Out
LBO	Leveraged Buy-Out
MBI	Management Buy-In
MBO	Management Buy-Out
MDA	Multiple Discriminant Analysis
PAS	Performance Analysis Score
WC	Working Capital
TA	Total Assets
RE	Retained Earnings
EBIT	Earnings before Interest and Taxes

CL	Current Liabilities
MVE	Market value of equity
TL	Total Liabilities
BV	Book Value of Equity
NW	Net Worth
S	Sales
TO	Turnover
LSE	London Stock Exchange
BL & OD	Bank Loans And Overdraft
LTL	Long-Term Loans
STF	Short-Term Finance
PE	Private Equity
IT	Information Technology
MD	Managing Director
CRM	Customer Relationship Management
LAD	Liquidated and Ascertained Damages
POW	Prisoner-Of-War
EMPA	East Midlands Property Alliance

1 CHAPTER 1| INTRODUCTION

1.1 Introduction

Hitherto, there has been an interest on the part of researchers, organisations, entrepreneurs, investors and policy makers to critically examine the reasons why businesses fail (Kale and Arditi, 1998; Dikmen et al, 2010). In the summer of 2007, the UK financial market suffered a meltdown that left many of the construction industry's small and medium-sized enterprises (SMEs) bankrupt and out of business (HC, 2009). The current insolvency statistics demonstrate the difficulties being experienced by many businesses. In 2009, the UK insolvency rate hit a record high of 270,000 i.e. 11.9% death rate. The Office of National Statistics (ONS) reports that, this is the first time business death have outnumbered business births since the year 2000. It's been reported that building firms fold every four hours as bankruptcies soar. A statistics of 500 building firms exactly was stated insolvent during the first quarter of 2008; the highest in five years (Langdon, 2008). Davis Langdon, now an AECOM company report that figures compiled by Experian show that 1,708 construction companies succumbed in the first six months of 2012, a rise of 3% on the same period of 2011. Also, figures from business recovery specialist Begbies Traynor identified 1,199 construction companies in the first quarter of 2012 as 'critical', a 104% increase in the number of construction companies in 'distress' from figures of 2011 (Fordham, 2012).

Most construction SMEs will be quick to mention the 2007 recession as the major reason for the decline of their firms as there was shrinkage in funding and recalling of loans by the banks and other financial institutions (Cooke & Willams, 2009). Hence the cost of borrowing to repay loans and pay wages increased. Also the market saw an unprecedented reduction in the number of projects, which led to increased competition and below cost tendering (suicide bidding) to win work (Rowson, 2009; Cooke & Willams, 2009). This meant, those companies who could not win work or sustain their workforce with existing jobs, went out of business. The recession caused some changes in the practices of some construction companies – some for better, and some for worse. These practices may involve a few things, changing sectors or niche in the industry, choosing the right project, the right client, change in tendering strategy and method of delivery (Netscher, 2014). To survive the recession, companies were forced to adopt lean principles and partnering to remain competitive during the recession with the increased likelihood of repeat work. It is evident

that the recession has caused a change in attitude of both contractor and client (Woods and Ellis, 2005). Contractors are now trying to win jobs at all cost even at the risk of exposure to bankruptcy. Other contractors are now adopting adversarial tendering where the contractor wins the job with a low bid but relies on variations and claims to make up the difference. While clients, being aware of the market, squeeze contractors on price and demand for the best quality (Rowson, 2009). The construction industry's susceptible nature in the face of this recession is alarming, and ways to turnaround this trend must be looked at. Current turnaround models, frameworks, and concepts have not proven capable of solving this problem.

1.2 Conceptual framework of business turnaround

Business recovery can be conceived to have three simple blocks for any company looking to return to financial health. First, *ensure sufficient short-term liquidity* either by new borrowing or selling off assets. Second, *reduce long-term gearing* by the same mechanisms above or by converting debt to equity through negotiations with creditors. And third, *increase profitable growth in excess of funding costs* (Kirk, 2008). All three conceptions are appropriate and necessary. However, these concepts are generic and do not show what strategies are involved within each concept and how those strategies should be applied, or what strategies will work for which industry, etcetera. Most turnaround models found in literature are very generic and are not specific to any industry (Sheppard and Chowdhury, 2005; Collins, 2001; Zimmerman's 1989; Gopinath 1991; Balgobin and Pandit, 2001; Chakraborty and Dixit, (1992). The characteristics of turnaround differ from industry to industry because the success of a particular strategic option is dependent upon the type of industry (Bruton et al., 1997). Therefore, an important aspect of business recovery or turnaround is looking at industry specific factors, then adopting an appropriate strategy for the turnaround. According to O'neil (1986), drawing from the work of Porter (1980).

"In fragmented industries (like construction), cutback sub- strategies will be successful, while growth sub-strategies will not be successful. This prediction is based upon Porter's analysis, which suggests that fragmented industries require competitors to exhibit cost control and strategic discipline while they seek to exploit a particular niche (a project for instance). Turnaround strategies, which are characterized by the cutback actions, will take advantage of this natural relationship, while growth strategies will diffuse the concentrated efforts of the firm." This usually leads to an outrun of the firm's finances (Zimmerman, 1989). *"In concentrated industries (like manufacturing), restructuring strategies are more likely to succeed."*

In construction, failure studies have focused more on explaining failure at the project level than on corporate level (Arditi et al, 2000). It is important to do the former without neglecting the latter. It is also important to note that failure at project level cannot be divorced from failure at corporate level but not necessary the other way around. Literature is pervaded with failure of construction businesses with very little about their turn-around. There are so many corporate recovery models and frameworks out there but not much work of real substance has been done on processes for successful turnaround in construction. Warner et al, (2008) found that many construction companies in America had adopted some form of success model to guide their company to success. This research agrees with Warner and his colleagues who argued that most of the business success models out there did not specifically cover contractors working in the construction industry.

Figure 1.1 below is a typical profile of the turnaround process. First, the ‘decline stage’ where the problem becomes apparent, and where management needs to act; second, the ‘critical phase’ where plans are drawn to turnaround performance; and lastly, the result is a ‘successful turnaround’ or ‘liquidation’ if the process is unsuccessful.

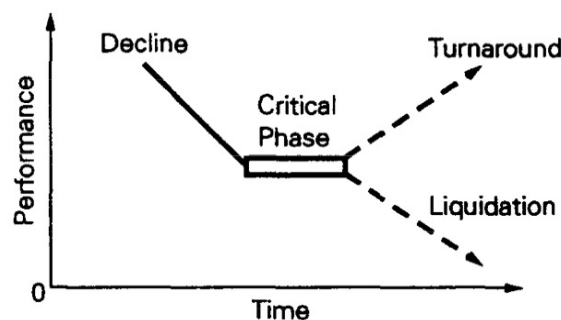


Figure 1.1: The Critical Phase (Source, Gopinath 1991)

The interest of this research is to find out what happens at the critical stage – the decisions made, the actions taken, how they were taken and why; what worked and what didn't; so that lessons could be learned and hopefully good practices could be duplicated.

1.3 Aims and objectives of the research

Aims

The aim of the research is to develop a framework for construction business recovery for small and medium sized privately owned construction companies.

Objectives

1. Explore business failure and its determinants
2. Explore how contractors define and achieve success
3. Explore existing turnaround frameworks in the construction industry
4. Explore turnaround strategies and approaches used by both successful and unsuccessful turnaround construction companies.
5. Design and validate a framework for successful business recovery in the construction industry.

Research question

As already mentioned, the main focus of this dissertation will be the “Transition Point”. The research will be asking the question: *How does a failing small and medium-sized construction company turnaround?* In other words, can a failing construction company turnaround from failure to success, if so, how?

1.4 Contribution to knowledge

Due to the large amounts of failures amongst construction SMEs, and since current turnaround frameworks have not proven capable of solving the failure problems amongst construction SMEs (Warner et al. 2008), this dissertation proposes a reliable framework to help secure company survival. The framework identifies solutions to issues executives and managers face at the point of company distress. Issues such as how to optimize cash flow at the same time provide quality products and services through better client and project selection, tendering strategies, business development and used of technology, and build effective leaders and people suitable to drive business recovery. The framework also deals with the core activities of the turnaround regarding improving liquidity, reducing gearing, and improving profitability specific to the construction industry.

With a recovery framework available, companies will know how to be better reverse decline. It is hoped that this research will aid managers of companies facing bankruptcy, to narrow their focus to the strategies that have a proven record of working, address the problem and turnaround performance towards success. The aim of this dissertation is not to bring out a predictive tool or a recovery formula, but to outline a number of strategies that if and when applied, the company has a better chance at survival.

1.5 Structure of the dissertation

Business success, business failure, and corporate turnaround in construction are discussed and critiqued in Chapter 2. The research methodology used in the dissertation is described Chapter 3. Chapter 4 presents the cases involved in the study as well as quantitative analysis of the financial data in each case, and a comparison of both successful and unsuccessful turnaround companies. Chapter 6 deals with the qualitative analysis of the data obtained from the interviews and describes in detail business recovery strategies used in construction business recovery. Chapter 7 describes the development of the framework as revealed by the data analysis from both Chapter 5 and 6. The validation process of the framework is presented in Chapter 8. Lastly, conclusions from the study are reported in Chapter 9, followed by a list of references, and appendix consisting of detailed financial analysis of the turnaround cases and documents used in the data collection.

2 CHAPTER 2| REVIEW OF LITERATURE

2.1 Business Recovery

The construction industry is a major contributor to the UK's GDP, with an output of about £124 billion and employing about 3 million people making up 8% of the UK's employment (ONS, 2009). The UK Contractor's Group (2009) report that there are about 300,000 construction firms doing business in the UK. The unprecedented number of business failures in construction pre and post 2007 economic recession, has caused for a fresh look and business recovery or corporate turnaround (Langdon, 2008; HC, 2009; Fordham, 2012). Therefore, the research study is asking the question how can these deaths be reversed or how can a construction firm reverse failure, and remain in business even during hard times?

Therefore, this Chapter will provide current understanding of business recovery or corporate turnaround, business failure and determinant in the construction industry, business success and factors, and a critique of corporate turnaround models and frameworks available in literature. However, it is important to define 'business recovery'.

2.1.1 What is Business Recovery?

A corporate turnaround or business recovery may be defined simply as *the reversal of a firm's economic performance following an existence-threatening decline* (Balgobin and Pandit, 2001). Decline may occur over several years or may be abrupt due to extraordinary events beyond the control of the company e.g. death of leader, economic recession, etc. The definition of business recovery above, while useful, needed to elaborate on what the economic performance benchmarks are. Therefore Collins (2001) set a benchmark using the industry average to specify a transition point from good to great, where the economic performance above the industry average denotes a transition from good to great. Collins (2001) defined "Good" as *"the enemy of great"*. Inferring from Collins (2001), good could be a point where a company is doing well enough to be complacent and probably oblivious of loss of market share to its competition. While "great", he defined, as *"attaining a sustained cumulative stock return of about 7 times the general market over a long period of time."* The general market's cumulative stock return, however significant, is the equivalent of "good". While good to great is not exactly the same as recovery, it does well to illustrate the need for companies to know such economic benchmarks. A way of setting benchmark is using a bankruptcy prediction model such Altman's Z-score (to be discussed

in a later section), where, the company is clearly told its financial/economic status or health – ‘failing’, ‘healthy’ or in the Grey area. As such, the company can know whether it has successfully recovered or not. Financial ratio analysis is also another method of assessing business recovery.

Corporate turnaround studies conclude firstly, that turnaround situations are growing in frequency; and secondly, of those firms suffering significant and/or sustained declining performance, a greater number proceed to fail rather than recover, while others just survive failure (Balgobin and Pandit, 2001). Surviving failure by implication may mean mere survival with economic performance only just acceptable to the firm’s various stakeholders. Surviving failure does not constitute business recovery because recovery involves a complete reversal of decline, where ‘surviving failure’ may mean, just not going out of business but without the reversal of economic performance, and may mean the business is still in distress. On the other hand business recovery means achieving an economic performance superior to known point of acceptable performance chosen by company stakeholders. Business recovery or corporate turnaround in its most positive form may mean a firm achieving sustainable, superior competitive positions in its chosen areas of activity (Balgobin and Pandit, 2001).

Most often organizations enter the state of decline when they fail to anticipate, recognize and adapt to external and internal pressures that threaten the organization’s existence (Balgobin and Pandit, 2001). The conventional view of the sequence of business failure and turnaround has been to examine it in two phases, the decline or failure phase followed by the turnaround phase (Sheppard and Chowdhury, 2005; Hofer, 1980). Therefore, in understanding corporate turnaround in construction, it is important to identify and understand the causes of the business decline, business success factors, and factors to consider when formulating a turnaround strategy (Gopinath, 1991).

2.2 What is business failure?

2.2.1 Business failure

Depending on the context, business failure has been defined differently within the boundaries of the factors that make up the context. In the context of insolvency, business

failure has been defined as *a fall in revenue or a rise in expense to such a point that the company cannot secure further debt or equity for business*. The consequence of this will either be a discontinuance of ownership and management (through mergers) or a discontinuance of business, which is a complete scrap of the product or service (Shepherd, 2003; Everett and Watson, 1998). In the context of strengthening economy, voluntary exit (business failure) can be triggered as individual proprietors seek to maximize the returns available to them on both their financial and human capital (Everett and Watson, 1998). However, Dimitras (1996; cited in Dikmen et al, 2010) defined business failure as “*a situation that a firm cannot pay their lenders, stock shareholders, and suppliers.*” The latter definition has been adopted for this research in the context of the construction industry. It is important to note that reported business failures do not include disclosures of business discontinuances without loss to creditors.

The term insolvency is commonly confused with bankruptcy. It is important to know that the two are not the same thing. Although both insolvency and bankruptcy refers to a situation whereby a legal entity's liabilities exceeds assets, insolvency refers to a financial state where as bankruptcy is a distinct legal concept as a matter of law (Goodman Law, 2014). Insolvency can lead to bankruptcy or insolvency proceedings, in which, legal action can be taken against the insolvent entity, and assets may be liquidated to pay off a portion of the outstanding debts. Goodman Law emphasised that, upon becoming insolvent, the legal entity or person must take immediate action to rectify the situation as soon as possible, in order to avoid possible bankruptcy i.e. by generating cash, minimizing overhead costs, cutting back on living expenses and settling or renegotiating the terms of current debts or repayments. While a state of insolvency can lead to bankruptcy, however, it is also possible that the state of insolvency could be temporary and fixable. Thus, insolvency does not necessarily lead to bankruptcy, but all bankrupt legal entities or persons are deemed to be insolvent.

Sometimes, receivership, administration, and liquidation are also used interchangeably to mean bankruptcy. It is important to know the difference. The three along with company voluntary arrangements provide four measures towards handling insolvency in the United Kingdom. The aim of ‘administration’ and ‘company voluntary arrangement’ are designed to save the company from insolvency, with better payment terms and protection of company

assets from creditors who would want to liquidate the company. On the other hand, 'receivership' and 'liquidation' do not save the company. While a company in receivership has enough assets to pay its debt, the company in liquidation does not and so declared bankrupt. Lets look at some definitions by Goodman Law (2014):

Insolvency is defined as a financial condition or state when:

- A legal entity or a person's liabilities (debts) exceeds their assets (balance sheet insolvency); or
- When a legal entity or person can no longer meet their debt obligations on time as they fall due (cash-flow insolvency).

Bankruptcy

Bankruptcy is defined as the result of a successful legal procedure that results from:

- An application to a relevant court by a legal entity or a person to have themselves voluntarily declared bankrupt; or
- An application to the relevant court by a creditor of a legal entity or a person in order to have that legal entity or person declared bankrupt;
- A special resolution, which a legal entity files with the Registrar of Companies in order to be declared bankrupt.

2.2.2 Insolvency Measures

Administration

The main aim of administration is to save the companies from insolvency. It is a proactive solution designed to keep the business running despite the harsh financial condition it is facing. This way the company assets are intact and protected from creditors who would want to liquidate the company. However, for a company to be eligible for administration, it has to show strong signs of recovery. The company would then have to submit to debt management plans of restructuring.

Receivership

This measure is provided for companies whose assets have the ability to pay off its debt. It gives the creditor or financial institution the chance to acquire the company's assets and properties as payments for the debt that it has incurred (Inbrief, 2015).

Liquidation

Once it is clear that a company has no chance of recuperating, where the total liabilities outweigh the total company assets, then the court decides to close down the company and stop its operations before it accrues further debts or fails to provide any further services. Once this happens, there is no chance for the company to revive itself (Inbrief, 2015). At this point, the entity is declared bankrupt.

Company voluntary arrangement

This measure provides the company more room to breathe through new payment arrangements. Here, the company, its insolvency lawyer, and the creditors propose arrangements for payments, agreeing dates and amounts to be paid. Lawyers of both parties will usually negotiate the terms in this kind of agreement (Inbrief, 2015).

Financial distress is a significant indicator of business failure and should be diagnosed at an early stage to avoid bankruptcy. In construction, failure studies have focused on explaining failure at the project level rather than the corporate level (Arditi et al, 2000). Failing to remember that whatever affects corporate level, affect project level. According to Altman (1993), bankruptcy is an event that manifests due to the combined “efforts” of an effective firm and its management and the decision on the part of the creditors to try to recover their investment within the confines of the bankruptcy code.

2.3 Current Events

In recent times, some major construction companies have gone under. For example, Connaught Plc., a social-housing giant operating in the UK and specialising in repair and maintenance services collapsed in September 2010. The company employs about 10,000 staff (Knight, 2010). The cause of the giant's collapse is unclear. Some argue that there were irregularities with Connaught's accounting books. Others argue that pressures from the government cuts were to blame. Whatever the opinions of people concerning the collapse of Connaught, the following facts remain about the company's business activities. Firstly, "*suicide bidding*", Connaught plc was found to be bidding too low for projects in order to win contracts with local authorities and housing associations. This inevitably had an effect on the stability of the company. Stone (1999) knows too well about mark-ups, profit, and survival in the construction industry. Pricing too low automatically jeopardises survival. Secondly, *poor financial management*; Connaught plc gave false impressions of its financial health by tweaking its financial statements to hide losses and accentuate growth. Once, they were found out, their funders lost confidence in the company and refused to refinance Connaught's debt of £220 million. The company also had a shortage in working capital. Thirdly, *receivable difficulties*; owing to the government cuts, it was difficult for Connaught plc to get its payment from its public sector clients – local councils delayed payment for as long as contractually possible (The Guardian, 2010). Fourthly, *sudden management departures*; this is arguably a clear case of the "Captain abandoning ship" sort of move. According to a Guardian analyst, three top executives; CEO, executive chairman and founder, and the financial director quit office and cashed in shares and options worth a combined £16.6 million in two years. All these factors contributed to the demise of Connaught plc.

Another recent case is ROK, a national house builder and Connaught's biggest competitor. ROK enjoyed a season of growth since its establishment in 2000. Its value was up to £430m. The company, led by its chief executive officer, was vicious and relentless in its growth; capturing everything it sets its eyes on. However, according to Building Design (2012) the *company's business strategy was not consistent with its own unique style*. What caused this great giant to fall? First, *diversification* from contracting to maintenance, hence taking on more debt, and which meant *cash was not received up front* as much. Second, ROK made some *unforced acquisitions*, which also increased debt. Third, the company had *no*

financial cushion as it was *heavily leveraged*. Fourth, there was also a case of accounting irregularities in the company's plumbing division. Lastly, *poor leadership*, ROK had a CEO who was more concerned about the company image and confidence than the work itself. He was obsessed with establishing the company's corporate identity, vision and unity of purpose. The company's 3,800 employees were constantly mesmerised by loud and flashy internal conferences, with high performing staff often rewarded with the "ROK star" and it's top management incentivised with handsome bonuses for meeting targets. Its share prices were proudly displayed in its regional offices. As the company started to decline to an impending death, there was obviously, no right leadership present to turn-around the giant. For a company to have any chance at recovery, the leadership has to be good, humble, and possess a strong will (Collins, 2001). Fletcher and Wearden (2010) also affirm this by stating, "the onus on recovery is management-driven, and outweighs any macro concerns about the construction industry".

Although these examples are of large construction companies, a high percentage of failure numbers are small and medium sized construction companies. This Chapter aims to get a picture of what is happening and have an overview of some of the causes of business failure in construction (to be discussed in a later section). The construction industry's susceptible nature in the face of recession is alarming given the recent statistic. Therefore, research in ways to mitigate against these many casualties must be looked at very carefully.

Within this research, the words; "turnaround" and "recovery" will be used as alternative terms.

2.4 Determinants of Business failure

In literature, many researchers have grouped and presented the factors under different categories. Dikmen et al, (2010) suggests that the determinants mostly associated with business failure belong to "*Value Chain factors*" such as, lack of management competence (Everett and Watson, 1998), weakness of value chain analysis, and strategic planning (Perry, 2001), environmental scanning, and financial management; followed by "*Resources factors*" which are important sources of competitive advantage like, organisational knowledge, technical and technological capability, relations with clients and/or government, and company image; "*Decision factors*" such as, unsuccessful restructuring and reorganisation,

saving non-value adding activities, poor investment decisions, and wrong level of diversification are among frequent decision mistakes. While general “*chance factors*” such as; difficulty in collecting money from the client, unexpected change within the workforce, economic fluctuations, shrinkage in construction demand, and change in politics; have not a significant influence in the failure of construction companies. They found “*that organisational and managerial factors including the inefficiency of value chain at corporate level, inappropriateness of organisational decisions, and unavailability of intangible resources are the most important determinants of failure in construction companies.*”

Hall and Young (1991) classified reasons for failure under; operational management reasons, strategic reasons, technological reasons, environmental, cost of production, marketing and personal reasons. Their research sort to find owners and official receiver’s perception, in order of importance, reasons for business failure. Both owners and official receivers ranked “undercapitalisation” (shortages in working capital) as most important. They concluded that a great majority of businesses that fail for operational reasons, over half of them fail for lack of adequate capital. This confirms Russell and Jaselskis’ (1992) assertion that “an excess of 60% of construction contractor failures are due to economic factors.”

Table 2.1 shows how Arditi et al, (2000) weighted six different determinants of business failure and their respective sub-factors. To get to this, Arditi et al, (2000) expressed the determinants using an environmental response matrix with four quadrants. This matrix showed how a firm responds to internal (firm) and external events in its environment. The first quadrant contained the internal-administrative factors which consists of; budgetary issues and human and organisational capital; the second quadrant consisted of internal-strategic factors such as issues of adaptation to market conditions; the third quadrant which represents the external-administrative factors consists of business issues; and the fourth quadrant representing external-strategic factors consisted of macroeconomic issues. The research succeeded in calculating the rate of occurrence of the factors that cause business failure. Insufficient profit ranked top, followed by industry weakness and heavy operating expenses. It is important to note that the exercise was not the weighting of “What” causes failure but “Why” businesses fold-up. The “What?” question is more specific to *causation*

factors rather than *effect* factors. Hence Koksai and Aditi, (2004) produced an inputs and output model from the system theorist's point of view showing determinants of business failure as having a cause-and-effect relationship and the "what" question was answered.

Table 2.1: Calculation of weighted average values of failure factors

Failure factors (1)	Rate of failure as a result of factor					(Rate of failure) × (industry failure rate)					Total (12)	Weighted % occurrence (13)
	1989 (2)	1990 (3)	1991 (4)	1992 (5)	1993 (6)	1989 (7)	1990 (8)	1991 (9)	1992 (10)	1993 (11)		
Budgetary issues												
Insufficient profit	15.9	14.5	36.6	43.3	14.6	13.674	13.195	47.744	55.857	15.914	146.384	26.71
Heavy operating expenses	12.6	11.3	11.1	13.1	41.1	10.836	10.283	14.72	16.899	4.799	97.537	17.80
Insufficient capital	19.4	21.6	2.8	1.9	3.3	16.684	19.656	3.072	2.451	3.597	45.46	8.29
Burdensome institutional debt	5.9	6.5	10.6	3.8	3	5.074	5.915	13.312	4.902	3.27	32.473	5.93
Receivable difficulties	1.4	0.8	1.5	0.7	3	1.204	0.728	1.92	0.903	3.27	8.025	1.46
Human/organizational capital issues												
Lack of business knowledge	12	11.5	0	0.4	0	10.32	10.465	0	0.516	0	21.301	3.89
Lack of managerial experience	2.9	0.6	1.1	0.2	0.5	2.494	0.546	1.152	0.258	0.545	4.995	0.91
Fraud	0.5	0.4	0.6	4.4	1.4	0.43	0.364	0.896	1.419	1.526	4.635	0.85
Lack of line experience	2.9	0.8	0.2	0.2	0	2.494	0.728	0.256	0.258	0	3.736	0.68
Lack of commitment	0.7	1.1	0.2	0.3	0.8	0.602	1.001	0.256	0.645	0.872	3.376	0.62
Poor working habit	0.4	0.2	0.4	1.2	0.5	0.688	0.182	0.256	1.548	0.545	3.219	0.59
Issues of adaptation to market conditions												
Inadequate sales	2.3	2.1	2	2.5	2.2	1.978	1.911	2.56	3.225	2.398	12.072	2.20
Not competitive	0.9	0.4	0	0.1	0.3	0.774	0.364	0	0.129	0.327	1.594	0.29
Overexpansion	0.2	0.4	0	0.2	0	0.172	0.364	0	0.258	0	0.794	0.15
Business issues												
Business conflicts	1.1	1.3	2	1.9	3.3	0.946	1.183	2.56	5.031	3.597	13.317	2.43
Family problems	1.1	0.8	0.4	0.5	1.6	0.946	0.728	0.512	0.241	1.744	6.381	1.16
Macroeconomic issues												
Industry weakness	17.7	23.7	27.8	24	19.5	15.222	21.567	35.584	30.96	21.255	124.588	22.73
Poor growth prospects	0.4	0.6	0.4	0.1	0	0.344	0.546	0.512	0.129	0	1.531	0.28
High interest rate	0	0.2	0	0.1	0	0	0.182	0	0.129	0	0.311	0.06
Natural factors												
Disasters	1.2	1.1	2.2	4.4	4.9	1.032	1.274	2.816	5.676	5.341	16.139	2.94
Total											547.868	100.00

Source: Adopted from Arditi et al, (2000)

Other researchers looked at business failure from the angle of age and size (Everett and Watson, 1998; Kale and Arditi, 1998; Perry, 2001; Hall and Young, 1991). It is argued that as a company increases in age, its likelihood of failure decreases, in other words 'as the business ages, the chances of failure reduces' (Bates and Nucci (1989): and Evans 1987). The argument is based on the premise that new firms have a lot to learn. First with regards their industry business environment and second, firms own management capabilities such as learning and inventing new roles like standardizing processes; developing trust, and cooperation among organisational members. In understanding its industry, securing organisational legitimacy is very important i.e. establishing stable exchange relationship with clients, creditors, suppliers and other organisations and establishing a good company image. As the organisation ages, it gain legitimacy and competence in its activities and hence the risk of failure is reduced proportionately (Kale and Ariditi, 1998; Everett and Watson 1998).

Some researchers have gone further to argue the inverse relationship between age of proprietor (NB: not age of company), his/her years of education and failure likelihood of the company (Cressy, 1996; Bruderl et al., 1992). It has also been argued that because many new construction companies start small, it is not easy to separate smallness from newness (Kale and Ardit, 1998). Smallness, meaning size of the construction company, was defined as a company with less than 500 employees (Perry, 2001). However, it is possible to reduce the risk of newness and smallness. According to Everett and Watson, (1998), small firms are able to reduce their likelihood of failure by diversifying. As the firm increases there will be a concomitant reduction in risk of failure". In addition, once a business has survived the first few years its chances of failing are significantly reduced. The size of a company, has a direct relationship with company productivity and hence its chances of survival. According to Freeman et al (1983; cited in Kale and Ardit, 1998), the risk of newness and smallness has an impact on company performance but the effect of newness is stronger. Size alone cannot eliminate the risks of newness.

2.5 Input and Output framework of business failure/survival in the construction industry

In the input and output model, organisational and environmental factors are represented as determinants of business failure. These determinants are further classified under "Human, Organisational and Financial Capital" and "Macroeconomic, Social and Natural Factors".

2.6 Determinants

Based on an extensive review of literature, a list of 52 factors was compiled as an exhaustive list of factors that are responsible for business failure in construction companies (see Table 2.2). Most were iterations of Dun and Bradstreet's credit reporting database of 1989 - 1993. In this paper, the factors were outlined under the same categories as in Ardit et al (2000). The categories are; budgetary issues which covers financial management aspects of the company; human and organisational capital issues which covers some aspects of company tangible and intangible resources; issues of adaptation to market conditions which covers sales, competitiveness, diversification and expansion; and business and macroeconomic issues which covers industry specific and national economy issues. A new category was added to accommodate social reasons for business failure. It was found that race and/or minority status of company owners can impede the growth and hence survival

of the construction company (Bates, 1997). After the factors were outlined and ranked, the input/output model designed by Koksai and Arditi (2004) was used to show cause-and-effect relationship (See Figure 2.1 below).

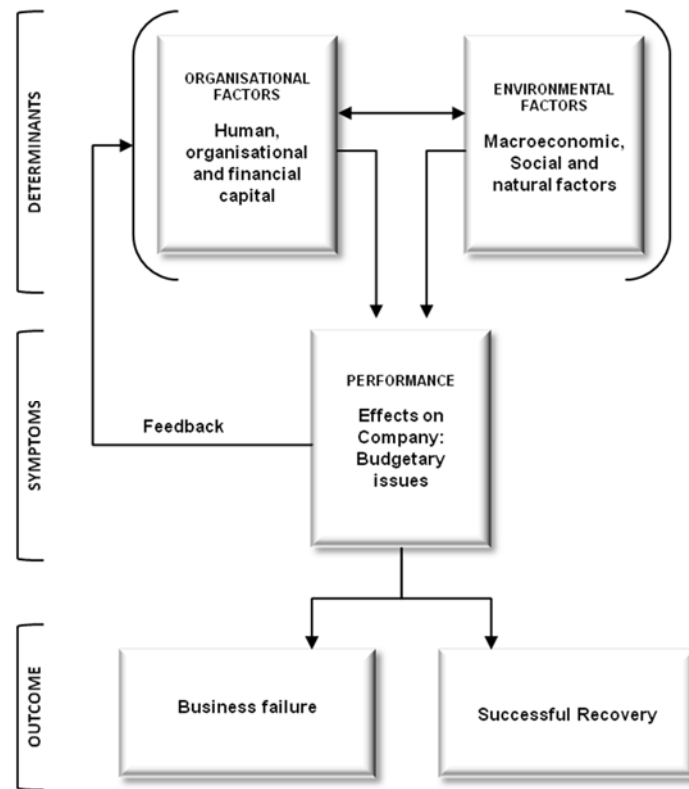


Figure 2.1: Input and Output framework of business failure/survival in the construction industry (adopted from Koksai and Arditi, 2004)

From the systems theorist's point of view, organisations are continuously transforming inputs into outputs. This model shows that organisational factors as well as external factors are the main determinants of business failure in construction, which then reflects on company performance also known as symptoms or indicators. This argument is supported by the work of Dikmen et al, (2010) as they identified 33 determinants mostly associated with failure likelihood that fall under “value chain”, “resources”, “decisions” and “chance factors” which are same as organisational and external factors. The effect of these determinants on the company performance will then be the symptoms. These symptoms can either show growth (survival) stagnation or failure (outcomes). For example, Lack of business knowledge and inadequate managerial experience may increase operational expenses, create conflict within the organization, create a poor company image to clients,

which will hurt the competitiveness of the company and hence result in inadequate sale of goods and services, and may in turn affect an organization's profits. Having the symptoms does not automatically mean business failure. Not when the company yields returns greater than the minimum acceptable hurdle rate. By implication it can still pay lenders and stakeholders but has not learnt to cut cost. As a matter of fact, the input and output model points out clearly to managers the areas that need improving. Koksai and Arditi (2010) called it the feedback loop. Staging a turn-around to improve company performance could save the company.

Dikmen et al, (2010) saw "poor company image" as an intangible resource and as a determinant. However this research argues that poor company image is a performance indicator, a symptom of failure. Before it becomes a company resource it is a performance indicator. A "poor company image" could be a result of insufficient capital for a company to promote itself or because of its poor technical and technological capacity hence cannot maintain a certain required standard of work in the market it operates. Or, it could be as a result of poor relations with clients, supervisors and government or managerial incompetence. It is a result of any of or a combination of the above reasons. Therefore, it's been placed under symptoms or performance indicators. By discretion, other factors mentioned by other researchers, which were not mentioned by Arditi et al (2000), were placed under the categories they belong.

Table 2.2 shows determinants of business failure in construction companies on the left vertical corner and a list of researchers on the top horizontal corner. The factors were weighted based on which factor the individual researchers considered to be most important. Other researchers did not mention some factors, they, hence, did not rank these factors. The factors were then grouped and represented using the input and output model with human, organisational and financial capital, macroeconomic, social and natural factors as inputs. And, budgetary, business and market adaptability issues as outputs. This is represented in Table 2.3 and Table 2.4 respectively.

Table 2.2: Ranking of determinants of failure in construction by Researchers

	Dikmen et al (2010)	Arditi et al (2000)	Everett and Watson (1998)	Kale and Arditi (1998)	Hall and Young (1991)	Stead and Smallman (1999)	Koksai and Arditi (2004)	Chan et al (2005)	Byabashaija (2007)	Harada, and Kageyama (2011)	Perry (2001)
FACTORS											
Budgetary issues											
1. Insufficient profit		1	4			2	1			2	
2. Heavy operating expenses		3			9		2				
3. Insufficient capital	15	4	1	2	1		1				
4. Burdensome institutional debt		5					3				
5. Receivable difficulties from the client	6	10					6				
Human: organizational capital issues											
6. Lack of business knowledge		6	2	1	2	2	2	1		1	2
7. Lack of organisational knowledge	2				3		4			3	3
8. Poor relations with	5			6	5		2		3		
9. Lack of managerial experience/competence	1	11	1	1	2	1	4	1	1		1
10. Poor technical and technological capacity	3		7		10						
11. Saving non-value adding activities	9										
12. Poor company image	10			5							
13. Scarcity of financial resources	15			4							
14. Overexpansion/not expanding	26	18		3			9				
15. Wrong level of diversification	20										
16. Fraud		12	3		4		3	2	1		
17. Lack of line experience		13					6				
18. Lack of commitment		14					8				
19. Poor project cost estimation	25				4				6		
20. Poor financial management	12				3						

21. Wrong project selection	21										
22. Poor working habit		15					7				
23. Unexpected change within the workforce	17										
24. Poor value chain analysis at the corporate level	7								2		
25. Poor strategic planning	8										4
26. Poor human resource management	16								2		
27. Poor leadership	14										
28. Poor investment decisions	13			6							
29. Poor communication	18								4		
30. Poor planning and scheduling	19										
31. Poor monitoring and control	22										
32. Poor environmental scanning	11										
33. Poor organisation of resources	28										
34. Poor quality management and control	30										
35. Poor selection and management of supply chain	31										
36. Poor project risk management	32										
37. Poor change order and claim management	33										
38. Unsuccessful restructuring/reorganisation	4								5		
Issues of adaptation to market conditions											
39. Inadequate sales	27	9	5		6		4				
40. Not competitive		16					7				
Business issues											
41. Business conflicts		8			6		5				
42. Family problems				5	6		5				
Macroeconomic issues											
43. Industry weakness		2	6		7		1				
44. Poor growth prospects		17					3				
45. High interest rate		19	3		8		4				

46. Economic fluctuations	24										
47. Shrinkage in construction demand	27	9	5		6		4				
Natural factors											
48. Disasters		7					2				
49. Change in politics	29										
50. Sudden death of the company leader	23										
Social factors											
51. Race											
52. Societal class (majority or minority)											

2.6.1 Human, Organisational and Financial Capital

Table 2.3 shows that ‘Human, Organisational And Financial Capital’ and ‘Macroeconomic, social and natural factors’ are the determinants of business failure. These are factors unique to the organisation. They have to do with company resources (tangible and intangible), and how they are managed i.e. every decision made to allocate these resources both at corporate and project level. Company intangible resources are company assets that are saleable though not material or physical such as relationship capital and skill (Lu, 2009; Lu and Sexton, 2006). According to Dikmen et al, (2010), those factors associated with intangible resources are lack of organisational knowledge and experience, poor relations with clients/government, and poor leadership while poor technical and technological capacity and insufficient capital and scarcity of financial resources are those associated with tangible resources. In terms of organisational management, these can be separated into management at corporate and project level.

At corporate level, the determinants responsible for business failure are more related to management incompetence; fraud, poor financial management, poor value-chain analysis, poor human resources management, poor communication, poor strategic planning, poor environmental scanning, saving non-value adding activities; and decisions leading to overexpansion, poor investment, wrong level of diversification, unsuccessful restructuring/reorganisation. At project level, the determinants of business failure are; wrong project selection and poor project cost estimation, lack of line experience lack of commitment, poor working habit, poor planning and scheduling, poor organisation of resources, poor monitoring and control, poor project risk management, poor change order and claims management, poor selection and management of suppliers and subcontractors, and poor quality management and control.

Table 2.3: Determinants of business failure in order of importance

DETERMINANTS	
ORGANISATIONAL FACTORS	ENVIRONMENTAL FACTORS
<i>Human, Organisational And Financial Capital</i>	<i>Macroeconomic, social and natural factors</i>
<ol style="list-style-type: none"> 1. Management incompetence/experience 2. Insufficient capital/Scarcity of financial resources 3. Lack of business knowledge 	<ol style="list-style-type: none"> 1. Industry weakness <ol style="list-style-type: none"> i. Poor growth prospects ii. Shrinkage in construction demand 2. Disasters

4. Fraud	3. High interest rate
5. Lack of organisational knowledge	4. Economic fluctuations
6. Poor relations with clients/government	5. Sudden death of the company leader
7. Poor technical and technological capacity	6. Change in politics
8. Poor investment decisions	7. Race
9. Overexpansion/not expanding	8. Social class
10. Wrong level of diversification	
11. Family problems	
12. Poor project cost estimation	
13. Poor financial management	
14. Lack of line experience	
15. Lack of commitment	
16. Poor working habit	
17. Unexpected change within the workforce	
18. Poor value chain analysis at the corporate level	
19. Poor strategic planning	
20. Poor human resource management	
21. Poor leadership	
22. Poor communication	
23. Poor planning and scheduling	
24. Poor monitoring and control	
25. Poor organisation of resources	
26. Poor quality management and control	
27. Poor selection and management of supply chain	
28. Poor project risk management	
29. Poor change order and claim management	
30. Poor environmental scanning	
31. Saving non-value adding activities	
32. Unsuccessful restructuring/reorganisation	

Most researchers ranked “Managerial Incompetence / Experience” as most important determinant of failure in construction companies (Dikmen et al, 2010; Arditi et al, 2000; Stead and Smallman, 1999; Chan et al, 2005; Byabashaija, 2007; Harada and Kageyama, 2011; Perry, 2001; Everett and Watson, 1998). Followed by; Insufficient capital/Scarcity of financial resources, Lack of business knowledge, Fraud, Lack of organisational knowledge, Poor relations with clients/government, Poor technical and technological capacity, Poor investment decisions, Overexpansion/not expanding, Wrong level of diversification, and so on. On the other hand, a few researchers assert that “Insufficient Capital” is the most important determinant in construction business failure (Hall and Young, 1991; Wong and Ng, 2010; Kale and Arditi, 1998) This is supported by the Input and Output model designed by Koksai and Arditi (2004) which showed “Insufficient Capital” as the most important determinant in construction business failure with a high rate of occurrence. The argument is that, firstly, construction is a capital-intensive business. Secondly, where contractors are paid on interim basis, the often-negative reading on company’s project cash flow report during construction (Arditi et al., 2000) makes a lot of companies to run on debt until practical completion before they can fully recover their

investments and count profit. Hall and Young, (1991) state that the larger the amount of debt, the greater the probability of failure. Warren Buffet states more succinctly “you can’t go bankrupt if you don’t owe money”. Thirdly, it is argued that small firms have difficulties in raising funds and there is often poor management of debt. Small firms do not pay much attention to financial ratios as big firms hence their increased likelihood of failure (Kale and Arditi, 1998).

Previous studies have also reported that the amount of capital invested at start-up is positively related to the success of a business. Improving the financial performance of construction industry is crucial for all stakeholders within the construction industry (Bates, 1990; Bruderl et al., 1992; and Holtz-Eakin, 1994; cited from Everett and Watson, 1998). It will be interesting to note that Dikmen et al., (2010) found “Scarcity of financial resources” i.e. insufficient capital, as the 15th most important determinant while Arditi et al., (2000) ranked it as the 9th most important

2.6.2 Macroeconomic, social and natural factors

From Table 2.3 “industry weakness” was found to be the most important in the group - macroeconomic, social and natural factors. Followed by “disaster”, “high interest rates”, “economic fluctuations”, “sudden death of the company leader”, “change in politics”, and “race and social class”. These factors are out of the control of management. Macroeconomic trends affect the construction industry. Whenever there is a recession the construction industry is the first to feel the effect because of shrinkage in construction demand, and the last to recover (Langdon, 2008; ONS, 2011). “Poor growth prospects could be as a result of over competition where there are too many contractors fighting over few contracts. This could lead to “suicide bidding” i.e. contractors submitting underpriced tenders in order to secure contracts or bidding for contracts beyond company specialty and capacity. As the name implies, this could lead to failure. Issues like ‘Disaster and “sudden death of company leader” are purely chance factors and may not lead to company failure in the event that they occur. However, in the case of small and medium firms, the death of a company leader could be the end of that business (Wallace, 2010). With respect to social issues, “race” and “social class” does play a subtle role in business failure. Bates (1997) analysed financial institution’s lending to small business start-ups. He found that relative to the white-owned, black, and minority owned business start-ups with identical measured

characteristics were poorly capitalised and therefore are more likely to have discontinued operations over time.

2.7 Symptoms

In the input and output model, symptoms are represented in Table 2.4. These factors show the “effect” of the determinants outlined from Table 2.3. They are performance indicators also known as symptoms of company success or failure. They are classified under “Budgetary Issues” and “Business and Market Adaptability Issues”.

Table 2.4: Symptoms/Indicators of business failure in order of importance

SYMPTOMS	
PERFORMANCE	
<i>Budgetary issues</i>	<i>Business and market adaptability issues</i>
<ol style="list-style-type: none"> 1. Insufficient profit 2. Heavy operating expenses 3. Receivable difficulties from the client 4. Burdensome institutional debt 	<ol style="list-style-type: none"> 1. Inadequate sales 2. Poor company image 3. Business conflicts 4. Not competitive

2.7.1 Budgetary issues

The most important symptom under budgetary issues is “Insufficient Profit”. Cash is king (Ross and Williams, 2013). Stone (2012) believes, without a shadow of a doubt that when construction-related businesses fail, the cause is almost always poor cash flow. He points that construction businesses suffer from poor cash flow when they: do not charge enough for their work, fail to use or incorrectly use change work orders, fail to use or incorrectly use legal contracts, allocate too many employees for the volume of work being produced, adopt inappropriate payment schedules on their contracts, and/or fail to make profitable sales. Budgetary issues can be the effect of any or a combination of the determinants in Table 2.3. For example, poor investment decisions or wrong project selection could lead to heavy operating expenses which could lead to increased borrowing (debt) and in turn lead to operating at a loss (insufficient profit). Bad projects could also lead to receivership problems and this will definitely affect growth and profit of the company. In addition, determinants like; economic recession, insufficient capital, industry weakness (shrinkage in demand) plus the adversarial nature of the industry could affect productivity and hence,

profitability. “Heavy operating expenses”, “receivable difficulties” and “burdensome institutional debt” follow insufficient profit.

2.7.2 Business and market adaptability issues

Just like in budgetary issues, this is a direct effect of the determinants too. Table 2.4 outlines the following as business and market adaptability factors; “Inadequate sales”, “Poor company image”, “Business conflicts”, and “Not competitive”. Determinants such as; management incompetence, and/or economic fluctuations could lead to inadequate sale. This in turn will reflect on company profit. A continuous and worsening string of inadequate sales could cause the construction company to bow out of the market - failure. Another example is the lack of business development – when managers lack the business knowledge to attract clients, suppliers and distributors and poor relations with clients, government and supervisors could lead to “poor company image” and cause the company to lose any competitive advantage with regards to its image. Carnall (2003) and Doppler and Lauterburg (2001) argue that this is a period of rapid change, where dynamic changes of productivity, technology, brand, company image and reputation are common place and must be maintained in order to sustain competitive advantage. Because of the fragmented and adversarial nature of the construction industry, the industry is not without conflicts. Business conflicts could be as a result of poor investment decisions, poor project cost estimation, poor leadership, lack of line experience and poor working habits. Conflicts have the potential to destroy both quality and technical performance (Arditi et al., 2000) and this could affect profit. Once company performance is impeded by conflicts a quick resolution of dispute is advised.

2.8 Feedback

The feedback loop in the input and output model tells management the company performance is, so that they can take action. Contractors need to act fast when company finance begins to shrink. Jonathan (2002) reported that cash flow shortages, falling profits, falling asset values, excessive borrowing, or even boardroom tensions are obvious signs of company financial difficulty but are often overlooked by management. When a company admits its situation and pulls the alarm of distress, then, the first thing to do is to try to stage a turnaround. If that’s not possible, then the next step will be to try and salvage the project either by extracting a meagre return or limit and manage the loss and damage associated

with it. During a turnaround, management could decide to adopt a number of strategies. These include; negotiating with existing lenders, raising new equity, disposal of assets, introducing new management, and informal agreement with creditors. If none or a combination of these strategies proves effective, management must begin to consider a formal insolvency procedure. However, no contractor wants to get to the point of insolvency. It is always hoped that the recovery is successful. From the symptoms in the input and output model, managers should return to the board, assess and quickly identify the determinant of the symptom and turn-around performance to ensure success (Koksal and Arditi, 2004; Damodaran (2001).

The thesis will discuss corporate turnaround in detail in a later section. But now, let's discuss the flip side of business failure, that is, business success, and what necessitates success or can make a construction company successful. The rationale here is, if we now know the determinants of business failure, what then are the determinants or factors for success? A company would need to understand this in order to stage a turnaround.

2.9 Business Success in the construction industry

Inherent in a business is the objective to succeed (Arslan and Kivrak, 2001) whether the company has its criteria spelt out in ink or not. The construction industry has a very low entry barrier (Gruneberg and Ive, 2000). Therefore, competition is high, and means, firms have to be successful if they wish to remain in business. "Success is not easy," says Stone (2012), and "on the path to success is a bunch of problems". He adds that, the difference between successful contractors and failed contractors is their ability to think through problems, find the root cause of the problem, and deal with it (Stone, 2012). Similarly, Warner et al (2008) who studied profiles of successful contractors in the United States, found that many contractors face setbacks but turn these setbacks into earning experiences for building future success.

But, what is success? Would a small town contractor employing less than ten employees define his company's success in the same terms as a large construction company employing fifteen hundred people? Or, would a house builder define success in the same sense a civil engineering company would? Better yet, would success mean the same thing to the contractor who specializes in off-site construction and one who believes in in-situ? Surely,

there would be subtle if not obvious differences as to how these firms of different sizes; area of expertise and/or platform of operation would define success. Further questions could be; what is the blueprint to achieving success and how can it be sustained? The answer to the second question is critical and must not be ignored. The reason is, companies that are now statistics (failed), were once successful companies in their respect. But something went wrong leading to their demise. It is either these firms stopped doing what was keeping them in business or they fell on some bad luck from which recovery was impossible (Collins, 2001).

2.10 Success defined

The works of Arslan and Kivrak (2009), Mahmood and Shahrukh (2012), Warner et al, (2008), and Hutchings and Christofferson (1999) with regards to success in the construction industry are very exhaustive, and similar, although, with different results giving their different contexts. The list produced by Arslan and Kivrak included project objectives such as; scheduling and low overheads, that combine with organisational objectives to achieve overall corporate success. However, when executives are asked how they define success for their own firms, it is unlikely that detailed on-the-job factors, like scheduling, will come up (Warner et al, 2008). Rather, definitions would most likely contain terms that capture the ‘vision’ of the organization.

There are many definitions of success. Traditionally, it is defined as “*the degree to which goals and expectations are met*” (Arslan and Kivrak, 2009). In the construction industry, the traditional approach to success is to focus on the ability to plan and execute projects within budget, in time, and in the expected quality (Abraham, 2003). On the other hand, a more contemporal definition of success in the construction industry is that by Warner et al. (2009). Warner and his colleagues defined contractor success using five different success profiles: humanist, generalist, tactician, bottom-liner, and freewheeler. These five different definitions of success were based on six common success themes (factors) they found in their study. These themes are: profit and wealth, improving people and their lives, sense of presence and reputation, survival and sustainability, progress on mission and preparation for the future, and project execution.

Survival and sustainability involves building a sustainable legacy and leadership over generations (Warner et al., 2008). This has an element of brand creation, reputation, innovation, value creation, and leadership continuity. That said, survival also means remaining profitable. According to Stone (2012), for a construction company to achieve long-term sustainability and growth, it has to be profitable and must remain in business in order for its continuity plan to exist. Sustainability on the other hand requires foresightedness. A foresighted company grooms the next generation of employees to lead the company in the future. It has been asserted by Collins (2001) that when management fails to bring up the next generation to properly succeed and move the company forward, when the leadership departs, the firm is more often than not thrown into chaos because of the absence of capable minds. Grooming and training subordinates are major responsibilities of a good manager (Ng, 2011). Ng points out correctly that the boss' exit is inevitable and when this happens, it is hoped that the successor has the right training to effectively run the office. If the transition does not execute well, things could fall apart and would be a bad reflection on the boss. Worse still, is if an outsider is brought-in to fill the vacancy. He/she might have a different agenda that could lead to dismantling everything the predecessor built. Thus, destroying the legacy.

Improving people and their lives, as the name implies is generally about people. Construction is known generally as a "people business" (Stone, 2012; Netscher, 2014). If a contractor wants to be successful in this industry, it is imperative he/she learns to build relationships with the clients, employees, subcontractors and the community they are operating in (Warner et al., 2008). Such relationships should be based on honesty, integrity and the right attitude – an attitude that says to the customer "you are my priority" (Stone, 2012). When a company focuses on systems rather than services, and when customers become secondary to company rules and paperwork, then it is almost inevitable that that business would begin to decline. But when companies understand that the most valuable assets of any organisation are its employees, it would be pragmatic (Mahmood and Shahrukh, 2002; Brown, 2013). For example, successful companies offer training programs and actions that build customer and employee loyalty (Warner et al., 2008).

Profit and Wealth factor emphasizes the need for profit-maximization and the creation of wealth for the owner and his employees (Warner et al., 2008). According to Halim et al,

(2010) financial problems faced by contractors are due to low profit margins from projects. Stone (2012) states briskly that unless and until a construction firm sustain a minimum of 8 per cent net profit, it will, more often than not, go out of business. Several researches in the construction industry also attest to the fact that there is unwavering believe that “profit is king”. This is because of the industry is heavily dependent on cash flow and without it; the business fails (Stone, 2012).

Sense of presence and reputation

This involves buildings high-profile projects that earn the respect of clients and contractors alike. Also, amongst these, having a rapid revenue growth is another way some contractors measure success (Warner et al, 2008). This is a sales and marketing issue and is ranked most important amongst factors of sales and marketing in the works of Arslan and Kivrak (2009).

Progress on mission and preparation for the future

This reflects the importance of having a defined mission and working effectively to accomplish that mission. It involves effective planning and management of resources and coordinating the efforts of motivated employees with the aim of achieving company goals and objectives (Mahmood and Shahruhk, 2012).

Project execution

Contractors who rank this factor as most important focus on project success and creation of successful work processes. They are more likely to focus on the usual generic project objectives; time cost, scope and quality when defining success.

According to Warner et al. (2009), although, all six factors play a role in definition of success for contractors, some were found to be more important than others to different contractors, which inherently formed their success profiles. Consequently, the humanist contractor who defines success as building strong relationships with customers, employees and community, would place more priority on improving people and their lives; while the tactician contractor who defines success primarily from project and process success, would place more emphasis of project execution. The freewheeler contractor who defines success as an appropriate responses to changing opportunities, times or market situations, would

emphasize a sense of presence and reputation; while the bottom-liner who is all about financial results would place priority of profit and building of wealth. The generalist contractor who balances all six factors says Warner et al. (2009) and as such would place more priority on survival and sustainability. While the traditional definition of success is still relevant (Arslan and Kivrak, 2009; Abraham, 2003), it is Warner's definitions that capture all of the aspects that contractors adopt when defining success for their companies.

However, the changing business environment has made it crucial to focus on corporate success in order to be competitive in the market today. As construction is a risky business and the possibility of business failure always exists, companies have to consider the parameters that can have a direct effect to their success in business (Arslan and Kivrak, 2009).

2.11 Factors to achieving success in the construction industry

Table 2.5 shows the factors that combine to ensure corporate success in companies. Take for example Arslan and Kivrak (2009) conducted a study on Turkish contractors to find critical factors for corporate success. They drew a list of 42 factors and grouped them into business management factors, financial condition factors, owner-manager characteristics, quality of work and workmanship, sales and marketing, market selection and technology factors. It was found that the Turkish respondents ranked the relative importance of the factors as listed here respectively. With 'business management' seen as most important and 'use of technology' as least important in achieving business success. Success factors here means those inputs to management systems that lead directly or indirectly to the success of the business (Cooke-Davies, 2002). A different study conducted in Pakistan by Mahmood and Shahrukh (2012) found that contractors ranked financial factors such as; availability of capital, contract rates and financial strength of the company, as most important success factor of construction companies. While, Human factors such as; training and development, effective communication lines and public relations skills, were ranked as least important. In-between these two factors, followed; technical factors, organisational factors and environmental factors in order of importance. Mahmood and Shahrukh (2012) concluded that the Pakistani contractors had little value or perhaps did not understand and hence could not appreciate the concept of the human element and its importance to a thriving company (Brown, 2013). On the other hand, contractors in Germany (Berger, 2004) ranked employee

development, effective risk management, innovation, and partnership with customers as key success factors.

Table 2.5: Ranking of Success Factors in construction by researchers

FACTORS	Arslan and Kivrak (2009)	Warner et al, (2008)	Hutchings and Christofferson (1999)	Berger, (2004)	Stone (2012)	Mahmood and Shahrukh (2012)
Business management	A					
Strategic organizing, planning and goal setting	1	4	21	5	3	18
Scheduling -- Timeliness -- Cycle Time			7			
Ability to Obtain Financing			42			5
Job cost control	2					
Estimating / Detailed Bidding			33			
Quality control	3					
Risk management	4			2		
Good record keeping	5					
Control of Change Orders			55			
Good Management			12			14
Careful Supervision of Jobs			24	11		26
Owner Involvement on Job Site			25			
Professionalism			43			29
Having a thriving organizational culture		6		5		13
Growth acquisition				22		
Financial conditions	B					
Control of cost and cash flow	6		30			6
Budgeting and Cash Flows			34			6
Good Accounting Practices Control			49			
Capitalization and Financial and management	7	9	40	10	1	1
Country's economical conditions	8		20			20
Good Profit margins	9	10	63	13	4	
Attaining above-average revenue growth		14		16		
Timely payment of bills	10		48			
Low interest rates	11		58			
Low Overhead			29	9		
Other Sources of Income			46			5
Manager characteristics	C					

Leadership Knowledge/Experience in Construction	12		14	6		32
General communication/people skills	13		23			28
Honesty, Integrity, Reliability & Dependability	14	1	2	4	2	30
Desire / Ambition			57		5	
Love of Work			61			
Personality / Friendliness			32			31
Flexibility			28	17		
Education level	15		44		3	
Work Ethic / Commitment / Attitude			8			
Attention to Detail / Personal Pride			17			
Problem Solving Ability / Ingenuity			52			
Customer Communications & Relations			4	4		24
Political connections/Networking	16		54			19
Performance based payment for management				7		
Prayer / God			59			
Quality of work/product and workmanship	D					
Quality Workmanship & Products		8	1			29
Client/customer satisfaction	17	2	22			
Good and Qualified Employees	22	12	6			9
Teamwork and harmony	19		6			27
Good subcontractors/ Subcontractor relations	23		3	15		
Good Suppliers / Product Availability			27	18		
Outsourcing				14		
Use of good quality materials	18					8
Completion of job on time	20					
Qualified consultants	21					29
Warranty Work			26			
Site Cleanliness / Neatness			39			
Safety		7	73			25
Sales and marketing	E					
Company image/reputation	24	3	5			3
Time in Business / Longevity			31			
Good advertisement	25			21		
Customer Service / Prompt		2	13			24
Focus on Product Design			9	8		2

Competitive pricing/ Product Affordability	26		11		2	2
Fair pricing / Value	27		18			
More long-term partnerships with competitors				20		
Referrals / Repeat Business			16			4
Sales offices	28					
Innovative products	29			3		11
E-marketing	30			21		
Employee Relations / Compensation / Longevity		5	45	1		17
Training and development				1		33
Family Involvement in Company			51			13
Community / Professional Involvement		11	38			23
Effective Sales and Marketing			10	21		
Lot availability / location			15			21
Completing high-profile projects		15				12
Updated Products				8		12
Diversification/Variety of Products			50	19		
Self-Performed Work / Work not Subcontracted			56			
Market selection	F					
Company experience in the market	31			6	1	10
Job Selection			65			15
Client Selection			70			5
Determine public needs	32					30
Level of competition	33					
Size of Business is Small			37			
Expanding into new countries				12		
Use of technology	G					
Follow and adopt new technologies	34		36			7
Qualified technical staff	35					
Usage of software programmes	36					
Having a web-site	37		60			
External Factors						
Luck			66			16
Government Regulations			67			
Favorable Weather			71			22

Similarly, Warner et al (2008) conducted a research on large contractor firms in America and found that 356 CEOs executives ranked their top five corporate success factors as; consistently operating with the highest level of integrity, being the leader in customer satisfaction, achieving an excellent reputation with community and/or industry leaders, accomplishing company mission, and achieving high scores in employee satisfaction (Warner et al, 2008). This is not too different from results found by Hutchings and Christofferson (1999), a survey on small-volume residential contractors in America to find factors leading to construction company success. Out of seventy-eight factors, these small-volume residential contractors considered “quality of workmanship and products” as the most important factor responsible for their success. But then mentions “honesty and integrity” as the second most important. It should be noted that both the large and small firms, in these studies, ranked “Integrity” as number one and number two, respectively, as most important to ensure company success. The place of honesty and integrity in the construction industry cannot be overemphasized. The root of many disputes and lawsuits in construction is the absence of honesty. Stone is an advocate for best practice in business and strongly points out:

“To be successful, you must conduct yourself and your business in a manner beyond reproach at all times. For peace of mind, for the acceptance of the people you work with and the people in the community that you work in, there’s simply no other way to do business”

It is understandable that the small firms would give more precedence to “quality of workmanship” because new and small firms generally have something to prove and can most effectively show it through the quality of their work. The third most important factor for the small-volume contractors was good contractor/subcontractor relations; again, a subtle focus on workmanship. Customer communication and relations, and reputation/name followed the list as other very important factors. It is interesting to note that both large and small American construction firms ranked integrity, customer satisfaction, and achieving excellent reputation amongst their top five corporate success factors. Table 2.6 ranks success factors based on the findings of Table 2.5.

Table 2.6: Ranking of Success Factors in construction

Ranking	Factors
1	Strategic organizing, planning and goal setting
2	Honesty, Integrity, Reliability & Dependability
3	Capitalization and Financial management
4	Good Profit margins
5	Company image/Reputation
6	Competitive pricing/ Product Affordability
7	Company experience in the market
8	Leadership Knowledge/Experience in Construction
9	Good and Qualified Employees
10	Having a thriving organizational culture
11	Customer Communications & Relations
12	Quality Workmanship & Products
13	Customer Service / Prompt
14	Client/customer satisfaction
15	Good subcontractors/ Subcontractor relations
16	Control of cost and cash flow
17	Innovative products
18	Country's economical conditions
19	Teamwork and harmony
20	Careful Supervision of Jobs
21	Education level
22	General communication/people skills
23	Community / Professional Involvement
24	Follow and adopt new technologies
25	Political connections/Networking
26	Safety
27	Risk management
28	Attaining above-average revenue growth
29	Referrals / Repeat Business
30	Updated Products
31	Good Management
32	Use of good quality materials
33	Good Suppliers / Product Availability
34	Effective Sales and Marketing
35	Training and development
36	Lot availability / location
37	Low Overhead
38	Timely payment of bills
39	Budgeting and Cash Flows
40	Fair pricing / Value
41	Flexibility
42	Good advertisement
43	Ability to Obtain Financing
44	Qualified consultants
45	E-marketing
46	Other Sources of Income
47	Determine public needs

48	Desire / Ambition
49	Personality / Friendliness
50	Family Involvement in Company
51	Diversification/Variety of Products
52	Low interest rates
53	Professionalism
54	Client Selection
55	Job Selection
56	Luck
57	Favourable Weather
58	Having a web-site
59	Job cost control
60	Quality control
61	Good record keeping
62	Focus on Product Design
63	Performance based payment for management
64	Scheduling -- Timeliness -- Cycle Time
65	Work Ethic / Commitment / Attitude
66	Company image/reputation
67	Expanding into new countries
68	Completing high-profile projects
69	Outsourcing
70	Attention to Detail / Personal Pride
71	Employee Relations / Compensation / Longevity
72	Completion of job on time
73	More long-term partnerships with competitors
74	Growth acquisition
75	Owner Involvement on Job Site
76	Warranty Work
77	Sales offices
78	Time in Business / Longevity
79	Level of competition
80	Estimating / Detailed Bidding
81	Qualified technical staff
82	Usage of software programmes
83	Size of Business is Small
84	Site Cleanliness / Neatness
85	Good Accounting Practices Control
86	Problem Solving Ability / Ingenuity
87	Control of Change Orders
88	Self-Performed Work / Work not Subcontracted
89	Prayer / God
90	Love of Work
91	Government Regulations

Table 2.6, which was derived from Table 2.5, shows that there is a general consensus amongst researchers on the top five success factors. They are: strategic organizing,

planning and goal setting, honesty, integrity, reliability & dependability; capitalization/financial strength, job cost control, and quality control. However, the research can draw inference from the literature and conclude that construction companies in developed countries (America and Europe) believe that success in a business depends heavily on the human elements (leadership, honesty, and relationship capital, etc.) but not neglecting the technical. While, firms in the developing countries (Turkey and Pakistan) focus more on technical factors (quality of workmanship, focus on product design, and competitive pricing/ Product Affordability, etc.) than on human factors.

The construction industry is highly dependant on cash flow (Stone, 2012; Arditi et al., 2000), therefore, achieving above average profit levels would be the ruling definition of success for all contractors. Table 2.6 ranks ‘good profit margin’ at number 4, which shows that profitability for a contractor is paramount to achieving success in the construction industry. However, researchers have shown that a number of contractors have ranked profitability among the least criteria for defining their companies’ success (Warner et al, 2008; Souza, 2010; Mohmood and Shahrukh, 2012; Arslan and Kivrak, 2009). By contrast, Warner et al (2008) found that values play an important role in defining and achieving success for contractors. They argue that looking at profitability alone can be misleading when judging the level of success for a contractor. Values such as “sense of family,” “quality of employees” and “integrity” form the foundation for building a strong organisations and the reward on which company success must be measured. This belief is not exclusive to construction firms alone. Exemplary manufacturing firms like Merck, Sony and Ford each have held core ideologies that later made them visionary and enduring companies (Collins and Porras, 1997). According to Collins and Porras, (1997) having a core ideology is the foundation to building a successful and enduring company.

“Like the fundamental ideals of a great nation, church, school, or any other enduring institution, core ideology in a visionary company is a set of basic precepts that plant a fixed stake in the ground: this is who we are; this is what we stand for; this is what we’re all about.”

Another success factor mentioned quite often by business leaders around the world is, ‘luck’. It ranked at number 56 on Table 2.6, this abstract, unquantifiable, unaccountable

phenomenon. Yet many CEOs attributed their company's success to "good luck". For example, Alan L. Wurtzel, the 13 years long serving CEO at Circuit City, who lead his company's turn-around to later outperform the market by 18.5:1 in 1982, was asked by Collins (2001a) to list the top five factors in his company's transformation, ranked by importance. His number one factor was "luck". Stating he was lucky to be in a great industry and was lucky to have found a great successor. Unfortunately, Circuit City no longer exists today after it went bankrupt in 2009. In Collins' (2001) research, many CEOs and executives interviewed attributed their success largely to being at the right place at the right time. He also drew a very interesting conclusion on the CEOs and executives of failed companies. Stating that the executives at the failing or underperforming company's often blamed their situation on bad-luck, lamenting about the difficulties of the business environment. Whereas, executives of the successful companies, on the other hand saw difficult situations as opportunities to improve and express themselves in other dimension.

However, executives of construction firms seldom mention luck as a factor playing a part in their companies' success (Warner et al, 2008; Souza, 2010; Mohmood and Shahrukh, 2012; Arslan and Kivrak, 2009). Only in the work of Hutchings and Christofferson (1999) did a small percentage of his respondents mention luck as a factor of success. Perhaps, the technical nature of the industry is the reason for this. Most construction executives have a technical background – the know-how background. *'You can do it, you succeed. You can't do it, you fail. Simple.'* Client satisfaction is important. Hence, their thought pattern does not dwell on the abstract and cannot attribute their company's success to something so inexplicable as luck. For example Hutchings and Christofferson (1999) found that of seventy-eight factors for construction company success, quality of workmanship was ranked number one, and luck ranked number sixty-six. This thought pattern subscribes to the school of thought that 'preparation is better than luck' and describe luck as something that happens when preparation meets opportunity. This is not to say that the executives in Collins research who mentioned luck as a major factor of success do not know their businesses. On the contrary, these are very successful companies who have thrived and are highly respected in their industries. Collins (2001) explains that these executives, whom he calls Level 5 leaders, are inherently humble. They "look out to apportion credit – even undue credit to factors

outside themselves. Only when they cannot find specific person(s) or event to give credit to, do they credit ‘good luck’.

This thesis has looked both business failure and business success, what are the commonalities and difference between the two? The next section presents this comparison.

2.12 Two sides of the same coin

Failure and success are stated to be two sides of the same coin (Anon). This thesis discussed business failure and its determinants in the construction industry because, knowing the signals of impending failure and being ready to work on the root causes, is the best way to manage it. Although failure is painful, it allows people to accept criticisms, suggestions, and to search for root causes of the failure (Roberts, 1992). For a construction company to stage a turnaround, it must first identify root causes of failure and then work on the solutions. Consequently, business success and factors were studied to see if the two are actually two sides of the same coin. Table 2.7 shows the comparison of the top ten factors for both business success and business failure.

Table 2.7: Business success factors vs. Business failure success

Business failure factors	Business Success factors
<i>Determinants</i> 1. Management incompetence/experience 2. Insufficient capital/Scarcity of financial resources 3. Lack of business knowledge 4. Fraud 5. Lack of organisational knowledge 6. Poor relations with clients/government <i>Symptoms</i> 7. Insufficient profit 8. Heavy operating expenses 9. Inadequate sales 10. Poor company image	<i>Factors</i> 1. Strategic organizing, planning and goal setting 2. Honesty, Integrity, Reliability & Dependability 3. Capitalization and Financial management 4. Good Profit margins 5. Company image/Reputation 6. Competitive pricing/ Product affordability 7. Company experience in the market 8. Leadership Knowledge/Experience in Construction 9. Good and Qualified Employees 10. Having a thriving organizational culture
The other side of the coin	
<ul style="list-style-type: none"> Management incompetence – Leadership knowledge and experience Insufficient capital – capitalization and financial management Lack of business knowledge –strategic organizing, planning and goal setting (business strategy) Fraud – honesty, integrity, reliability and dependability (Leadership characteristics) 	

- Lack of organisational knowledge – Having a thriving organisational culture, as well a good qualified employees
- Insufficient profit – Good profit margins
- Inadequate sales – competitive pricing/product affordability, as well as company experience in the market
- Poor company image – company image/reputation

Table 2.7 shows that failure factors and success factors are more often than not, two sides of the same coin. It shows how the two intertwine. For example, in order to achieve ‘strategic organizing, planning and goal setting,’ in a company, there has to be a ‘competent management’ that knows what it is doing – a management with the right business and organizational knowledge to set out the business strategy and direction for the company. In other words, if there is management incompetence/experience, the company cannot strategically and successfully organize, plan, and set goals that will be realized. Management incompetence/experience is also a lack of leadership/experience in the industry and will also affect financial management. Insufficient capital/scarcity of financial resources is inversely related to, or is the flip side of ‘capitalization/financial strength’. Insufficient capital affects reputation and company image, affects funding of projects and hence profit levels. It also affects the ability of management to hire good and skill employees, since they will have to pay more. Furthermore, a lack of business knowledge results in poor relationship with clients and poor company image. Many of these factors affect each other directly or indirectly.

Table 2.7 also shows how a number of common themes can be derived from in business failure and success. These are:

- Management and leadership, and leadership characteristics
- Capitalization and financial management
- Organizational knowledge/culture
- Business knowledge/strategy
- Company image/reputation
- Industry/market knowledge: sales and marketing/bidding strategy, profitability

Now let's take a look at these themes (not in the order that they are written).

2.13 Management

It seems to be a general consensus among researchers that the major and number one determinant of business failure in the construction industry is “Management Incompetence” (Dikmen et al, 2010; Arditi et al, 2000; Everett and Watson, 1998; Kale and Arditi, 1998; Stead and Smallman, 1999; Chan et al, 2005; Byabashaija, 2007; Perry, 2001; Harada and Kageyama, 2011). But what does management incompetence mean? Perhaps looking at the words “management” and its intricacies, might aid our understanding. There is also a misunderstood meaning of management and leadership in the construction industry (CIOB, 2008; Ng, 2011; Ricketts, 2009, Kotter, 1990). This section is designed to give an overview of “Management and Leadership” and what constitute an incompetent or ineffective manager. Several researchers have shown that “Leadership” is the focal point and the necessary ingredient for a successful turn-around and for changing a company from good-to-great.

In succinct terms, “management means getting things done effectively through people to achieve the desired results (Ng, 2011). This is arguably the most concise definition of management found in literature. A similar definition is that by Kotter (1990), which states that “management is the skill of getting results with the cooperation of other people”. If management is a skill, therefore, it can be learnt. Cole (2004) defined management in-terms of its functions. It states; “management is a process that enables organisations to set and achieve their objectives by planning, organising, controlling, and motivating. Cole viewed management as a collections and synchronisation of a variety of activities carried out by an individual who has been assigned to a “manager’s” position.

2.13.1 Management functions

Here is a summary of management functions/activities as described by Cole (2004).

- Planning Deciding the objectives and goals of the organisation and preparing how to meet them.
- Organising Determining activities and allocating responsibilities for the achievement of plans; coordinating activities and responsibilities into an appropriate structure.

- **Motivating** Meeting the social and psychological needs of employees in the fulfilment of organisational goals.
- **Controlling** Monitoring and evaluating activities, and providing corrective mechanisms.

According to Bennis (2009), the rules of management have changed because the game has changed. The game is much faster and more competitive today than it was several years ago, and the competition for good people and pressure for superior performance is greater than ever. Leadership skill and abilities are now of greater a 'must have' for managers in organisations.

2.14 Leadership

"Leadership is one of the most observed and least understood phenomena on earth" (Burns, 1978).

With the high number of materials published on leadership, you would assume that a universal recipe for growing leaders and achieving success would be out by now. It is true that many modern leaders are voraciously reading a lot of leadership materials and attending leadership seminars just to understand the concepts and to see how they can apply such knowledge to the positions they occupy. As a result, many leaders despite their heroic efforts and tedious labour believe they fall short of the mark (Blackaby and Blackaby, 2001).

What then, is leadership? Leadership like Management has been defined in several ways, each offers a new insight. In fact, Stogdill (1974) asserts that there, are as many definitions of leadership as there are people who have tried to define it. There are different conceptualisations too. Certain groups see leadership from a *personality perspective*, which suggests that leadership, is a combination of special traits or characteristics that some individuals possess (Panthi et al., 2009). By that, they are able to influence others to accomplish an objective (Northouse, 2007). For example, Sanders (1994) states; "Leadership is influence, the ability of one person to influence others." From the construction industry project level point of view, Walker (1996) defined Leadership as "the manner in which the project managers conduct themselves in their

role in order to obtain the best performance from the people they are managing”. From this definition, *effective* Leadership depends on the project manager’s “conduct” of himself or herself. The Management Centre (2012) also has a similar definition with respect to the leader’s *behaviour*. It states; “Leadership is that part of a manager’s *behaviour* that influences individuals and groups to achieve a new desired result”. Other definitions looked at Leadership and *transformational process* (leaders as agents of *change*).

Other conceptualisations are those of leadership as the *focus of group processes* where the leader champions the group change to satisfy the will of the group; and leadership is a *skill*, which suggest that it is the skill and/or knowledge possessed by the individual that enables him or her to lead others (Northouse, 2007). Within this context, is the notion that leadership is “the effective and flexible use of a cluster of learnable interpersonal and intrapersonal skills (*emotional intelligence*) to energise others towards appropriate action and outcomes (MC, 2012)”? This is where the link between leadership and management is evident.

For example, Ricketts (2009) defined management as “a process whereby an individual influences a group of individuals to achieve a common goal”. Another definition by Gardner et al., (2009) states that; “Leadership is the process of persuasion or example by which an individual (or leadership team) induces a group to pursue objectives held by a leader or shared by the leader and his or her followers”. The introduction of ‘persuasion’ in the definition brings into light a leader’s skill to convince others. Skill is required to get people to achieve a task even greater is the skill needed to get people to do what they don’t want to do. It is obvious that Harry Truman fed on this truth when he defined a leader as “a man who has the ability to get other people to do what they don’t want to do and like it.” At this point, “management” falls short of Leadership. For example in the face of war, retired Admiral of the U.S. Navy, Grace Hopper said:

“You cannot manage men into battle... you lead people.”

According to Kotter (1990) people want hope and they will follow anyone who can promise them that. They need, deserve, and want to be led. Ricketts (2009) produced

three central components of leadership out of the over seven hundred definitions they found. They assert that:

- Leadership is a process (not a trait of character) occurring between a leader and a follower, which is transactional and interactive – affecting each other.
- Leadership involves influence: this is concerned with how the leaders affect the followers
- Leadership occurs in a group: at least one leader one follower.

For some reason, Rickett did not include the fourth constituent that Northouse stated in his book, which is; Leadership involves *common goals*. To a great extent, this research agrees with Ricketts because Northouse's definition excludes leaders like Hitler and Fidel Castro of Cuba, who used control and coercion rather than persuasion and commitment to pursue a personal agenda; and other leaders such as Stalin, Charles Keating, Dennis Kozlowski who were destructive by leading their followers or company into unfortunate ends (Padilla et al, 2007). Therefore, leadership may not always involve common goals it may be an orchestra of one man's personal and self-serving agenda.

2.15 Management vs. Leadership

Some argue that the construction industry needs more leaders to ensure continued and sustained success both at company and project level (Panthi et al., 2009; CIOB, 2007; Toor and Ogunlana, 2009; Collins, 2001; Toor and Afori, 2008). Others argue that within strategic managerial decisions and actions, lays the fate of firm (Childs, 1972). On the other hand, Ng (2009), marries the two by acknowledging that management requires a combination of leadership, communication and people skills. He elaborated this point by stating that a manager without any leadership skills is like a ship sailing on high seas without a compass and a gyroscope. With the right knowledge an individual can hold both management and leadership responsibilities simultaneously. When managers are involved in influencing a group of employees to meet its goals, they are operating under leadership and when they are involved in aspects such as planning, organizing, staffing or controlling, they are operating within management (Ricketts, 2009). On a different level, other researchers' assert that managers grow to be leaders – the sort of leaders that possess the executive capabilities to elevate a

company from mediocrity to sustained excellence (Collins, 2001; Toor and Afori, 2008). In support of this, Watson (2003) opined that when senior managers become executives and are appointed to the senior leadership team, their skills and behaviours need to be visionary, focussed more on inspiration, motivation, and providing support (leadership) rather than command and control (management).

As Kotter (1990) points out, you can't manage people into battle; they need, deserve, and want to be led. So how does leadership differ from management? An individual can be a great leader, a great manager, or both, but each area requires the mastery of slightly different skills and competencies (Ricketts, 2009). The Management Centre (2012) lists out five skill categories with respect to their activities. They are; adaptability, people skills, cognitive skills, change, and attitude (emotional intelligence). Similarly the comparison of management and leadership by Northouse (2007) is seen in Table 2.8 below.

Table 2.8: Comparison of Management and Leadership Competencies

Skills	Management	Leadership
Adaptability	Coping with Complexity	Coping with Change
People skills	Organising and Staffing	Aligning People
Cognitive skills	Controlling and Problem-Solving	Motivating and Inspiring
Change	Producing Predictability and Order	Produces change
Attitude	Adopting an impersonal or passive attitude to goals	Adopts a personal and active attitude towards goals

Management Produces Order & Consistency	Leadership Produces Change & Movement
<ul style="list-style-type: none"> • Planning and Budgeting • Establishing agendas • Setting timetables • Allocating resources 	<ul style="list-style-type: none"> • Establishing Direction • Creating a vision • Clarifying the big picture • Setting strategies
Organizing and Staffing <ul style="list-style-type: none"> • Provide structure • Making job placements • Establishing rules and procedures 	<ul style="list-style-type: none"> • Aligning People • Communicating goals • Seeking commitment • Building teams and coalitions
Controlling and Problem Solving <ul style="list-style-type: none"> • Developing incentives • Generating creative solutions • Taking corrective action 	<ul style="list-style-type: none"> • Motivating and Inspiring • Inspiring and energize • Empowering subordinates • Satisfying unmet needs

Source: Northouse, (2007)

Galton (1869) was the earlier pioneer of leadership attributes and traits. Similarly, he argued that a leader's traits are inherited not learnt. Implying that leaders are born not made. Traits such as "*height*", *extroversion*, *fluency in speech*, and *IQ* were the strong points of the trait theory. However, this theory was later challenged by later researchers

who adopted a *process view* to leadership and see leadership as a phenomenon that resides within the context and is open to all (Northouse, 2007). Zaccaro et al., (2004), debunked the misconception that leadership traits are exclusive to particular sets of people born to be leaders and others born to be followers. Northouse (2007) also supports the process view, and believes leadership can be learnt.

The Encarta dictionary (2009) defines traits as “a quality or characteristic that is genetically determined”, which supports the assertions of Galton (1869). An academic definition of leader trait, is that by Zaccaro et al. (2004), which states that “*leadership traits are those relatively stable and coherent integrations of personal characteristics that foster a consistent pattern of leadership performance across a variety of group and organizational situations*” which reflects the differences between people. Over the last two decades (1990 – 2004), Zaccaro and his colleagues have been working on leadership trait and attributes as shown in Table 2.9. They came up with 5 classifications these trait and attributes; (a) cognitive abilities, (b) personality, (c) motivation, (d) social appraisal and interpersonal skills, and (e) leader expertise and tacit knowledge (competencies).

Table 2.9: Leadership traits and Attributes

Cognitive abilities	Personality	Motivation	Social appraisal & interpersonal skills	Leader expertise and tacit knowledge
General intelligence Creative thinking capacities	Extroversion Conscientiousness Emotional stability Openness Agreeableness MBTI preferences for extroversion, intuition, thinking, and judging	Need for power Need for achievement Motivation to lead	Self-monitoring Social intelligence Emotional intelligence	Problem construction Solution generation Metacognition

Source: Zaccaro et al., (2004)

According to Zaccaro et al (2004), effective and successful leaders possess some traits and attributes that are not generally possessed by followers or non-leaders. They also acknowledge the part played by the situation and context. Some leaders can be effective in one situation and environment but totally flop in other situations. This view is

strongly backed by Murphy (1941), who argued, “Leadership does not reside in the person. It is a function of the whole situation”. They argued, that success is a function of “*narrowly prescriptive leadership contexts that respond to a specific set of leader competencies*” and therefore, as leadership situations become more complex, personal attributes becomes more relevant in determining success or failure. For the managers to be effective they must be able to identify and apply the necessary leadership style apropos to the situation rather than based on the predefined sets of successful traits (Panthi et al., 2009).

In addition, Goleman (1995), states that the most important attribute of management is *emotional intelligence* which has been defined as: knowing what one is feeling and being able to handle those feelings without getting swamp by them; being able to motivate one’s self to get jobs done, being creative and performing at one’s peak; and; sensing what others are feeling, and handling relationships effectively. MC (2012) also defined emotional intelligence as “*that critical group of non-cognitive skills, capabilities and competencies which help someone control and manage their emotional response to events and pressures*”. Management involves getting the cooperation of people to successfully meet company objectives (Druker, 2004; Cole, 2004). Without emotional intelligence, a manager will find it difficult getting results. The way in which managers’ operate will depend on the assumptions they make about people and their attitudes to work. A manager must be flexible and sensitive to people’s needs, and use a management style that is appropriate for a person’s needs (Kotter, 1990).

2.15.1 Leadership and the turnaround organization

In most cases of turnaround, a precondition for success is the replacement of the current top management of the business in question (Sheppard and Chowdhury, 2005; Collins, 2001; Hofer, 1980). In the top management, specifically, the CEO is replaced. The replacement then automatically becomes the change agent. This is because it is perceived that the incumbent management lacked the necessary expertise to operate the business and whose decisions may have been the main cause of the impending demise (Gopinath, 1991; Hofer, 1980). Replacing top management may be imperative but even more important is getting the right manager that will replace the outgoing one. Zimmerman (1989) in his study of eight successful and seven unsuccessful turnarounds,

found that successful turnarounds had rather specific leadership characteristics, which were usually not present in the unsuccessful turnarounds. These characteristics range from personal leadership qualities (Chakraborty and Dixit 1991; Collins, 2001) to professional qualifications and experience. His study found that the chief turnaround agents at the successful firms had extensive industrial experience in the particular industry or in a closely related industry whereas; the chief turnaround agents at the unsuccessful firms had less experience in the industry being served.

2.15.2 Emergent leader as Change catalyst

Some people are leaders because of the formal positions in an organisation. Not necessary that they have the skill or ability to lead but because of the bureaucratic ladder in the organisation. Examples of assigned leaders are; department heads, directors, administrators, site managers etc. This is not to say that assigned leaders are void of leadership skills or are unable to produce expected results. On the contrary, they are more likely to be successful in their positions because, they are usually people who have been in the organisation for years, people who know the “ins” and “outs” of the organisation, those who know how things work and are conversant with the activities of all the departments. Emergent leaders on the other hand as the name implies “emerge” as a result of people’s perception of them. They accept, respond, and support the individual in the organisation regardless of his/her title in the organisation. Positive communication is usually the strong side of the emergent leader. They are usually very involved verbally and very informed (Northouse, 2007). The emergent leader is a suitable substitute for an outgoing management during a crisis. He/she can get people to align to and support turnaround initiatives even when it is difficult.

When a company starts noticing signs of trouble, whatever it may be, financial decline, reduced sales, insufficient profit, failure to win project, clients moving on to competition, loss of market share etcetera, at that point, there is a need for a turn-around. Change is automatically needed. The leader of the company must now wear the mantle and hold the torch of leadership to see the company’s transition/transformation from good to great, In this case, from poor to excellent. The leader has to be visionary and innovative. To think about a competitive strategy, motivate others and direct appropriate company resources.

Ng (2009) also concludes that company heads must possess both leadership and managerial qualities in today's organisation (top right quadrant). This statement is re-affirmed for this research as the situation of business failure is one that is very complex and requires a high amount of change. According to Goleman (2000), and Panthi et al., (2009), managers must be able to navigate between the leadership styles with respect to the situation they find themselves. Managers must not be tempted to adopt a single style and personalise it but must wear the right leadership hat consistent with the problem at hand.

Based on the literature gathered, this research has come to the conclusion that "Leadership" is the focal point and the necessary ingredient for a successful turn-around. However, the company head must be able to read the situation and know when to switch hats; management or leadership.

2.16 Organisational Culture

Diagnosing the prevailing culture of an organisation can help inform the type of change needed as well as determining its readiness for the change (Johnson et al., 2008). This is supported by Clerke (1994, cited in Burnes 1996), affirming that the essence of sustainable change is to understand the culture of the organisation that is to be changed. Culture issues have to do with vision, mission, values, believes, myths etc. Cameron and Quinn (1999) identified four types of cultures that can be found in an organisation using their Competing Values Model; Clan, Hierarchy, Adhocracy and Market. However, the right mix of leadership and followership is needed for an organisational culture that is complementary to the organisation's business strategy.

Warren Bennis (2009), one of the great leadership coaches of the last two decades, and author of the book "On becoming a leader", confesses that in his many years of writing on leadership, only recently did an invaluable truth hit him – "*a vital aspect to any organisation's success is not great leadership but great followership.*" This is also true for the turnaround process. Without dedicated people who will follow and fight for the leader's vision, the company will dwindle away. However, this does not mean that those who point out errors in the leader's vision are enemies of progress. Leaders must

welcome “hard truths” or even “embarrassing truths”. The organisation must not ignore bad news but deal with it squarely and on its merits. According to Bennis (2009), *“nothing will sink a leader faster than surrounding him or herself with yes-men and women.”*

In addition, it is important that managers understand and believe the seemingly abstract but profoundly true power and impact of “organisational climate” on financial results. The “organisational climate”, accounts for nearly a third of financial performance, asserts Goleman (2000). That is an unprecedented 33.3% of a company’s income. Organizational climate, in turn, is influenced by leadership style. Goleman and his colleagues found that leaders, who used styles that positively influenced their company climate, had considerably better financial return than those who did not. Effective leaders’ know how to draw different emotional intelligence competencies to influence the climate of their organisation in different ways. The way that managers’ motivate, direct, report, gather and use information, make decisions, manage change initiatives, and handle crises has a direct effect on employees and their mood, communication, Self-management, persistence, self-knowledge, willingness to take risks, commitment and challenge (Goleman, 2000; MC, 2012).

2.17 People/Stakeholder Management

In difficult times, for example, a recession, leadership is the single most important factor required to turnaround a company (Collins, 2001); and within that, is the management of stakeholders. The stakeholders in a construction company are: employees, subcontractors, creditors, client, consultants, and shareholders. If stakeholders’ expectations and confidence are not managed properly, it is unlikely that management will gain support from the said group during difficult times, and the result may be fatal. And the most important stakeholder in any organisation is ‘people’ – those responsible for the day-to-day running of the business. With a full understanding of this, Henderson (2011) opened the first chapter of his book with this statement:

“Good managers are not only effective in their use of economic and technical resources, but when they manage people they remember that these particular resources are special, and are ultimately the most important assets. People are the only real source of continuing competitive advantage. Good managers also remember that these particular assets are human beings.”

There are two broad terms used in literature to describe ‘people management’ in an organisation: ‘personnel management’ and ‘human resource management’ (HRM), and there has been some confusion as to how the two differ or whether they mean the same thing and therefore, are synonymous terms that can be used interchangeably. According to Henderson (2011), whether we are talking about ‘personnel management’ and ‘human resource management’, ‘people management’ is broadly defined as “*all the management decisions and actions that directly affect or influence people as members of the organisation rather than as job-holders.*”

Henderson (2011) draws upon the work of Torrington et al (2008) to outline the general role of people management, which is comprising of four specific objectives: staffing, performance, change management, and administration objectives.

- *Staffing objectives* are firstly concerned with ‘getting the right people in the right jobs at the right times’ – i.e. the recruitment and selection of staff, but increasingly these days also advising on subcontracting and outsourcing of staff. Collins (2001) also emphasized the concept of ‘first who, then what’ when staging a turnaround. Staffing objective is also concerned with managing the release of employees from the organisation by, for example, resignation, retirement, dismissal or redundancy. In the context of a turnaround, staffing objective would be useful in keeping or finding the right people to drive the turnaround, and letting go of people who are disrupting the cohesiveness within the team or sabotaging the turnaround plan.
- *Performance objectives*: people managers have a part to play in assisting the organisation to motivate its employees and ensure that they perform well. Training and development, reward and performance management systems are all important here. Grievance and disciplinary procedures are also necessary, as are welfare support and employee involvement initiatives.
- *Change management objectives* include employee relations/involvement, the recruitment and development of people with the necessary leadership and change management skills, and the construction of rewards systems to underpin the change.
- *Administration objectives* include the maintenance of accurate employee data on, for example, recruitment, contracts and conditions of service; performance;

attendance and training; ensuring organisational compliance with legal requirements, for example in employment law and employee relations; and health and safety.

Though personnel management and HRM have the same objectives, there are significant differences between them. Many authors but not limited to: Henderson (2011), Torrington et al (2008), Armstrong, (2006), Legge, (2004), and Tripathi, (2002) have put out books to demystify the links between personnel management and human resource management. Personnel management is a predominantly administrative record-keeping function that aims to establish and maintain equitable terms and conditions of employment. While human resource management integrates the traditional personnel management functions to corporate goals and strategies, and performs additional people-centred organizational developmental activities (Nayab and Wistrom, 2015). The two differ in scope, approach, nature, and application. According to Nayab and Wistrom (2015), the scope of personnel management includes functional activities such as manpower planning, recruitment, job analysis, job evaluation, payroll administration, performance appraisals, labour law compliance, training administration, and related tasks. Human resources management includes all these activities plus organizational developmental activities such as leadership, motivation, developing organizational culture, communication of shared values, and so forth (Armstrong, 2006; Legge, 2004; Tripathi, 2002).

- *Strategic nature:* personnel management is ad-hoc and reactive in nature and predominantly deals with the day-to-day issues of the business. It also takes a short-term perspective, remains aloof from core organizational activities, functions independently, and takes a reactive approach to changes in corporate goals or strategy rather than a long-term strategic perspective (Nayab and Wistrom, 2015; Henderson, 2011). On the other hand, human resource management is integrated with corporate strategy, whilst concerned with day-to-day issues, is proactive in nature. It deliberately takes a long-term strategic view of human resources, and takes a proactive approach to align the workforce toward achievement of corporate goals (Armstrong, 2006).

- *Psychological contract*: personnel management is based on compliance on the part of the employee (Henderson, 2011). It is concerned with establishing rules, policies, procedures, and contracts, and strives to monitor and enforce compliance to such regulations, with careful delineation of written contract (Nayab and Wistrom, 2015; Legge, 2004). While human resource management is based on seeking willing commitment of the employee. Management cannot always specify exactly what is required, and so employees are allowed and encouraged to use their own judgement and initiative in matters of work and organisational discipline to a much greater extent than in the past rather than be driven by a system of compliance and direction imposed upon them by management. Team-working and similar initiatives would be much more common under HRM than PM (Henderson, 2011).
- *Organisational structure*: Figure 2.2 shows culture types; competing Values of leadership, effectiveness and organisational theory. Because of the high commitment required in human resource management, its organisational structure is intrinsically less hierarchical and more flexible, with the team as the ‘organisational building-block’ and with fewer management level. Companies with more of a personnel management approach would tend to be hierarchical, pyramid-shaped and bureaucratic in their organisational structures. As such their remuneration structure would characterise the hierarchical organizational structure mentioned above, reflecting length of service rather than current contribution. On the other hand, HRM will typically be flexible with a core of key employees surrounded by peripheral shells of other workers. Note that the core employees are not all senior executives – the core is defined as comprising those members of the organization who possess the skills, knowledge and competence necessary for the organization’s success (Henderson, 2011). The HRM approach to remuneration is more focused on rewarding contribution through compensation, bonuses, and rewards, and is likely to be individually or team-based. The human resource philosophy holds improved performance as the driver of employee satisfaction, and devises strategies such as work challenges, teamwork, and creativity to improve motivation (Nayab and Wistrom, 2015).

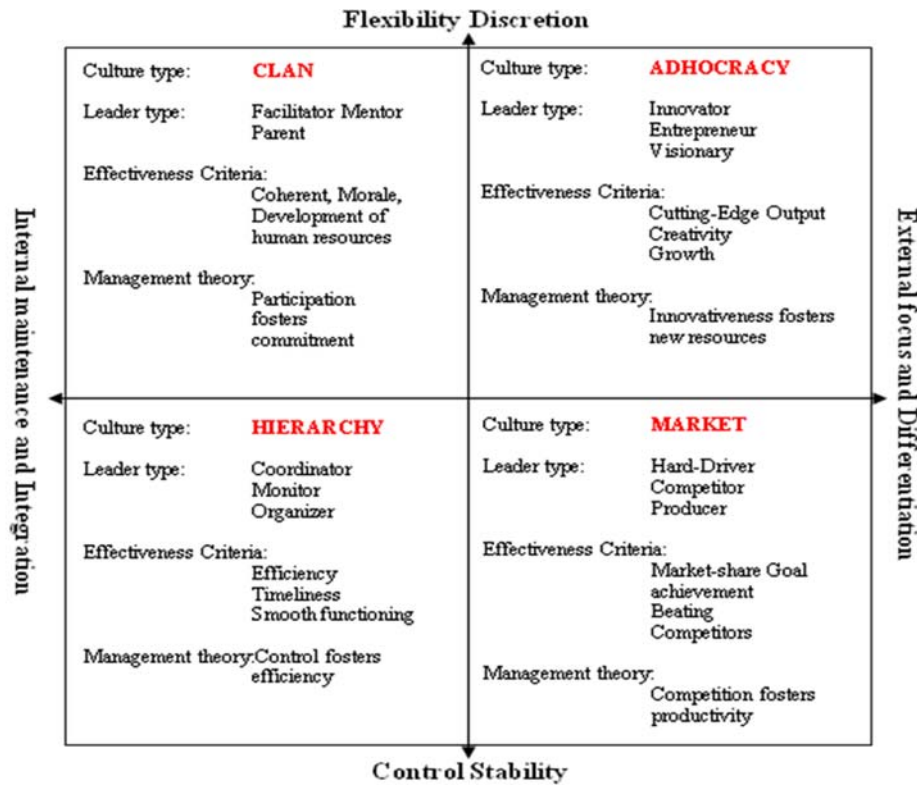


Figure 2.2: Culture types; the Competing Values of Leadership, Effectiveness and Organisational theory (Cameron and Quinn 1999)

- *Training and development:* with personnel management, training and development is narrowly job related, and usually restricted to training non-managerial employees with management development limited to top executives and fast-track candidates (Armstrong, 2006; Henderson, 2011). Whereas, HRM has a culture of learning in the organisation and training and development transcends job specifics. Training and development is an on-going agenda for all core employees including non-management, with strong emphasis on management and leadership development (Henderson, 2011).

The human resource management approach remains integrated to the company's core strategy and vision. It seeks to optimize the use of human resources for the fulfilment of organizational goals (Nayab and Wistrom, 2015; Henderson, 2015). This strategic and philosophical context of human resource management makes it more purposeful, relevant, and more effective compared to the personnel management approach (Armstrong, 2006; Legge, 2004; Tripathi, 2002). In light of this it can be argued that in a turnaround, what is needed is HRM not 'personnel management because of the

fluidity, and flexibility, required during a recovery that will enable staff to show initiative in making decisions, and taking actions to help with the recovery. The bureaucratic lines are blurred and a team spirit adopted where any competent person within the company can spearhead or lead the recovery.

In this section, the term business strategy has come up several times. Doppler and Lauterburg (2001) assert that in the business world, today where mergers, bankruptcies and mass redundancies are the order of the day, companies are forced to re-strategies and re-organise their structures and processes. In dealing with changes in the external environment, managers need to have extensive and deep understanding of strategy, structure, systems, people, style and culture (Burnes, 1996; Kotter, 1990) and how these can function either as barriers or enablers to an effective change process. So what is business strategy?

2.18 Business Strategies and Turnaround

Organizational results are the consequences of the decisions made by its leaders and the framework that guides and focuses these decisions is strategy (Three Sigma, 2015). According to Paley (1999) strategy is defined as “*the art of coordinating the means (money, human resources, and materials) to achieve the ends (profit, customer satisfaction, and company growth) as defined by company policy and objectives.*”. The framework that guides competitive positioning decisions is called competitive strategy. The purpose of its competitive strategy is to build a sustainable competitive advantage over the organization’s rivals. It defines the fundamental decisions that guide the organization’s marketing, financial management and operating strategies (Three Sigma, 2015).

Martin (2014) defined competitive strategy “as a long-term plan of action that a company devises towards achieving a competitive advantage over its competitors after examining the strengths and weaknesses of the latter and comparing them to its own.” According to Three Sigma, competitive strategies aim to answer the questions:

- In what industries or markets will we compete? The intensity of competition in an industry determines its profit potential and competitive attractiveness.

Within construction, the question could be; in what sector of the industry should we compete – commercial, residential, industrial or utilities?

- How will we respond to the competitive forces in these industries or markets (from suppliers, rivals, new entrants, substitute products, customers)?
- What will be our fundamental approach to attaining competitive advantage (low price, differentiation, niche)? This is similar to Collins' (2001) 'economic engine' that asks how best to get money in.
- What size or market position do we plan to achieve?
- What will be our focus and method for growth (sales or profit margins, internally or by acquisition)?

2.19 Competitive Strategy Classifications

Different authors have different terms they use to identify these strategies but the fundamentals are the same. For example Porter (1998) classified competitive strategies into four groups and they include: includes differentiation, cost leadership, differentiation focus, and cost focus. On the other hand, Treacy and Wiersma (1995) classified competitive strategies into operational excellence, product leadership and customer intimacy.

'Differentiation' and 'Product Leadership' aim to develop a competitive advantage by introducing into the market a product or service that is different and unique from what the company rivals are offering. This strategy requires some level of investments in research and development, as such, it requires substantial spending and time dedication, which small and medium sized construction companies may not be able to afford. However, because this strategy is only possible through creativity, teamwork, and problem solving, SMEs may be able to tap into such markets especially since their creativity and problem-solving ability is free to them. Companies that are product leaders in their industries are able to offer lower market prices to its customers and can leverage their expertise across organizational and geographical boundaries by achieving expertise in disciplines such as knowledge management and collaboration (Martin, 2014).

'Operational Excellence' and *'Cost Leadership'* strategies aim to be superior in the market by offering lower prices to consumers owing to its low cost production strategy (Portar, 1998; Treacy and Wiersma, 1995). In other words, the company's lower cost production system compared to its rivals enables it to offer lower prices. The strategy focuses on automating work procedures and manufacturing processes so as to streamline operations and bring down costs (Martin, 2014). Again, this strategy may require one-time substantial investment in innovation such as new technology. However, this option is available to small and medium sized companies because the overarching strategy is to acquire quality raw materials at the lowest price possible and then use the best labour to convert the raw materials into valuable goods for the consumer. According to Martin (2014), "this strategy is especially beneficial if the market is one where price is an important factor", which the construction industry is one. Therefore, small and medium sized contractors can strive to acquire quality materials e.g. from EU countries given the current economic climate, thereby beating the competition.

Customer Intimacy, *Differentiation Focus* and *Cost Focus* all try to focus on a select segment of the market by producing a product specific for a type of customer or having lower prices in particular communities but not others. It is about precision in segmenting and targeting markets and customizing offerings to perfectly match the demands of these particular market segments (Martin, 2014). These strategies are definitely available to small and medium sized construction companies as they can try to achieve cost focus in their local communities and/or differentiation focus in particular segments of the construction industry – residential, industrial, commercial, social housing, etcetera.

Drucker (2004) on the other hand presented three strategies, which he says organisations should consider when managing for results. These strategies include; specialization, integration and diversification. Drucker states that, every organisation should strive to combine Specialization strategies with Diversification strategies. According to him, "every business needs a core", that is, a specialization – an area where it can be the best in the world at (Swaim, 2010; Collins, 2001); and "every

business must also try to obtain the most from its specialization. It must diversify.” In a popular statement, Drucker states:

“A company should either be diversified in products, market, and end-uses and highly concentrated in its basic knowledge areas; or it should be diversified in its knowledge and highly concentrated in its products, markets and end-uses.”

Construction SMEs tend to specialize in their niche markets. Only a few have a portfolio of diversified product offerings. They specialise and try to become product leaders in that product category. Therefore, it is concentrated in its products, markets, and end-uses, and diversified in its knowledge.

2.20 Strategic Approaches in Organisations

In the volatile climate of post 2007 recession, corporate strategists face a number of problems when developing strategy for their companies (Robbin, 2015). They are; increasing low demand for goods and services, and negative psychology of fear and hesitation in the marketplace, which creates a negative feedback loop. In lieu of this, corporate strategists face the problem of how to be flexible in a way that gives their company what it needs, without exposing it to risks that seem hard to justify to management and investors (Swaim, 2010). Corporations do not want to commit to hiring permanent staff until a worldview of growth is clear (Robbin, 2015). This is especially true in construction, as the use of agency workers has dramatically increased (Netscher, 2014).

According to Drucker (1961), the three basic strategic approaches possible are; offensive or progressive, defensive or conservative, and Guerrilla or niche strategies.

2.20.1 Offensive or Progressive Strategy

An offensive strategy is basically a growth strategy (Robbin, 2015). It aims at overcoming the barriers to goal achievement by changing the systemic relationships creating them (Three Sigma, 2015; Swaim, 2010). According to Durant and Durant (2010), “nature loves competition and rewards successful offense” and therefore, successful offense in business are rewarded because business reflects the same dynamics as nature. Robbins (2015) states that launching an offensive strategy requires

boldness, which includes an element of risk. Therefore, the corporate strategist is vested with the responsibility of risk-reward analysis to determine the right strategy to adopt. An offense focuses on new products and/or services, new talent, new distributions channels and new customers, among other things (Chesley and Watson, 2010). Offensive strategy often requires significant capital investment and includes the following options:

- Changing or altering the competitive structure or environment in the industry the company is in (forward or backward integration, acquiring competitors, joint ventures, etc.).
- Anticipating industry competitive structural change and positioning your organization to exploit this change before others recognize it (developing substitute products, changing the mode of sale or distribution, etc.).
- Diversifying into more attractive markets (Three Sigma, 2015).

Drucker (1961) observed that in tough times, market leaders often gain market share at the expense of marginal players. This can only happen with an offensive strategy. Unfortunately sometimes the only defense is an offense. This is the case, for example, when competitors in a shrinking market can only grow, or perhaps even survive, by being offensive (Robbin, 2015).

According to Drucker (2004), Chesley and Watson (2010), and Robbin (2015), every company needs to begin its offense with an assessment of its strengths and weaknesses, as well as that of its competitors, related to the following components: cost structure, financial position, product/service niche, sourcing, customer focus, human capital, marketing and contracts. Once a company has this data, it will know its strength internally. It will also have an idea of its strength within its competitive market (Chesley and Watson, 2010). Only then will the company be able to take the next steps on analysing and planning. The company's plan must play to these strengths in this market and in the future market.

Taking these strengths, a company must then make strategic decisions related to growth in existing markets and new markets with both current and new products and service developments (Chesley and Watson, 2010; Swaim, 2010). Growth, even in this market,

can be found in market share, product usage and new applications or products and services. Growth, with new and current products, services or markets, can be accomplished through joint ventures, acquisitions, mergers and restructuring (Chesley and Watson, 2010).

2.20.2 Defensive or Conservative strategy

A defensive strategy is basically accepting the industry competitive forces as a given and positioning your organization to best defend against them (Swaim, 2010). A good defense is a mandate at all times and involves managing financial risk, improving efficiencies and reducing costs. This could include harvesting and selling the business before competitive conditions cause its value to drop. Principles for managing financial risk include: reducing debt and restructuring, securing bank relationships and managing top line results and margin enhancements. Other principles include knowing the company's daily cash position (cash on hand and credit availability), being strategic about payables and receivables so that the company pays cash later and receive it sooner, and managing the workforce more effectively and efficiently (Chesley and Watson, 2010).

According to Robbin (2015), a defensive strategy is basically one of two things: It's either a cost-reduction strategy, where spending more won't produce growth; or the protection of a vulnerable position. Strategies adopted for defending vulnerable positions are often designed to keep competitors out with reduced pricing to customers or increased product or service value, both of which usually require reduced costs for the company employing them (Chesley and Watson, 2010; Drucker, 1961; Swaim, 2010). In construction, reduced prices and service value may be in the form of below cost bidding or credit extension in the case of suppliers and subcontractors.

In addition, Chesley and Watson (2010), state that the company needs to ensure that it maintains its existing customer base. In other words, it is time to double down on the company's best customers, particularly in light of the fact that new customers, in a recessionary economy, are hard to get. Finally, when it comes to reducing costs, companies need to reconfigure their inventory, they need to shed unprofitable assets and they need to maximize on their profitable assets. Reducing costs may also mean

divesting non-core business products and services, and rethinking pricing strategies, as well as reviewing and renegotiating existing contracts (Chesley and Watson, 2010).

2.20.3 Guerrilla or niche strategy

This strategy aims at minimizing or neutralizing barriers by reducing the size of the playing field and taking an offensive or defensive position in a smaller, more attractive market segment. Companies in serious recessionary times would adopt this strategy (Rowson, 2009).

Sometimes, during a turnaround, an offensive strategy isn't available at all, or isn't available with existing resources at an acceptable cost and risk. This can happen, for example, in an economic recession with fewer buyers of a high-priced product (Rowson, 2009). In this case, maybe there's no alternative to a defensive strategy. Generally if opportunities for growth and market share exist with available resources with acceptable cost and risk, businesses favour an offensive strategy. If these aren't available, then the defensive strategy is left by default (Robbin, 2015).

Which is the best strategy? Drucker (1961), states, "taking a defensive position can, at best, only limit losses. And we need gains." An offense focuses on new products and/or services, new talent, new distributions channels and new customers, among other things (Chesley and Watson, 2010). However, Drucker went on to say that it is impossible – theoretically as well as practically to predict in advance whether one strategy will succeed over another. Just as most medicines have side effects, so also most corporate solutions have side effect. Whatever strategy is chosen will have its distinct issues. The goal is to adopt the strategy that will handle the situation with minimal side effects.

2.21 Putting Together a Plan

According to Drucker (1961) and Chesley and Watson (2010), the best strategy is a combination of both offensive and defensive strategies. Therefore, the recovery plan would have both strategies drawn up. Once the company determines its offensive and defensive strategies, it needs to create one game plan or playbook which will insure not only execution of the plan, but will eliminate conflicts between its offense and defence strategies (Chesley and Watson, 2010). The plan must provide the company with a tool

to measure its performance (O'neil, 1986; Chakraborty and Dixit (1991). Contents of the plan should include identifying the following: overall objectives, specific goals, champion for each goal, tactics to execute for each goal, the timeframe to achieve goals, challenges for each goal and means to overcome such strategies (Chesley and Watson, 2010; Collins 2001; Robbin, 2015)

Chesley and Watson, (2010) state that many companies are at a critical crossroad given the challenging economic environment. They assert that the turnaround company must first **“stabilize by reversing declining performance, then rebuild by strengthening "core" capabilities, and finally begin rebuilding through creating "niche" market positions.”**

When it comes to the skills needed to do turnaround an organisation, by far is first, understanding the business, the market, the industry (Netscher, 2014; Robbin, 2015), which includes, but not limited to, financial fluency and the operational fluency, on the part of the executives to know what can work are important (Drucker, 2004; Swaim, 2010). So the company leadership needs to put together a team that has the requisite expertise (Nayab and Wistrom, 2015; Henderson, 2011; Collin, 2001; Robbin, 2015). A recovery plan requires that it be communicated with honesty and from the company leadership. It is critical to involve a team in the creation of the plan. Furthermore, while the plan must be firm, it must also allow for modifications and adjustments based on market conditions and unforeseeable events (Chesley and Watson, 2010). In addition, the leadership or turnaround team must always be open for new opportunities that surface, even if it is not part of the plan (Drucker, 2004).

A big part of business strategy is, knowing the market and knowing how to get customers. A very important part of a construction company's business strategy is, knowing how to get work - its 'bidding strategy', without which the company will struggle to survive. The next section deals with the various types of bidding strategies adopted by contractors in the construction industry.

2.22 Bidding Strategy

The discussion on the bidding strategies used by contractors has been a hot topic in construction for many decades (Friedman, 1956; Skitmore, 1989; Thorpe and McCaffer, 1991). As part of their overall competitive business strategy (Porter, 1998), contractors must develop bidding strategies that ensure or gives them a higher chance of winning the job (Male, 1991). As such, they must decide which contract to bid for, putting into consideration: type, and size of construction work, as well as client type; and determine the most appropriate mark-up/mark-down (Stone, 2012) level that will ensure winning the job (Flanagan and Norman, 1982). In determining mark up levels, Drew (1994) states that different bidders have differing degrees of selectivity between contracts. Those who are more selective concentrate on particular contract characteristics such as type and size, and therefore are driven by preference. Those who are less selective place less emphasis on contract characteristics than on other factors such as workload or resources available, and therefore, driven by constraints.

The attitude of bidders (preference or constraint driven) can also be related to Porter's (1998) competitive business strategies: cost leadership, differentiation, and focus. Bidders who adopt a cost leadership strategy are likely to be constrained by their ability to cut costs in an attempt to achieve superior profitability rather than be selective towards certain contract characteristics. However, bidders who choose a focus strategy are likely to place a greater emphasis on preference rather than constraint. The idea of 'preference or constraint driven' is not directly applicable to bidders who use a differentiation strategy. These bidders are hoping to win contracts through, for example, reputation even though their bids may not be the lowest. It is worth noting that such a strategy is likely to be more successful in the private sector. This is because public accountability in the public sector normally means that contracts have to be awarded to the lowest bidder only (Drew, 1994).

Male (1991) identifies that the contractor's bidding process is as follows: contractors define a strategic domain at the corporate strategy level with the domain establishing the market dimensions within which contractors plan to operate and compete for work. Contractors then make decisions on which contracts to bid for at the business strategy level. If opting to bid, the cost estimate is then formulated at the operational strategy

level and fed back to the business strategy level where senior management then decides the appropriate level of mark-up at an adjudication meeting (Drew et al, 2001).

Bidding strategy is concerned with setting the mark up level to a value that is likely to provide the best pay-off (Drew, 1994). There are various classifications of bids submitted to clients: the 'serious' or 'non-serious' bids (Skitmore, 1989); the misconstrued (errors contained) or suicidal low bids (well below cost as characterised by contractors experiencing cash flow problems); and random (when work levels are low), selective, and severely competitive bids (Merna and Smith, 1990; Fine, 1975). According to Skitmore (1989), only bids derived from producing a detailed cost estimate and adding a realistic mark-up can be regarded as genuinely competitive. Skitmore outlines six bidding options that contractors can choose to exercise. That is, the option to:

1. Decline to bid;
2. Return tender documents;
3. Submit a cover price;
4. Produce a rough estimate and add mark-up;
5. Add 'non price features' (i.e. qualify the bid);
6. Produce a detailed estimate and add mark-up.

The first two options; 'decline to tender' and 'return tender documents', give an opportunity for the contractor to withdraw from the competition (Thorpe and McCaffer, 1991). Now lets look at 'cover pricing.' Cover pricing was defined by McHugh and Forster (2012) as *"a practice that occurs where a company wishes, or believes it is necessary, to be seen to tender for a particular project but either does not wish to win the tender; or does not have the time or resources to prepare a carefully priced tender for that project. The company accordingly submits a high bid that it does not expect will be successful."* With respect to 'cover pricing', some contractors may decide to withdraw from the competition because they are overwhelmed with enquiries and/or might have had a number of recent successes (Drew, 1994). A number of reasons may cause the contractor to bid even though they do not want the work. According to Drew (1994) these reasons are:

- clients and consultants may have given the impression to the contractor that failure to submit a tender will prejudice future enquiries or resent the contractor picking and choosing contracts for which tenders are submitted.
- they want to make it more difficult for competitors to determine their strategy.
- they want to deny their competitors the chance of entering the competition in their place.

In other cases bidders may want to minimise the cost of preparing the bid by submitting a cover price or producing a rough estimate and adding a high mark-up Drew said. Furthermore, contractors may add 'non price features' in instances where:

- They do not want to undertake a particular section of work;
- They want to change certain contract conditions which they perceive as being particularly onerous;
- They want to create an opportunity for post contract competition negotiation with the client.

Cover pricing is not considered as a serious bid and therefore, hardly competitive. It is unlikely that a contractor will succeed in winning the work (Drew et al. 2001). The last three options are competitive (to varying degrees). But only number six "produce a detailed estimate and add mark-up" is truly and genuinely competitive (Skitmore, 1989). Therefore, the first three, including cover pricing are non-serious bids; although, it could be argued that 'producing a rough estimate and adding a mark-up', and 'qualifying a bid' are non-serious bids.

According to McHugh and Forster (2012), cover pricing (now illegal) is frowned upon because it is said to create an atmosphere of colluding (also known as bid rigging). However, it has been argued by Gruneburg (2008) that the nature of the construction industry is so fiercely competitive that some firms employ bid rigging as a survival strategy in order to manage their workloads efficiently and profitably. He argued that the Office of Fair Trading (OFT) must try to understand the nature construction industry, how it operates, and how the firms in the construction industry cope.

The next theme found in the comparison of business failure and success is company image or reputation. In the next section this thesis will discuss how company reputation

can make or break a construction company. Many construction companies rely on their reputation for repeat work with clients and therefore contractors hold this factor as a very important aspect of their business strategy and hence survival.

2.23 Company Image/Reputation

According to Netscher (2015a), “contractors are only as good as their last mistake!” Because most clients, unfortunately, remember the mistakes or the faults while the good work and successful projects are seldom remembered. Almost as though they expect things to go right and when it doesn’t, they do not forget even long after the errors have been remedied and the transaction has closed. And so, one mistake can overshadow much good and years of hard work. Such things contribute to a “poor reputation”. Some clients are not so forgiving and may even shun bids made from contractors with poor reputations (even if they are the cheapest). The client will simply not award the project to such contractors.

It is important to note that “poor reputation” may be undeserved. Unforeseen circumstances do occur. Also, since clients have different priorities and agendas, it therefore means that they may see certain things differently. So, things a contractor may consider trivial may be a big deal to some clients. But this doesn’t matter sometimes, as bad news travels fast. Bad publicity can kill a construction business fast. When word goes out that a certain company is having problems or that they are problematic, clients begin to avoid such a company and even existing clients result to holding payments in an attempt to protect their interest. Unfortunately, this sometimes results in the company going insolvent because they cannot meet their immediate obligations.

In some cases, the contractor or an employee may have caused the error, and therefore, the contractor must do everything in their power to control the situation to protect its reputation. Netscher (2015b) lists a number of incidents that can affect a company’s reputation. They include: accident on a project, disorganized or poorly managed project, an environmental issue, damage to public services or surrounding properties, possible fraudulent activities, disputes and legal proceedings with clients, poor quality, poor workmanship, ill-disciplined staff, aggressive behavior when settling claims and variations, safety incidents, environmental accidents and not delivering a project on

time, etcetera. It is important to note that this list is not exhaustive because disputes can occur about anything and at any stage of the contract.

With so much that can go wrong, Netscher (2015b) asserts that, “reputation is a team effort.” Hence, it is imperative that contractors ensure that all their employees understand the importance of always portraying the company in a good light, maintaining the company’s reputation in everything they do. A contractor with a good reputation is actively sort after by clients. These recurring clients may constantly ask the contractor to price their projects and may even seek to negotiate the project with that company alone. The strategic re-structuring of the company image must be from the inside out. Client and employee confidence must be raised. Employees must understand the need for and be committed to fostering a positive image of the company. The power of ‘word of mouth’ must never be underestimated, especially coming from an insider. As the old wise saying goes “looking good is good business” (Anon, 2012). However, it is important that management is not obsessed with the image of its company and ignore what is important as in the case of ROK. Confidence can only take you so far without strengthening the core of the business.

In summary, it is important for construction companies to build and protect their reputation. A good reputation is what wins more work and brings repeat-work. Below are ten factors that Netscher (2015a) suggests can impact on a construction company’s reputation.

2.23.1 Factors that impacts a company’s reputation

Delivering projects on time

For many clients time is money. The sooner the project is completed, the sooner they can start operating the facility, the sooner they can start earning money on it (Netscher, 2015a)

Do not over-promise and/or under-deliver

It is futile and probably fatal for a contractor to promise and commitments to date, which he knows, will be impossible to meet. When such dates are not met, the client

becomes unhappy and disillusioned and can lead to a break of trust where the client eventually never believes anything the contractor says.

Acknowledge and rectify your mistakes

For a client, it is not realistically reasonable to expect that a construction company never make mistakes on any and all of its projects and is 100% perfect. Mistakes do happen unfortunately. However, when they occur, a construction company is mostly judged not by the problem (alone) but rather, how the problem was resolved.

Honesty, Integrity and Fair-mindedness

Integrity is one of the strong pillars of operating a successful construction company (Stone, 2012; Mahmood and Shahrukh, 2012; Aslan and Kivrak, 2009). It is imperative that the client sees the contractor as being honest and fair in his dealings. Much is about perception. Stone (2012) states that the contractor must do his best to explain why certain parts of the project seem to cost more than others and do so with a proper breakdown of items. He must show that he is not trying to get undue advantage over the client, by charging excessively or charging for work not undertaken. The contractor must do his best to highlight to the client items which they have carried out for a reduced rate or no charge so the client understand also that fair-play on the part of the contractor (Ross and Williams, 2013). The contractor should also return any savings to the client when something has been taken out of the scope of works. Construction is a relationship industry. People, more often than not, only do business with people they can trust (Stone, 2012). How a construction company deals with its suppliers and subcontractors, not just the client, will impact on a company's reputation (Netscher, 2015a). When word goes out that a company is not being fair to its employees, subcontractors, suppliers or clients, and is always trying to have undue advantage over them, other players start avoiding that company. A company like this can be said to have a "toxic leadership" (Bennis, 2009). Bad economic times allow second-rate leaders to exercise power recklessly and with impunity. Good times will come again, and when they do, the leaders who survive and flourish will be those who treat the people around them not as underlings, but as invaluable colleagues and collaborators (Bennis, 2009).

Bennis (2009), in his latest edition of “On Becoming a Leader”; states that what has become clearer than ever to him is that ‘integrity’ is the most important characteristic of a leader, and one that the leader must be prepared to demonstrate again and again. A construction company and its personnel must be seen to be honest and operate with integrity. It is the single most important thing that brings repeat business.

Quality

This goes without saying. The quality of workmanship and material are essential. It is a double-edged sword; saving the company from incurring additional costs, and establishing that the company has a reputation for delivering quality projects.

Safety

The seriousness of operating a safe site must not be underestimated. Accidents on site can cause really bad publicity for a company. Therefore a construction company must have a culture of safety and operate with the highest level of alertness to prevent accidents from occurring and also, demand the same from its subcontractors and suppliers.

Responsive

It is not uncommon for clients to make changes and additions to; schedule, their milestones, structures, buildings and finishes. Although, these changes can often be frustrating and take up some management time, construction companies should try to accommodate some of these client’s changes and additions where possible. This is not to say that the contractor should accept every change made by a client. Certainly saying no might be easier since, a lot of the time, the variations hardly cover the cost of doing the work anyway. But by saying no all the time, a contractor can quickly get a reputation for being uncooperative.

“Being responsive also means returning the client’s phone messages, making yourself available for meetings, responding to queries promptly and submitting prices and revised schedules on time.” (Netscher, 2015a)

Professionalism

Always be professional: dress well, be polite and respectful, be courteous in your dealings with the client, be organised, be prompt for meetings and always come prepared. All these extend not only to dealings with clients but also to dealings with subcontractors, suppliers, and employees.

Service after the project has been completed

This is one aspect where most clients have been relatively unhappy. This is because most contractors fail to recognise that the contract or relationship does not end at handing-over. Most contracts have a warranty period (usually years) during which the construction company is responsible for repairs and defects due to defective workmanship. A construction company that does not recognise this and handle it with care, can quickly get a reputation of an opportunist and self-serving; once it receives payment, the client is ignored.

Meeting the client's expectations

A contractor must be able to manage a client's expectation. A proper discussion with the client on their expectations and ensuring that those expectations are understood in the same light by both parties, can go a long to ensuring that the finished product looks and cost as was expected.

The other theme discovered in the comparison of business failure and success is financial management. The next section discusses how that is important to the turnaround organisation.

2.24 Financial Management and the Turnaround Organisation

Finance is an important aspect of management. Hence, financial management training and experience is increasingly becoming a basic requirement for members of the top management (Bolek and Wilinski, 2012; M'ithai, 2013). The core categories of finance are Liquidity and Profitability. Liquidity is concerned with short-term finance, that is, cash flow or working capital, while profitability is concerned with long-term finance. However, a growth in financial liquidity may negatively influence the company

profitability (Bolek and Wilinski, 2012). This is when excess cash is not put into productive use.

This section discusses important accounting and commercial procedures that are necessary for the effective operation of a construction business. There is much more to a construction business than the construction itself. As argued earlier that the project level and the management level are inseparable and hence are almost never mutually exclusive. Clough et al (2005) assert that the necessary support functions performed by the central office is as vital as to the construction business as the field operations.

One of the main functions of the central office is record keeping, especially, financial information. According to Clough et al (2005), many otherwise well-run construction companies have gone out of business because they lacked the discipline of keeping accurate detailed and current information concerning all aspects of their financial affairs. He stated that contractors must not only keep accurate records because they are required by law to do so, but to do it for the purpose of company management. Management must strive to be in the position where it can consciously directing company affairs with intelligently analysed and summarised financial data. With the right accounting information, management are able to control company operations as well as utilize available company capital to its greatest possible advantage.

At the end of every accounting period, it is imperative for a construction company to produce a financial statement of the year's operations. The purpose of financial statement is to give a snap shot of a company's over-all financial condition. It also tells management how to proceed with future operations as it reflects the company's capacities and much information on company policies with respect to purchasing, equipment ownership, and office overheads (Clough et al, 2005). External agencies such as; potential investors, bankers, surety and insurance companies, clients, stockholders, partners, etcetera, also use company financials to check the contractor's credit worthiness or return on investment (ROI) depending on individual interest. The income statement and the balance sheet are the two most important financial statements. The former shows the profit or loss as the difference between the income received and

the expenses paid out during the period while the latter carries a summary of the assets, liabilities, and net worth of the company at a particular time.

To intelligently analyse account data, financial analysts use ratios derived from the income statements and balance sheets to draw out relationships to compare and contrast between the different values (Clough et al, 2005). By comparing the same ratios over a series of financial reports, very significant information (for example, trends) can be obtained regarding a company's financial performance over the years, and hence, providing company management with guidance concerning the areas that need attention. Similarly, the same information (ratios) can be used to compare between companies or contractors. There are four main types of ratios that are widely used in the construction industry: liquidity ratios, profitability ratios, leverage ratios, and activity ratios.

Liquidity Ratios: These measures reveal a company's ability to meet its short-term financial obligations and shows whether or not a firm has sufficient working capital to continue its activities. A number of ratios are used to measure the liquidity of a company. The most common are the 'acid test' or 'quick ratio'. The acid test is denoted by the ratio of current assets (excluding inventory) to current liabilities. It gives a snapshot of the financial health of a firm. It also does not consider inventory or stock, as these are hard to convert into cash in an emergency (Clough et al, 2005).

$$\text{The acid test} = (\text{Total current assets} - \text{Stock} / \text{Total current liabilities}) \times 100/1$$

Values greater than 100 means that the firm is solvent and therefore, has sufficient funds to meet its short-term obligations. Values less than 100 means cash flow difficulties can be expected (Ross and Williams, 2013). Values between 150 and 200 are usually recommended. Too high a value would mean there is too much money in the hands of debtors. Reducing the monies owed by debtors will add to working capital and will reduce over reliance on outstanding loans and overdraft facility (Gruneberg, 1997).

Another liquidity ratio is the 'Current ratio; or 'Cash position ratio', like the acid test; it is probably the second most important short-term financial measure. It tells whether

a company has enough cash to meet its current financial obligations – the higher the ratio, the greater the confidence in the company's solvency. A value of 1.5 is generally regarded as favourable in the construction industry (Clough et al, 2005).

Leverage Ratios: Also known as 'Gearing Ratios'. Leverage Ratios are useful indicators of a firm's exposure to risk. They compare company debt with other financial measures such as, total assets or net worth (shareholders equity). The most common leverage ratio used by companies is the 'debt to equity' ratio (total liabilities to shareholders funds), which shows the relative amount of invested capital borrowed from creditors and capital injected by shareholders. It is a good indicator of the capital structure of a company. Companycheck gives the gearing as:

$$\text{Gearing ratio} = (\text{Bank Overdraft and Loans} + \text{Total Long-term Liabilities}) / \text{Shareholders funds} \times 100$$

Values between 1-50% are generally acceptable in the construction industry (Clough et al, 2005). Another measure of gearing is the 'total gearing ratio' and the 'long-term gearing' ratio. These are calculated as:

$$\text{Total gearing ratio} = (\text{long-term debt} + \text{current liabilities}) / \text{Total assets} \times 100$$

$$\text{Long-term gearing} = \text{long-term debt} / (\text{Total assets} - \text{current liabilities})$$

High values of these ratios indicate that the company runs a high risk of not meeting its short-term obligations because it would mean that the company is using debt to pay for its continuing operations (heavily geared) – the higher the percentage, the greater the risk (Clough et al, 2005; Gruneberg, 1997). Generally, a house builder would have more gearing than a contractor because the house builder needs to keep a good amount of stock. On the other hand, contractors do not need to keep stock levels high and therefore are expected to have quite a low gearing.

Activity Ratios: These ratios indicate the level of investment turnover or how well the company is using its working capital and other assets. There are a few ratios that are common among analysts: Project income to new working capital; and Project income

to net worth. These two, measure the rate of capital turnover, showing how actively the firm's capital is being put to work (Clough et al, 2005). Low values indicate that the capital are stagnant and profitability ultimately foregone. Too high a value indicates that funds are turned over too quickly and this can lead to an accumulation of unserviced liabilities. Amongst others, are activity ratios also known as performance ratios (Gruneberg, 1997). They are the Cash flow or position ratio and the Working Capital to Turnover ratio. The Cash depends on receivables and its outgoings. More precisely, how soon or late its debtors pay the firm and how soon or late the firm itself pays its subcontractors and suppliers. The number of days can be calculated by taking the ratio of amount received from debtors to turnover. A large number shows that there is slow payment from debtors. A long period of slow payment could be detrimental to a firm. Small firms are especially more susceptible to cash flow problems.

The working capital turnover ratio shows how many days worth of working capital a construction firm has. It shows if more working capital is required to allow for late payment, expansion or contingencies (Gruneberg, 1997).

$$\text{Number of days} = (\text{Debtor/Credit sales for the year}) \times 365$$

$$\text{Working capital ratio} = (\text{Turnover/Working capital}) \times 365$$

Profitability Ratios: These values relate company profits to various parameters such as contract volume or total assets. These ratios are the most common and are usually the ones most people are interested in seeing first. For example, the net profit margin, gives a relatively precise picture of profitability of a company because the figure is post expense, interest and tax deductions. The Gross profit margin is similar to the net profit margin but without the deductions. It also has its own use. It is very good in comparing between companies. The profitability ratios used by most financial institutions and websites are:

$$\text{Net profit margin} = \text{net profit after taxes} / \text{sales}$$

$$\text{Gross profit margin} = \text{gross profit} / \text{sales}$$

2.25 Cash flow and Liquidity

Many authors, such as; Stone (2012), Clough et al. (2005), and Nutscher (2014), assert that when a construction-related business fails, the cause is almost always poor cash flow. Nutscher states that negative cash flow probably causes more construction business failure than any other cause. Cash is the fuel that runs a business. Managing cash flow is imperative to the success of any business especially, construction businesses because of high project values and low profit margins (Ross and Williams, 2013). In succinct terms, when the money stops, the business ends. In construction, the widely known mantra – Cash is King – is ever so true (Ross and Williams, 2013; Burtonshaw-Gunn, 2009). Poor cash flow means illiquidity; an inability to pay ones bills with high probability of defaulting. According to Clough et al (2005), cash flow refers to a contractor's income and outgo of cash; the difference between disbursement and receivables over a period of time. This difference is also known as 'working capital'. A positive cash flow indicates a healthy liquidity position for the construction company and also means that income (cash and account receivables) exceeds disbursement (Ross and Williams, 2013).

A negative cash flow, (a regular occurrence in construction, even on profitable projects) indicates that disbursements are exceeding income. It is also an indication of illiquidity and may point to signs of future struggles in meeting financial obligations. Unfortunately, negative cash flow is pervasive in the construction industry. With the low margins and high retentions, associated with the industry the contractor is automatically placed in a negative cash flow position. Furthermore, clients are required to pay contractors 30 days after submittals of invoices (Ross and Williams, 2013). However, most contractors pay their labour every two weeks, sometimes weekly, and some contractors do not have the privilege of lines of credit extended by suppliers and therefore, have to pay upfront for materials. This means that the contractor has spent a whole lot of cash to cover the gap between; start of work and completion of the month's work; and invoicing the client and receipt of payment. This period is estimated to be at least seven weeks (Nutscher, 2014). More so, if a contractor encounters delays in payment (beyond the stipulated 30 days) or non-payment either because of disputed measurements, defaulting in payment, unconfirmed verbal instructions, unvalued variations, un-agreed claims and counter claims, or (god forbid), the liquidation of the

client or developer, the contractor is pushed farther into negative cash flow (Ross and Williams, 2013). Therefore, the contractor must always strive to generate positive cash flow. Contractors must be prompt in submitting their monthly progress valuations, charge fully for all works completed and make sure they get paid on time (Nutscher, 2014). According to Engstrom (2014), there are other methods contractors use to generate positive cash flow (although results in negative working capital). They include:

- Front loading rates, milestone payments, and site set-up costs.
- Getting paid quickly by clients and taking a longer time to pay suppliers.
- Billing for work that has not yet been actually done or which the suppliers have not yet billed for.
- Holding back greater retentions and claims against suppliers for longer than those held back by the client.

A contractor must strive to keep a balance. Holding excess cash without investing it is unproductive and too little cash gives rise to the possibility of default. Therefore the contractor has to be tactful in this. In a construction company, there is need for a well-managed cash balance sufficient to meet payrolls, pay for materials, make equipment payments, and satisfy other financial obligations as they become due.

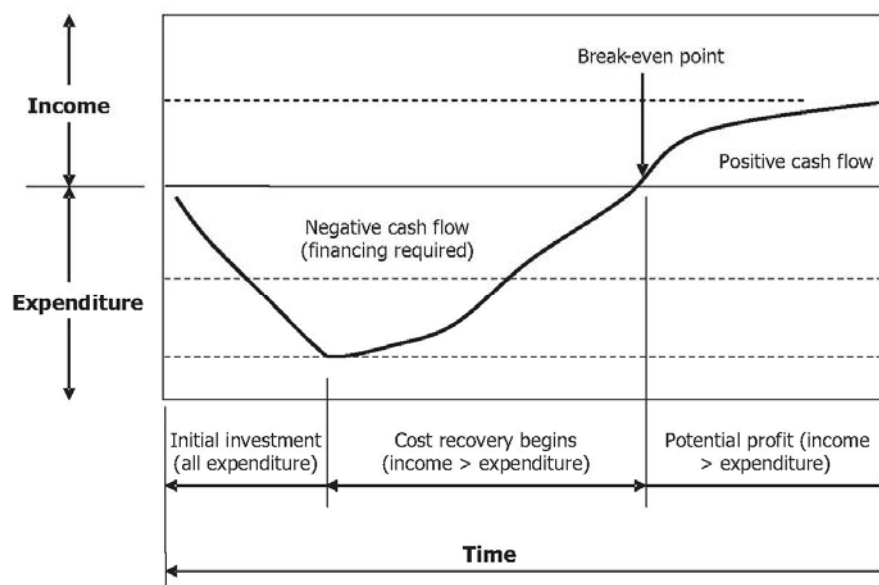


Figure 2.3: Project Cash flow (Source: Burtonshaw-Gunn, 2009)

In Figure 2.3, Burtonshaw-Gunn (2009) shows project cash flow on construction projects with income and expenditure on the vertical axis and time on the horizontal axis. Because of the usual high project values in construction and the way the industry works, contractors have to make substantial financial commitments from the start of the project in the form of start-up cost. This start-up cost may involve moving workers and equipment into site, hiring or erecting site offices, storage, fences, installing utility services such as; electricity, water, telephone and other services; purchase of performance and payment bonds; and purchase of all other preliminary items necessary for the job (Sears et al, 2015). The contractor only recovers these costs as the project proceeds. This puts pressure on the contractor's cash from the start.

The contractor is further put on the back foot when the project commences. Now, he/she has to pay for materials and meet payroll every other week or monthly, depending on the payment structure (Ross and Williams, 2013). Although the client pays the contractor for work done on a monthly basis, the amount is often insufficient to cover all of the contractor's expenses and is further reduced by the amount of retention. Consequently, contractors usually operate at a cash deficit. That is, their project expense typically exceeds their monthly interim income payments over an appreciable part of the construction period (Sears et al, 2015). The deficit, according to Sears and his colleagues, must be made up through borrowing or from contractor's working capital. Here the contractor starts with a negative change in working capital, where current assets are increasing by more than current liabilities because of the initial spending. Therefore, the contractor only achieves a positive cash flow, when the change in working capital becomes positive, where current liabilities increase by more than current assets.

Nutscher (2014) proposes that contractors can positively influence their cash flow even from the time of tender by doing a number of things. They are:

- Checking that the client can meet their financial obligations on the project. Via credit checks and company account information, contractors can check whether their client or agency is solvent before starting a contract. The sign of a potential

client/agency's credit risk would show up in the form of poor credit score, low cash balances and/or county court judgements (CCJs). Upon these results, a contractor can decide whether or not to do business with such clients. If a contractor decides to do business with the high-risk client, he/she should ask for payment up-front or negotiate shorter payment periods.

- Researching whether the client is known to pay the full value of the monthly valuations on time
- Negotiating more favourable payment terms which may include:
 - Paying the valuation within a shorter period than stipulated in the tender
 - Being able to submit invoices at an earlier date or more frequently
 - The client withholding less retention
 - Payment for unfixed materials on site
 - Reducing the amount of retention withheld
 - Replacing the retention money with a surety bond
 - Asking the client to provide a payment guarantee, which could ensure that if they got into financial difficulties the contractor, could claim against it
 - Requesting the client to make an advance payment (particularly to cover the purchase of major items of equipment or materials)
 - Structuring the tender in a manner that a larger portion of the project overheads are paid at the start of the contract, or that work done earlier in the project has a higher value than work done later
 - Requesting the client release retention money earlier by:
- Shortening the duration it's held
 - Releasing it in tranches as milestones are achieved
 - Reducing the value of the guarantees
- Allowing the guarantees to be released earlier or when the important milestones have been achieved

The following bullet points are six main reasons given by Stone (2012) why construction businesses suffer from poor cash flow:

- *Not charging enough for their work*
- *Failure to use or improper use of, change work orders*
- *Failure to use, or improper use of, legal contracts*

- *Too many employees for the volume of work being produced*
- *Improper payment schedules on their contracts*
- *Lack of profitable sale*

2.26 Working Capital

Many authors and professionals have described working capital as the backbone (Kumar et al, 2014) or lifeblood of every construction business (Ross and Williams, 2013; May, 2015) and have argued that a proper understanding is a vital component to the long-term success of the business. Implied in the description of working capital, is how important it is. A business especially a construction business requires working capital to survive. In accounting terms, working capital is defined as current assets less current liabilities. Working capital management is concerned with short-term aspects of corporate finance activities with the main aim of ensuring that a company has adequate access of funds necessary for day-to-day operating expenses while at the same time making sure that the company's assets are put to the best productive use. In other words, it is the effective and efficient management of capital in such a manner that a company maximises return on its assets and minimises payments for its liabilities. Not only is working capital a measure of a company's liquidity, efficiency and overall health, it spells out a host of things such as the company's payment to suppliers, its revenue collection, its debt management, inventory management, etcetera (Kumar et al, 2014).

The working capital ratio (current assets/current liabilities) is also an indication of efficiency and shows whether a company can meet its short-term obligations. Values below 1 indicate negative working capital and a sign of future distress (not always the case), and values above 2 indicate that a company is not maximising or investing excess assets. Typically, values between 1.2 and 2 are considered favourable (Investopedia, 2015). According to Thomas (2013), ensuring a balance between disbursement and income requires balancing of concerns. A continuous deficit in the working capital of a company could lead to fire brigade sales of assets (restructuring), re-organisation through company voluntary agreements (CVA), bankruptcy and final liquidation of the company. Therefore, management requires finesse in the timing of receipts and disbursements in a business (Sears et al, 2015). Now, as much as a company needs to

preserve a good amount of cash at its disposal, it would be unwise for the same to invest substantial amount of its resources on cash and liquid assets. Further more, effective working capital requires maintaining adequate levels of cash, managing short-term investments, managing account receivables and payables, and managing inventory. Getting this wrong could mean the entity going insolvent. On the other hand, getting it right will ultimately ensure the liquidity and survival of the firm.

2.26.1 Positive and Negative Working Capital Requirements

In a normal operating cycle, working capital will never go negative, as assets will continue to increase with every addition of margin when moving goods from account payables to account receivables. Hence, the operating cycle remains positive. According to Sears et al (2015), depending on a company's business strategy, both positive and negative working capitals have advantages and disadvantages. Thomas (2013) and Sears et al (2015), suggest that a house builder and a contractor would have a positive working capital requirement and a negative working capital requirement respectively. For example a house builder requires a certain amount of stock for marketing purpose and so, would have paid all the costs of building the house in advance prior to any sale. This implies that the house builder has a positive working capital requirement, as he would need to bridge the gap between payments and receipts out of the pocket or result to borrowing (Thomas, 2013). Positive working capital although good, the house builder would need to exercise prudence in its borrowing because when a company is overleveraged and then sales decrease or the market collapses, the company may find itself filing for bankruptcy (Sears et al, 2015). On the other hand, the contractor has a negative working capital requirement because; firstly he does not need to maintain a stock and is usually paid in advance in the form of mobilization advance payment (Palliyaguru et al, 2006) before placing any orders or making payments to suppliers (Thomas, 2013). Secondly, when work is completed, the contractor can invoice the client before later settling suppliers and subcontractors. That is, the contractor generates cash to grow, while the house builder needs additional cash to grow.

Furthermore, negative working capital associated with construction is usually due to high account payables (line of credit and advance payment) and the 'pay-when-paid'

and ‘pay-when-certified’ policy of many contractors – which leads to contractors delaying payment to suppliers and trade creditors (Richardson, 2005). With the use of this strategy, negative working capital increases a company’s cash flow as this means more immediate cash in the bank. Hence, the contractor can use the excess cash to finance other opportunities such as housing and property development. The contractor is safe to do this as long as turnover continues to increase (Engstrom, 2014).

As stated earlier, this business strategy may prove profitable as long as turnover does not fall (Engstrom, 2014). But if turnover falls, (a regular occurrence in the last few years), then the immediate cash availability falls proportionately and the contractor is left with bills to pay with no short-term cash. According to Engstrom, many construction insolvencies happen in this exact fashion. This situation right here, Engstrom states is the “counter curse of negative working capital.” In his words:

“This I recall the managing director of a substantial divisional contractor telling me that “cash comes in like a train and goes out like a rocket”. And when turnover reduces – as we have seen over the last two to three years – there is a corresponding reduction in contractor’s cash/debt balances. This is the counter “curse” of negative working capital, exacerbated in construction because the outflow is much stronger when sales are reducing to a lower level, than when they have stabilised at the new lower level. In other words, the cash position is worse on the way down than it is when you get to the bottom!”

In a situation where a contractor has negative working capital and adopts this strategy of investing excess cash on other ventures to maximise cash flow, the contractor can easily find himself in a “turnover trap” when turnover falls, and is left with a surplus of unfinished project that need cash to progress. According to Engstrom (2014), the contractor is left with *“many more payments to be made than receipts to be taken, at the same time ... the final settlements for additional work/claims have still to be agreed”*. But the contractor has taken the cash and spent it on other investments without paying his subcontractors and suppliers or even providing the service for the customer. The contractor here, faces some tough choices asserts Engstrom, and can do any or a combination of the following: sell off assets to raise cash; under-price or reduce margins keenly to win new contracts to help with short-term cash flow; squeeze the supply-chain; or bankruptcy.

Negative working capital also indicates a high dependency on trade creditors or suppliers. This affects relationships. Now if these delays in payment accumulate to a point where suppliers and subcontractors are not happy and they decide to withdraw their support, the contractor would have to wind up the business. Suppliers and subcontractors will be well in their rights to pathways with a contractor who withholds payment for a long time because in return, that affects their cash flow as well. Many subcontractors and suppliers, unfortunately, have gone out of business because of non-paying main contractor. The Construction Supply Chain Payment Charter came into effect in 2014, hopefully things get better for subcontractors and suppliers from here on end (Department for Business, Innovation and Skill, 2014; HM Government, 2014). The charter states:

“Our ambition for 2025 is that the construction industry’s standard payment terms are 30 days and that retentions are no longer withheld. 30 days/30 days & ZERO retentions”

Other possible circumstances that can result to a contractor having a negative working capital are: abnormal loss of inventory, bad debts, and consistent losses on projects due to under-pricing (suicide bidding) or some unfortunate circumstances (eFM, 2015).

2.26.2 Change in Operating Working Capital

Looking at a company’s balance sheet and calculating its working capital for a given period, tells us very little and would not mean much to any investor or analyst. However, a change in working capital from one period to the next, tells a host of things about how the company is run; it shows how much the company spends on its assets, it shows whether a company has a good collection policy, it show its debt management policy, dependency on supply-chain – whether it pays its suppliers quickly or it delays payment, etcetera. Therefore, in looking at working capital, it is better to look at the individual items that comprise ‘operating assets’ and ‘operating liabilities’ and to see to what degree are they changing relative to each other. What that means is that the focus should be on the assets and liabilities that are critical to the company’s actual business. Those assets and liabilities that are not related to the company’s financing but are rather necessary for the day-to-day running of the business and that are current in nature. Meaning they are only good for usually up to a year or less. For operating assets (incomes), the most common are: account receivables, stock, and prepaid expenses; and

for operating liabilities (disbursements), the most common are: account payables or trade creditors, deferred income, and accruals (Thomas, 2013; Sears et al, 2015). So the difference between the disbursements and incomes would result in a negative or a positive (excluding cash and debt) operating working capital, which shows how management manipulates the company's current assets and current liabilities to fund its on-going operations. This manipulation of assets and liabilities shows the net effect on cash flow, since, effectively *"when a company increases its current assets, it is a cash outflow: The company had to shell out money to buy the extra assets. Likewise, when a company increases its current liabilities, it is a cash inflow: The added liabilities, such as short-term debt, provide money"* (Morningstar, 2015). Investors and lenders usually pay attention to a company's Change in Operating Working Capital to determine its free cash flow whether a company can consistently reproduce high ROI and therefore to lend or not.

A positive Change in Working Capital (excluding cash and debt) indicates that current liabilities are increasing by more than current assets. That is, liabilities are going up or current assets are being sold. It could also mean one or a combination of the following; that the company is increasing its turnover, thereby, increasing deferred income; delaying payment to its suppliers, has little or no stock, may be getting paid up-front, and/or has a good collection policy. A company with a positive change in working capital should enjoy an increase in its cash flow but must be careful not to do this for long periods of time as the company could become overleveraged. In the case of construction companies, it is particularly bad because when turnover decreases, and attempts to raise additional cash through sale of assets or loans prove unsuccessful, then the company becomes insolvent. In addition, a prolonged positive change in working capital that is as a result of delays in paying subcontractors and suppliers could affect future relationships and could generate a bad reputation for the contractor amongst subcontractors and suppliers for non-payment.

On the other hand, if the Change in Working Capital (excluding cash and debt) is negative, it indicates that current assets are increasing by more than current liabilities. This could mean that a company is deleveraging, or it is investing heavily in growth, or that something has gone wrong (Morningstar, 2015). It also indicates one or a

combination of the following: turnover is decreasing, too much cash tied in stock, a poor collection policy i.e. it is too lenient with its trade debtors, and probably paying trade creditors too quickly (Thomas, 2013). A company with a negative change in working capital, although deleveraged, may suffer cash flow problems if it does not have a lot of cash or cannot easily convert its stock and receivables to cash. Such a company would need to borrow money in order to survive, thereby increasing its liabilities. Depending on the company's business model, these changes may or may not affect the operating cycle (eFM, 2015).

The Change in Working Capital is defined as Old Working Capital minus New Working Capital, Or:

$$\begin{aligned} & (\text{Old Current Assets} - \text{Old Current Liabilities}) - (\text{New Current Assets} - \text{New Current Liabilities}) \\ &= (\text{Old Current Assets} - \text{New Current Assets}) + (\text{New Current Liabilities} - \text{Old Current Liabilities}). \end{aligned}$$

-When an asset goes up, cash flow goes down because the company is spending money and it serves as cost to the company... and

-When a liability goes up, cash flow goes up, because that frees cash... and vice versa.

In other words, if the net change in working capital is positive, FCF increases, and if the net change in working capital is negative, FCF decreases.

2.27 Insolvency in construction

Liquidity issues can quickly turn into solvency issues when contractors operate so much debt and asset values drop. A typical scenario is when contractors are faced with liquidity issues and are forced to sell assets at discounts to intrinsic value to raise cash. Solvency problems occur when a contractor can no longer afford to pay the bills even when assets are sold. That is, the company's obligations (liabilities) exceed its assets. When this happens, the company is said to be insolvent. According to Asvanunt et al (2010), corporate liquidity can be improved by (a) equity dilution (b) carrying positive cash balances, and (c) entering into loan commitments with a syndicate or lenders. M'ithai (2013) however states, a construction company can improve its liquidity position by:

- Paying some debts – the more debt is paid the less the future outgoings.
- Increasing current assets from loans or other borrowings with a maturity of more than one year. This borrowing however, must be done sensibly.
- Converting fixed assets or non-current assets into current assets.
- Increasing current assets from new equity contributions
- Putting profit back into the bus i.e. increasing retained earnings.

Company liquidity comprise of three aspects: asset, asset-equity, and cash. The assets aspects of financial liquidity must be easily convertible to cash in the shortest possible time at the lowest possible cost and without loss of intrinsic value (Bolek and Wilinski, 2012). Companies when faced with illiquidity have to decide the most effective adjustment of their capital structure and also the liquidity improvement strategy to adopt. A recent research by Asvanunt et al (2010) reported that carrying a positive cash balance for managing illiquidity is in general inefficient relative to entering into loan commitments. The report showed that the dilution cost of equity and the costs of holding cash have to be very low in order for the firm to curtail dividends and hold cash balances. Their argument was that cash balances have high agency costs; it lowers the option value to default due to reduced risk; it postpones or reduce dividends in good states; and tend to inject liquidity in both good and bad states. Whereas, loan commitments reduce agency costs, and permit injection of liquidity in bad states as and when needed.

2.28 Capital Structure

“Capital structure, or capitalization structure, refers to the mix of equity, debt, and other financial capital that a corporation, partnership, or other economic entity utilizes to conduct its operations. Getting the capital structure designed in the most optimal way can mean the difference between success or failure” – Gary Waters

It is generally known in the financial world that firms whose operating capital is exclusively made up of either debt or equity are not maximising the true market value of their firm; that the true maximisation of a company's value can only be achieved through a combination of internal equity capital and external debt capital. Therefore, the financing of a firm's assets using a combination of equity and debt capital is called 'capital structure' (Tsai et al, 2010; San and Heng, 2011). Equity capital is usually made

up of shareholders fund, which is the money that was initially invested in the company in exchange for shares of stock or ownership of the company; and retained earnings, which constitute a part or whole of profit from previous years held by the company for reinvestment into the company, either to service growth, acquisition or expansion. On the other hand, debt capital constitutes borrowed money that is at work within a business (Kennon, 2015). Types of debt capital that can be adopted in a company's capital structure will be discussed in the next section.

Depending on the industry, the optimum capital structure of a firm is a pretty fragile issue for a management team because, a firm's safety or survival, growth, and profitability is heavily influenced by its capital structure. Hence the choice of appropriate funding sources to maintain the optimum capital structure is of utmost importance. Capital structure is also known as 'gearing' or leverage. Through leverage, a firm can increase its value. In other words, a firm could lower its weighted average cost of capital and at the same time increase its value by adding a judicious amount of debt (Altman, 1993). This implies that there is a relationship between debt and equity (gearing). Hence there's an optimal debt to equity ratio known as the 'optimal capital structure'. But how much debt should a construction company work with? Clough et al (2005) proposes 1-50% gearing level for construction companies.

2.28.1 Capital structure and types of debts

Whenever possible, local firms raise finances preferably from their reserves, rather than bank loans and debt issues (Hung et al, 2002). However, if the firm decides to borrow, a success in getting syndicated loans or an extension of time for loan repayment would be construed as good signals to the financial health of the firm. The equity market is an unwelcomed option and is usually their last resort if all options fail. (Hung et al, 2002). There are several types of loan facilities available.

- *Senior secured debt/loans*: this is secured by a collateral, and is to be paid first after the property is sold in the case of default.
- *Senior lien debt*: this is a secured debt but only second to the first senior debt.
- *Subordinated debt*: this is debt payable before stockholders but after senior debt and liabilities have been paid.

- *Mezzanine capital*: this is an unsecured debt senior only to common shares and only repaid after all senior obligations have been satisfied. Due to this high risk, mezzanine debt holders require higher return for their investment than secured or more senior lenders. Smaller companies mostly use this type of debt.
- *Convertible debt* gives the holder (lender) the option to convert bond into shares of the issuer.
- *Exchangeable bond* gives the holder the option to exchange the bond for the stock of a company other than the issuer at some future date and under prescribed conditions.
- *Preferred equity*
- *Warrants*
- *Shareholder loans*
- *Common equity*
- *Pari passu*

When a company's borrowings (debt) exceed its equity (shareholder's funds), the firm is considered to be over-leveraged. Unfortunately, in construction, more often than not, we find firms, mostly house builders, operating with 100% leverage. The problem with this model is that when there is a decrease in sales, the firm struggles to meet its financial obligation and therefore is insolvent. This model of financing assets is also called negative gearing, where "*an asset is purchased with the assistance of borrowed funds, whereby the income generated from that asset is insufficient to cover not only the interest expense, but also the other costs involved in maintaining that asset*" (Tax Institute, 2015). Negative gearing is commonly seen amongst house builders as they usually borrow heavy sums of money from banks or private investors to finance their house building projects and only when the finished buildings are sold, do they make a profit. A prerequisite being that property prices continue to rise not fall. Otherwise, consistent losses can be catastrophic for a house builder and could actually lead to bankruptcy.

2.28.2 Corporate restructuring

Altman (1993) defined corporate restructuring as "*any substantial change in a firm's asset portfolio or capital structure with the aim of increasing value of the firm by*

improving operating efficiency, exploiting debt capacity, and/or redeploying assets to change the mix of the business.” In order to achieve these objectives, management will usually subscribe to one or a combination of the following;

1. Acquiring other companies or businesses,
2. Divesting businesses or assets owned,
3. Leveraged buyouts,
4. Recapitalizations, that is, stock repurchases or swaps of debt for equity, and
5. Major organisational leadership or corporate policy changes.

2.28.3 Leveraged Buyout (LBO)

Also known as Leveraged Management Buyout (LMBO), an LBO is when the control of a firm is acquired in the market through a takeover bid, usually at a substantial premium over the market price of the shares, while a Management Buyout (MBO) is when the senior management in the firm are allowed to “buyout” all the outstanding shares and take the firm private (Altman, 1993). This is usually accomplished by using *mezzanine financing*. Leveraged Buyouts often lead to negative shareholder equity (total assets – total liabilities) because of the new borrowings needed to buyout the company.

The type of firm most suitable to a management buyout is one with a relatively stable and predictable cash flow. With the cash flow issues the construction industry is facing, a MBO might not be appealing to managers of a distressed construction company unless the business offers great prospects. There is the question of assessing whether the business is worth saving. If the going concern value of the firm is substantially greater than its liquidation value (Hofer, 1980), it would make business sense to save the company. On the other hand, if the company is worth more liquidated than live, then perhaps liquidating the company would be preferred

2.28.4 The Role of Financial Institutions

“The attitudes of financial institutions have not been favourable to contractors of small and medium-sized construction firms with regards to raising long-term debt. SMEs are perceived to lack the necessary management skills, and therefore, have to rely more on short-term debt (Chiang et al, 2010).

It has not been easy for large contractors either, even though they are perceived to have better chance in raising long-term debt to finance projects (Hall et al., 2004). Tighter terms and conditions, and the deteriorating economic outlook, have contributed to weak demand for new borrowing facilities, in particular for capital investment. However, these tighter terms and conditions undermines the amount of capital available for credit worthy businesses to fund longer-term investments (Bank of England, 2009). In February 2009, the flow of net lending to businesses was close to zero (Bank of England, 2009). The adverse effect has changed the climate for construction businesses in the UK (Rowson, 2009). Firms are faced with tough decisions to make in order to secure competitive advantage in the market.

According to Jonathan (2002), despite the wide range of funding options available to businesses – or perhaps because of it – decisions on which form of finance to introduce, or structure to adopt, are often taken reactively in response to short-term needs or what is on offer from bankers or other institutions currently supporting the company, and not in relation to longer-term strategy for growing shareholder value. During recovery, financial advisers should be able to add real value to the process by not only advising their clients on the best options, but also by negotiating the best terms, particularly on price and flexibility of debt and/or equity.

Briscoe (1988), asserts that a high number of small firms in the construction industry lead a precarious financial existence, especially when construction demand begins to decline. The need to maintain liquidity is crucial and therefore, the role of banks and financial institutions to make available credit and loans in working capital for the building firm is critical to ensuring the continuity of construction output. On the other hand, staying ‘active’ in the construction industry is not limited to the availability of working capital but also the ‘management’ of the company’s finances. All contractors – whether small, medium or large – need to know and understand the financial situation of their projects in order to recognise when things are going wrong and be able to take remedial action before it is too late. Rose and Williams (2013), assert that unfortunately, many contractors and subcontractors, especially the smaller ones, are simply not ‘in the loop’ when it comes to the financial aspects of their businesses. They assert that a healthy order book and a healthy bank balance is, sometimes, not the true picture of the

company's financial situation and when disaster strikes, it is more often than not, too late to react.

Construction, like any other business, needs funds to run. Firms need to act fast when company finance begins to shrink. Jonathan (2002) and Fordham (2012) reported that cash flow shortages, falling profits, failure to pay suppliers, delayed and /or reduced valuation certificates, progress of works slowing, insufficient resources deployed on the project, falling asset values, excessive borrowing, or even boardroom tensions are obvious signs of company financial difficulty but are often overlooked by management. When a company admits its situation and pulls the alarm of distress, then, the first thing to do is to try to stage a turnaround. "*Failure to act is failure to manage*" (Mayfair, 2015). If a turnaround is not possible, then the next step will be to try and salvage the company properties either by extracting a meagre return or limit and manage the loss and damage associated with it.

Liquidating assets should be the last resort after all options of potential recovery might have been considered? However, most managers find themselves in a situation where the desire to save the company is strong, but with no clear path or knowledge on how to do this. During a turnaround, management could decide to adopt a number of strategies. These include; negotiating with existing lenders, raising new equity or debt capital, disposal of assets, introducing new management, and informal agreements with creditors. If none or a combination of these strategies proves effective, management must begin to consider a formal insolvency procedure. However, no contractor wants to get to the point of insolvency. It is always hoped that the recovery is successful.

2.29 Corporate Turnaround Strategies

There are two broad types of turnaround strategies: Strategic and Operating. Strategic turnarounds can be divided into those that involve a change in the organization's strategy built around key skills in marketing, production, and process engineering (Pearse and Robbins, 2008; Hofer, 1980). On the other hand, Operating turnarounds do not involve changing the firm's business-level strategy, rather, it usually involves emphasis on: increasing revenues, decreasing costs, decreasing assets, or a combination of these (Hofer, 1980; Tikici et al., 2011). In most cases, strategic turnarounds are

almost always necessary Hofer (1980) states. This is because although achieving financial stabilization is an essential first objective of the turnaround process it does not establish whether a foundation for profitability exists or whether the company's long-term prospects are best served by continuing to implement its existent strategy with its reduced resources. More often than not, the reactive changes made during the decline signal the need for a dramatic change in direction (Pearse and Robbins, 2008). History of turnaround efforts does not advice continuing with the existing strategy on firm's eroded resources. Besides, the old strategy made the company vulnerable to the downturn in the first place.

Patterns of Decline and Turnaround

In 1973, Schendel, Ratton, and Riggs' work on fifty-four companies (spanning across forty different industries) examined the patterns of decline and turnaround and categorized the reasons (causes) for the declines and types of turnaround actions (responses) taken to correct them. See Table 2.10 below.

Table 2.10: Turnaround Strategies

<i>Strategic Causes</i>	<i>Strategic Responses</i>
Decreased Profit Margins Increased Wages Increased Competition Raw Material Supply Management Difficulties	Vertical Divestment Diversification Integration Top Management Changes
<i>Operating Causes</i>	<i>Operating Responses</i>
Depressed Price Levels Recessions Strikes and Labor Problems Excess Plant Capacity	Major Plant Expenditures Functional Area Emphasis Improved Efficiency Ratios

Source: Hofer (1980)

It is important to note that the researchers found that operating responses seldom cured strategic problems (Hofer, 1980).

The characteristics of turnaround differ from industry to industry because the success of a particular strategic option is dependent upon the type of industry. This is also true for countries (Bruton et al., 1997). According to O'neil (1986), drawing from the work of Porter (1980):

“In fragmented industries (like construction), cutback sub- strategies will be successful, while growth sub-strategies will not be successful. This prediction is based upon Porter’s analysis, which suggests that fragmented industries require competitors to exhibit cost control and strategic discipline while they seek to exploit a particular niche (a project for instance). Turnaround strategies, which are characterized by the cutback actions, will take advantage of this natural relationship, while growth strategies will diffuse the concentrated efforts of the firm.” This usually leads to an outrun of the firm’s finances (Zimmerman, 1989). *“In concentrated industries (like manufacturing), restructuring strategies are more likely to succeed. This prediction is also based upon Porter’s analysis, which draws a relationship between the experience curve effect and concentration: where there is concentration, there is an experience curve. Since the experience curve is a production phenomenon, turnaround in this type of industry will require restructuring the processes of production.”*

One of the oldest criticisms of the construction industry is its fragmented nature and therefore, the persistent call for integration in the industry (Latham, 1994; Egan, 1998). A characteristic of the construction industry is that no one party involved, possess all the experience on a project. It is a collection of experiences and knowledge with the purpose of achieving a goal – the project.

2.30 Rationale for a corporate turnaround

According to Altman (1993) the rationale for a turnaround program is; if a firm’s intrinsic economic value is greater than its current liquidation value, then the firm is advised to stage a recovery or reorganise and continue to trade. Hofer (1980) agrees with Altman. In a similar fashion, he asserts that *“before beginning a turnaround; make sure the going-concern value of the firm is substantially greater than its liquidation value.”* However, if the firm’s assets are worth more liquidated and the asset values are considerably lower than its economic value, then, liquidation is the preferred option. What this research is interested in is the recovery plan (if any) before it became apparent that the company was unsalvageable – the part where failure was predicted and plans were drawn to turnaround the firm.

2.30.1 Is the Company Worth Saving?

Assessing whether a company is worth saving or not, requires both quantitative and qualitative methods. The business-owner, investor or analyst can use the following; a combination of financial and qualitative methods, financial models and/or ratio to ascertain financial health, and assessing qualitatively, industry risks, industry

characteristics, firm's competitive position in the industry, strength of product, market share etcetera.

2.30.2 Assessing a firm's future health

Admittedly, most of the answers needed to make a satisfactory judgement on a company's financial health are not readily available to outsiders, investors, and external financial analysts (Kritsonis, 2005). Such questions, as the firm's long-term goals, competition, regulating guidelines, operations, efficiency of management etcetera, are not easily accessible to outsiders. The answers to these questions are only available to management or internal sources. However, financial ratio analysis can be used to assess a firm's future financial health. These ratios give the potential investor/analyst an insight into the firm's financial performance over the years. Managers or external financial analysts can use ratio analysis where other qualitative information about the company is not readily available. When assessing a firm's future health, it is important to think of the firm as a three-legged stool says Kritsonis (2005) – the legs being; operations, marketing, and finance/accounting. It is imperative for the leader, who is sitting on the stool, to balance the legs and keep the stool stable so as to sit comfortably. For management to achieve this balance, they need to assess the long-term financial health of the firm in its formation of its goals and strategies.

Kritsonis (2005) proposed a nine-step process for managers to use when assessing the long-term health of their firms. At **Step 1**, a thorough investigation of the firm's goals, strategies, operational characteristics and the symmetry between the three must be made.

Step 2 incorporates the firm's potential for future growth and market position in relation to its competitors. In other words, it is an assessment of a firm's potential to increase sales and revenue over the long-term.

“Heavily populated markets = lower margins”

Since construction is generally known to be a saturated industry with abnormally low margins, or negative earnings, not many lenders are keen on lending to contractors (Ross and Williams, 2013), especially not to the small contractor. These are the type of

firms that investors classify as “troubled” firms (. **Step 2** leads into **Step 4** where future growth is determined heavily by future profitability. Potential financial investors and of course management must ask several questions regarding volatility, competition, and sustainability. For example, in Table 2.11, Mayfair Capital Planning (2015) looks at five principal factors: the business as a whole, marketing, sales, management, and history; in their turnaround strategy while asking the following questions:

Table 2.11: Questions before a Turnaround decision

	Questions
1	What’s gone wrong and what effort needs to be implanted to correct the problem
2	What is the best and worst scenario
3	Does the business still have a viable product/service, is the USP still relevant and are the customers still willing to stay the distance
4	What is the current banking and financial structures
5	What would be the cost of re-structure and what are the elements of risk
6	Can a diversification take place
7	What are the personal liabilities of the shareholders
8	What would be the impact by introducing a lean management info structure
9	Are there potential economic international production markets
10	How strong is the Brand
11	Where can a risk reduction strategy be performed
12	‘Lifting the stones’ to see underneath will reduce the risk of unwanted surprises
13	What, if any, are the clauses in supplier contracts
14	What are the customers thinking
15	Do the declared assets still exist and are they unencumbered

Source: Mayfair (2015)

Step 3 examines the current spend or investment in support of the firm’s product-market strategy. For example investments in; account receivables, inventories equipment, or possible acquisitions. **Step 5** is assessing the firm’s future external financial needs depend heavily on the firm’s future sales growth, length of cash cycle, future profitability, and profit retention. In Figure 2.4, Eccles et al, (1999) shows flow of funds and the different financial intermediaries available to individuals and overseas investors.

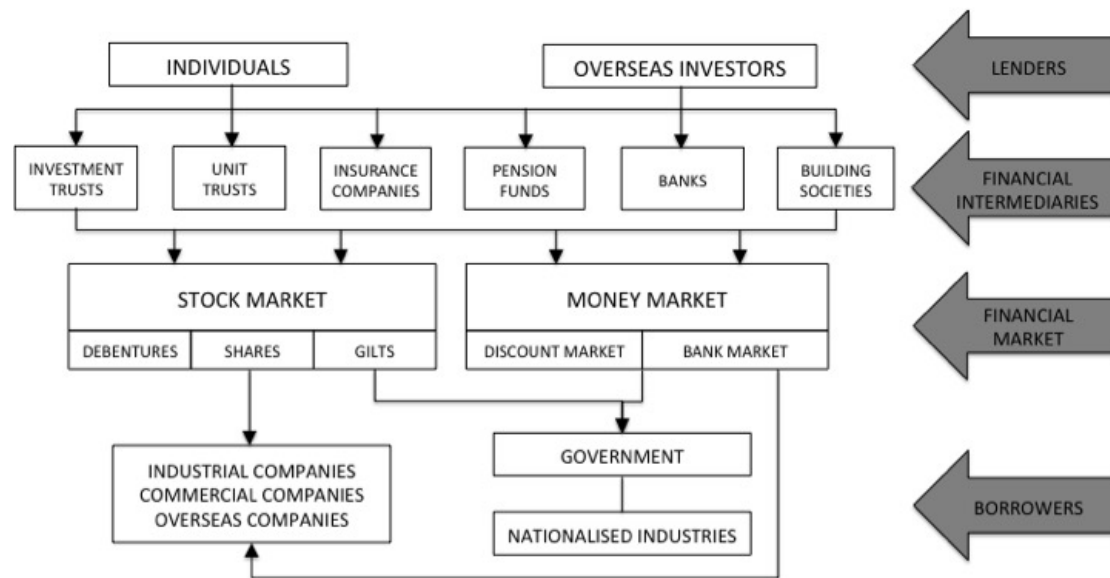


Figure 2.4: Financial intermediaries and the flow of funds (Eccles et al, 1999)

Step 6 illustrates that knowing, or having access to sources of external financing is equally as important as knowing the financing needs and having sound financial policies to secure the funds on acceptable terms. A company must be able to make itself attractive enough to draw the attention of lenders so that the latter is convinced, despite the industry, that its interest will be protected. **Step 7** requires assessing the viability of the firm's 3 to 5 year plan, and determining if the firm's mix of debt and equity (capital structure) is compliant with the firm's debt policy and/or assessing whether the firm's investment needs, product strategies, and goals are in line with the firm's financing capabilities over the said period. **Step 8** dwells on evaluating the firm's plans on meeting the current year's financial needs. Finally **Step 9** involves stress tests. That is, putting the firm under different scenarios of adversity to see how it does. The three to five year plan is tested to see if the flow of funds to strategic programs can be maintained in times of adversity.

2.31 Corporate Turnaround Frameworks

There are several works on corporate turnaround. Most of which this research has found to be generic in nature, nonetheless useful. To mention a few: Kirk (2008) enacts three simple blocks for any company looking to return to financial health (see Figure 2.5 below). First, ensure sufficient short-term liquidity by new borrowing or selling off assets. Second, reduce long-term gearing by the same mechanisms above or by

converting debt to equity through negotiations with creditors. And lastly, increase profitable growth in excess of funding costs. All three are sequential and work on a time line. This is illustrated in the diagram below:

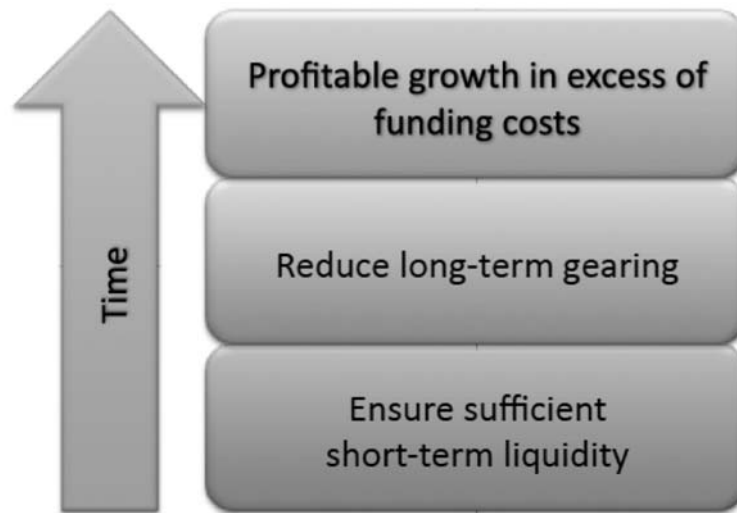


Figure 2.5: The evolving focus areas of a turnaround strategy over time (Source; Kirk, 2008)

In Figure 2.6, Balgobin and Pandit (2001) postulated a turnaround framework based on five stages that exist independently but also overlap. The stages include, decline and crises, triggers for change, recovery strategy formulation, retrenchment and stabilization, and return to growth. On the other hand, Bruton et al. (1997) put forward a corporate turnaround success model showing, not stages but ‘actions’ taken during a turnaround. These actions include; recognition of the decline, retrenchment, matching turnaround solutions and problems, CEO replacement and speed. Looking at Bruton et al.’s (1997), these actions can be reduced to three; decline, retrenchment, and matching turnaround solutions and problems; where ‘speed’ does not count as an action but represent the nature in which the actions are taken. CEO replacement can also go under solutions and problems.

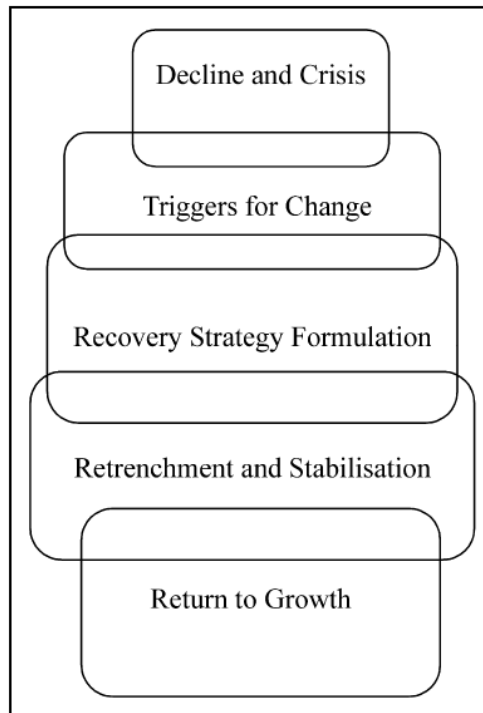


Figure 2.6: Turnaround Stages (source; Balgobin and Pandit, 2001)

For example, if poor management were one of the problems, then a change in management would be the recommended solution. Therefore, Bruton's model easily dissolves into Balgobin and Pandit's five-stage model. Similarly, in Figure 2.7, Chakraborty and Dixit, (1992) proposed a framework for developing a turnaround strategy, the first step being, recognising the problem with an objective of deciding whether a turnaround is needed or not. The next step is financial analysis of the company's account books in order to identify those ratios that have shown decline. Common ratios analysed at this stage are: liquidity ratios, leverage ratios, profitability ratios, solvency ratios, and activity ratios. The results of the financial analysis are then used to propose hypothesis of the cause of decline. A SWOT analysis of the environment is done in order to validate the hypothesis and finally the strategy is drawn from the results. Chakraborty and Dixit, (1992) captures essential turnaround actions that must not be ignored such as financial and environmental analysis. However, a comparison of the framework with that of Balgobin and Pandit, (2001) it is quickly seen that Chakraborty and Dixit's framework ends at the 'recovery strategy formulation' stage of Balgobin and Pandit's framework which goes on to mention specific actions to be taken at the succeeding stages – Retrenchment and Stabilization, and Return to growth. Also, the limitation of the model, which Chakraborty also acknowledges is the

fact that the model was structured around quantitative parameters. Although, there's a good chance it would be applicable on qualitative parameters such as leadership style, culture of the organization, company atmosphere, etc.

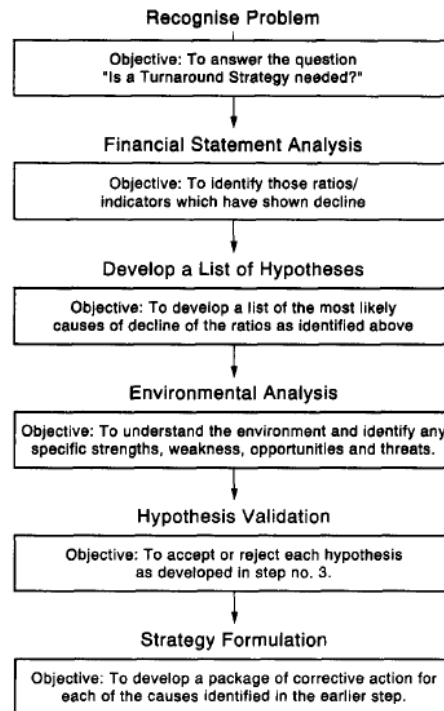


Figure 2.7: The process of developing a turnaround strategy (Source; Chakraborty and Dixit, 1992)

It is important to note that the absence of Balgobin and Pandit's (2001) stages four and five within the Chakraborty and Dixit, (1992) framework, does not make it inferior because once the right strategy is put in place and implemented correctly, the company will definitely achieve a successful turnaround. It is also evident that the models discussed above are limited because they are not specific to any organisation and therefore, specific industry turnaround actions or strategies are not mentioned. This thesis is interested in construction business recovery strategies.

Furthermore, in Figure 2.8 Chakravarthy (1996) argues that models of corporate transformation typically distinguish a sequence of three stages: Restructuring, Revitalization, and Renewal. He states that the first stage, a stage he calls the 'awakening' or 'simplification' stage is more relevant to underperforming firms. This is where all the cutback and elimination of waste happens. Once the firm reaches a

minimum threshold of profitability in-keeping with its peer group, the next stage is revitalization. Here, company strategies are rejuvenated and core competencies are renewed. The last stage also known as ‘Corporate Nirvana’ is called the Renewal stage. It embodies aspects of both restructuring and revitalization. At this stage, the company continuous to eliminate waste, building and sharing new capabilities, while rejuvenating its strategies. Chakravarthy (1996) asserts that firms seldom reach the last stage.

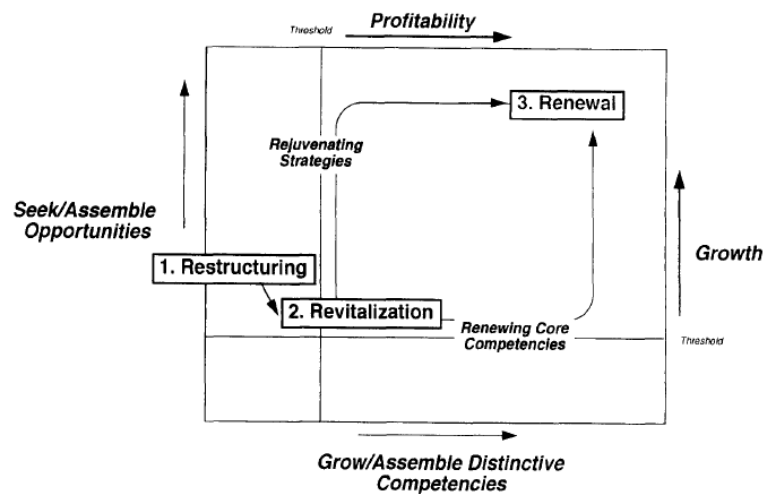


Figure 2.8: A multistage model of corporate transformation (source; Chakravarthy, 1996)

Other corporate turnaround models are relatively simplistic in nature with ‘decline’ as the first stage, followed by a ‘critical phase’ (Gopinath, 1991) where a response strategy can be initiated and implemented (Sheppard and Chowdhury, 2005), and finally, the ‘outcome’; turnaround or failure as shown in Figures 2.9 and 2.10. Almost all turnaround models collapse under these three stages.

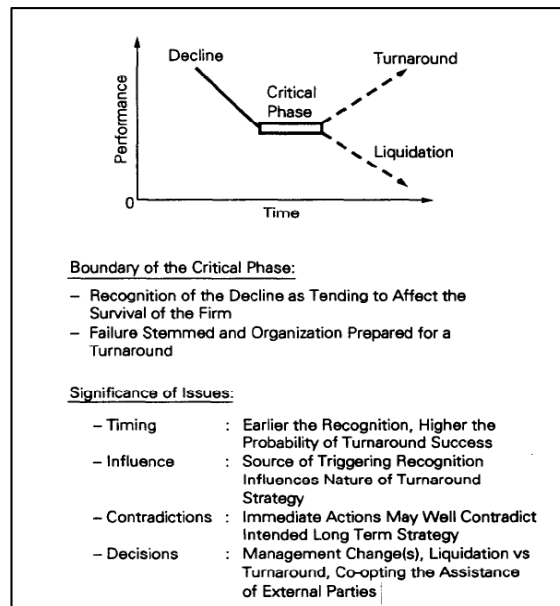


Figure 2.9: The critical phase (source: Gopinath, 1991)

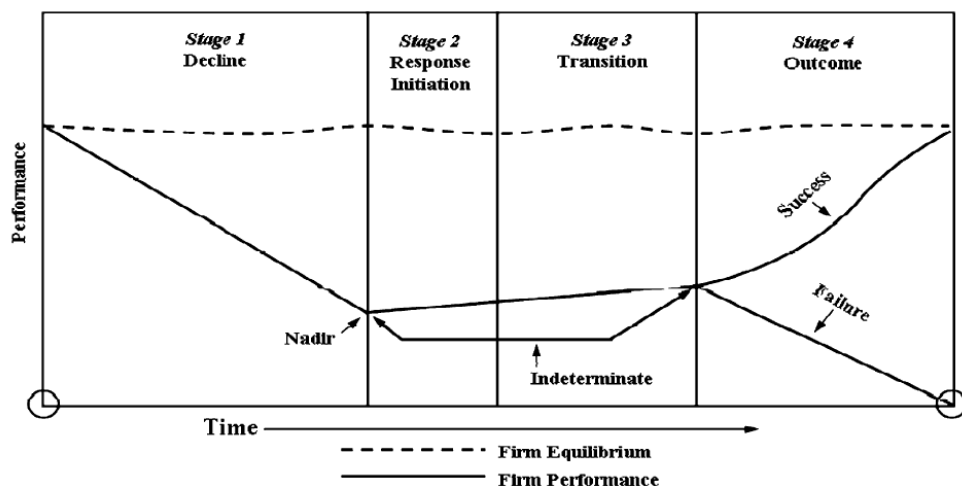


Figure 2.10: The Failure/Turnaround Process (Source; Sheppard and Chowdhury, 2005)

According to Sheppard and Chowdhury, (2005), the decline stage is as a result of previous misalignments of organizational strategies with environmental challenges. This creates a downward shift in performance that starts from firm or industry equilibrium and drops until it reaches a nadir. The Nadir is also known as the ‘critical stage’ (Gopinath, 1991). Management is then prompted to put in place corrective measures, in other words, response initiation, which constitutes the second stage of the turnaround. The most intricate of the stages is the period of transition – the third stage.

Here, there is a complex interplay between strategy, structure, culture, technology, and human variables. *“This interplay needs investment in people and systems to link together all disparate activities of the firm* (Sheppard and Chowdhury, 2005). The work of Stone, (2012); Collins (2001); Collins and Porras (1997); Zimmerman, (1986) and (1989); Chakravarthy, (1996); Balgobin, (2001); along with works of other authors in this field all confirm this statement. The fourth stage shows the outcome – success or failure. In Figure 2.11, Sheppard and Chowdhury’s (2005) model, each of the four stages also has sub-elements that are said to be critical: incident, event, and concept. Again, both Gopinath (1991) and Sheppard and Chowdhury’s, (2005) models are very generic and do not outline strategies necessary for construction business recovery.

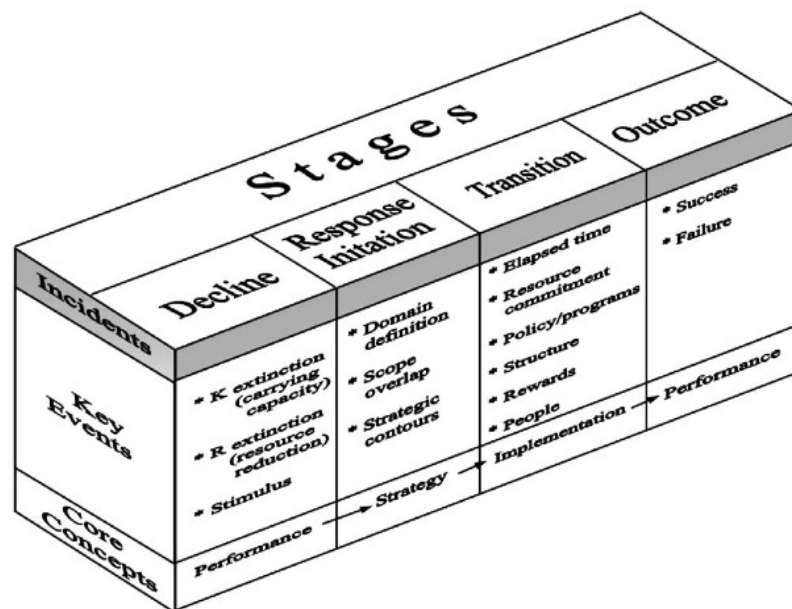


Figure 2.11: Turnaround process (Source: Sheppard and Chowdhury, 2005)

Zimmerman (1989) on the other hand went a little further to push the boundaries of a generic turnaround process. His research showed that; a low cost production, product differentiation and the appropriate leadership (turnaround organisation) will most certainly lead to a successful turnaround (See Figure 2.12 below). Zimmerman’s work was based on the analysis of 15 turnaround cases in the agricultural equipment and automotive industries; 8 successful turnaround and 7 unsuccessful turnaround. He found that successful turnarounds exhibited much better performance as low-cost producers than the unsuccessful companies and that while both successful and unsuccessful companies reduced cost as revenue declined, the successful companies

stayed with their cost reduction programs longer until costs were more comfortably below the current revenue levels. The unsuccessful companies were more inclined to permit expenses to stabilize or increase when profits were still very low or even negative.

Zimmerman's second finding was that the successful turnarounds brought differentiated products to market and the unsuccessful turnarounds did not. New products were developed; to have more appealing features to the customer, to have better performance and higher quality than previous models, older versions were incrementally improved to produce more differentiated new products. It was also found that the successful turnaround launched twice as many innovative new products to the market as compared to the unsuccessful turnaround. Throwing quality, well-thought and researched products at customers to see which will stick. This wisdom is not new. It even stems far back to biblical ecclesiastical days. From the sayings of King Solomon "invest in seven ventures, yes, in eight; you do not know what disaster may come upon the land" (Ecclesiastes, 11:2).

The third and last finding by Zimmerman emphasizes the role of leadership in turnarounds. He found that the people that headed the successful-turnaround companies had extensive experience in the industry being served while people from other industries often headed the unsuccessful-turnarounds. This finding has an uncanny coincidence with the work of Jim Collins with his 'level 5 leadership' concept. However, it is important to note that while Zimmerman (1989) and Collins (2001) agree on having the appropriate leadership for a successful turnaround, they disagree on Turnaround Company's approach to its production line. Zimmerman is an advocate of product differentiation while Collins promotes the 'hedgehog concept' where a company's focus is streamlined to a few products (one or two).

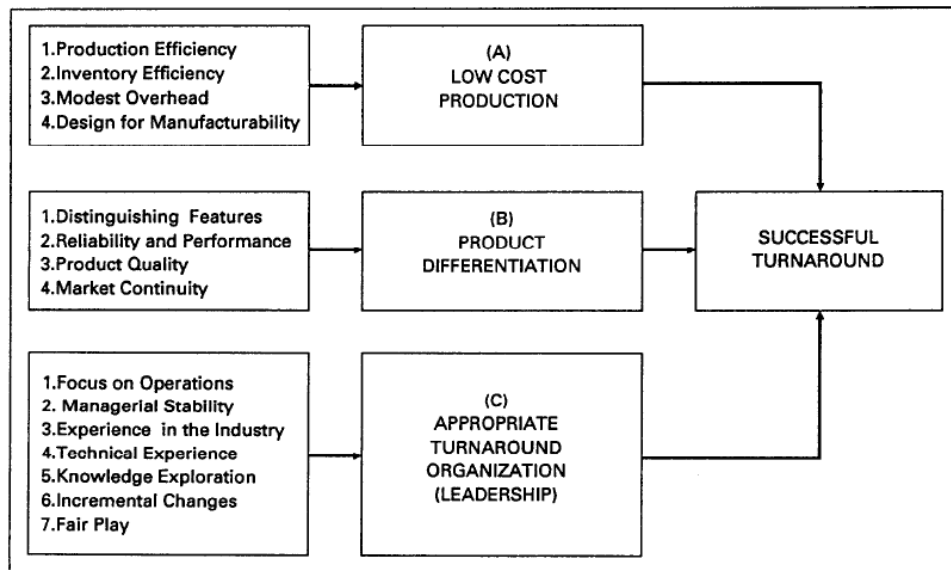


Figure 2.12: The successful turnaround process (Source; Zimmerman, 1989)

According to Collins (2001), the company must focus on three intersecting circles; what it is deeply passionate about, what drives its economic engine is, and what it can be the best in the world at. Jim Collins, the author of “*Good-to-Great*” and co-author of “*Built to last*” supported by a team of 20 took on a five year project to find how to turn a *good organisation* into one that produces sustained *great results*. By the end of the research, he and his team came up with the ultimate “flywheel” (Figure 2.13). This is a framework of concepts broken into three broad stages: disciplined people, disciplined thought, and disciplined action; within each concept, are two key concepts. From a critical view, it seems that accountability is the core of these principles. Jim Collins and his team found that these three concepts help make the transition successful. A similar concept is that pioneered by Vital Factors Solutions in the United States who believes in four principles; a commitment to accountability, communication, effective decision-making and problem solving. With accountability and culture of transparency in communication, it was easy to identify problems and address them.

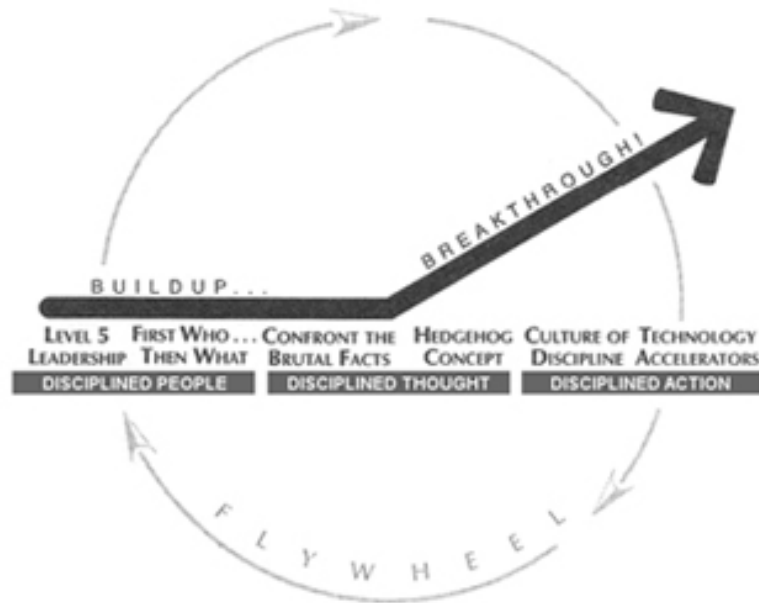


Figure 2.13: Good-to-great ultimate flywheel (Collins, 2001)

When discussing his *Flywheel and Doom Loop* concepts, Jim Collins concludes; “*those who launch revolutions, dramatic change programs, and wrenching restructurings will almost certainly fail to make the leap from good to great.*” This maybe true for companies not in distress, the so-called ‘good’ companies trying to achieve greatness. But for a failing company facing bankruptcy, it is almost certain that a recovery plan will be drawn, a dramatic change program will be set up and restructurings are likely to happen to ensure survival. However, this research agrees with Jim Collins on the point that “no single defining action, no grand program, no one killer innovation, no solitary lucky break, no miracle moment,” can get a company from good to great. Rather, it is a “process of relentlessly pushing a giant heavy flywheel in one direction, turn upon turn, building momentum until a point of breakthrough and beyond.”

The major differences between the good-to-great research and this research is; the companies here are facing failure. Therefore, they are not comfortable. There is urgency. Also, the level of pressure at the time of transition and the conscious effort to make a change is different. This means that there is a plan and a program with transformation targets. In Collin’s research, one of their major findings was that the good-to-great companies had no; tag line, launch events, or program to signify their transformation process. In order words, they did not consciously adopt a revolutionary process of

moving from good-to-great. Whereas, a company in distress is more likely to take conscious and programmed steps to ensure survival. A recurring theme among professionals in the construction sector is that the sector is a very unstable one compared to other sectors of the economy – very volatile. Hence it's a bad sector – the black sheep of all sectors. However, according to Jim Collins, a company does not have to be in a good industry to do well.

Another turn-around framework, but this time, for construction, is one used by the Construction business recovery team at Davis Langdon (Figure 2.14). However, this is project focused. They use this flowchart as a guide during CBR process. This is quite useful to this research as project distress can lead to corporate distress and vice versa.

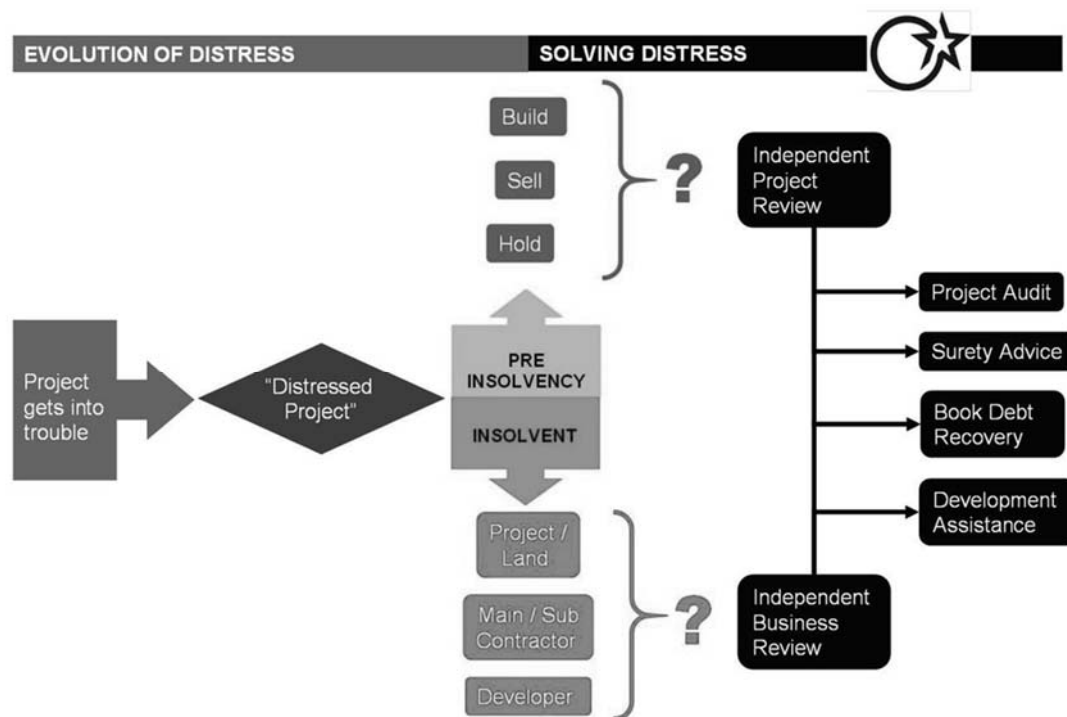


Figure 2.14: Distress Project Assessment (Langdon, 2008)

The above framework is useful but there are limitations, as it does not cover the whole process of transition. However, it is a good reference in this research.

2.32 Failure Prediction models

Failure predictive tools can be very useful at the point of turnaround. Corporate failure prediction models can be categorized into quantitative and qualitative models. *Quantitative* is based largely on financial information retrieved from the balance sheet and income statements; while *Qualitative* are based mostly on the internal assessment of the company (ACCA, 2008).

According to the ACCA (2008), quantitative models use financial ratios with potency to discriminate between surviving and failing firms and which can then be used to predict the future of companies who exhibit similar features. Commonly accepted financial indicators of impending failure include:

- Poor liquidity
- High gearing
- Low profitability related to assets and commitments
- Low equity returns, both dividend and capital
- High variability of income

Many researchers such as Aasen, (2011), Tinoco and Wilson (2013), Kirk, (2008), Kumar and Rao (2013) etcetera, affirm that predicting firm's bankruptcy or financial distress from the financial statement history is an important problem studied widely by researchers. Among these, the Altman's Z-score is the most popular and widely accepted metric for predicting the bankruptcy (Kirk, 2008; Aasen, 2011; Kumar and Rao, 2014). The popularity of Z-score may be attributed to its simplicity in computation and ease in its application (Tinoco and Wilson, 2013; Kirk, 2008). To mention a few quantitative models, the history of corporate failure predictive models started with William Beaver (1966). His model was based on a univariate approach; meaning, single ratios were classified separately. But this posed a number of problems. Altman (1968) came along with a multivariate approach called the 'multiple discriminant analysis' (MDA), which combined multiple ratios to give a single discriminant score termed as the Z-score, and summarizes a company's financial health. In the UK, Tiffler and Tishaw (1977) adopted Altman's (1968) MDA approach combining four ratios (as opposed to Altman's five) to produce a Z value. This they later improved upon with the development of the Performance Analysis Score (PAS). Altman also went on further to

develop the ZETA model in the attempt to address the problem of the assumption regarding the normal distribution of ratios (ACCA, 2008).

On the other hand qualitative models are developed based on the premise that financial indicators are limited in their predictability of failure. That there are other obvious but obscure (non-financial) variables involved as well. An example is leadership. According to the ACCA (2008), a strong suggestion has been made that the ultimate reason for business failure is poor leadership. This is echoed by the words of Brian Tracy, “Leadership is the most important single factor in determining business success or failure in our competitive, turbulent, fast-moving economy.” Now, if this is true, leadership must be looked at very carefully. An example of qualitative prediction model is the A-Score model developed by Argenti in 1976, which suggest that the failure process follows a predictable sequence: ‘defects’, then, ‘mistakes made’, and lastly, ‘symptoms of failure’ (ACCA, 2008).

An interesting but rather significant finding is that most financial literature classify financial ratios under ‘liquidity’, ‘profitability’, ‘leverage’, ‘solvency’, and ‘turnover’ which Altman also subscribed to when developing the Z-score (Altman, 1968, 1993; Ezzamel et al, 1987; Clayman et al, 2012). That is why this research has chosen to adopt the Altman’s Z-score above the other failure prediction models. Ross and Williams (2013) the authors of ‘Financial Management in Construction Contracting’ also endorse the use of Altman’s Z-score for construction companies.

2.33 Altman Z-Score Model

Altman Z-score model as already mentioned, is a tool that uses a combination of financial ratios and a statistical technique known as discriminant analysis to assess the likelihood that a firm would go bankrupt or not with a 96% accuracy (Altman, 2000; Altman and La Fleur, 1984). Altman’s Z-Score models have become a popular and widely accepted measure of financial distress (Kirk, 2008; Aasen, 2011; Tinoco and Wilson, 2013; Kumar and Rao, 2014; GuruFocus, 2011; CI, 2012). The Z-Score models are also used to predict corporate defaults. According to Aasen (2011),

“The financial crisis forms the basis for testing the robustness and applicability of the Z-Scores, as one in retrospective can compare the predictions of the models to actual events. This is an appealing approach, as it dwells in the intersection of theory and real life.”

The model combines five financial ratios – equity/debt, capital/assets, sales/assets, earnings/assets, and retained earnings/assets, to objectively arrive at an overall measure of corporate health, a single index called the “Z-score” or the “distress score” (Alfan and Zakaria, 2013). Altman used a sample of 66 publicly held manufacturing companies to develop the original Z-Score. Half of which were bankrupt firms chosen from 1946 through 1965, and the other half were randomly selected non-bankrupt companies chosen from the same time period. The asset size of the companies ranged from \$1 million to \$25 million (Altman 2000). Altman found that 96% of the bankrupt firms were correctly classified as bankrupt, while 79% of the non-bankrupt firms were correctly classified as non-bankrupt. Three other subsequent tests of bankruptcy potency of the Z-score applied on companies chosen between 1969 and 1999 showed that the Z-Score was 80-90% accurate in predicting bankruptcy one year prior to the event.

Altman’s results suggests that the Z-Score is an accurate forecaster of bankruptcy up to two years prior to distress and that accuracy diminishes substantially as the lead time increases (Aasen, 2011; Altman, 2000). According to Kirk (2008) and Aesen (2011) the Z-Score model has retained its high accuracy and is still quite robust despite being developed over 40 years ago. Over the years, the Z-Score model has become a popular tool among analysts, as it has proved to be one of the best statistical models for determining the health of companies and estimating the likelihood of bankruptcy within 1 to 2 years (Tinoco and Wilson, 2013; Kumar and Rao, 2014).

According to Altman (1993), because all the financial variables, except for net worth, is divided by total assets, it therefore means that, inherent in the Z-score is the underlying message that underutilised assets could have detrimental effect to a company’s deteriorating financial health. The Z-score model for public manufacturing firms is shown below.

$$\text{Model (1)} \quad - \quad Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

$Z' < 1.81$ – Bankrupt group (Failing Zone)

$Z' > 2.67$ – Non-bankrupt (Healthy)

Z' between 1.81 to 2.67 – Grey area

Where:

Z = overall index of corporate health;

X_1 = working capital/total assets;

X_2 = retained earnings/total assets;

X_3 = earnings before interests and taxes/total assets;

X_4 = market value of equity/ total liability or book value of equity/total liabilities;

X_5 = sales/total assets.

Ratios

Working Capital/Total Assets (WC/TA): This ratio is a measure of the net liquid assets of the firm relative to the total capitalization. Working capital is the difference between current assets and current liabilities and therefore, measures a company's efficiency and short-term financial health. A negative working capital indicates that a company may not be able to pay its short-term financial obligations and may ultimately lead to bankruptcy if the problem persists. In this ratio, the size and liquidity position of the company are explicitly considered (Altman, 1993).

Retained Earnings/Total Assets (RE/TA): This ratio is used as a measure the extent to which the company relies on debt or leverage (CI, 2012). Retained earnings are the amount of net earnings not paid out to shareholders as dividend but 'retained' in the company to be reinvested or used to pay off debt. This ratio is also used to measure cumulative profitability over time and accounts for the total amount of reinvested earnings and/or losses of a firm over time (Altman, 1993).

Earnings before Interest and Taxes/Total Assets (EBIT/TA): is a very good ratio in measuring a firm's productivity or ability to generate profit from its assets before deducting interest and tax (CI, 2012) – since a firm's ultimate existence is based on the earning power of its assets.

Market value of equity/Book Value to Total Liabilities (MVE/TL or BVE/TL): This ratio measures the solvency of the company. It shows how much the firm's assets can decline in value before the liabilities exceed the assets and the firm becomes insolvent – the higher the ratio, the better. Altman explains: “*Equity is measured by the combined market value of all shares of stock, preferred and common, while liabilities include both current and long term... For example, a company with market value of its equity of \$1000 and debt of \$500 could experience a two-thirds drop in asset value before insolvency. However, the same firm with \$250 equity will be insolvent if assets drop only one-third in value.*”

Sales (Turnover)/Total Asset (S/TA): measures a firm's efficiency at using its assets in generating sales or revenue.

However, with time, Altman was asked whether the Z-score could be modified to apply to private manufacturing firms since X_4 requires stock price data, which private firms do not have (Coelho, 2014; Altman, 2005). But the Z-score model is a publicly traded firm model and *ad hoc* adjustments are not scientifically valid (Altman, 1993). Therefore Altman revised the original model to produce a new model for privately trading manufacturing firms. Amongst other adjustments, like changing all the coefficients, Altman substituted the ‘market value of equity’ for ‘book value of equity’ in X_4 . By implication, the cut-off scores also changed. It is important to point out that Altman concluded that the revised model was probably slightly less reliable than the original model but “*only slightly less*”. His assessment was largely due to the wider margin of ‘grey area’ (or ignorance zone) in the revised model than in the original model. The Z-score model for private manufacturing firms is shown below.

$$\text{Model (2)} \quad - \quad Z = 0.717X_1 + 0.847X_2 + 3.107X_3 + 0.420X_4 + 0.998X_5$$

$Z' < 1.23$ – Bankrupt group (Failing Zone)

$Z' > 2.90$ – Non-bankrupt (Healthy)

Z' between 1.23 to 2.90 – Grey area

To minimize industry effect, Altman decided to (1) exclude asset turnover (X_5 variable) because of its sensitivity to industry conditions (Altman, 1993; Altman, 2000). Also, increased turnover does not always mean financial health and firm stability. (2) adopt the book value of equity for X_4 , which became suitable for the services and non-manufacturing industries (Altman, 2000).

$$\text{Model (3)} \quad - \quad Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$

$Z' < 1.10$ – Bankrupt group (Failing Zone)

$Z' > 2.60$ – Non-bankrupt (Healthy)

Z' between 1.10 to 2.60 – Grey area

Model (3) show that all firms with a Z-score below 1.10 are in danger of bankruptcy also called failing firms. Firms that score above 2.60 are classified as healthy and would remain in business. Scores between 1.10 and 2.60 are classified into a grey area, which indicates less clearly the firms' ultimate fate. In other words, firms with a $Z' < 1.10$ are those facing imminent failure; those with $Z' > 2.60$ are safe; while those firms with Z' between 1.10 and 2.60 are in the grey area. The percentage error in the Altman Z-score is responsible for firms classified in the 'grey area' – which is between 3% and 6% error value.

In order to adopt one of Altman's Z-Score models, the industry and nature of the industry must be considered, since this thesis intends to utilize Altman Z-score model to collect a list of potential best-fit construction companies that will form the sample study.

According to Afori (1990), it is important to identify the part of the economy to which the construction industry belongs since policies and programmes are often formulated for multi-industry sectors. Based on his definition, Afori asserts that the construction industry assembles what other sectors of the economy produce. Therefore, it appears to be a services industry. He added that there is a lack of agreement about the precise definition of services and, hence, the activities which belong to that sector of the economy. Channon (1978) also considered construction to be one of the services industries in his analysis of the evolving structure of the UK economy.

The World Trade Organization (WTO) defined the construction industry under the services industry. It states:

“Construction and related engineering services includes construction work for buildings and civil engineering, installation and assembly work, building completion and finishing work. Architectural and engineering services are classified as part of “professional services”

However, not all economists categorize construction in the services sector. For example, Browning and Singleman (1975) included the construction industry, food, metal, textile and various forms of manufacturing in the “transformative” sector. They classified “engineering and architectural services” with banking, insurance, accounting and other business services in “producer services”. In addition, Turin (1980) challenged the issue of the consideration of construction as a service industry.

Notwithstanding, some classical economists such as Fourastie (1949) have classified construction among the services industries (Schettkat and Yocarini, 2003). The construction industry, according to Afori (1990), produces tangible items and has a number of features, which characterized it under the services sector of the economy:

- 1) In general, its products, though tangible, cannot be resold on their completion by those involved in their design and erection because they are mainly undertaken for particular clients;
- 2) The industry provides the managerial skills that convert a variety of discrete materials and components into a building or works: this expertise cannot be bargained or sold again once it has been committed or used;
- 3) Its products cannot be transported or sorted;
- 4) It is very labor-intensive and since its products are not standardized, it does not have the advantages or economies of scale: there are several small companies and self-employed persons; and
- 5) The service offered differs from one client to another and cannot be readily defined in terms of extent or quality: its nature depends on a direct relationship between the client and the design and construction teams and thus, a better informed client is likely to get a better and/or cheaper service.

Furthermore, Afori (1990) added that the service nature of construction is evident when its export potential is considered. The immobility of construction items means that only managerial and technical skills, and some materials and equipment can be transferred from one country to another. The considerations of the construction enterprises wishing to operate overseas, and the implications for government policy, would be similar to those relating to organizations in the services sector.

Construction is a services industry. Therefore, in this research, Altman's Z-Score model for non-manufacturers and services industry – Model (3); will be used. Because it suits the purpose of this study since the model covers services industries of which construction is one (Afori, 1990).

Using Altman's Z-score model, this research will assess purposefully selected construction SMEs to see their financial performance over the last ten to fifteen years. The Z-score will show times of growth and times of decline. However, what will be most important for this research are the companies that show some form of decline and recovery within its last ten to fifteen trading years i.e. a Z-score dropping below 1.10 and recovering greater than or equal to 2.60. However, construction companies are generally known to have low Z-Scores (Alfan and Zakaria, 2013), therefore, those companies classified under the "Grey Zone"; that is, between 1.10 and 2.60, will also be considered as recovered or turnaround firms provided that the company recovered from a significantly low (negative) Z-score).

2.34 Criticism, Credibility and Validity of the Altman's Z-score

The Altman Z-score model is one of the most revered bankruptcy prediction software in the investment world mainly because it works (Aasen, 2011; Tinoco and Wilson, 2013; Kumar and Rao, 2014). It is especially famous amongst financial analysts and bloggers (GuruFocus, 2011; CI, 2012). It is important to note that no financial analysis technique is flawless, and if so, the Z-score is not perfect either. Although, the models have proven to be a reliable tool for predicting corporate failures in a broad variety of contexts and markets, however, it should be noted that the Z-Score is not valid in every situation. As such, the models have drawn several objections over the years.

One objection to the Z-score is; how relevant is it today given the samples used by Altman are small sized firms from many decades ago? Altman used data from relatively small firms with total asset values ranging between \$1 million and \$25 million. Thus, the objection is that the Z-score would not be appropriate for firms with total assets values less than \$1 million or those with assets greater than \$25 million, since they may have different ratios than larger firms. Another critique is that the Z-Score models are generally not appropriate for small corporations with little or no earnings. However, Altman has tested the accuracy of the original Z-score model on companies selected regardless of their asset size and it appears to be sufficiently robust to handle large companies (Altman, 2000; Aasen, 2011). Financial ratios, by their very nature, have the effect of deflating statistics by size, and that therefore a good deal of the size effect is eliminated (Altman 2000). Thus, the original Z-Score model should be applicable on firms with less than \$1 million or more than \$25 million in total assets. In addition, the model for non-manufacturers is based on companies with total assets averaging approximately \$100 million (Altman, 2000; Altman, 2005)

Another problem is that the accuracy of the Z-score is completely dependent on the quality of the underlying financial statement data (Kirk, 2008; Kumar and Rao, 2014). CI (2012) puts it this way: *“If a company is “cooking the books,” its financial statement data is not a true representation of the strength (or lack thereof) of the company. Remember that the Z-Score is only as good as the data that goes into it (“garbage in, garbage out”).”* It is therefore important that the analyst or investor is confident on the reliability of the financial statement he or she is analysing. According to Altman (2000), the retained earnings account, for example, is subject to manipulation via corporate quasi-reorganisations and stock dividend declarations, which may be biased. Due to this vulnerability in manipulations in accounting data, Altman and Edith (2006), advice that the model should not be applied to financial firms because of their frequent use of off balance sheet items. Also, because the ‘market value of equity’ is substituted by the ‘book value’ in Model (2) and (3), these models will not pick up bankruptcies caused by factors other than those that show up on the balance sheet, like unexpected business disruptions for instance. This makes the Z’’-Score especially vulnerable to potential manipulation of accounting data, as it is unadjusted (Aasen, 2011). However, even

though these manipulations are a possibility, Kumar and Rao (2014), state, “the weights used by Altman are still prevalent.”

Also, because of changes in stock market prices over time, the results of the original Z-score may vary over time. Therefore, the original Z-score will tend to reflect higher outcomes when the stock prices are relatively high than when prices are low (Kumar and Rao, 2014). This is not a problem to consider in this research because the research is making use of the formula for services industries (Model 3), which uses ‘book value of equity’ instead of ‘market value’ (stock prices).

Despite these concerns, Aasen (2011) states that the Z-Score models are still among the best known and widely used measures of financial distress. The model has proven to be an important tool that helps analyse corporate health and/or the possibility of bankruptcy. In order to strengthen and verify the results, the models can be supplemented with other analytical tools. Lastly, Kirk (2008), a known critic of the Z-score, answers the question of whether the Z-score is still relevant today. He comments that the “*seemingly immortal Z-score*” is still very much in use 40 years after its creation in 1968. The Z-score is still relevant today simply because “*it works*” (Kirk, 2008).

2.35 A tool for recovery

Most companies, more often than not, fall prey to the growth fever (overaggressive policies of expansion), by implication, more debt. A typical case in the UK construction industry is ROK. According to Altman and La Fleur (1984), most people measure turnaround by looking at profits on sales or return on investment (ROI) figures. Top management has to look at the whole picture they say; sales, capital, earnings, the soundness of product, the process of production, marketing, organizational structure, and so on; in order to make informed decisions. However, it is important to know what the financial numbers are and how management can adjust them to return to financial health. A recommended method (proactive approach) is to use bankruptcy predictors that have stood the test of time and work it backwards. Altman and La Fleur (1984) advocate the logic of manipulating the individual ratios as a turnaround measure. GuruFocus (2011) states:

“Personally, I think the applicability of the model extends beyond the output and (as a corollary) the “zone” the firm falls into. I believe that by breaking down the model into its individual parts, you are given a picture of what is creating the financial distress at the company (if any); when you chart the results over a couple of quarters/years, you are also given a timeline of how the variables have transformed over time. With these pieces in hand, you can assess how the firm must adjust their capital structure or operating results to continue as a going concern.”

Another analyst writes (Jun, 2015):

“Think of each part of the Altman Z formula as its own separate ratio and you can see that it is indeed useful in what it tells you about the business you are looking at.”

Altman and LaFleur (1984) suggest the “proactive approach” to the use of the Z-score or other appropriate predictive models. This model has proven to be effective and is able to give one to two years early warning of impending failure. Companies owners, managers, bankers, creditors and analysts will particularly benefit from knowing in advance the status of their establishment in a couple of years to come, so they can act proactively.

Kirk (2008) is one of the analysts who criticise the use of the Z-score in all and every situation especially in a turnaround situation. While admitting the usefulness and relevance of the Z-Score in predicting financial strength, he asserts that the “Z-Score may not necessarily be a good tool for management to use in a turnaround scenario.” According to Kirk, setting the Z-Score as a target for management to work towards is counter intuitive because targeting the Z-Score can cause biases that make the Z-Score itself a poorer measure of financial strength. In Table 2.12, Kirk (2008) compares the Z-score to standard practice. There he asserts that using the Z-Score to guide decisions does not suggest any actions different from a simpler turnaround model, which suggests that a company: ensure sufficient short-term liquidity, reduce long-term gearing, and increase profitable growth in excess of funding costs; in order to turnaround.

Table 2.12: Comparison of Z-score against standard practice

Financial variable	Ratio	“X”	Suggested actions	Link to standard practice
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Working Capital / Total Assets	Increase immediate liquidity to ensure obligations can be met when they fall due.	<ul style="list-style-type: none"> • Increase liquid assets • Shift short-term debt to long-term debt • Negotiate better terms with customers and suppliers • Halt unnecessary expenditure to conserve cash
Retained Earnings / Total Assets	Generate strong earnings on a consistent basis with limited dividend pay-outs.	<ul style="list-style-type: none"> • Decrease gearing through reduced dividend pay-outs • Increase earnings through repayment of debt and thus reducing on-going interest expenses • Pursue profitable product lines to improve long-term earnings growth
EBIT / Total Assets	Increase return on assets	<ul style="list-style-type: none"> • Pursue opportunities with high return on assets. • Stop activities with a low return on assets and use the cash to repay debt, decreasing gearing and boosting return on assets
Market Value of Equity / Book Value of Total Liabilities	Take any action to increase market value. Decrease outstanding debt	<ul style="list-style-type: none"> • Repay long-term debt where possible, but ensure short-term cash needs can be met first • Convert long-term debt to equity or preferred equity if necessary • Make good long-term business decisions that will be reflected in the share price
Sales / Total Assets	Increase utilisation of assets	<ul style="list-style-type: none"> • Sell unproductive assets and use the cash to repay debt. • Generate strong sales to grow earnings and increase cash flow

(Source: Kirk, 2008)

However, what Kirk (2008) failed to realize is that there is such a thing as “under-steering” and/or “over-steering”. The Z-score was not designed as a turnaround model but can be used as such to the extent that it tells management ‘where’ to stop when making changes – a benchmark. That is, when management begins the turnaround steps of increasing liquidity, reducing gearing and increasing profitability relative to cost; it has a gauge (the Z-score). It serves as a gauge so management knows exactly: how much to borrow (if that is the route it chooses to increase liquidity) or, how much assets to dispose to stabilise the company. The “how” question, is easily answered in conventional methods. What the Z-Score answers in a turnaround situation, is the “to what extent” question. The Z-Score tells management to what extent liquidity, and profitability should be increased and to what extent gearing must be reduced to stabilize the company (Altman, 1993; Altman and LaFleur, 1984).

There is no doubt that the variables in the Z-score model are coherent with the three core elements of successful turnaround strategies: liquidity, gearing, and growth; common in standard practice. This proves the validity of the Altman's Z-score to support a turnaround strategy.

2.36 Summary

Due to the continuous increase in Construction Company closures across the UK as a result of the 2007 recession (Langdon, 2008; HC, 2009; Fordham, 2012), the research is asking the question “how can these deaths be reversed or how can a construction firm reverse failure, achieve success and remain in business even during hard times?” A summary of the literature review is given in Figure 2.15.

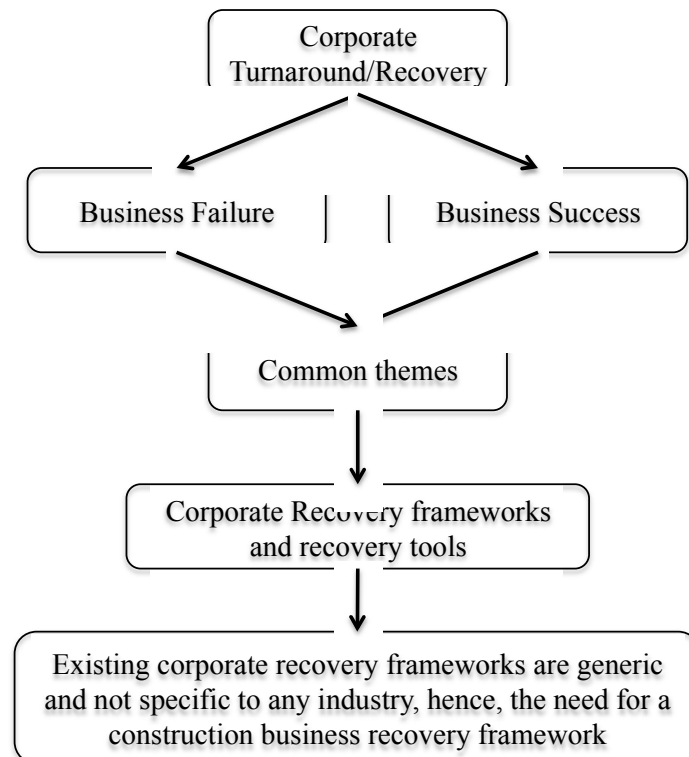


Figure 2.15: Summary of literature review

This chapter established the research problem (theoretically) by looking at the nature of the nature of the construction industry, insolvencies with regards to the 2007 recession. The chapter has established that the construction industry's casualties have reached unprecedented numbers and research on how to curb or mitigate against such failures in the future must be undertaken. The Chapter also juxtaposes both business

success and business failure, which showed the common themes reinforcing the mantra that success and failure are two sides of the same coin. It was established that: management and leadership, capitalization and financial management, organizational knowledge/culture, business knowledge/strategy, company image/reputation, industry/market knowledge: and sales and marketing/bidding strategy; are the most important common themes that determine business failure or success.

Furthermore, the literature review found that many researchers, Clough et al (2005), Stone (2012), Nutscher (2014), Ross and Williams (2013) etcetera, assert that many otherwise well-run construction companies have gone out of business because of cash flow problems and the lack of discipline in keeping accurate detailed and current information concerning all aspects of their financial affairs. Therefore, construction companies have to pay more close attention to their financial position. With regards to business strategy, whichever strategy a turnaround company decides to adopt, Chesley and Watson (2010) conclude that the process remains constant. The company must first “stabilize” by first, reversing declining performance, then rebuild by strengthening “core capabilities”, and finally begin rebuilding through creating “niche” market positions.

Lastly, this Chapter reviews corporate turnaround frameworks and models. That section established that before a turnaround is started, management has to assess whether the company is worth saving. If a decision is made to turnaround the company, the next step is to adopt a turnaround strategy. Since the characteristics of turnaround differ from industry to industry and the success of a particular strategic option is dependent upon the type of industry (Bruton et al., 1997; O’neil, 1986), the critique of the turnaround models discussed above being generic and limited is valid as they are not specific to any organisation and therefore specific industry turnaround actions or strategies are not mentioned. The objective of this thesis is to find out business recovery strategies specific to the construction industry, which these existing models have failed to provide. The literature review has shown that, currently, there is not a turnaround framework specific for construction companies and current turnaround frameworks have not proven capable of solving the failure problems amongst construction companies (Warner et al. 2008).

3 CHAPTER 3| RESEARCH METHODOLOGY

3.1 Introduction

According to Collis and Hussey (2003), research methodology is “the overall approach to be used in the research process, from the theoretical underpinning to the collection and analysis of the data”. In other words, a statement of how the research intends to achieve its objectives. Unlike many other areas of management, where implementation follows theoretical abstractions, in turnaround management much of the learning of the theoretical underpinnings comes from studies of real life situations (Chakraborty and Dixit, 1992). However, this research will first make a statement on its own philosophical position.

3.2 Research philosophy

This is regarded as the development of knowledge and the understanding of the nature of that knowledge (Saunders et al, 2009). It is the “lens” in which a researcher views the world. And by implication, the chosen research strategy and methods are shaped by the underlying assumptions embedded in that philosophy. An understanding of the research philosophies is not to show that one is knowledgeable in the area but it is to; inform one’s reflection upon the philosophical stance adopted, and to defend them in lieu of alternative philosophies (Johnson and Clark, 2006; cited by Saunders et al, 2009). However, no one philosophy is better than the other. The choice of a philosophical approach will depend on the question(s) the research is trying to answer. Contrary to popular belief, the philosophy we choose to adopt is influenced, in whole or in part, by the lens we view the relationship between knowledge and the process by which we think knowledge is developed (Saunders et al, 2009). A summary of the available philosophies, Ontology, Epistemology and Axiology are given below along with the philosophical stances of this research.

3.2.1 Ontology

According to Saunders et al (2009), ontology is obsessed with the nature of reality - how the world operates and the laws that govern social entities. It seeks to answer two basic questions; do social entities exist independent of social actors (Objectivism) or is social phenomena caused by the ripples produced by the actions of social actors (Subjectivism). In theology, this would be a case of "man for the sabbath or sabbath for the man" or "food for the stomach or stomach for the food" type of argument.

Objectivism: This is a branch of ontology, which advocates the view that social entities exist independent of social actors. On the extreme side, it is of the view that the laws of physics exist outside of human influence. That there is a pattern set by nature or a predetermined cycle which social actors must adhere to. According to Saunders et al (2009) objectivism subscribes to the view that this pattern, cycle or structure is the same everywhere and can be generalised.

Subjectivism: This is the creation of social phenomena from the perceptions and consequent actions of social actors – an understanding of the meanings individuals attach to social phenomena (Saunders et al, 2009). And because, social actors keep interacting with each other and with their environment, the social phenomena they create, keeps changing. The phenomena themselves are a direct reflection of the social actors “interpretation” of the situation in which they find themselves. According to Saunders et al (2009), not only do social actors try to interpret their situation, they also try to make sense of it.

3.2.2 Epistemology

This is mainly concerned with what constitutes acceptable knowledge within a particular research field. The question here is, how much authority can a researcher place on data (tangible or intangible)? Should the researcher who counted tangible data (e.g. cars) place more authority on his data than the researcher with intangible data, who, for instance, measured knowledge or emotion? There are two extreme poles to epistemology. The first is the *positivist* philosophy which subscribes to the view that more authority should be placed on tangible data than on intangible data which is collected by the researcher who subscribes to the *interpretivist* philosophy. The interpretivist researcher would argue the negative.

Positivism: The positivist researcher seeks to generalise results by observing social reality. The positivist research is sort of a cycle which starts by first developing a hypothesis from existing theory. The hypothesis is then tested, confirmed (in part or whole) or refuted, leading to the development of new theory, which can then be further tested. Positivism advocates that only phenomena that can be observed can lead to the production of credible data (Saunders et al, (2009). One of the characteristics of positivism philosophy is that it is value-free. It claims the data collected is free of the influence of the researcher.

Realism: this is a branch of epistemology that is similar to positivism only in this case the realist research assumes that objects exist independent of our knowledge of their existence. That what our senses show us as reality is the truth. There are two types of realism; direct and critical realism. Direct realism say “what we see is what we get: what we experience through our senses portrays the world accurately, while Critical realism advocates to the notion that our sense deceive us sometimes and that what we see may not be the actual reality (Saunders et al, (2009). A mirage, for example, does not portray actual reality. Saunders et al (2009) gave a perfect example of the difference between direct realism and critical realism using the umpire/referee in a game of rugby or football. The direct realist referee would defend his decision by saying “I gave it as it is” while the critical realist would defend his by saying “I gave it as I saw it”.

Interpretivism: this research philosophy advocates for the research among social actors (people) rather than objects. It suggests that for an adequate understanding of interactions and actions of social actors, the researcher must be part of the process, which enables them interpret the situation according to the role played by the actors. However, the researcher’s interpretation of the situation is seldom constant but one that keeps changing in line with the actions of other social actors. According to Saunders et al (2009) the researcher has to adopt an empathetic stance and enter the social world of the research subjects in order to understand their world from their point of view.

3.2.3 Axiology

This is a branch of research philosophy that is concerned with the extent to which the researcher’s values influence the choice of research and more so, data collected. This is very important because it determines the credibility of the research work. There are two sides to the axiological stance of a research; *value-free* or *value-laden*.

3.2.4 Pragmatism

This is the fourth branch of research philosophy, which suggests that the ontological, epistemological, and axiological stance of a research depends on the research question. It

argues that there is no one-best position and that, in fact, the three can be adopted within the same research (Saunders et al, 2009).

3.3 The philosophical stance of this research

This research, which aims to develop a framework for construction business recovery, subscribes to the subjectivist view that social actors create social phenomena. Managers of distressed companies, for instance, who must now wear the hat of leadership, have to strategize, delegate, negotiate and act according to their interpretation of the situation. On the other hand, the objectivist view suggests that managers of these distressed companies should continue to do their duties within their roles – by implication, do what they have always done because the situation exists outside their control. Albert Einstein has a word for “*doing the same thing over and over again and expecting a different result*”. It’s called *Insanity!* He went on to add, “*we cannot solve our problems with the same thinking we used when we created them*”. The input and output model which was adopted in the early part of this research also illustrates the subjectivist view that “*what an organisation is today, is as a result of its previous actions*”. The reality is, companies are failing and companies are selling parts of their businesses in order to reduce their work force and adopting other money saving strategies but is that it? The research refuses the view that “*what we see is what we get*”. Rather it embraces the empathetic *interpretivist* view that there is a lot going on that we do not see. Therefore, the researcher will have to enter the world of construction companies who have survived failure in order to have a detailed understanding of the process of recovery. The research *axiological* stance of this research is *value-laden*. The research subscribes to the view that every research has some element of personal interest and therefore shaped by personal values. The duty of the researcher in this case, is to make sure their values do not interfere with the findings.

3.4 Research approach

There are two types of research approaches: deductive and inductive. With deductive approach, a hypothesis (or hypotheses) is developed from existing theory and a research strategy is designed to test the hypothesis. On the other hand, inductive approach collects data and then from the analysis, a theory is developed.

3.4.1 Deductive approach

This is mostly associated with positivism as it is similar to the research done in the natural sciences. The following are characteristics of deductive approach: the development of hypothesis; the need to explain causal relationships between variables; converting the hypothesis in such a way that it can be measured – operationalization; testing the hypothesis to confirm (in part or whole) or refute the assumption(s); and modification of hypothesis (if required) and further testing. Usually the aim of deductive research is to reach a generalizable conclusion.

3.4.2 Inductive approach

This can be illustrated as starting from a large amount of information and sieving down using analysis to arrive at a conclusion that can be theorised. Inductive approach is mainly associated with interpretivism philosophy as it's mostly used to understand the way in which humans interpret their social world. In succinct terms inductive approach can be described as “a research in which theory follows data unlike in deductive approach”. The interview method of data collection is usually adopted in inductive research.

It is important to know that these research approaches are not entirely mutually exclusive but can be combined within the same research if by doing so; the research question is answered in the best way.

The choice of a research that subscribes to subjectivism, interpretivism and value-laden philosophies leads us to conclude that this research is heading in the direction of the inductive approach. Given that the researcher will have to go into the world of construction companies with successful turnaround stories as well as unsuccessful ones, to collect data, make sense of it, and then develop a framework for construction business recovery. This research is very much interested in looking at the context of recovery in the construction industry, hence the choice of an in-depth study of a few construction companies. The aim is to go in-depth with research into every single company and also be able to establish relationships between them and their actions at the transition stage.

3.5 Research methods

There are three types of research methods; exploratory, descriptive and explanatory.

3.5.1 Exploratory studies

This is a study usually undertaken when new insights into, and understanding of, a problem is the goal. According to Saunders et al (2009), there are three principal ways of conducting exploratory research

- A search of literature;
- Interviewing open dictation experts" edition in the subjects;
- Conducting focus group interviews.

One of the main characteristics of exploratory research is that it is highly flexible and adaptable to change. New insights might change the direction of the research. However, flexibility does not mean a lack of direction but a narrow focus.

3.5.2 Descriptive studies

The major concern of the descriptive research is to give an accurate account of the phenomena as it is and/or as it happened. A major issue with descriptive research is that, in itself, there is a lack of drawn conclusion from the data described. It fails to answer the question so what? In the academic field, it is imperative that any data collected is synthesised and evaluated in such a way that the conclusion can be derived. Therefore, descriptive research is usually a prequel to either explanatory research or exploratory research.

3.5.3 Explanatory studies

These are studies that establish causal relationships between variables. You may find that this research is a combination of syllogisms in which a final conclusion is reached.

This research is exploratory in nature as it brings new insights into the issues surrounding construction business and the recovery process. By implication, the research was somewhat flexible and open to change as it progressed and as new findings emerge. By “change” we mean a more focussed direction and not the loss of it. In order to have an elliptical understanding of the cases, the in-depth description method was adopted as well, so that the reader understands situations and the issues facing the respective companies.

3.6 Research strategy

These are strategies that enable a researcher of the particular research questions to meet their objectives. The choice of research strategy is guided by the following: research questions and objectives, the extent of existing knowledge, the mode of time and resources available, and finally the philosophical underpinnings (Saunders et al, 2009). The question driving this research is: *How does a failing construction company turnaround?*

The research strategies available are; experiment, survey, case study, action research, grounded theory, ethnographic, and archival research.

3.6.1 Experiment

Experiments are rarely used in management research because of the inconsistency found in the interpretations attached to phenomena by human beings. However, this is the most widely adopted research strategy in the natural science laboratory-based research. According to Saunders et al (2009) experiments are often the 'gold standard' against which rigour of other strategies are accessed.

3.6.2 Survey

This is a research strategy that operates on the basis of statistical sampling. The sample must be the right representation of the population size (Fellows and Liu, 1997). It is usually associated with deductive approach and by nature tends to be exploratory and descriptive. It is used to answer why, what, where, how much and how many questions (Saunders et al, 2009). Surveys are usually adopted for economic reasons and also to collect large amounts of data quickly usually, through a questionnaire administered to a sample.

3.6.3 Case study

According to Fellow and Liu (1997), case studies encourage in-depth investigation of particular instances within the research subject. This research strategy is defined as "a strategy for the research which involves an empirical investigation of the particular contemporary phenomena within its real-life contexts using multiple sources of evidence" (Saunders et al, 2009). The case study is different from; experiment because it is not done in a controlled environment and surveys because it does not merely work within context

but try to explore and understand the context. There are three types of case studies, descriptive, analytical and explanatory case studies (Naoum, 2007). Descriptive and analytical case studies have to do with statistical representation hence have been ruled out as appropriate for this research. The explanatory case study on the other hand, asks the question ‘why’. The Case study strategy, is used to answer “why” questions. Therefore, it is used in exploratory and explanatory research. Although, it also answers the questions, “what” and “how”, the research will adopt a case to the research strategy may decide to adopt a variety of data collection techniques, for example, interviews, observations, documentary analysis and questionnaires. According to Yin, (2009) there are four types of key study strategies; single case studies, multiple case studies, holistic studies, and embedded case studies. For in-depth studies about extreme or unique events, Single case studies are adopted. While multiple case studies (model one case) focuses on identifying multiple occurrence of an event so as to generalise from the findings. Holistic and embedded case studies refer to the unit of analysis. Saunders et al (2009) confirm that if the research is concerned only with the researcher’s organisation as a whole then the organisation is a holistic case study. While the in-depth study of subunits within the organisation will be considered as an embedded case to the research.

3.6.4 Action research

According to Fellow and Liu (1997) action research involves active participation by the researcher in the process on the study, in order to identify, promote and even identify problems and potential solutions. Action research falls within basic research categories and applied research category because the diagnosis and test solutions to particular problems respectively.

3.6.5 Grounded theory

The theory that is generated from data rather than abstracts is known as ‘Grounded theory’. Bailey (1978) describes it as a theory developed by (1) entering the fieldwork phase without a hypothesis; (2) describing what happens; and (3) formulating explanations as to why it happens on the basis of observation. Grounded theory could be classified under the inductive research approach and as such begins at the empirical level and ends at the conceptual level (Emmel, 2013). Unlike the deductive approach which proceeds from conceptual level to the empirical level. In grounded theory, the only variables and

hypothesis that are utilized are those that emerge from the data (Bailey, 1978). However, according to Saunders et al (2009), grounded theory must not be seen solely as an inductive approach - as "theory building" could be achieved through a combination of inductive deductive approach. The main aim of grounded theory research is to predate and explain period. It starts with data collection from which theory is developed. Based on this theory predictions are generated and tested to see if they hold any water. Bailey (1978) asserts that in grounded theory approach, only those hypothesis or theories that are verified are recognised, and verification as a separate step is unnecessary. However, if the researcher wishes to utilize a hypothesis developed from grounded theory in some new research setting, the researcher may require a verification stage. The advantages and disadvantages of grounded theory are similar to that of inductive research approach. The single most important advantage of grounded theory is that the probability of measurement error is reduced, since concepts are mirror images of empirically observed data. On the other hand, the disadvantage of grounded theory is that, it is difficult to generalize theory because grounded theory tends to focus on context. It neither seeks to have a perfect representation of the population nor have a total understanding of the situation under study (Bailey, 1978; Emmel, 2013; Charmaz, 2014). Grounded theory is only interested in generating categories and their properties for general and specific situations and problems, through the acts of writing memos and coding (Emmel, 2013; Charmaz, 2014).

Central to processes of grounded theory, is the emerging theory, where the researcher is constantly asking what data to collect next and where to find them in order to develop theory as it emerges (Glaser and Strauss, 1967). The strategy of selecting samples in grounded theory is known as 'theoretical sampling' and it is the only single logic that distinguishes grounded theory from other types of qualitative research (Charmaz, 2014).

3.6.6 Ethnography

In ethnography, the researcher becomes part of the group understood and observes subjects behaviour as they interact with their social world (Fellow and Liu, 1997). Ethnography research has deep roots in anthropology. According to Saunders et al (2009) the research process requires a great deal of flexibility says the researcher will constantly be developing new patterns of thoughts about what is being observed. However Fellow and Liu (1997)

point out that it is extremely difficult, if not impossible to determine the degree of influence caused by the presence of the researcher within the research project.

3.6.7 Archival research

Archival research makes use of administrative records and documents as principal sources of data Saunders et al (2009). Archival research strategy should not be confused with secondary data analysis. The latter, is the analysis of data that were originally collected for a different purpose while the former is the analysis of data collected from the day-to-day activities of the organisation.

3.7 Research choices

In the research world, there are two extremes to data collection techniques and data analysis procedures – quantitative and qualitative Saunders et al (2009). The latter uses non-statistical method of data collection, for example, interviews, and coding of ‘words’ in data analysis procedures. The former on the other hand, is statistical in nature (numeric based). It, more often than not, adopts the use of questionnaire as its data collection technique, and for data analysis, statistical representation of data (such as pie charts, graphs, tables and so on). However, Saunders et al (2009) state, “Individual quantitative and qualitative techniques and procedures do not exist in isolation”. The choice of a research method can be simple or complex depending on the research question. Mono method uses a single data collection techniques and corresponding analysis procedures. Multiple methods use more than one data collection technique and analysis procedures. Multiple methods are further divided into four groups. First, *multi-method quantitative study*, for example, can make the use of questionnaire and an in-depth interview to collect data but then using statistical (quantitative) procedures to analyse the data. The opposite of this is *multi-method qualitative study* where a qualitative method of analysis is used. Third among the methods is *mixed-method research*, which is a mix of Mono methods either sequentially or in paragraphs. That is, both quantitative and qualitative worldviews are used but quantitative data are analysed quantitatively and qualitative data a analysed qualitative (Saunders et al, 2009). The fourth and last is, *mixed-model research* which combines quantitative and qualitative data collection techniques and analysis procedures. That is, quantitative data may be analysed qualitatively (expanding numbers into words) and qualitative data may be analysed quantitatively (reducing words into numbers). This research subscribes to the

mixed-model research method as the research deals with financial data (numbers) as well as textual data. It will combine both qualitative and quantitative data collection methods. It is intended that after collection of data through interviews (qualitative), the data will be analysed qualitatively to satisfy objective (3) and (4). These data will then be sieved and quantified in order to find what distinguishes a successful turn-around company to a failed one.

According to this Naoum (2007), deciding which strategy to follow depends on the purpose and type of the study and the availability of the information, which is required. Quantitative research is 'objective' and hence based on testing hypothesis or theory to determine whether or not it holds true whereas qualitative research is 'subjective' in nature which seeks to diagnose a situation, emphasize meanings, describe a phenomenon, screen alternatives and discover new ideas. As mentioned in earlier sections, not much has been written on construction business recovery in the UK construction industry. Due to limitation in the amount of knowledge in the area and the nature of the research question, this research is exploratory in nature. It also implies that a qualitative approach was adopted in order to explore the context of construction business recoveries and develop a framework that gives construction companies in distress a likelihood of success at recovery. The aim is to diagnose the situation and to discover new ideas and not to test or verify existing theories (Naoum, 2007).

Therefore, the research will adopt the in-depth survey approach. The lessons to be learnt from the multiple case studies are intended to expand and generalize theories (qualitative) for use in the construction companies.

3.8 Research design

Research design involves research strategy, research choices, and time horizons. It is generally a carefully thought plan of how the research question(s) are to be answered - a statement of clear objectives, sources of data to be collected, research constraints, and ethical issues. The next sections demonstrate the 'research design' for this study.

3.9 Sampling

Sampling is the art of selecting respondents for a study. According to Bailey (1978), the objects of study are called the *units of analysis* and this can be a person, club, company, industry, city, county or state. The sum total of these units of analysis is called the *population*; each individual unit is called a *sample element*; and a sample is a subset or portion of the total population (Bailey, 1978). A *sample unit* could be a single element within the population or a collection of elements, while and a *sample frame* is a complete list of all units from which the sample is drawn. Therefore, the total number of small and medium-sized construction companies in the United Kingdom (UK) will be the population of this research; the sample frame will be the total number of sample units that made it into the study.

Bailey (1978) asserts that a good researcher will always start with the total population and then work down to the sample, which maybe considerably smaller than the population. For example, the researcher may begin with 250,000 as potential respondents but end up with a random sample of 200 or less. If done with care, sampling can be highly accurate. For example, in the 1968 American election, only 2000 of the approximately 73 million voters were used to predict accurately that Richard Nixon would receive 43 percent of the votes. It turned out that he got 42.9 percent of the votes. Also, Collins (2001) in his screening process for selecting good-to-great companies started up with 1,435 companies, but ended up with 11. In addition, Zimmerman (1989) conducted a longitudinal analysis of successful turnaround cases in the agricultural equipment and automotive industries from 1902 to 1987. The time periods varied, but in most cases data were collected for a 20-year period. He started with a multitude of case within that time period but ended up with 15. Therefore, this shows that a carefully selected sample and not the number of sample units, is responsible for accurate representation. The two types of samples; probability and nonprobability samples, and their subsets will be discussed in later sections.

However, Emmel (2013) states that sampling in most research refers to two activities: (1) *“defining a population from which a sample will be drawn and of which the sample will be representative; and”* (2) *“ensuring that every person or thing from this predefined population has the chance of inclusion that is greater than zero and can be measured.”* These two activities he says, are not adequate for sampling in qualitative research. He

asserts that the best way of sampling in qualitative research is through inverting these two rules and thinking about measurement in very different ways.

3.10 Advantages of Sampling

Sampling is a useful tool in research because, when dealing with a very large population, it may be impossible to study the entire population. An attempt will take a lot of time and money, and in the end, results may not be accurate as changes occur in the population with the passage of time. Later opinions may differ greatly from earlier ones. In addition, the process may be unmanageable and results skewed (Emmel, 2013). Therefore, a sample is useful to get a snapshot of the population at a particular point in time (Bailey, 1978). Another advantage of using sampling instead of the entire population is exclusivity. When respondents know that they are in a special group and their identity protected, they are more likely to respond.

3.11 Probability Sampling

Probability samples are samples in which the probability of selection of each sample is known. The subsets are:

3.11.1 Random Sampling

This is most common type of probability sampling. In a random sampling, all the units of analysis (sample units) have an equal chance of being selected for the sample. This is true for all members of the sample frame regardless of other differences in characteristics. That is, selection is usually without bias as long as the unit is included in the sample frame. This is one of the great advantages of random sampling.

3.11.2 Systematic Sampling

Assuming a researcher does not want to use random sampling but wants to select at random, within a sample frame, the $1/k$ th of them, where k is a constant, which could be any number of the researcher's choice. Then, we have a sample chosen by systematic sampling. Bailey (1978) states that a "*1/k systematic sample is a sample constructed by selecting every kth element in the sampling frame*". However, he recommends that simple random sampling should be preferred over systematic sampling because of accuracy purposes.

3.11.3 Stratified Sampling

This is a process of sampling where the members of the sample frame are separated into distinct groups that are non-overlapping, also called *strata*, and then using random sampling or systematic sampling technique to select the sample from the stratum (Bailey, 1978). Stratified random sampling is also used; wherein certain areas are chosen, and samples are randomly sampled within the areas (Bourdeau 1953). Tongco (2007) states that this is equivalent to finding informants purposively, and then choosing informants randomly within the purposive sample. This method was adopted in this research since to find strategies used in construction business recovery, turnaround companies were separated into two distinct groups – successful and unsuccessful turnarounds.

3.11.4 Cluster Sampling

Cluster sampling is understood to mean, samples that are selected from clusters of the population. Cluster sampling can be in multiple stages. According to Bailey (1978), cluster sampling is generally used when it is impossible or impractical to construct a sampling frame in which the sampling units are the sampling elements themselves. An advantage of cluster sampling is that it saves time and money but has an increased probability of error because of the multiple sampling stages. Each stage may have its own error probability and cumulatively, the result may not be the accurate representation of the population.

3.12 Nonprobability Sampling

Nonprobability samples are samples in which the probability of selection is not known. Nonprobability sampling designs include systematic sampling, wherein the first point is random but all succeeding samples are a certain distance from the first and all samples are spread evenly apart (Tongco, 2007).

- a) *Convenience sampling*: As the term indicates, the convenience sampling is a sample drawn from convenience. The most available, or the closest, or nearest unit is chosen without bothering with those farther behind or difficult to access. Here, time and money is saved but accuracy is likely to be lost (Bailey, 1978).

- b) *Quota sampling*: This is a nonprobability sampling similar to stratified sampling, only here, each stratum must be proportionate to the actual groups representation in the entire population (Bailey, 1978).
- c) *Dimensional Sampling*: This is similar to quota sampling, but in a multidimensional form. Here, dimensions or variables are specified and only those that make the combination of those dimensions are selected (Bailey, 1978).
- d) *Purposeful/Purposive Sampling*: The purposive sampling technique is a nonrandom technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses (Tongco, 2007). Purposive/Purposeful sampling is most applicable when studying aspects of a culture or industry not known to all its members, for example, corporate turnaround in the construction industry. In other words, this sampling technique is especially useful in documenting events that not everyone: can attend, has witness, or has experienced (Zelditch 1962). In this type of situations, it is more practical to talk to a specialist rather than a random individual from the culture or industry (Tongco, 2007; Bernard 2002). For example, not all companies in the construction industry have gone through a business turnaround. Hence, the need to talk to, or interview, companies that have gone through corporate recovery whether the result was a success or failure. In purposive sampling, the researcher uses their judgement, skill and prior knowledge of the population to choose the respondents who best meet the purposes of the study (Bailey, 1978; Emmel, 2013).
- e) *Snowballing Sampling*: This type of sampling makes use of the respondent networks to get more respondents. Where the researcher asks the respondent to recommend another person who qualifies to participate in the study, hence the snowball effect. It is also obvious that this happens in stages. Snowball sampling can be probabilistic or non-probabilistic depending on the researchers discretion to use random sampling or not (Bailey, 1978).

Of all the techniques mentioned above, purposeful/purposive sampling fits the context of this research as the research aims to select cases that can give a true picture of strategies used in construction business recovery. As Tongco (2007) states, the technique is most

effective when one needs to study a certain cultural domain with knowledgeable experts within. The inherent bias of the method contributes to its efficiency, and the method stays robust even when tested against random probability sampling. Choosing purposive sample is fundamental to the quality of data gathered; thus, reliability and competence of the informant must be ensured.

It is important to note the two or more techniques can be combined in one research study. According to Tongco (2007) purposive sampling can be used with a number of techniques in data gathering, where for example, a study is started using a survey, then purposive sampling is done based on the survey. Or, a large purposive sample population is drawn, but then the researcher uses convenience sampling to select the first ones on the list to achieve the aim of the research, since they are all “rich case” (Bailey, 1978). It can also be argued that snowballing sampling can be used alongside purposive sampling, where one knowledgeable expert is asked to recommend another knowledgeable expert (Brown 2006). However, snowball sampling differs from purposive sampling in that purposive sampling does not necessarily use the source of an informant as an informant as well (Bernard 2002). Similarly, stratified purposive sampling may also be used, wherein a purposive subsample is chosen within a purposive sample (Tongco, 2007).

3.13 Sampling in Qualitative research

In qualitative research, there are three types of sampling strategies, theoretical in grounded theory, purposeful and purposive sampling (Emmel, 2013). These three, he argues, may often be used interchangeably and may even seem to have contradictory meanings.

3.13.1 Theoretical Sampling

Theoretical sampling is intrinsically part of grounded theory where theory is generated from the study or investigation of the empirical social world (Glaser and Strauss, 1967; Emmel, 2013). According to Emmel (2013) however, since central to grounded theory is emerging theory where the researcher is constantly asking what groups or sub-groups does one turn to next in data collection, and for what theoretical purpose; then, theoretical sampling in grounded theory can neither be identified ahead of the research, nor can it be allotted to a thing, person, organisation, document or a research instrument. He states:

“Instead, the researcher is continuously guided by emerging theory as to where to go next in search of their sample. Structural (or practical) concerns are not the guide to identifying the sample; rather it is the impersonal criteria of emerging theory.” The researcher must be completely open and receptive to emergent theory without letting any preconceptions impede the flow of the research as theories emerge. Charmaz (2014) states: *“theoretical sampling means seeking pertinent data to develop your emerging theory. The main purpose of theoretical sampling is to elaborate and refine the categories constituting your theory. You conduct theoretical sampling by sampling to develop the properties of your categories until no new properties emerge”*.

3.13.2 Purposeful Sampling

This has been looked at in nonprobability Sampling but here, a little more in detail. Purposeful sampling strategy is very different from theoretical sampling. Much of the sampling here is influenced by the researcher’s judgement and skill in the field of study, and what is learnt before, during and after the research. According to Emmel (2013), *“the purpose of purposeful sampling is to select information rich cases that best provide insight into the research questions and will convince the audience of the research.”* Purposeful sampling also called ‘pragmatic sampling’ (Patton, 2002), is also an aspect of grounded theory, but, unlike theoretical sampling, purposeful sampling makes a judgement about who or what to sample with respect to the purpose of the study, its context, and the specific audience for the research (Emmel, 2013). This judgement or purposive sampling is not driven by theoretical categories, but practical and pragmatic considerations, with the sole aim of doing what makes sense, reporting fully on what was done, why it was done, and what the implications are for the findings (Patton, 2002). Emmel (2013) states:

“The logic and power of purposeful sampling rest on the in-depth study of information rich cases, towards learning a great deal about the research question and the issues considered by the researchers to be of central importance.”

The selection and in-depth study of cases deemed to be information rich is the sampling strategy adopted by this research. The successful and unsuccessful turnaround companies were chosen because they fit the purpose of the study and were seen to have the right information to satisfy the questions being asked by the study. Emmel continues:

“These cases are worthy of in-depth study because they provide detailed insight.”

It is also important to note that even though purposeful sampling is very different from probabilistic sampling; the use of strategies of randomisation, stratification, or quotas to select cases may be used. This is not for the purpose of generalizability but for the purpose of seeking out cases that give the findings credibility with its audience (Emmel, 2013). Furthermore on strategy of purposeful sampling, Emmel shrinks Patton’s 14+1 strategies for purposeful sampling into six strategies for purposeful sampling. They are:

Table 3.1: Purposeful sampling

S/N	Strategies
1	First, researchers make judgements before, during, and after sampling about what to sample and how to use the sample in making claims from their research.
2	Secondly, there judgements are made with reference to what is known about the phenomena under study. This includes recognising that much can be learnt from exploring the ways in which phenomena are described through variables, categories, and insight from both quantitative and qualitative research.
3	Thirdly, based on what is learnt before the research starts and as the research proceeds, researchers are strategic in selecting a limited number of cases toward producing the most information that is usable.
4	Fourthly, researchers are aware of who the audience for their research will be and choose sampling strategies that will produce the most credible results for these audiences.
5	Fifthly, these decisions are always constrained by resources, an important consideration but one that should be addressed only after the first four themes are considered. Qualitative researchers would always like to sample more, but have to make choices with reference to time to do fieldwork, budget, and their capacity to analyse the data they collect.
6	And finally, there are quite different logics to qualitative and quantitative sampling strategies. These differences are exemplified in the purpose of the purposeful sample.

Source: Emmel (2013)

With regards to sample size, Emmel (2013) states that the school of thought here is divided. There are authors who advocate that the sample size must be a specific or proportionate number and others who argue that the sample size is not the issue, but how the researcher is able to convince his or her audience with the cases they are able to collect given the resources available to them. This research adopts the latter.

3.14 Theoretical or purposive sampling

This sampling strategy on the other hand embraces theory in such a way that the researcher's intellectual work is pivotal in the progress of the research. According to Emmel (2013), *“theoretical or purposive sampling strategies assume that to explain real phenomena requires more than a faithful abstracted rendering of events and experiences. It requires direct engagement between theory and empirical accounts in interpretative and inductive strategy of sampling.”* According to Tongco (2007), in purposeful/purposive sampling technique, the researcher must know about the field of study before he/she samples the population in order to find knowledgeable and reliable informants most efficiently. The next thing is for the researcher to decide what needs to be known and set out to find people who can and are willing to provide the information by virtue of knowledge or experience (Bernard 2002). The informant must also be as near as possible to the theoretical norm of the sampled population (Tongco, 2007). In order to choose the right informants, Guest et al (2006), and Allen (1971) states that a set of specific criteria needs to be drawn out on what would make a good informant. The selection criteria for this study will be discussed in a later section.

In summary, given the research question of this study – *“How can a failing small and medium-sized construction company turnaround?”* – it is quite clear that in order to answer the question, we will need to select information rich cases (good informants) that best provide insight into the research questions, in this case, companies with experience of successful turnaround or companies who have attempted a turnaround but failed. An in-depth study of these cases will definitely go a long way in answering the research question. Therefore, the best strategy of sampling for this study is deemed to be the ‘Purposeful sampling’ strategy. Since the intricate logic and power of purposeful sampling rest in the in-depth study of *information rich cases that help the researcher answer his or her research questions*. In succinct terms – it fits the direction of the study.

3.15 Survivor bias

There's the argument that more often than not, research in business are plagued with a bias against failed companies. People only want to read and listen to success stories and even better, from the successful managers themselves. Jason Cohen, founder of WP Engine & Smart Bear Software point out that the fact that we are learning only from success points

of view is a deeper problem that we recognise. He tells the story of the English Air Force engineers from World War II (Cohen, 2013).

“During the war, the English sent daily bombing raids into Germany. Many planes never returned; those that did were often riddled with bullet holes from anti-air machine guns and German fighters.

Wanting to improve the odds of getting a crew home alive, English engineers studied the locations of the bullet holes. Where the planes were hit most, they reasoned, is where they should attach heavy armor plating. Sure enough, a pattern emerged: Bullets clustered on the wings, tail, and rear gunner’s station. Few bullets were found in the main cockpit or fuel tanks.

The logical conclusion is that they should add armor plating to the spots that get hit most often by bullets. But that’s wrong.

Planes with bullets in the cockpit or fuel tanks didn’t make it home; the bullet holes in returning planes were “found” in places that were by definition relatively benign. The real data is in the planes that were shot down, not the ones that survived.”

The statement ***“The real data is in the planes that were shot down, not the ones that survived”*** needs reiteration for emphasis sake. Therefore, to avoid this fallacy, this research will collect data from both failed and current trading companies. That is, both successful and unsuccessful turnarounds will be looked at.

3.16 Sample selection and criteria

The research made use of information rich cases. It focused on the transition point of failure-to-success companies in the construction industry. In order to select information rich samples, the thesis looked at recent periods where, more often than not, construction companies would have faced some turbulence and therefore would have attempted a turnaround – hence, the 2008-2009 recession. Although the UK economy is growing gradually and steadily as at 2015, and construction companies are more engaged now with even greater financial lending coming their way, there are some who may argue that the industry is yet to recovered. This thesis wanted to look at that period when the companies would have found it hard to survive. Chapter 1 has already discussed the terrible situation facing small and medium sized construction companies at that time. Survival would require a strong management team, and a company that has not over-exposed itself prior to the recession. Over-exposed companies would have scrambled around to keep their companies

afloat. This thesis has to emphasize that though it is trying to identify successful turnaround companies, the overall aim of the research is to identify “successful turnaround strategies” in construction.

Criterion one – ‘Decline’ must be within the last 15 years (2000 – 2014): It is rather impossible to obtain a complete list of all successful and unsuccessful turnarounds amongst construction SMEs even in the said period. Therefore the selection process involved finding a good number of turnaround companies within the last 15 years (2000 – 2014). We chose 15 years because it is closest and probably most relevant in our time. But also because we felt it would give an opportunity to get a comprehensive list of companies that have undergone a turnaround process before or after the recession; and not solely focused on turnaround situations around the time of the recession. As we have established in earlier chapters, that economic downturn, though a player, is not solely the cause of company failure, rather it (economic downturn) exposes company internal flaws; mismanagement or resources, management incompetent, and poor company strategy.

To avoid survivor bias, the first task was to find construction SMEs that have gone out of business within the last 15 years. The research will call these companies “*Sample 1*”. This research recognises that some executives would have moved on to other companies. Nonetheless, efforts will be made to find and approach them for their perspectives on the transition period of their former employer. Furthermore, failed companies executives who have moved on to other jobs would also be approached to give information on their failed recovery attempts. The second task is to find construction companies that are trading today but have gone through this transition phase. We will call this group of companies “*Sample 2*”. This will be achieved by looking at the financial information of small and medium sized construction companies on the database of Company House. Also, databases such as Nexis: business and news, Duedil, Business Source Premier, and Mintel; proved useful. Most of these websites were used to find any sorts of publications of construction company bankruptcies or rescue articles, newspapers, company reports, online business analysts’ blogs etc.

The selection of these companies was based on two strata; the successful turnaround companies, and the unsuccessful turnaround companies. However, it became quite clear

that the unsuccessful turnaround group would have two subgroups – that is, companies that have gone out of business; and those that refused to liquidate despite gross financial and managerial decline – also known as failing companies. This is illustrated in Table 3.2. So this dichotomy within the strata makes it look as though it is three groups but the research classifies the Bankrupt companies and the Non-liquidated companies under “Unsuccessful Turnarounds” (Sample 1); while the Recovered companies are classified under “Successful Turnarounds” (Sample 2).

Table 3.2: Sample Group Classification

Sample Group Classification	
Unsuccessful Turnarounds (Sample 1)	Successful Turnarounds (Sample 2)
Failed (Bankrupt) Companies and Non-liquidated companies.	Recovered Companies

Criterion two – Private companies: Usually, the construction companies that are on the London Stock Exchange (LSE) are publicly held and large. Most small and medium sized construction companies are not on the LSE and therefore will be privately owned – hence, this criterion by default.

Criterion three – Incorporation date must be 10 years and above: This criterion is to reduce the discrimination against small firms with small amounts of Assets or Retained Earnings accumulation. The Z-score model does exactly this; discriminate against small firms, as it was originally made for medium and large firms. Collins (2001) avoided this problem by only selecting good-to-great companies with twenty-five years and above operation history, prior to the transition point. However, Altman (1993) defends the Z-Score for not making any special considerations for the SME. He states:

“A relatively young firm will probably show a low RE/TA ratio because it has not had time to build up its cumulative profits. Therefore, it may be argued that the young firm is somewhat discriminated against in this analysis, and its chance of being classified as bankrupt is relatively higher than that of another, older firm, ceteris paribus. But, this is precisely the situation in the real world. The incidence of failure is much higher in a firm’s earlier years.”

This truth of; firms having greater chance of demise in their earlier years, is supported by many researchers who looked at business failure from the angle of age and size (Evans 1987; Bates and Nucci, 1989; Hall and Young, 1991; Everett and Watson, 1998; Kale and Arditi, 1998; and Perry, 2001;). The argument is based on the premise that new firms have a lot to learn. First with regards their industry business environment and second, firms own management capabilities such as learning and inventing new roles like standardizing processes; developing trust, and cooperation among organisational members. In understanding its industry, securing organisational legitimacy, establishing stable exchange relationship with clients, creditors, suppliers and other organisations and establishing a good company image.

But the research chose 15 years more so because, it was important to have at least 5 to 10 years of company financial records in order to calculate its Z-score profile – the decline and the growth.

Criterion four – Recovered companies must have a decline, transition point, and recovery. To find those companies our only point of call was the companies' financial information and performance within the said period – last 15 years. What the research is looking for are companies with a Z-Score financial profile that shows decline, transition point, and recovery.

Criterion five – Upward trend after recovery: At the time of selection, the company would have had a minimum of about 2 to 3 years of upward growth in Z-score after the decline year. 2 – 3 years is enough to certify that the plans and actions taken during the turnaround were effective and sustainable (Kotter, 1996).

Criterion six – The recovery period: whatever the year of recovery (turnaround), the company would have to be, at the time of this research, still trading as a standalone company, with a Z-score equal to or above the 1.10 mark (Altman's defined threshold for a failing company). In section 2.33, Model 3 of Altman's Z-Score shows the classification of healthy and failing companies. Any score below 1.1 mark is a failing company (or a company in distress), and any score above 2.6 mark is a healthy company (Altman, 1993).

3.17 Constructing the Sampling Frame for the study

The population of the study is the total number of small and medium sized construction companies with experience in turnaround especially those with first hand knowledge also known as information rich cases for the purpose of this research. These are the companies the research aimed to find. However, since it is impossible to speak to all of them, a total of 12 unsuccessful turnarounds, and 9 Successful turnarounds could be reached, and a total of 27 interviews were conducted with these companies. After all, as Bailey (1978) and Emmel (2013) have demonstrated, it is a carefully selected sample and not the number of sample units that is responsible for accurate representation. Therefore, using the purposeful sampling strategy, the research identified some information rich cases that can answer the research question.

Unsuccessful Turnaround (Sample 1)

- **Failed companies:** it was easy to generate the list of companies that have gone out of business in the last 15 years. These are companies that went bankrupt, or are in administration, receivership or being liquidated or dissolved. Using purposeful sampling technique, this list was generated from the following websites, which allow the input search criteria: CompanyHouse.com, Duedil.com, CompanyCheck.com, and Nexis.com. It is impossible for all the companies to make it into the study. With the hope that these companies can fulfil the research objectives, the researcher reached out to 40 and stopped after saturation was achieved. Out of this 40 only 9 could be reached for interview but were sufficient because saturation was achieved. Three non-liquidated companies were also reached, which takes the total number of Sample 1 to 12 companies. In the next section, the research will explain how the non-liquidated companies were identified.
- **Non-liquidated companies:** By implication, those companies that are presently still in decline but refused to fold even when their financial health is consistently poor. They are also known as “businesses in distress” – businesses that are at pre-insolvency stage, near-bankruptcy, having substantial market losses, or substandard performance (Balgobin and Pandit, 2001). That is, businesses that are *barely* breaking even,

providing neither a reasonable income for the owner nor a fair return to the investor (Land, 1975; Everett and Watson, 1998). They are also known as “failing businesses” (Altman, 1993). These are companies who experienced distress about the same time as others, but did not make the transition from failure-to-recovery. It is assumed that these companies would have attempted a turnaround in one form or another. The non-liquidated companies form part of *Sample 1* (unsuccessful turnarounds). A total of 22 non-liquidated companies were identified. However, only 3 could be reached for interviews.

Successful Turnaround (Sample 2)

The selection process here, involved a sifting technique.

- **Recovered companies:** In order to get these companies with the right profile (*Sample 2*), another list was generated using the same websites mentioned earlier. A total of 83 companies were purposefully selected and a financial analysis of company financial books was done using Altman’s Z-score model. The aim was to identify companies that have shown a pattern; a $Z' < 1.10$; indicating distress and a $Z' > 1.10$ and above, preferably above $Z' > 2.60$; within the last 15 years. Altman’s Z-Score model was used on all 83 companies - the whole bunch of; privately owned, longer than 10 years incorporation date SMEs; initially selected. The research defines “distress” as any Z-score below 1.10 mark (Altman’s Threshold). However, if a company shows tremendous recovery in the healthy zone from a very low Z-score close to the 1.10 mark and classified under the grey area, the research will classify this company under successful turnaround. This is to account for the 3-6 percent error in classification that is responsible for the “Grey area”. On the other hand, the research defines “recovery”, as any period (2 years and above) that shows a change in Z-score from the failing zone into the healthy zone. That is, Z-scores from below the 1.10 mark to any Z-score greater than or equal to 2.60 (Healthy Zone). Also included in the recovered firms are companies that have shown significant increase in Z-score above 1.10 mark for which the company must have recovered from a significantly low (negative) Z-score. A total of 24 companies showed the required pattern and therefore formed the stratum for recovered firms. However, only 9 of the 24 could be reached for interviews.

The question that the research will keep asking at this stage is, “*what was different between the strategies adopted by the two – the successful and the unsuccessful turnaround groups?*” Could it be the difference in decision-making, or in the type of leadership, or even in the company atmosphere? In order to achieve this, first, the researcher resolves to be value-free and put aside all bias and to have an open mind to finding new trends within each group. Second, a comparison of the pattern and trends will be done. The comparison will help the research to contrast and illuminate on actions or sets of actions: why they were taken, how they were implemented, and with what result (Schramm, 1971; cited in Yin, 2003). This will lead to the identification of those critical turnaround strategies as well as recovery-impeding factors that will help shape the formulation of the framework envisioned.

Table 3.3: Total number of Unsuccessful Turnaround and Successful Turnaround companies

Companies	Description	Total number
Unsuccessful Turnaround (Sample 1)	Failed (Bankrupt) Companies and Non-liquidated companies.	9+3 = 12
Successful Turnaround (Sample 2)	Recovered Companies	9

Table 3.3 shows the total number of Unsuccessful Turnaround and Successful Turnaround companies - the latter is 12 and the former is 9.

3.18 Validation and reliability of the study’s sample

According to Tongco (2007), a study done with purposive/purposeful sampling must be reproducible in order for the results to contribute to a greater understanding of the field of study. Tongco states that one way of ensuring reproducibility is to have a systematic way of choosing the informant and to describe this method in detail. That is, a list of criteria discussed earlier is helpful in reproducibility of the study. The idea is that if another researcher conducts the same study, they should be able to produce similar results.

3.18.1 Justification of Sample size

The majority of articles and books on purposive sampling recommended that the size of purposive samples be established inductively and sampling continue until “theoretical saturation” occurs (Guest et al, 2006). Bernard (2002) asserts that there is no cap on how many informants should make up a purposive sample, as long as the needed information is obtained. In order to test reliability, Seidler (1974) studied different sample sizes of informants selected purposively and found that at least five informants were needed for the data to be reliable.

Furthermore, other researchers, such as Morse (1995) and Fossey et al. (2002) have recommended that purposeful/purposive sample sizes must be determined by *theoretical saturation*. The term “theoretical saturation” and “consensus theory” have been referred to as the gold standard for sample size determination in qualitative research. Guest et al. (2006) also affirmed that theoretical saturation is the criterion by which to justify adequate sample sizes in qualitative inquiry. They further state that, saturation has, in fact, become the gold standard by which purposive sample sizes are determined. However, there has been a debate on what is the acceptable sample size in qualitative research. Many authors have recommended different ideal sample sizes for qualitative research without showing the research behind the numbers or evidence on how they arrived at the numbers. So Guest et al (2006) set out to operationalize saturation and make evidence-based recommendations regarding non-probabilistic sample sizes for interviews. Their research question was; how many interviews are enough to reach data saturation and variability. They found that saturation occurred within the first twelve interviews, although basic elements for metathemes were present as early as six interviews (Guest et al, 2006). Romney et al (1986) found that small samples as low as four individuals can render extremely accurate information with as high confidence level if they possess a high degree of competence for the domain of inquiry.

With regards to this research, by interview number 7, the research was seeing a pattern of consensus, and saturation was reached at interview number 12. Therefore the research was confident that the total of 21 companies and 24 interviews would be sufficient for a consensus theory to be reached and therefore saturation. The group of successful and

unsuccessful turnarounds is a sufficient number to reach saturation and for adequate comparison of information for reasonable conclusions to be drawn.

3.18.2 Bias in purposeful sampling

Unlike random sampling, non-probability methods such as purposive sampling are not free from bias. The choice of Informants may be out of convenience or from recommendations of knowledgeable people and not based on robust research on who is knowledgeable about the domain, hence not free of bias (Tongco, 2007; Smith 1983). Many researchers, including but not limited to; Tongco (2007), Bernard (2002), Godambe (1982), and Smith (1983) state that, whenever possible and deemed efficient, random or probability sampling is recommended as a means of informant selection because randomization reduces biases and allows for the extension of results to the entire sampling population; and results may also be applied beyond the community studied. Random selection is usually done by a computer, but the researcher can roll dice, choose playing cards, or choose every 10th house from a random starting point to get a random sample. The important idea is that no one can predict ahead of time who (or what) will be in a random sample so as to achieve representation (Bailey, 1978). Purposive sampling mainly provides internal validity but it can also be valid when a sample is representative, providing external validity (Tongco, 2007). However, it is important to state what the biases are from the beginning so the readers are aware of the limitations. Some researchers assert how combining random and purposive sampling techniques in one study can produce a powerful sample (Tongco, 2007). In order to illustrate this, this study will use an example stated by Tongco, where a researcher purposively chose four communes to study how farmers managed their areas in China, and within each commune, they randomly chose one village per commune to which they administered questionnaires.

Similarly in this study, the computer generated, purposively, three different lists of failed companies from three different websites, and a certain number was chosen from each website. In the case of failed construction companies, 40 companies were chosen in total from the three websites. For successful turnaround companies, the same process was adopted, only now on live companies, i.e. companies still existing and still trading. Here, 83 companies were chosen in total from the three websites. A further purposive sampling

was done using Altman's Z-Score model to generate a list with a profile of recovery: decline, transition, and turnaround. This list forms the successful turnarounds.

The companies on the lists were not known to or arranged by the researcher, and since the research is dealing with a large population, the starting point is unknown (random) and three lists were involved. Once that choice was made, the first companies on the different lists were chosen first (convenience sampling). The limitations of convenience sampling (Bailey, 1978) do not apply here because all companies are "information rich cases" (Emmel, 2013), and certain criteria were used to generate the list purposively. The starting point could be any of the three mentioned websites, which is random, as in the case of Tongco (2007). The starting point can be considered random because there was no prior knowledge of what companies will be on the lists. It also involves three different websites equivalent to communes in the case of Tongco (2007).

Despite its biases, Tongco (2007) states that there are instances where purposive sampling (nonprobability sampling), when used appropriately, can provide just as good, or more reliable and robust data than random sampling (probability). The strength of purposive sampling actually rests in its intentional bias and sampling randomly may also exclude the very units that the researcher may want to sample says Tongco. Purposive sampling is a practical and efficient tool when used properly, and can be just as effective as, and even more efficient than, just random sampling.

3.19 Limitations of the selection process

1. Only those with financial information at company house may make it into the study. Those information rich cases that are not on those databases used are lost.
2. Only those information rich cases that were suggested first by the websites' database will be looked at and those farther behind are lost.
3. Those information rich companies that made it into the sample but were unreachable have also been lost.
4. Information from executives that have moved-on from sample companies are also lost.

3.20 Variables

Both sample participants will be asked questions bordering around the effects of their actions on the following five variables. In order to understand the transition process, the research will investigate how decisions affected the following variable: Financial variables – Liquidity, Profitability, Leverage, Solvency, and Activity; and Non-financial variables – Leadership, Business strategy, and Stakeholder management. These variables have been chosen based on their potency during turn-around, their importance to company health, and also their popularity in literature and their potential relevancy to the study. Financial performance measures are important, in that, it helps operations analyse their activities from a financial angle and provide useful information needed to make good management decisions.

Liquidity

Liquidity is a company's ability to meet its short-term obligations. As a measure of liquidity, this study will make use of the financial ratio such as 'acid test' and 'current ratio' to measure liquidity. Companies that are short of working capital could be susceptible to cash flow problems. According to Stone (2012) cash flow problems are the main cause of business failure. It is also a trigger factor for insolvency, although, it is perfectly possible for a profitable firm to become insolvent if it cannot meet its short-term obligations (Lowe and Moroke, 2012). Cash flow problems occur when a company is squeezed between slow paying clients, impatient suppliers and subcontractors, and lenders who are unwilling to make up for the short fall (Stone, 2012).

Profitability

This has been defined in earlier chapters. A potential trigger for insolvency is low profitability (Lowe and Moroke, 2010; Stone, 2012). A contractor that does not make sufficient profit will not stay very long in the business of construction. A long period of low profitability or losses may prove too deep a hole to crawl out of (recovery). Any company not making an adequate return on capital invested is likely to be vulnerable to insolvency.

Leverage

The use of various financial instruments or borrowed capital, to increase the potential return of an investment is known as “leverage” in the financial world (Investopedia, 2014). This is also known as ‘gearing’ – the ratio of company debt to shareholder’s equity. Although leverage can be a very good thing if applied judiciously to complement stakeholder equity, but if applied imprudently, it can quickly turn into a nightmare for a company. A firm with significantly more debt than equity is, considered to be, highly leveraged. Therefore when a firm has got too much debt, it could be very dangerous when there is shortage in cash flow.

Solvency

As opposed to liquidity, solvency is the ability of a firm to meet its long-term debt. This is judged by whether the company is able to pay its debts as they come due. Debt-to-Equity ratio is also a good measure of solvency. The equity-to-debt ratio divides a company's equity by its debt to show whether a company has taken on too much debt, with higher results being favourable and a lower result indicating a greater risk of insolvency.

3.21 Growth and Market Performance

Growth ratios give an indication of how fast a business is growing. Retained earnings, which is the amount of net income reinvested in the company; and profitability levels, are valuable indicators of growth and market performance of a firm because they indicate how much return has been generated from shareholders investments as well as show losses (if incurred). Therefore, growth will be measured by looking at the retained earnings, losses, profit levels and asset turnover of the companies. It is important to note that, although a construction company might be able to generate high sales volume (turnover), it does not necessarily mean high profit or if any profit was made at all. Losses can be incurred due to some unforeseen circumstance. Another factor is the unhealthy or risky practices adopted by some contractors during the recession. For example, bidding below cost to win work, for the sake of keeping afloat until the recession passes (Rowson, 2009).

3.22 Non-financial Variables

The research will also look at non-financial variables such as leadership and stakeholder management since “*companies don’t fail, people fail the company*” (Mayfair, 2015). In addition almost all turnaround authors emphasize the role of people: leaders, management,

employees, creditors, suppliers, etcetera; to turnaround success (Zimmerman, 1989; Altman, 1993; Collins and Porras, 1997; Collins, 2001; Sheppard and Chowdhury, 2005, Mayfair, 2015)

3.23 Research techniques

3.23.1 Data collection

Data was collected from both primary and secondary sources; professional and academic journals, conference papers, government publications and textbooks, company documents and online newspapers. The literature review will inform the formulation of the questions for the interview and will invariably answer objective 1 and 2. The intention of this research is to collect factual information (quantitative data such as financial information) as well as opinions of contractors (qualitative data) who have faced apparent failure but some how turned the company around for success. Therefore, it was felt that the most appropriate method of data collection technique would be 'interview'. Face-face interviews will be held with both senior managers of the contractor, and other figureheads who held key positions of responsibility during the transition era. This will allow a better understanding of the local context and the collection of more precise accurate and reliable data.

The research understands that success could be subjective - what one contractor sees as success, might not be seen in that light by another contractor. Therefore, it is important to find out what success means for the respective companies in this study. Hence developing a yardstick on which the research can measure success or failure. However, the research will not only rely on the words of the executive but will use the company's financial books and Z-score as a sure indication of failure or success. That is to say, respondents' perceptual measures are an acceptable substitute for objective measures where financial figures are not available. The results of this will satisfy objective 2.

There will be two sample groups in this study: sample 1 and sample 2. Sample 1 interview will be conducted on unsuccessful turnarounds to avoid "survivor bias", a concept that was discussed earlier. The aim of this phase is to understand the position of the failed companies: what they did? What they did not do? What they wished they had done and why? Sample 2 data will be collected from existing but experienced companies.

3.24 Data analysis

Content analysis, also known as coding (Bailey, 1978), was adopted as the suitable method of data analysis because of the nature of the research question and volume of data to be analysed. Content analysis is a form of structured analysis, where the researcher is looking for a checklist of specific behaviours. According to Naoum, (2007) the best way to analyse open-ended questions is to code the information in terms of ideas and themes. This is so that large amount of information can be reduced into a few general categories of answers. Similarly, Bailey asserts that coding or content analysis *“is a structured document-analysis technique in which the researcher first constructs a set of mutually exclusive and exhaustive categories that can be used to analyse documents, and then records the frequency with which each of these categories is observed in the documents studied.”* Due to the nature of this research the open-ended questions were coded after the data was collected. The method of analysis adopted is the inferential method because the research entails comparison of phenomena and not descriptive analysis method that seeks to give a general overview and idea of what is happening on the case study (Miles and Huberman, 1994). From the coded segments, the research will make use of a combination of unreduced text, tabulation and/or pie chart to analyse the data. The research has adopted Carney’s (1990) “Ladder for Analytical Abstraction” as seen in Figure 3.1. The research will begin with the transcribed text sieved from the interview tapes, then go on to code the information to identify some themes and trends, tested hunches and findings; and lastly, integrate the data into an explanatory framework. The coding process will constitute the following;

- Collection of all articles published on all the companies that made it into the study.
- Systematically code all the materials into categories, such as; liquidity, profitability, leverage, solvency, activity, leadership, business strategy, strategic process, technology, organisation arrangement, social factors, markets, competitors and environment, product services, physical setting and location, use of technology, vision: core values and purpose as suggested by the literature review.
- Coding of successful turnaround companies
- Coding of unsuccessful turnaround companies

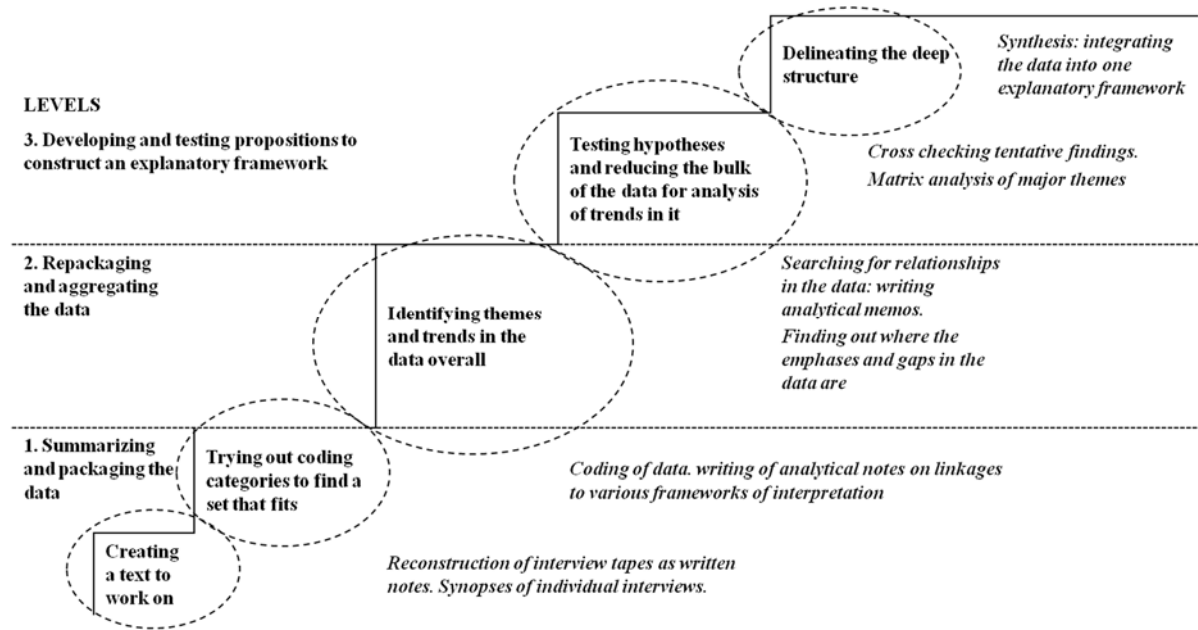


Figure 3.1: The Ladder for Analytical Abstraction (source: Carney, 1990)

To ensure proper analysis and adequate discussion, each question was be taken on its own merit by first explaining the reason for, or the importance of asking the question and then discussing the responses. The coding was done manually.

3.25 Validity and Reliability

McNeill and Chapman (2005) and Gillham (2005) are advocates of the test of reliability. The latter states that a test is considered reliable if upon retesting, it produces consistent results. Similarly, the former, defined reliability as having consistent and similar results after a research method is used on two separate occasions by two separate researchers. On the other hand, validity considers the truthfulness of the data collect and the interpretations of the results. Depending on the type of research, quantitative or qualitative, the method of testing validity will differ. For quantitative research, validity is tested based on measures of errors, statistics, sampling and instrumentation, while, qualitative test for validity involves aspects of honesty, richness of data, depth of research, triangulation and objectivity.

Generalizability on the other hand, deals with potential of extrapolation – that is, can the findings based on sample be extrapolated on a larger group? Since qualitative research aims

to obtain respondents' responses, opinions, feelings and thoughts, within a particular contexts, and therefore the respondents' subjective view, it may be difficult to prove generalizability. However, findings from qualitative research can be transferred and may be relevant depending on the richness and depth of the data (Finlay 2006).

As such Lincoln and Guba (1985) developed a research evaluation criteria for qualitative research that consists of credibility and transferability test, and dependability and conformability tests. Credibility looks at the extent to which the findings make sense, transferability looks at the context in which the research findings was obtained and whether it can be applied elsewhere, dependability looks at documentations of milestones that helped the researcher arrive at their conclusions and whether they can be retraced to achieve the same results, and lastly conformability looks at whether the research findings corresponds to findings of the same research but using a different method. Triangulation is a form of conformability test for qualitative research.

There are several strategies for achieving credibility, transferability, dependability and conformability in qualitative research. To mention a few; member checking, use of rich descriptions, presenting negative of discrepant information (Creswell, 2003), triangulation, in-depth methodology descriptions, examination of previous research to frame findings (Shenton, 2004), and peer debriefing (Onwuegbuzie and Leech (2007).

Member Checking is a method of evaluating credibility of findings from qualitative research by sending the final report to a subset of the research respondents so they can determine whether the findings are accurate and/or represent reality. This research made use of member checking to assess credibility of findings because it provides an opportunity for the respondents to see whether the findings actually represent the reality they live in. In addition, there were *rich descriptions and documentations* of the research findings so that the reader can be drawn into the respondents' world and may relate to some shared experiences. The use of rich descriptions adds to the credibility of a research finding. The research also describes the companies (found in Appendix 1) in great detail, and also describes each strategy in detail using the experiences of the respondents and relating it to literature. *Presenting discriminant opposite points of views* within a research added to the credibility of findings for the reader. This was done to help the readers see the result from

different perspectives or angles. Presenting discriminant or negative information is part of critical research, which this research has done very well, from literature review to the conclusions.

Another aspect of validation is conformability. *In-depth methodology descriptions tests conformability*; looks at whether the research methodology is described in detail and whether the documentations of the research process actually leads to the conclusions. The research methodology of this study has been described in great detail, from research philosophy, research methods, sampling, to data collection and analysis. *Triangulation* on the other hand uses one of more methods to assess the validity of a research finding (Shenton, 2004). In this research both qualitative and quantitative data were collected and were found to conform to each other.

The other validity strategy adopted in this research is “*examination of previous research to frame findings*”. All of the findings of this research have been supported by literature and have been shown to conform to previous research findings. Chapter 4 and 5 documents this. The only validation strategy, which was mentioned but not used, is *Peer debriefing*. Peer debriefing is a “process of exposing one’s self to disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (Lincoln and Guba, 1985). This method was not used in this research finding knowledgeable people in the research area who could be willing to avail themselves for the exercise, was not possible.

3.26 Summary

The philosophical position of this research with regards to ontology, epistemology and axiology are: subjectivism, interpretivism and value-laden respectively. This is because social phenomena is created by social actors and their interactions with the phenomenon, depends on their subjective interpretations of the phenomena, which also could be influenced by subjective values and biases. Therefore, the research is inductive, qualitative, and exploratory in nature and finds its roots in grounded theory approach type of study because it begins at the empirical level and ends at the conceptual level (Emmel, 2013). Unlike the deductive approach which proceeds from conceptual level to the empirical level.

Using purposeful/purposive sampling and stratified sampling, unsuccessful turnaround companies were randomly selected from three websites to form sample 1, while live and still trading companies were also purposively selected and put under the test of Altman's Z-Score to see which companies generated the right turnaround profile – decline, transition, and recovery; and this group formed sample 2. Purposeful sampling, was the suitable method of selecting unsuccessful and successful turnarounds companies because it makes a judgement about who or what to sample with respect to the purpose of the study, its context, and the specific audience for the research.

The technique adopted for data collection was interviews using open-ended questions. This technique allowed for a better understanding of the local context and the collection of more precise accurate and reliable data. Manually 'content analysis' was adopted for the purpose of data analysis to code the information in terms of ideas and themes that will support the development of the desired recovery framework for construction SMEs. Finally, the study will be seen to achieve validity through six of the validation strategies mentioned above: member checking, use of rich descriptions, presenting negative or discrepant information, triangulation, in-depth methodology descriptions, and examination of previous research to frame findings. Peer debriefing was not used because of the unavailability of peers that are knowledgeable in the field of study. However, because saturation was reached early, it is likely that the results of peer debriefing would be the same as the other validation strategies used in this thesis.

4 CHAPTER 4| PRESENTATION OF COMPANIES AND ANALYSIS

4.1 Introduction

This Chapter introduces the financial information of the cases under the study as well as their respective company histories, background, main activities, cause of decline and Z-score profiles. The first purpose for generating company Z-score profiles was necessary to identifying the turnaround companies. Not only is the Z-score model easy to use, it also provides clear distress, grey and safe zones that can be used as milestones/benchmarks for the turnaround (Ross and Williams, 2013; Kirk, 2008). The second purpose was to identify the obvious areas of concern during decline and to investigate, during the interview, how the companies dealt with the issues that enabled them return to financial health. The areas of concern could be any or a combination of the financial variables, liquidity, leverage, profitability, and solvency.

4.2 Company Profiles

It is a general understanding in academia that before analysis and discussion involving in-depth surveys of companies, the reader should be given an idea of the cases. As such, it is the responsibility of the researcher to provide an overview of the cases under the study to help the reader grasp certain points as they relate to particular companies and as they fit within the overall context of the study. Now, due to the large number of cases discussed in this study, and the bulk of information presented while analyzing each individual company, it was deemed fit that this information be moved to Appendix 1. The reader, if interested in more information on any individual case, is welcome to go to Appendix 1. In place of that, the research has created a summary of the companies' background; name, age, number of employees, cause of decline, and current company status in Table 4.1. The background of respective company respondents is also given in the table. It is imperative to know that for anonymity and confidentiality sake, the names of the companies have been changed and the names of respondents withheld.

Table 4.1: Company Background

	Company Codes	Role of Respondent	Years with Company	Cause of decline	Age	No. of Employees	Company status

Chapter 4: Presentation of Companies and Analysis

Unsuccessful Turnarounds	CB1 Construction	Finance Director	15 years	High gearing levels, Bad Debt, losses, over reliance on local authority work	11	0-50	Dissolved
	HFB2 Construction	Group Chairman	24 years	Lack of support from the banks, high gearing levels	59	0-50	Liquidation
	BH3 Construction	Finance Director	9 years	High gearing levels, Growth fever	71	0-50	Administration
	MLC4 Construction	Operations Director	20 years	Bad Debt	42	23	Dissolved
	GCE and Co. Construction	Director	13 years	Cash flow and tighter competition	60	89	Dissolved
	AWH5 construction	Director	7 years	Bad Debt, Cash-flow and tighter competition	52	200-250	Liquidation
	EJ6 Construction	Director	7 years	Cash-flow and tighter competition	46	200-250	Administration
	CDJ7 Construction	Chairman & Owner	38 years	Bad Debt, Over-expansion and Management incompetence	48	159	Liquidation
		Company Secretary	30 years				
	SBW8 Construction	Director	10 years	Bad Debt	60	247	Liquidation
	KUP1 Construction	Director	9 years	Tighter competition	10	0-50	Active
	MK2 Construction	Managing Director	8 years	Decline in the housing market	27	150-200	Active
Successful Turnarounds	LD3 Construction	Group Finance Director	10 years	Bad Debt, and contractual mistakes leading to massive losses	93	0-50	Active
	BT1 Construction	Contracts Director	8 years	Tighter competition	83	107	Active
	TG2 Construction	Company Secretary	25 years	Over reliance on one sector	24	137	Active
	CM3 Construction	Operations Director		Tighter competition	14	200-250	Active
	GP4 Construction	Owner	8 years	Bad Debt, and lack of managerial control	94	19	Active
	CV5 Construction	Director	9 years	Tighter competition	38	150	Active
	CG6 Construction	Director Estimator	16 years	Bad Debt, and Tighter competition	93	70	Active
	CF7 Construction	Managing Director	20 years	Bad Debt and Over reliance on one sector – Social housing	71	0-50	Active
	CI8 Construction	Company Accountant	10 years	Over reliance on one sector – Local authority work. Tighter competition	55	0-50	Active
		Director	26 years				
	TW9	Accountant	7 years	Tighter competition	97	0-50	Active

	Construction	Financial Director	24 years				
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Successful turnaround companies show a decline point (inside the red zone or close), a transition point, and a recovery point – out of the red zone and into the grey zone or healthy zone. Generally, construction companies have a low Z-score (Alfan and Zakaria, 2013) because of their financial structure and the nature of the industry – low profit margins and high gearing (Clough et al, 2005). Here is the Z-score model again:

$$Z = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4).$$

Where:

Z = Overall index of corporate health;

X₁ = Working Capital/Total Assets (WC/TA)

X₂ = Retained Earnings/Total Assets (RE/TA)

X₃ = Earnings Before Interests And Taxes/Total Assets (EBIT/TA)

X₄ = Net Worth/Total Liabilities (NW/TL)

Components of Z-score - $Z = F1 + F2 + F3 + F4$

Where:

F1 = 6.56(X₁)

F2 = 3.26(X₂)

F3 = 6.72(X₃)

F4 = 1.05(X₄)

These components show how the variables performed yearly and most importantly, which one of them had the greatest influence on the company's Z-score. Altman and LaFleur (1981) and Altman (1993) advocate that since the Z-Score is a bankruptcy prediction model, once it identifies areas that require attention, urgent management action should be taken to actively influence the financial ratios in the model in order to foil the model's prediction of bankruptcy and return the company to a strong financial base – suggesting an “active approach” to turnaround.

Disclaimer: The financial data used for this analysis was obtained from Company House and therefore a reliable source. This research is operating on the ‘trust’ that companies have submitted ‘true’ company financial figures to the Company House.

4.3 Financial Health Analysis

4.3.1 Unsuccessful Turnaround Companies

The financial analysis of unsuccessful turnaround showed that the decline of the sample population of unsuccessful turnaround companies majorly started around 2008 – the time the companies started to feel the crunch, as illustrated in Figure 4.1.

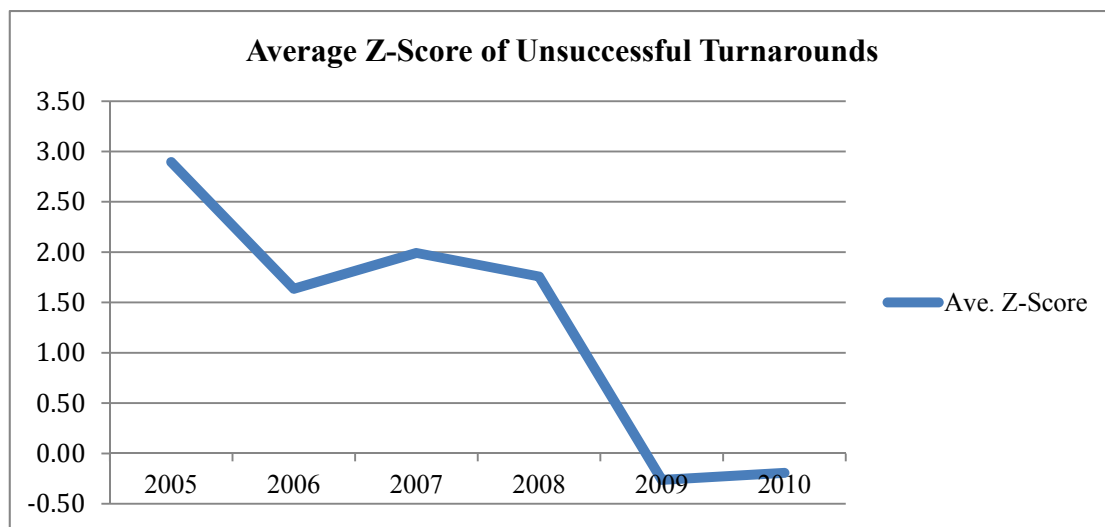


Figure 4.1: Average Z-score of Unsuccessful Turnarounds

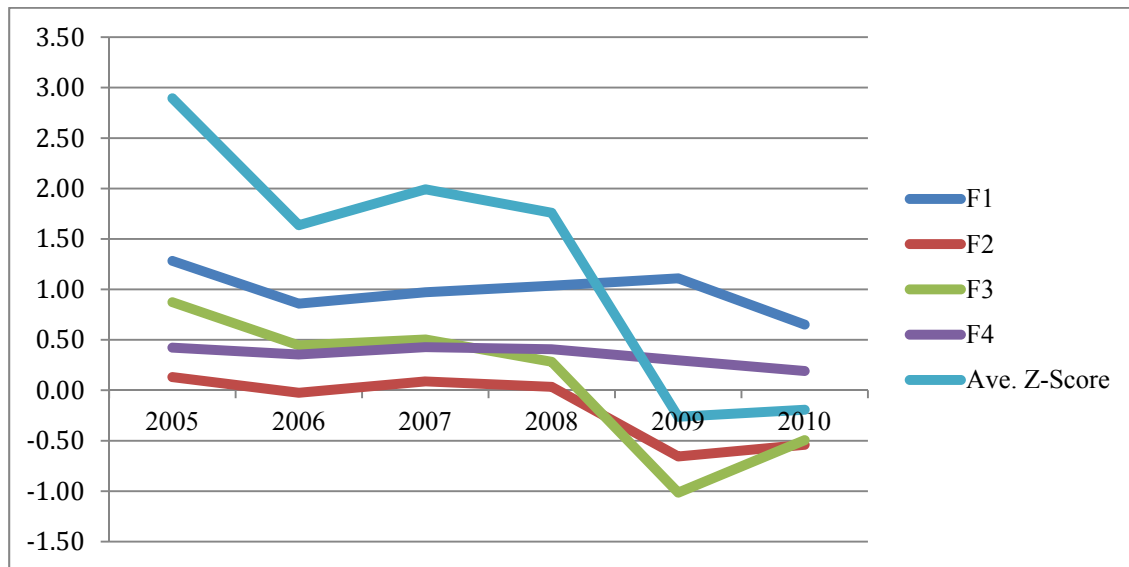


Figure 4.2: Average Z-score Components of unsuccessful Turnaround Companies

Figure 4.2 shows that the Z-score of unsuccessful turnaround companies were greatly influenced by F3 (X3 component), followed by F1 (X1 component). Therefore as earning potentials (profitability) and liquidity (working capital) decreased, the companies' financial health suffered. In other words improving profitability and working capital during recovery will improve the Z-score and hence the financial health of the company. The next most influential factors responsible for changes in the financial health of unsuccessful turnarounds are F2 (X2 component) and F4 (X4 component).

4.3.2 Successful Turnaround Companies

Table 4.2 show how the sample population of successful construction companies generally performed with regards to their financial health before and after the recession of 2007. Figure 4.3 shows that the year 2010 was the most difficult year for successful turnaround companies. But as time went on, 2010 onwards, general recovery brought about more financial health or performance on average, than prior to the recession. Figure 4.3 also shows that successful turnaround companies performed better coming out of the recession than before going into the recession of 2007. This is evident in the average Z-score as shown in Table 4.2 and represented in Figure 4.3.

Table 4.2: Average Z-score of Successful Turnaround Companies

	2006	2007	2008	2009	2010	2011	2012	2013	2014
BT1	1.79	1.77	1.29	1.15	-0.77	1.43	1.39	1.91	1.39
TG2	3.38	0.53	1.25	0.46	1.38	1.63	1.75	3.21	
CM3	1.27	1.96	0.59	0.69	1.07	1.77	1.42	1.46	1.41
GP4		5.30	7.42	4.73	0.85	1.94	3.07	3.96	3.63
CV5	-1.57	-0.44	0.04	-0.04	0.36	1.35	1.73	2.58	2.65
CG6	0.88	1.21	0.98	0.95	1.41	1.47	1.72	1.72	1.50
CF7	0.58	0.70	1.09	1.78	1.73	1.54	1.40	1.82	
CI8	1.40	1.20	2.45	2.96	3.24	3.53	2.29	2.48	3.20
TW9	1.71	1.22	2.39	2.98	2.64	1.87	2.40	1.78	
AVERAGE	1.18	1.50	1.94	1.74	1.32	1.84	1.91	2.32	2.30

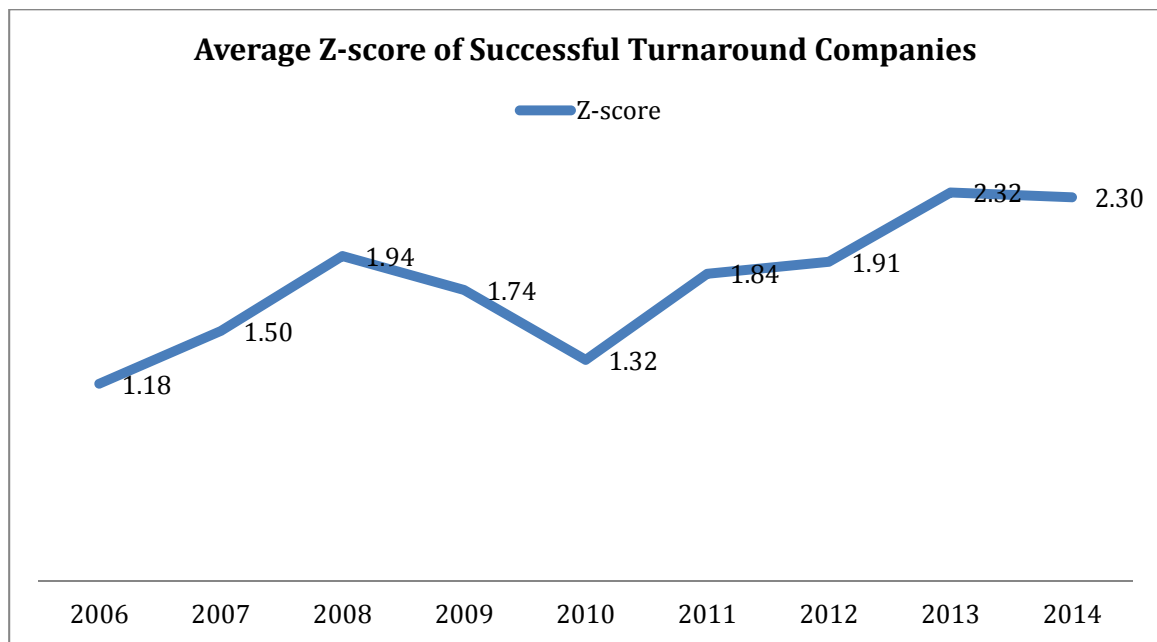


Figure 4.3: Average Z-score of Successful Turnarounds

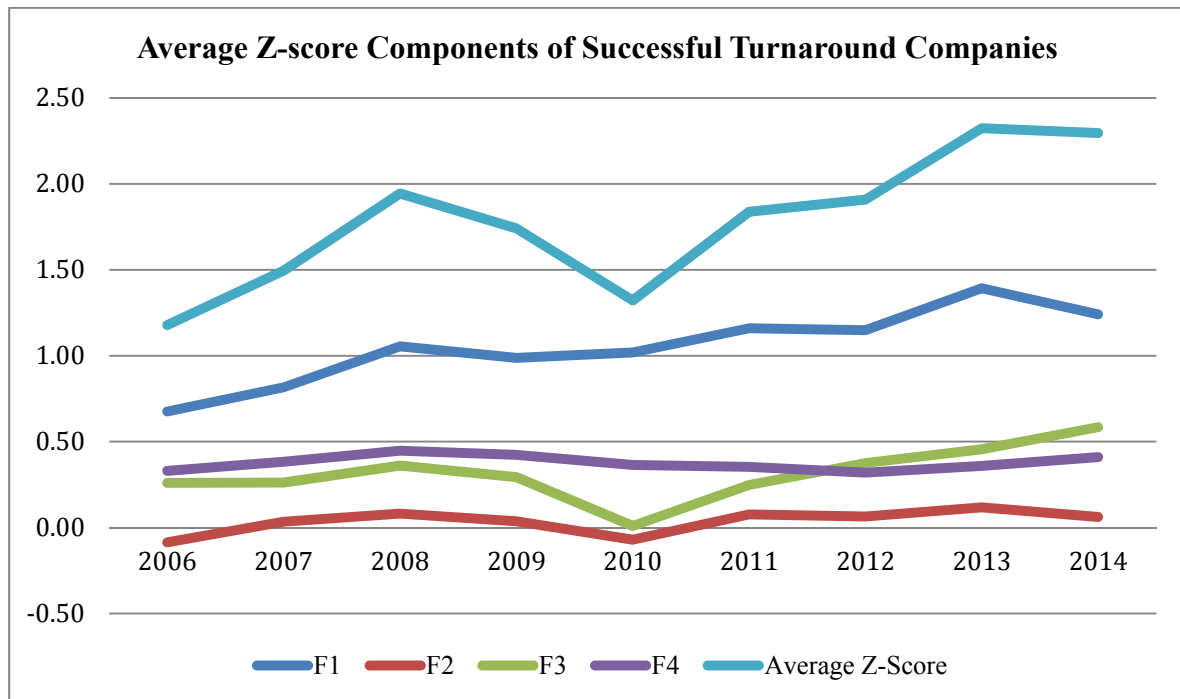


Figure 4.4: Average Z-score Components of Successful Turnaround Companies

Figure 4.4 show that F1 (X1 component) ratio has the major influence on the Z-score successful turnaround. In other words, when this ratio decreases, company financial health suffers and when the ratio increases, company financial health is stronger. It therefore means that increasing working capital is pivotal to the survival of construction companies within the study. The next variable with the most influence on the Z-score is F3 (X3 component), which looks at the earning potential of a company's assets; F4 (X4 component), which inherently looks at gearing and solvency; followed by and lastly F2 (X2 component), which looks at growth.

Now the averages show that the Z-scores of unsuccessful turnaround companies were greatly influenced by changes in F3 (X3 component), followed by F1 (X1 component), then F2 (X2 component) and F4 (X4 component), while the Z-scores of successful companies was greatly influenced by changes in F1 (X1 component), followed by F3 (X3 component), F4 (X4 component) and F2 (X2 component). The results suggest that X1 and X3 are most influential on the Z-score index in both groups.

4.3.3 Comparison of the performance of successful and unsuccessful turnarounds in their respective decline years

Table 4.3 shows the averages (means) of the Z-Score and the performance of F1 (X1 component), F2 (X2 component), F3 (X3 component), and F4 (X4 component), in unsuccessful turnaround companies and successful turnaround companies during their decline years. The Table shows that successful turnaround companies fared better than unsuccessful turnaround companies during their decline years, as evident in the averages (means).

Table 4.3: Performance of Unsuccessful and Successful Turnaround Companies in their Decline Years

Decline Years of Unsuccessful Turnaround (UT) Companies						
		F1	F2	F3	F4	Z-score
CB1	2007	-0.29	-0.26	-0.32	-0.19	-1.06
HFB2	2010	0.99	-2.56	-3.17	-0.53	-5.27
BH3	2009	2.07	-3.24	-6.50	0.49	-7.17
GCE & Co.	2004	0.13	0.02	-0.02	0.07	0.20
AWH5	2008	0.96	-0.04	0.83	0.34	2.09
EJ6	2011	-0.16	-0.08	-0.06	0.46	0.16
CDJ7	2010	-0.34	-0.50	-0.14	0.02	-0.96
SBW8	2008	-1.51	0.30	0.39	0.01	-0.81
KUP1	2009	0.30	0.00	0.18	0.06	0.54
MK2	2009	1.67	-0.59	-1.34	0.54	0.28
LD3	2012	-1.26	-0.68	-1.38	-0.16	-3.48
	UT (M)	0.23	-0.69	-1.05	0.10	-1.41
Decline Years of Successful Turnaround (ST) Companies						
		F1	F2	F3	F4	Z-score
BT1	2010	0.67	-0.84	-0.75	0.14	-0.77
TG2	2009	0.29	-0.24	0.33	0.08	0.46
CM3	2008	0.33	0.00	0.05	0.21	0.59
GP4	2010	1.58	-0.42	-0.85	0.53	0.85
CV5	2006	-1.19	-0.28	-0.58	0.48	-1.57
CG6	2008	0.33	0.09	0.36	0.20	0.98
CF7	2006	0.56	-0.89	0.68	0.24	0.58
CI8	2007	0.85	-0.11	0.00	0.47	1.20
TW9	2007	0.91	0.03	0.08	0.20	1.22
	ST (M)	0.482	-0.295	-0.077	0.283	0.39
Independent sample <i>t</i> -test for the Decline Years						
		F1	F2	F3	F4	Z-score
UT (M)		0.23	-0.69	-1.05	0.10	-1.41
ST (M)		0.48	-0.29	-0.08	0.28	0.39
Alpha (α)		0.05	0.05	0.05	0.05	0.05

<i>df</i>	18	18	18	18	18
<i>t</i> value	0.596	1.089	1.464	1.601	2.01
<i>p</i> values	0.559	0.297	0.170	0.130	0.066

But can the differences in the means or averages in the respective variables of the Z-score be asserted with any confidence? In other words, are the differences in the means statistically significant or reliable? Can the thesis conclude, with any confidence, that because the mean of successful turnarounds is higher than the mean of unsuccessful turnarounds, therefore, successful turnaround companies performed better in their decline years than the unsuccessful turnarounds? And, can the results be expected with a different group/sample of the same population? To test whether successful and unsuccessful turnaround companies are associated with statistically significantly different mean Z-scores and as such F1, F2, F3, and F4, at decline; an independent sample ‘*t*-test’ was performed.

A *t*-test is an inferential statistic that checks if two means (averages) are significantly or reliably different from each other, and allows the researcher to make inferences about the population beyond the data (Schmider, et al. 2010). An alpha (α) = 0.05 was chosen as the benchmark for results to be considered reliable. Therefore, *p*-value of 0.05 means that there is a 5% chance that results produced by the sample data can be produced by random data. The data also satisfies the assumptions. As can be seen in Table 4.4, the unsuccessful and successful turnaround companies’ distributions were sufficiently normal for the purposes of conducting a *t*-test (i.e. skew < |2.0| and kurtosis < |9.0|). Additionally, homogeneity of variances was not assumed. The results show that:

- With regards to Z-scores in the Decline years, unsuccessful turnaround companies (n=11) were associated with a lower Z-score, $M = -1.41$ ($SD = 2.78$) in the decline year. By comparison, the successful turnaround companies were associated with a numerically higher Z-score, $M = 0.39$ ($SD = 0.95$). The independent samples *t*-test was *NOT* associated with a statistically significant difference, $t(18) = 2.01$, $p = 0.066$ (see Table 4.3). Since $p = 0.066$ is greater than $\alpha = 0.05$, therefore, successful turnaround companies were not associated with a statistically significantly higher mean Z-score than unsuccessful turnaround companies. In other words, we can expect to find the decline in performance of both successful and unsuccessful turnaround to be statistically similar in the population. Although, it can be argued

that there would have been a statistically significant difference had the thesis chosen ‘alpha (α) = 0.10, since $p = 0.066$.

- Similarly, Table 4.3, and Table 4.4 show that the, working capital (liquidity), retained earnings (growth), EBIT (profitability), and Net worth (solvency) means (M), i.e. F1, F2, F3, and F4 means; of successful and unsuccessful turnaround companies were *NOT* associated with statistically significant differences, where; F1 $\{t(18) = 0.596, p = 0.559\}$, F2 $\{t(18) = 1.089, p = 0.297\}$, F3 $\{t(18) = 1.464, p = 0.170\}$, and F4 $\{t(18) = 1.601, p = 0.130\}$ (see). Thus, successful companies were not associated with a statistically significantly higher means of F1, F2, F3, and F4, than unsuccessful turnaround companies. To put it differently, the decline in liquidity, growth, profitability and solvency of successful and unsuccessful turnaround companies at the ‘decline stage’ was similar.

Table 4.4: Descriptive analysis associated with the performance of Unsuccessful and Successful Turnaround Companies’ at Decline

Z-scores in the Decline years					
	M	n	SD	Skew	Kurtosis
Unsuccessful	-1.41	11	2.775	-1.11	0.56
Successful Turnarounds	0.39	9	0.948	-1.46	1.33
F1 - Working Capital (liquidity)					
	M	n	SD	Skew	Kurtosis
Unsuccessful	0.23	11	1.122	0.09	-0.60
Successful Turnarounds	0.48	9	0.745	-1.24	3.51
F2 - Retained Earnings (Growth)					
	M	n	SD	Skew	Kurtosis
Unsuccessful	-0.69	11	1.140	-1.71	1.91
Successful Turnarounds	-0.29	9	0.362	-0.86	-0.54
F3 - EBIT (Profitability)					
	M	n	SD	Skew	Kurtosis
Unsuccessful	-1.05	11	2.120	-2.01	4.24
Successful Turnarounds	-0.08	9	0.533	-0.33	-1.22
F4 – Net worth (Solvency)					

	M	n	SD	Skew	Kurtosis
Unsuccessful	0.10	11	0.331	-0.29	-0.41
Successful Turnarounds	0.28	9	0.164	0.60	-1.39

4.3.4 Comparison of the performance of successful companies in their declines and turnaround years

Table 4.5 shows the performance of successful turnaround companies at decline and at turnaround i.e. the Z-score, F1 (X1 component), F2 (X2 component), F3 (X3 component), and F4 (X4 component). The Table shows that successful turnaround companies performed better in their turnaround years than in their decline years, as evident in the averages (means). But are the differences in the means statistically significant or reliable? To test whether successful turnaround companies were associated with a statistically significantly different mean Z-scores and as such F1, F2, F3, and F4, at the decline and turnaround years; a paired sample 't-test' was performed.

Table 4.5: Performance of Successful Turnaround Companies at Decline and Turnaround Years

Decline Years of Successful turnaround companies						
		F1	F2	F3	F4	Z-score
BT1	2010	0.67	-0.84	-0.75	0.14	-0.77
TG2	2009	0.29	-0.24	0.33	0.08	0.46
CM3	2008	0.33	0.00	0.05	0.21	0.59
GP4	2010	1.58	-0.42	-0.85	0.53	0.85
CV5	2006	-1.19	-0.28	-0.58	0.48	-1.57
CG6	2008	0.33	0.09	0.36	0.20	0.98
CF7	2006	0.56	-0.89	0.68	0.24	0.58
CI8	2007	0.85	-0.11	0.00	0.47	1.20
TW9	2007	0.91	0.03	0.08	0.20	1.22
	Decline	0.482	-0.295	-0.077	0.283	0.393
Turnaround Years of Successful turnaround companies						
		F1	F2	F3	F4	Z-score
BT1	2011	0.74	0.13	0.40	0.15	1.43
TG2	2010	0.64	0.19	0.41	0.14	1.38
CM3	2011	0.77	0.21	0.53	0.26	1.77
GP4	2011	1.53	-0.02	-0.06	0.49	1.94

CV5	2011	-0.09	0.20	0.80	0.45	1.35
CG6	2010	0.60	0.07	0.38	0.35	1.41
CF7	2009	1.17	0.07	0.20	0.34	1.78
CI8	2008	2.18	0.00	0.01	0.27	2.45
TW9	2008	1.40	0.18	0.50	0.31	2.39
	Turnaround	0.994	0.114	0.352	0.306	1.766
Paired sample <i>t</i>-test of the turnaround years						
		F1	F2	F3	F4	Z-score
Decline Years (M)		0.482	-0.295	-0.077	0.283	0.393
Turnaround Years (M)		0.994	0.114	0.352	0.306	1.766
<i>df</i>		8	8	8	8	8
<i>t</i> value		1.546	3.290	2.154	0.353	3.964
<i>p</i> values		0.005	0.004	0.032	0.258	0.0003

An alpha (α) = 0.05 was chosen as the benchmark for results to be considered reliable. Therefore, the *p*-value of each test must be greater than 0.05. The data also satisfies the assumptions. The decline and turnaround years' distributions were sufficiently normal for the purposes of conducting a *t*-test (i.e. skew < |2.0| and kurtosis < |9.0|) as can be seen in Table 4.6. The results show that:

- The Z-scores of successful turnaround companies (n=9) were associated with a lower Z-score, M = 0.393 (*SD* = 0.948) in the decline years. Whereas, in the turnaround years, successful turnaround companies were associated with a numerically higher Z-score, M = 1.766 (*SD* = 0.426). The paired samples *t*-test was associated with a statistically significant difference, $t(8) = 3.964$, $p = 0.0003$ (see Table 4.5). Since $p = 0.0003$ is less than $\alpha = 0.05$, therefore, successful turnaround companies were associated with a statistically significantly higher mean Z-score in their turnaround years than in their decline years. In other words, this thesis can say, with 95% confidence level that successful turnaround companies performed better in their turnaround years than in their decline years.
- Similarly, F1 which looks at working capital (liquidity) of successful turnaround companies, (n=9) was associated with a lower: M = 0.482 (*SD* = 0.745) in the decline years compared to a numerically higher liquidity (F1), M = 0.994 (*SD* = 0.658) in the turnaround years. The paired samples *t*-test was associated with a statistically significant difference, $t(8) = 1.546$, $p = 0.005$ (see Table 4.5). Therefore,

successful turnaround companies were associated with a statistically significantly higher mean liquidity in their turnaround years than in their decline years.

- F2 which inherently looks at companies' retained earnings and growth was associated with a lower $M = -0.295$ ($SD = 0.362$); in the decline years compared to a numerically higher growth (F2), in the turnaround years, with $M = 0.114$ ($SD = 0.088$). The paired samples t -test was associated with a statistically significant difference, $t(8) = 3.290$, $p = 0.004$ (see Table 4.5). Therefore, successful turnaround companies were associated with a statistically significantly higher mean growth in their turnaround years than in their decline years.
- F3 which inherently looks at companies' profitability, was associated with a lower $M = -0.077$ ($SD = 0.533$); in the decline years compared to a numerically higher profitability (F3), in the turnaround years, with $M = 0.352$ ($SD = 0.269$). The paired samples t -test was associated with a statistically significant difference, $t(8) = 2.154$, $p = 0.032$. Therefore, successful turnaround companies were associated with a statistically significantly higher mean profitability in their turnaround years than in their decline years.
- Lastly, F4 which inherently looks at companies' net worth and solvency, was associated with a lower $M = 0.283$ ($SD = 0.164$); in the decline years compared to a numerically higher solvency (F4), in the turnaround years, with $M = 0.306$ ($SD = 0.117$). The paired samples t -test showed that there was *NOT* a statistically significant difference, $t(8) = 0.353$, $p = 0.258$. Therefore, successful turnaround companies were not associated with a statistically significantly higher mean solvency in their turnaround years than in their decline years. In other words, successful turnaround companies had similarly solvency levels in both decline and turnaround years.

Table 4.6: Descriptive analysis associated with Successful Turnaround Companies

Z-scores in Successful Turnarounds					
	M	n	SD	Skew	Kurtosis
Decline Year	0.393	9	0.948	-1.46	1.33
Turnaround Year	1.766	9	0.426	0.75	-0.86

F1 - Working Capital (liquidity)					
	M	n	SD	Skew	Kurtosis
Decline Year	0.482	9	0.745	-1.24	3.51
Turnaround Year	0.994	9	0.658	0.28	0.46
F2 - Retained Earnings (Growth)					
	M	n	SD	Skew	Kurtosis
Decline Year	-0.295	9	0.362	-0.86	-0.54
Turnaround Year	0.114	9	0.088	-0.53	-1.31
F3 - EBIT (Profitability)					
	M	n	SD	Skew	Kurtosis
Decline Year	-0.077	9	0.533	-0.33	-1.22
Turnaround Year	0.352	9	0.269	-0.14	-0.13
F4 – Net worth (Solvency)					
	M	n	SD	Skew	Kurtosis
Decline Year	0.283	9	0.164	0.60	-1.39
Turnaround Year	0.306	9	0.117	0.07	-0.61

Now the thesis will look deeper into how both groups, successful and unsuccessful turnaround companies, performed with regards to cash flow and change in working capital (liquidity), gearing, and profitability, as they tried to improve their companies' financial health.

4.4 Return To Financial Health

According to Kirk (2015), there are three fundamental building blocks to a successful return to financial health. They involve three operational strategies: ensuring sufficient short-term liquidity, reducing long-term gearing, and increasing profitability.

4.5 Cash flow

Liquidity was found to be the first concern of most of the companies. All respondents pointed out that access to additional capital is top on the list of factors necessary for a successful recovery in the construction industry. For example, respondents' comments on liquidity:

“The immediate plan was to improve the working capital of the company”

“I’d say first of all you’d need the support of investors whether that’s the bank or whether it’s a financial institution... access to additional working capital... It’s cash that kills you,

not profitability. You can trade effectively with a continuing loss as long as you maintain the cash position.”

All 24 respondents said their first action for operational recovery is to increase working capital (Cash flow) by any means possible. Clearly, from our financial analysis, improving working capital/Cash flow is the most important part of the turnaround endeavor among the cases within this study. Improvement on working capital improves the Z-score and therefore company financial health and vice versa. The most common definition for working capital is current assets less current liabilities. This formula is supposed to give a clue as to the liquidity of the company. However, this may be misleading. Not all current assets are liquid; stock, debtors and work in progress are not easily converted into cash in some instances, as such a company may still have a shortfall in Cash flow even when the working capital looks healthy. Therefore the change in working capital is what's important because that tells the cash flow position of the company. The true test of liquidity is 'Cash' – how much cash is in the hands of management (Ross and Williams, 2013).

Thomas, (2013) and Sears et al (2015), state that Working Capital as it is, tells us very little. Therefore, it is better to look at 'working capital' from how it changes over time. That is, the 'change in working capital' is what's important. According to Sears et al (2015), house builders have a 'positive working capital requirement'. That means, a house builder would usually need additional cash to grow and would normally have a positive working capital since the firm would have paid all the costs of building the houses in advance before selling it. Positive working capital also depicts 'negative change in working capital', where operating current assets are increasing by more than operating current liabilities. On the other hand, a contractor has a negative working capital requirement (positive change in working capital), where operating current liabilities are increasing by more than operating current assets. This is because, the contractor can generate cash to grow through advance payment, whereas the house builder needs additional cash grow. A positive working capital (negative change in working capital) is particularly bad for a contractor because it decreases cash flow and it indicates that a company has too much cash tied in stock, and/or has too much cash in the hands of debtors. Unless a contractor has plenty of cash reserve to meet obligations as they arise, the company could be in trouble. For the house builder, a negative working capital (positive change in working capital) is not so good because it means that

there is more payments to make than receipts, less stock to sell and therefore little money coming in.

Recalling the concept of negative working capital in Chapter 2, for contracting firms, negative working capital (positive change in working capital) could be a sign of management efficiency, where the company has a good line of credit from the supply chain and turnover increases thereby increasing deferred income, and the excess cash is invested in fixed assets or other long-term investments (Sears et al, 2015; Thomas, 2013). The difference between the disbursements and incomes would result in a negative or a positive (excluding cash and debt) operating working capital, which shows how management manipulates the company's current assets and current liabilities to fund its on-going operations. This manipulation of assets and liabilities shows the net effect on cash flow. Investors and lenders usually pay attention to a company's Change in Operating Working Capital to determine its free cash flow whether a company can consistently reproduce high return on investment (ROI) and therefore to lend or not.

That is why this research has looked at Cash flow from the change in working capital point of view. A company with assets greater than liabilities can still fail if it does not have sufficient cash to meet obligations as they fall due (Kirk, 2008). Now, change in working capital looks at the current asset section of the balance sheet as a cost to the company (excluding cash) because, effectively, the company is spending cash. Whereas, on the current liabilities section of the balance sheet, effectively the company is getting cash and therefore increasing in cash flow. Consequently, negative change in working capital decreases cash flow as current assets increase more than current liabilities and the opposite is true for positive change in working capital. To be explicit, positive change in working capital increases cash flow, as such, the increase of current liabilities over current assets is better for cash flow. This may sound counter-intuitive, since it may require borrowing additional funds to repay short-term debt and finance ongoing operations. But the company will still be liquid and would have money at its disposal to finance its operations. Which is better than having no debt but not having the money to finance operations and ultimately means insolvency, if not in the long-term, at least in the short-term. Hence, the immediate priority for contractors especially those in a turnaround process is to ensure the liquidity of their companies by keeping change in working capital 'positive', unless they have a lot of

cash in their reserve to supplement for cash flow shortfall. The contractor must have guile in doing this so as not to become overleveraged, upset subcontractors and suppliers for delays in payment, and/or be seen by clients as too demanding in terms of payment. On the other hand, it is in the interest of the house builder to keep change in working capital 'negative' so he has a good amount of stock to sell to make profit. However, if the house builder's change in working capital becomes positive, he would require a cash buffer or would need to get additional cash to meet obligations.

This is true for the industry at large. Cash flow plays massive role in the survival of both large and small construction companies. Now let's look at the companies in terms of Cash flow in the decline and turnaround years. The first three companies CB1 construction, HFB2 construction, and BH3 construction are all traditional house builders, while all the others are Contractors (contracting companies).

A contractor with negative change in operating capital runs the risk of short-term insolvency as assets exceed liabilities, if he/she cannot get work. This is because a contractor does not have large amounts of stock to generate cash when Cash flow drops (Sears et al, 2015; Thomas, 1013). Also, part of the problem for the contractor is that, much of company's current asset is made up of account receivables (trade debtors), which means that a contractor with a growing operating working capital, is waiting too long for payments and may not be able to pay his/her bills, unless he/she has a decent cash reserve or borrows additional funds to augment Cash flow. The contractor with a negative change in working capital has flipped the contractor's business model and is at risk of failure unless the change is not significant enough to impact cash flow, and the company has a decent amount of cash and/or borrowed money. A house builder with a positive change in working capital runs the risk of short-term insolvency because he does not have the ability to generate cash like the contractor, but relies on his stock levels to generate income and profit, and when that is no more, the house builder is out of business.

Table 4.7: Change in Working Capital: Decline Years

	Companies	Year	Change in WC	% Of Turnover	Opening% of Cash/CL	Opening % of Debt/CL	Z-score
▷	CB1 Construction	2007	+ve	20.8	0.11	60.8	-1.06

	HFB2 Construction	2010	+ve	119.6	4.63	96.9	-5.27
	BH3 Construction	2009	+ve	109	0	47.5	-7.17
	GCE and Co. Construction	2004	-ve	-7.12	6.66	0.57	0.20
	AWH5 construction	2008	-ve	-1.41	33.4	0.75	2.09
	EJ6 Construction	2011	-ve	-0.33	0	35.7	0.16
	CDJ7 Construction	2010	-ve	-6.93	0.09	8.05	-0.96
	SBW8 Construction	2008	-ve	-0.79	0	8.01	-0.81
	MK2 Construction	2014	-ve	-23.2	0.01	57.2	0.92
	LD3 Construction	2014	-ve	-4.39	3.41	5.7	0.31
Successful Turnaround	BT1 Construction	2010	+ve	7.47	18.0	0.66	-0.77
	TG2 Construction	2009	+ve	0.90	50.6	1.63	0.46
	CM3 Construction	2008	-ve	-19.6	74.3	0	0.59
	GP4 Construction	2010	+ve	9.25	45.8	38.3	0.85
	CV5 Construction	2005	-ve	-2.86	29.8	28.9	0.17
	CG6 Construction	2008	+ve	7.87	9.58	0.35	0.98
	CF7 Construction	2006	+ve	8.37	0.04	10.5	0.58
	CI8 Construction	2007	-ve	-	35.2	0	1.20
	TW9 Construction	2007	-ve	-2.64	10	49	1.22

For example, in Table 4.7 above, all the unsuccessful turnaround contractors had a negative change in working capital, and, all the house builders had a positive change in working capital in their respective decline years. They flipped their working capital requirements upside down. The contractor in recovery is supposed to maintain a positive change in working capital and the house builder, a negative change in working capital to ensure increase in cash flow. Those construction companies that waver into the other sides of their working capital requirements usually have a lot of cash or debt to help with Cash flow so that when operating Cash flow is low, they inject more cash into the cycle. From Table 4.7, successful turnaround companies like CM3, CV5, CI8, and TW9 construction all had a negative change in working capital in their respective decline years but they all had a good cash balance that were; 74.3%, 29.8%, 35.2%, and 10%, of current liabilities respectively; to cover for the shortfall in cash flow. Their cash reserves enable them to inject more money into the cycle and turn their companies around. Consequently, the companies' corresponding cash levels dropped except for CI8 where its cash level increased.

Furthermore, CV5 and TW9 had good amounts of borrowed money to help with any cash flow issues.

Now contrast that with those companies that had no cash to help with cash flow in their decline years, and relied entirely on their operating cycle for cash flow. These companies usually fall into trouble when they sway away from their working capital requirements. For example, all the unsuccessful turnaround companies had very little cash or no cash, except for AWH5 construction whose shareholders made a business decision to close the company down as the market looked bleak. The rest of the unsuccessful turnaround companies had no cash and therefore needed to maintain a positive change in working capital to boost cash flow in order to survive. But evidently, they could not do that, and consequently could not recover.

On the other hand, companies like CG6 construction and CF7 construction who had cash level that were; 9.58% and 0.04% of current liabilities respectively; and had little borrowings to help with cash flow, maintained a positive change in their working capital thereby boosting their cash flow. Consequently, the respective company management teams were able to keep cash within the company to fund the turnaround. For companies like BT1 construction, TG2 construction and GP4 construction, they all boosted their cash flow levels by keeping change in working capital positive, at the same time having significant amount of cash (18.0%, 50.6%, and 45.8% of current liabilities respectively) readily available for management to use for the turnaround.

Table 4.8: Change in Working Capital: Turnaround Years

	Companies		Change in WC	% of Turnover	% of Cash/CL	% of Debt/CL	Z-score
UT	KUP1 Construction	2014	+ve	1.41	14.6	0.54	1.22
	MK2 Construction	2010	+ve	15.5	0	64.7	2.54
	LD3 Construction	2013	+ve	1.74	0	29.1	2.15
Successful	BT1 Construction	2011	+ve	5.70	34.6	2.01	1.43
	TG2 Construction	2010	+ve	4.49	36.7	2.95	1.38
	CM3 Construction	2011	-ve	-2.03	34.7	17.6	1.77
	GP4 Construction	2011	-ve	-35.8	54.1	16.5	1.94
	CV5 Construction	2011	-ve	-1.20	0	42.8	1.35

CG6 Construction	2010	-ve	-4.92	40.1	0	1.41
CF7 Construction	2009	+ve	1.77	0	11.5	1.78
CI8 Construction	2008	-ve	-21.9	50.8	0	2.45
TW9 Construction	2008	+ve	6.0	0.88	41.2	2.39

Now Table 4.8 shows the turnaround years. The unsuccessful turnarounds (non-liquidated companies) KUP1 construction, MK2 construction, and LD3 construction, all had positive changes in working capital thereby boosting their cash flow and giving themselves a chance at recovery since their cash levels are quite low (14.6%, 0%, 0% of current liabilities respectively). However, a few companies in the successful turnaround had negative changes in working capital in their respective turnaround years. These companies are: CM3, GP4, CV5, CG6, and CI8 construction. Their respective cash levels to current liabilities are: 34.7%, 54.1%, 0%, 40.1%, and 50.8%. These companies can afford to have negative changes in working capital because they have a lot of cash to augment Cash flow, except for CV5 construction that resulted to borrowing (bank loans and overdraft) for cash flow, with 42.8% of its current liabilities made up of borrowings. Also, the changes in WC as a percentage of turnover are negligible and would not make much of an impact, except for GP4 with a -35.8% of turnover. Even so, GP4 will still be fine because of its large cash and debt balance.

It is important to understand that a contractor that relies entirely on his operating cycle needs to always have current liabilities increasing by more than current assets (positive change in working) in order to survive a downturn. The company must try to get extended lines of credit from the supply chain and must never be in haste to pay subcontractors or suppliers unless it gets paid first (pay-when-paid strategy will be discuss in a later section). The contractor should ask for payment up-front or negotiate shorter payment periods.

Negative change in working capital as a percentage of turnover, when very high, could have very significant impact on a construction company's cash flow. Companies that had high negative changes in working capital relative to turnover in their turnaround years like GP4 and CI8 construction (-35.8% and -21.9% respectively) ran the risk of failure particularly because the change was considerably high. Meaning the impact on cash flow would be high. The impact of diminished Cash flow would have been greatly felt through out the companies had it not been for their huge cash reserves (54.1% and 50.8% of current

liabilities respectively). In contrast, unsuccessful turnaround companies like CB1, HFB2, and BH3 construction, who are all house builders, whose positive changes in working capital as a percentage of turnover were: 20.8%, 119%, and 109% respectively, had little or no cash reserves to inject into the business. Therefore, the impact on cash flow was enormous. Consequently, the companies could not continue trading and could not recover.

Granted, not all construction companies can get advance payment at the start of a project and therefore have to finance the clients' project at the start before getting paid at a later date by the client. This space of time has been estimated to be between 7-8 weeks. That is why most of the successful turnaround contractors believe that the best asset, or best quality of assets is Cash. For example the change in working capital for EJ6 construction is negative because it is common practice for the company to start financing projects before receiving payment. The Director was asked if in the current financial situation, his company finances its projects from the start or does it ask clients for advance payment? He stated

“No we fund the project with our own money. When we set foot on the site and start the job it's probably, at least, generally about eight weeks before we get money from the client and get us our first payments. So we finance it basically ourselves.”

This practice is not uncommon, but it does require the contractor to have a strong buffer – a good amount of cash to fall back on when things go wrong. For example when there is a delay in payment or bad debt, the company has a safety blanket. However, EJ6 construction had no cash at all and therefore when things didn't go as planned, the company could not continue trading. Consequently, it went out of business.

4.6 Gearing

This section is mainly focused on understanding the capital structure of companies, the types of debt they subscribe to. Almost all of the unsuccessful turnaround companies are highly leveraged due to the aggressiveness of the management teams. In the end, the companies were more than a hundred percent geared and were left at the mercy of the banks. Companies that were extremely geared at the time of failure were CDJ6 and SWB8 construction. The former Financial Director of BH3 construction explains his company's cross-collateralization at the time of failure:

“It started out at 65% when the facility was negotiated but very quickly we needed that percentage to increase to prevent us having to repay the debt”

When he was asked to rate the level of debt on a scale of 1 to 10, his answer was:

“It was far far far too high. It was 10. I mean it was too high.”

The case of extremely high gearing is not a new one. Cash flow shortages make high gearing levels evident. When a firm is overleveraged and cash flow falls, it can be very dangerous and the outcome is almost always bankruptcy. The Capital Structure of BH3 construction was a hundred percent debt. In this type of situation, the usual reaction is to try and offset the debt by seeking new equity or debt for equity swop. The strategies used to attract new equity are discussed in the next chapter. However, there is no guarantee that any of the strategies will work, as construction is not an industry that is favored by investors at a time of recession.

It is imperative to understand that improving operating level cash flow is only one aspect of improving the overall cash position of a company. Actually, much of the strategies to improving working capital (cash flow) is in: cost cutting, cost reduction, debt repayment, cash management, equity finance, bank loans and overdrafts etcetera, which will be looked at shortly. However, debt repayment plays a very important role in reducing the gearing level of a company. According to Kirk (2015), the next step after improving cash flow is to reduce long-term gearing. *“Once the immediate dangers of cash flow have been managed”*, he said, *“the aim is to reduce levels of medium and long-term debt”*. Repayment of debt can take different dimensions (discussed in a later section) as management tries to get enough cash to pay for the debt and fund on-going operations. According to Clough et al, (2005), gearing levels between 1-50% are generally acceptable in the construction industry. Gearing levels above 50% is generally regarded as highly geared. The most common types of financing in construction are Bank loans and Overdraft (BL & OD), Long-term loans (LTL) such as bonds, and Short-term finance (STF).

Generally, a house builder would have more gearing than a contractor because of the house builder's needs to keep a good amount of stock to sell to customers. On the other hand, contractors do not need to keep stock levels high and therefore are expected to have quite a low gearing. Due to the fragile nature of the construction industry and its rather precarious state in the last eight years, construction companies are expected to have a conservative approach to financial management, thereby keeping gearing at a minimum. Companies cannot afford to become overextended in the face of an unpredictable future. Furthermore, banks and other lenders are particularly concerned about the gearing ratio, because there is that risk that a highly geared company may be unable to repay loans. That is why some powerful lenders counteract this problem by using restrictive covenants that prohibits dividend pay-out to shareholders, forces excess cash flow into debt repayment, restricts alternative uses of cash, and require investors to put more equity into the company (Accountingtools, 2015). A typical example of this amongst the unsuccessful turnaround cases in this study is HFB2 construction. The company was heavily reliant on bank loans and overdraft. In addition to that, the company had both long-term and short-term loans. The group chairman of the company lamented on the bank's action to recall its loans, which consequently resulted in the demise of the company. He recalls:

“Our difficulties have been entirely due to our lending banks withdrawing facilities unilaterally during the banking crisis. They simply would not support private house building developments and would not extend loans, even on sites that were in progress with forward reservations.”

Table 4.9 shows that all the unsuccessful turnarounds were highly geared in their respective decline years, nine of which have gone out of business and three are still struggling to survive. Except for MLC4 construction and AWH5 construction whose cause of failure was a bad debt. BH3 construction was highly geared. It had zero gearing on its books but was actually carrying a huge amount of debt not visible on its balance sheet, but made possible through cross-collateralization done by the parent company (see Appendix 1). In essence, the parent company that is an umbrella of a group of companies, borrowed money by putting together all the assets of the individual companies and using it as collateral. Cross-collateralization will be discussed in a later section. But it was this cross-collateralization that caused BH3 construction to fail.

Table 4.9: Gearing of Turnaround Companies

	Companies	Decline Year (%)	Turnaround year (%)	Last financial year (%)	Type of Financing
Unsuccessful Turnaround	CB1 Construction	-169	-	-	Heavy on BL & OD, LTL, plus STF
	HFB2 Construction	-197.3	-	-	Heavy on BL & OD LTL, plus STF
	BH3 Construction	0	-	-	Cross-collateralization
	MLC4 Construction	-	-	-	BL and OD
	GCE and Co. Construction	103.2	-	-	BL & OD, LTL and SFT (half in half)
	AWH5 construction	7.7	-	-	LTL and STF
	EJ6 Construction	67.4	-	-	Heavy on BL & OD, LTL, plus STF
	CDJ7 Construction	512.3	-	-	BL & OD, LTL and SFT (half in half)
	SBW8 Construction	598.6	-	-	BL & OD
	KUP1 Construction	170.1	-	88	BL & OD, LTL and SFT
	MK2 Construction	138.9	-	101	Switched to STF in 2012, but was heavily using BL & OD
	LD3 Construction	-163.6	-	117.1	BL & OD, LTL and STF
Successful Turnaround	BT1 Construction	0.6	6	2.4	LTL and STF
	TG2 Construction	0	0	3.5	LTL and STF
	CM3 Construction	0	0	0	STF
	GP4 Construction	3.6	2.4	1.7	LTL and STF
	CV5 Construction	104	94.8	88.3	Only BL & OD
	CG6 Construction	49.3	6.5	4.6	LTL and STF
	CF7 Construction	88	22.4	0	Dropped all forms of debt.
	CI8 Construction	0	118.2	23	STF, and BL and OD
	TW9 Construction	12.4	5.6	34.5	STF, and BL and OD

On the other hand, all the successful turnaround companies had good gearing levels in their decline years – panning between 1-50% (Clough et al, 2005). Except for CV5 construction and CF7 construction with 104% and 88% in their respective decline years. However, in their turnaround years onwards, the two companies gradually reduced their gearing levels to the point CF7 construction has completely deleveraged itself. CV5 construction is still highly geared (reduced but still high) at the time of its last published financial report, which

was in 2014. The company needs to seriously consider bringing down its gearing level to within the recommended levels in order to avoid future financial problems.

Because of the precarious nature of bank loans and overdraft which allows the lender to recall all loans at anytime, it makes this method of financing very risky for construction companies. However it is the most common amongst construction companies. Most of the companies that were heavily reliant on bank loans and overdraft went out of business as the banks withdrew their funding. Eleven of the twelve unsuccessful turnaround companies were heavy users of bank loans and overdraft. Consequently, when the financial crisis started and the banks panicked and started calling all loans in, construction companies were left vulnerable. As such, as the banks removed their support, companies that were heavily dependent on the banks and overdraft, and could not secure funding anywhere else, practically went out of business. On the other hand, six out of nine of the successful turnaround companies have divorced themselves of bank loans and overdraft (BL & OD), three use some form of BL & OD, but eight are heavy users of Short-term finance (STF). According to the Company Secretary of CDJ7 construction, short-term finance is probably the most viable method of financing for construction companies because *“it brings it (cash management) into focus and shows what you can and can’t do. You become very much alert to the difficulties of allowing your cash to slip.”* Therefore, it can be concluded that construction companies that survive the recession are those that did not have or were not heavily reliant on bank loans and overdraft. Therefore, the use of banks as sole providers of company finance is a bankrupt model. Many contractors have realized this now, coming out of the recession.

4.7 Profitability

The next objective after reducing gearing is to achieve profitable growth in excess of funding costs (Kirk, 2008). Just as was found by Zimmerman (1989) this research also found that both successful and unsuccessful companies experienced profit and revenue declines during the early stages of the turnaround process (See 4.3 and Table 4.10 below). Many respondents confessed that, in the depth of the recession, making profit was the last thing on their minds. Increasing working capital and surviving into the next week or next month was more of a priority. According to the Director of SWB8 construction, *“it’s cash that kill you, not profitability. You can trade effectively with a continuing loss as long as*

you maintain the cash position.” At a time of crisis, companies are willing to accept lower margins if it means their survival. Most companies affirmed that, at the time of their decline, they did not even have the capital to tender for additional work. Their main focus is completing existing contracts. A respondent explains:

“Profitability really wasn’t a consideration from 2008 onwards. It was all about survival. It was all about generating enough cash to survive so the profit question was very much secondary.”

Therefore, profitability was somewhat of a luxury for some companies. However, eventually, a construction company must start to make profit because ultimately, the lifeblood of a successful business is profitability (Kirk, 2005), which then provides enough cash flow for the company to continue funding its operations and keep debt at manageable levels or even completely rid itself of all debt. However, it may be argued that a construction company could considerably increase its probability through additional borrowing. Now let's look at how the successful turnaround companies did, on average, through the recession.

Table 4.10: Average Profitability of Successful Turnaround Companies

	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Average F3
2006	-0.02	0.70	0.76		-0.58	0.17	0.68	0.00	0.37	0.26
2007	0.06	-0.11	0.61	1.01	0.32	0.26	0.13	0.00	0.08	0.26
2008	0.39	0.11	0.05	1.58	0.21	0.36	0.04	0.01	0.50	0.36
2009	-0.24	0.33	0.40	0.76	0.17	0.49	0.20	0.04	0.49	0.29
2010	-0.75	0.41	0.38	-0.85	0.42	0.38	0.07	0.08	-0.06	0.01
2011	0.40	0.31	0.53	-0.06	0.80	0.26	0.16	0.28	-0.45	0.25
2012	0.25	0.29	0.23	0.86	1.19	0.23	0.17	0.04	0.13	0.38
2013	0.40	0.74	0.17	1.13	1.32	0.13	0.23	0.25	-0.25	0.46
2014	0.58		0.07	0.89	1.37	0.15		0.45		0.58

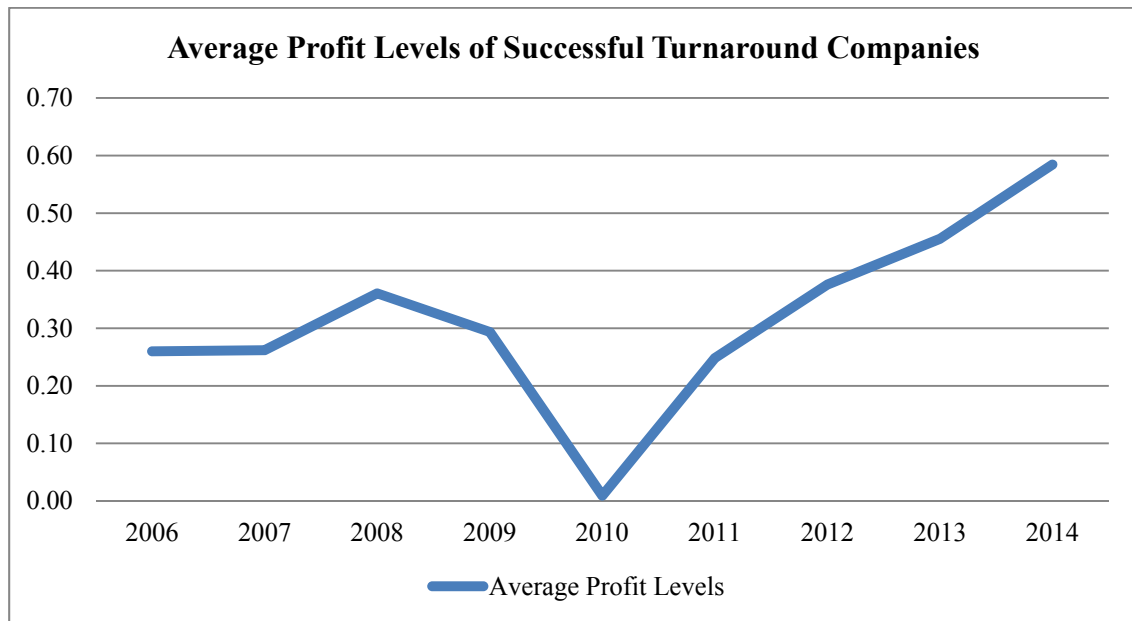


Figure 4.5: Profit Levels (based on Average F3 Z-score Components)

Figure 4.5 shows how successful turnaround companies performed better, on average, with regards to profitability than unsuccessful turnarounds through the years. It is also evident that turnaround companies performed better on average coming out of the recession than they did prior to the recession. Like the saying goes “*if it doesn’t kill you, it makes you stronger*’. This is also evident in the testaments of the respondents. For example, the Director of CG6 construction was asked during the interview what he would do differently coming out of the recession, he said:

“I don’t think we’d anything too much differently because we got through it and we’ve come out the other side healthier than we were when we went into it. So I think we perhaps did it right.”

The recession has actually made construction companies to be more efficient, more vigilant and selective of their projects, and more alert to their finances. Like Gandhi says, “adversity is the mother of progress.” The harshness of the industry has forced contractors to understand one fundamental truth about the construction industry and that is; if you want to remain in business in this industry, you must make a decent profit (Stone, 2012). According to Stone (2012), to achieve long-term sustainability and growth, a construction company would need to make a minimum of 8 percent net profit. This may be extremely

difficult to do in a recession because margins drop naturally due to the intense competition. Contractors are even lucky to make a decent margin.

According to the Operations Director of CM3 Construction, in construction, even when things are booming, contractors cannot put a great percentage on contracts because the competition is always fierce. So even in the good times, the margins are not wonderful. And in recession, margins will always reflect what the market levels are at the time. Reduced margins are a consequence of the recession because when there is not enough work to go around, contractors have to price keenly to win work. Now, if they price the project too keenly and they do not make money on the project, that has got only one outcome and that is disaster. It's a recession and losing money is not a good start to recovery.

So although margins were low, the successful turnaround companies improved their profitability through selective tendering (to be discussed in more detail in the next chapter). That is, they only tendered for projects they were certain would bring a profit. The MD of GP4 construction emphasized two things: contractors must make sure that the client can pay and they must make sure that the job was something they were good at. Even the respondents from the unsuccessful turnaround companies recognize the importance for making sure one gets paid and the importance of doing the jobs that the company is good at.

“When you’re picking your customers or your clients, whatever you want to call them, you need to be working for people who are making money. Who are successful, because, if they’re not successful, there’s a very good chance that you’re not gonna be successful. It is very important to me that my clients are making a good profit. Because if they’re making a good profit, they can afford to pay me” – Director of EJ6 Construction

My personal opinion is stick to what you’re good at. So if you’ve got a proven track record in residential and you’re in times of recession, or you’ve got a proven track record in commercial or retail or whatever, then stick to that. Do what your good at” – Director of EJ6 Construction

“Check out your customers ability to pay before enter into any contracts or obligations and agree early or staged payments or up front payments where possible.” – Group Director of HFB2 Construction

4.8 Summary

In summary, the results suggest that X1 (liquidity) and X3 (profitability) are most influential on the Z-score index in successful and unsuccessful turnaround companies, followed by X4 (solvency), then X2 (growth). The data initially suggested that successful turnaround companies performed better than unsuccessful turnaround companies during their decline years. However, the independent samples *t*-test showed that successful turnaround companies were not associated with a statistically significantly higher mean Z-score than unsuccessful turnaround companies. Which meant that both grouped declined in a similar fashion. Similarly, successful were *NOT* associated with a statistically significantly higher means of F1, F2, F3, and F4, than unsuccessful turnaround companies. Which meant that the decline in liquidity, growth, profitability and solvency of successful and unsuccessful turnaround companies at the ‘decline stage’ was similar.

It was also suggested by the data that successful turnaround companies performed better in their turnaround years than in their decline years. The paired samples *t*-test showed that successful companies actually performed better in their turnaround years than in their decline years. Additionally, successful turnaround companies were associated with a statistically significantly higher mean liquidity, growth, and profitability in their turnaround years than in their decline years. However, successful turnaround companies were *NOT* associated with a statistically significantly higher mean solvency level in their turnaround years than in their decline years. Which meant that solvency level remained fairly the same at decline and at recovery.

Furthermore, the objective of most of the successful companies, as seen in the analysis, was to keep the change in working capital positive, which involves keeping cash up and debt down, keeping deferred income and trade creditors balance up, while reducing stock and trade debtors. In other words, increase cash flow by increasing cash inflow and reducing cash outflow. This is represented as shown in Figure 4.6 below.

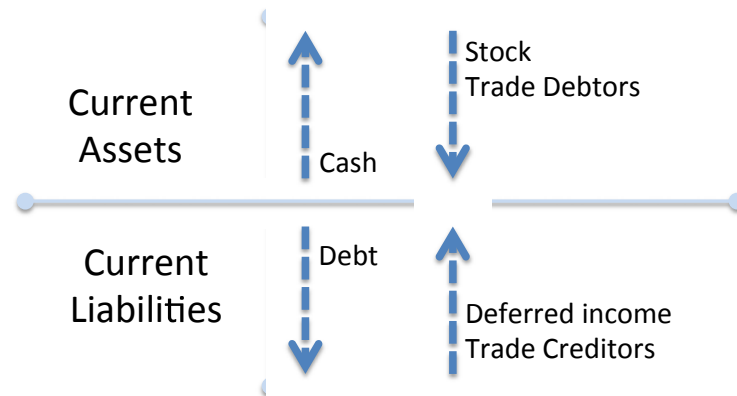


Figure 4.6: Operating Working Capital at Turnaround Stage for Contractors

For the house builder it is somewhat different because he needs to maintain a good level of stock in order to get cash coming in. So, naturally, trade creditors account will be low, and so the house builder would have a negative change in working capital. Therefore, the house builder must strive to increase deferred income, while keeping trade debtors account low; and maintain a good stock level.

With regards to gearing, construction companies have realized that being heavily reliant on bank loans and overdraft facility is a bankrupt model. Rather operating with short-term and long-term finance or operating with no debt at all allows the contractor to be more alert to cash flow – increasing cash inflow and decreasing cash outflow. As the company stabilizes, it explores every avenue to improve profitability through selective tendering. This ultimately ensures survival and a steady sustained growth. Many contractors have realized this now, coming out of the recession.

5 CHAPTER 5| BUSINESS RECOVERY STRATEGIES

5.1 Introduction

This chapter deals with investigation into the actions of company management to turnaround their respective companies and returns the companies to financial health and growth. The chapter discusses organizational and operating turnaround strategies that the research cases adopted to ensure their survival through the economic downturn.

According to Hofer (1980), there are two broad types of turnaround strategies: Strategic and Operating turnaround strategies. In most cases, strategic turnarounds are almost always necessary Hofer says. Meaning that both strategies complement each other and must go hand in hand. This research has recognised that, because construction business recovery revolves entirely around cash flow and strengthening the cash position of the company, strategies are intertwined; strategic (organisational) strategies are directly link and directly influences operating strategies. As such, to aid understanding of the categorisation of strategies, including the Z-score analysis, the research has divided the strategies into ‘Operating Turnaround Strategies’ and ‘Organisational Turnaround Strategies’. The operational turnaround strategies involve strategies that increase cash flow. While organisational turnaround strategies are strategies that involve, people, stakeholder support, business and entrepreneurial spirit, etcetera.

However, before a construction business or any business at all starts a turnaround programme, it has to establish that the business is worth saving in the first place. Only then, will efforts and resources not be wasted. Plus, even when a business is worth saving, there is no guarantee that resources would not be lost in the endeavor.

5.2 Is the business worth saving?

Literature has shown that the rationale for a business turnaround must be based on the accurate judgement that a firm’s intrinsic economic value is greater than its current liquidation value. Once it is established to be so, the firm is advised to stage a recovery or reorganise and continue to trade. However, if the firm’s assets are worth more liquidated than trading, and the asset values are considerably lower than its economic value, then, liquidation is the preferred option (Altman, 1993). Assessing whether a company is worth saving or not requires both quantitative and qualitative methods. Owners and managers of

construction businesses can use financial information; the state of cash flow, working capital, gearing, turnover, etcetera, to determine (quantitatively) if a firm is worth saving: in conjunction with other information such as; people, industry risks, industry characteristics, firm's competitive position in the industry, strength of product, market share, firm's long-term goals, competition, regulating guidelines, efficiency of management, etcetera, to determine whether to stage a turnaround (Kritsonis, 2005; Mayfair Capital Planning, 2015).

Most of the respondents also agree that, a failing company must, first and foremost, identify whether the business is worth saving because there is no point putting money into something that can not be saved. Management has to assess if the company is worth fighting for, as sometimes, the company may just be too far gone that all efforts may prove futile. Just like in many of the cases discussed in this study, especially CDJ6 Construction who lost millions of pounds failing to recognize that the company had gone too far to be saved. In that respect, a company has to assess where it stands, weigh the costs of shutting down, and decide whether it is best to shut it down. But bankruptcy cost money too, and most business failures costs money. Employees that are laid-off still have to be paid redundancy fees and this may amount to large sums. However, if the company is worth more liquidated than as a going concern, management has to really consider shutting down the business. *"There is no point being stubborn about it and borrowing millions of pounds just to be back in the same position in two years time,"* says the Operations Director of MLC4 construction. He further stated that, after you establish that the business is worth saving, the next step is – Finances.

"If you establish that the business is worth saving, the first step will be FINANCES. Have you got support of the banks? Where can we get more money if the bank isn't going to support us? Where else can we get investment? Can we mortgage our house? Can we get some private investment in? Is it possible to sell some shares in the company, bring another partner in? Sell part of the company off?"

Sometimes, management is able to tell if staging a recovery is worth it or not just by looking at working capital or cash flow and the market conditions, more so in construction. For example AWH5 construction made the business decision to shut down on the basis of

depleted operating cash flow and the lack of future feasibility, even though the company had a big cash reserve. So once operating working capital fell, it decided against spending money on a recovery program. However, if the analyses show that staging a recovery is worth it, then the next step is to formulate a recovery plan. According to respondents, this plan should incorporate the following factors.

5.3 Factors necessary for construction business recovery

Table 5.1: Factors necessary for Construction Business Recovery

Firms Factors	Unsuccessful Turnaround											Successful Turnaround										Total
	CB1	HEB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SRW8	KIP1	MK2	LD3	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	
Increase working capital (Cash flow)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21
The Right People	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21
Support of Subcontractors and suppliers	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21
Support of the Banks and Creditors	+	+	+	+		+	+	+	+	+		+										10
Support of Clients		+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18
A functioning market/sector	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Selective Tendering	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Business Development						+	+			+				+	+	+	+	+	+	+	+	11
Use of technology - BIM and e-tendering				+							+											2
Access to advice	+	+	+	+		+		+	+	+	+	+										10
Luck										+			+			+						3

Factors necessary for Construction Business Recovery

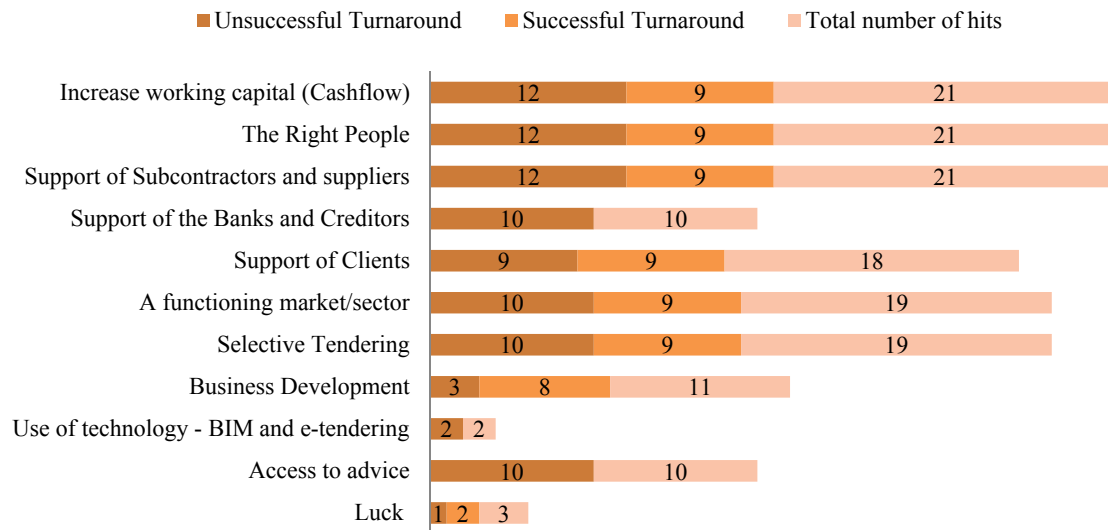


Figure 5.1: Factors necessary for Construction Business Recovery

Table 5.1 and Figure 5.1 shows the recovery strategies as identified by the respective individual(s) within particular companies. These strategies identified under a company do not necessarily mean that the company adopted all of them. But shows that the respondent(s) for that company deemed a particular strategy necessary for construction business recovery. Of course some of the strategies were adopted directly by the individual companies. And if a respondent does not mention a strategy, even though important, it was not recognized under his or her company, hence the blank spots. For example, in Table 5.1, all unsuccessful turnaround companies said that having ‘the right people’ was an important factor to drive a turnaround, however, they all implemented redundancy measures, while only four of nine successful turnarounds minimally implemented redundancy as a turnaround strategy. The individual factors/strategies in Table 5.1 are expanded and discussed in more detail below.

5.4 Operating Strategies

These are strategies that directly impact on the working capital position of the company. The aim of these strategies is to improve the cash flow position of the company by exploring every avenue of increasing cash inflow and decreasing cash outflow.

5.5 Increase Working Capital/Cash flow

All respondents stated that increasing working capital/cash flow was necessary for construction business recovery. Now, this could take different dimensions. The various ways a construction company could increase its working capital as identified by respondents and outlined in Table 5.2 below.

Table 5.2: Increase Working Capital/Cash flow

<div><div></div><div>Firms</div></div> <div>Strategies</div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HFB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SBW8	KUP1	MK2	LD3	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
Shrink company to manageable size	+	+	+	+	+	+	+	+	+			+	+	+			+	+	+	+	+	17
Cost Cutting <ul style="list-style-type: none">Reduce overheadsValue engineeringPay cuts and pay freezesRedundancies	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2161616
Disciplined Cash Management	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21
Source new equity <ul style="list-style-type: none">Convert stock into cashSell off some fixed assetsIdentify alternative use of assetsSelling parts of the companyPrivate Equity from ownersPrivate Equity FirmsManagement Buy Out (MBO)Management Buy In (MBI)	+	+	+	+		+		+		+											+	89238521
Novate contracts			+	+				+														3
Retained earnings	+			+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	17
Bank loans and overdraft	+		+	+		+	+	+	+	+	+	+				+	+					12

Increase Working Capital/Cashflow

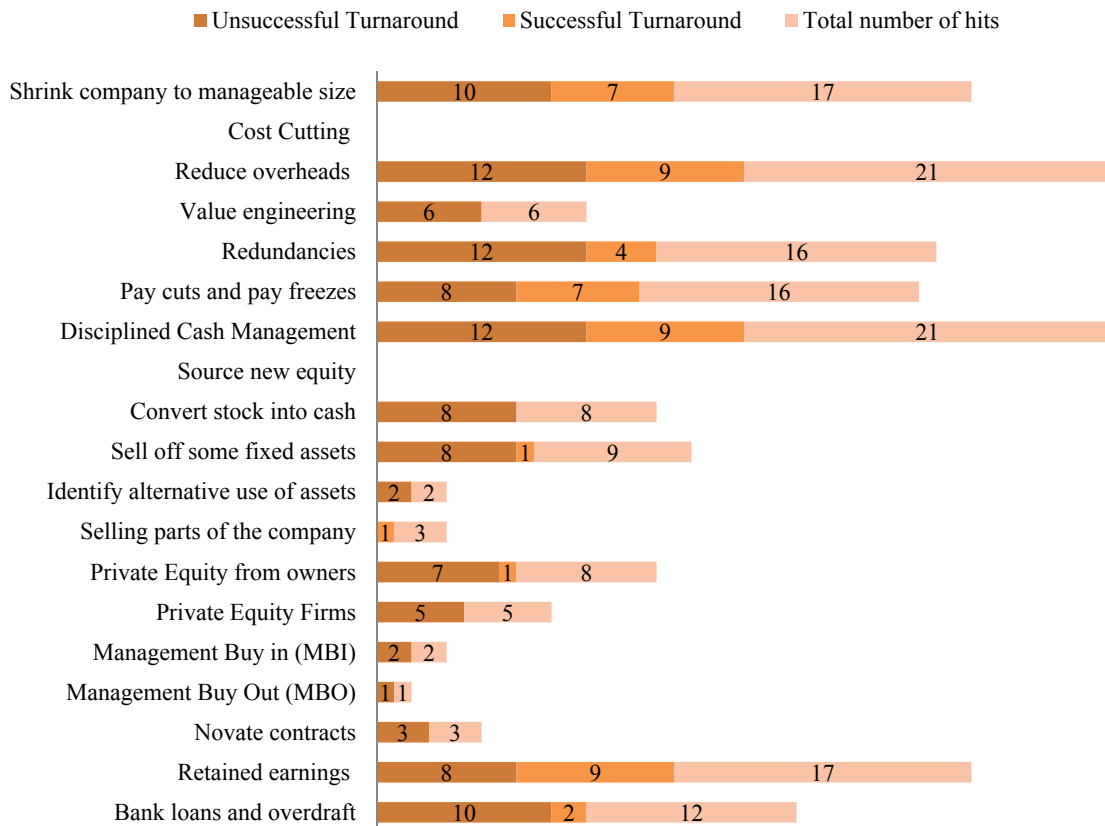


Figure 5.2: Increase Working Capital/Cash flow

5.5.1 Shrink Company to manageable size

17 out of the 21 companies under the study stated that a contractor could improve his cash flow position in a turnaround situation, by shrinking the company down to a manageable size, thereby having more control of company affairs and finances. In other words, majority of the contractors in the study subscribe to the ‘guerrilla or niche strategic approach’. The strategy that aims at minimizing or neutralizing barriers by reducing the size of the playing field and taking an **offensive or defensive position** in a smaller, more attractive market segment (Drucker, 1961; Three Sigma, 2015).

In order to implementing this strategy, a contractor would have to ‘face the facts’ (Collins, 2001) and adopt some cost cutting and cost reduction strategies. When staging a turnaround, construction companies need complete flexibility to adjust the cost of their overheads. In other words, a construction company needs to be able to cut the size of the company to the size of the work that is available. According to the Director of GCE and

Co. construction *“the ability to scale down is a fundamental thing.”* He explains that if the construction company is not flexible enough to reduce its overheads and its turnover halved, then, the company is in trouble.

These would involve reducing overheads. All respondents and all companies identified overhead reduction as one of the first steps to increasing the cash flow position of the company. Cutting costs and overheads have been identified by all 21 companies within the study as the first step to recovery. Someone said *“cut fat, not muscle.”* Cost cutting and cost reduction would usually involve, but not limited to, general head office expenses like office rent, insurance, office staff, directors’ wages, administrative staff, vehicle expenses, etc. These items need to be reduced to as little as possible to get through a recession. Staff redundancies, pay cuts or pay freezes, or a combination of both – putting staff on 3 or 4 days a week, cutting cost on cars, stationary, postage, heating and lighting, etc. are also cost cutting measures (Ross and Williams, 2013). Value engineering is also an efficient form of cost reduction especially for the house builder.

However, according to respondents, the bulk of a construction companies’ overhead is in staffing, and therefore, staff redundancy is usually the first call for most contractors so as to reduce the overhead. Alternatively, the whole company could take a pay cut (from top management down to the janitor) to free cash while at the same time keep its valuable staff. The Directors of CV5 construction and CI8 construction adopted this strategy.

“We called all our staff into a room and said to them ‘look to your left and look to your right, if we don’t collectively act together, and agree a pay cut, then the person on your left or the person on your right may not be here after next week.’ Because there will be job cuts. However, if we all top down, Director downwards, agree to take 10-15% pay cut” and what that does, is that it allows our company to be lower cost base and be more agile and lean to tender and secure work.”

“So it was either that or find another job and no body wanted to find another job so they accepted the fact that it was a temporary thing and when things got better they would get their salaries restored to it’s original value which is what happened”

However, not all companies can afford to keep its entire staff employed even if they are valuable to the company. Some form of redundancy would have to take place for the company to be lean and efficient. Therefore relieving the people that are surplus to requirement becomes necessary. At the same time, many respondents expressed that making people redundant was quite difficult emotionally, because often times these are people that were very loyal to the company. Relationships have grown and bonds created. According to the Director of CG6 construction; *“No body likes to make people redundant but you know, I think people have to view it as done in the interest of the majority that remain. And you get through a recession, you get to the other side and you start taking on again.”* However, redundancy could be an opportunity to let go of those that are surplus to requirement and also those that are displacing the team spirit necessary for a turnaround. According to Stone (2012) every business owner/manager must be firm and must have a stern approach in firing people who are causing problems. Because *“if you don’t do it,”* he said, then the problem just gets bigger. This is related to managers having the business skill and an entrepreneurial spirit. The reader will find that many of the strategies are linked one way or another because they all lead to one objective – recovery of the company.

Some managers were quite careful making cuts and therefore had several rounds of redundancies. The objective was getting the right balance between relieving the staff surplus to requirement and keeping staff necessary to take advantage of a turnaround. This was quite hard to do both in terms of the mathematical aspects of it and the emotional aspect of going through separate rounds of telling your friends you have to put them out of work. Alternative, said the manager of CI8 construction would have been to make one enormous cut in one go. However, the economic melt down was so deep and no one was sure when the bottom would come, which made striking the staff balance even more difficult. Therefore, cutting overheads is equally as important as knowing how much to cut.

“But it’s obviously difficult to predict the future so you need enough staff for you current work and you can’t cut too many staff, so you’re trying to cut your overhead to suit the current workload, and predict the future workload, so it’s tricky” – Director of AWH5 construction

However, it is imperative that management understands that redundancies cost money and must pay redundancies fees to lay people off. Therefore they must decide if the company can afford paying out those fees and whether it makes business sense. There are times when the company is too far-gone to be saved and paying a lot of money in redundancy fees is just throwing money into sinking sand. The company accountant of CI8 construction which is a successful turnaround said that if he was an investor within his company, he would have “*pulled the plug four years ago*” of the company. His reason was that the investors would not have lost money. The company investors had to pay a lump sum cash out because of the redundancies but that would have been cheaper than the losses incurred by the company in the recovery programme.

Based on the data, both successful and unsuccessful companies reduced cost as revenue declined. But, the successful companies stayed with their cost reduction programs longer by refusing to adopt quick fix strategies such as redundancies. From Figure 5.2, majority of the successful turnarounds did not go the route of redundancies until costs were more comfortably below the current revenue levels. This was to avoid cash outflow through redundancy fees. The unsuccessful companies were more inclined to permit expenses to increase when profits were still very low or even negative. Most of the unsuccessful turnaround companies adopted redundancies as a measure of cost reduction. While successful companies adopted pay cuts and pay freezes as measures for cost reduction. From Figure 5.2, it is shown that eight unsuccessful turnaround companies stated that pay cuts and pay freezes were strategies for successful recovery in construction, yet only half of the companies actually adopted the strategies in their turnaround.

5.5.2 Disciplined Cash Management

As seen in literature, inadequate cash flow is the number one reason for most business failures (Stone, 2010; Kirk, 2008). All 21 companies mentioned ‘Disciplined Cash Management’ as a very important strategy in increasing working capital. Respondents mentioned the need for a disciplined and well-planned and well-managed cash flow. This is almost a no-brainer really. At a time of crisis, the inevitable and involuntary reaction is cutbacks and tighter cash management. The objective of this strategy is to make sure management has a firm control on the operating cycle of the business – reducing cash outflows and ensuring cash inflow. Some respondents stated daily cash flow review and

weekly cash flow forecast, as essential to having a strict management of cash and management must approve all cash requests. This may involved each Quantity Surveyor on each project providing a schedule of Certificates and due dates for each subcontractor, and where work had not yet been certified – an estimate of the amount and an estimate of the payment date. The Director of SWB8 construction recalls how the company tried to manage cash flow.

“So the first thing we did was to focus on the day-to-day management of cash and conserving cash within the business. But still making sure that we were paying suppliers and subcontractors as close to terms and conditions as we possibly could. And a lot of effort went to doing weekly cash forecasts - working out where our income was likely to land realistically, and where we would need to pay individual suppliers and subcontractors.”

In other words, they started to micro-manage the business on a daily basis to make sure that: (a) the company did not breach its banking covenant and (b) it did not find itself in situations where it was trading illegally. Unfortunately the financial decline of SBW8 construction was so bad that the company could not survive the recession. The company reacted late with regards to its cash flow management and the damage was already done. A construction company that desires to recover during a downturn must set up a system of internal controls that governed how much is spent. An example of such control systems adopted by a few companies in this study is making sure that all future expenditure has to be approved by the senior management team. Thereby having a very rigid cash flow policy where nothing is spent without the authority of the senior management.

Stone (2012) assert that contractors are guilty of spending more than they earn and therefore he emphasized the need for budgeting. A contractor must have a disciplined attitude towards budgeting and sticking to what is on the budget (Netscher, 2014; Ross and Williams, 2013). According to Stone, it does not matter how bad you want to buy something, *“if it’s not in the budget for the year, then don’t buy it.”* Find alternative ways that does cost the company money or ultimately do without it. The combination of budgeting and cash flow monitoring and forecasting will ensure that management has a greater control on the business and therefore manage the turnaround better.

Another common way of increasing working capital is to convert stock to cash, sell off fixed assets or sell parts of the company to generate cash for the business (Sears et al, 2015; Clough et al, 2005). The problem with this is that, in recession, or decline, it is usually a fire sale and the company almost always would sell the assets at a lower value. However, most companies only care about the cash they can generate in the short-term. Converting stock to cash and selling of assets each had 8 and 9 hits (Table 5.2). Some of these companies had to sell land, houses, fairly new plants, anything to get money back into the business. Some even had to sell their personal property to keep their businesses alive. For example, the Director of KUP1 construction was asked if the company sold any assets to generate cash, he said:

“Yes we did. I mean, personally we did. We had some business assets that we held personally and we sold them so that we didn’t have to take any money out of the company.”

Alternatively, assets could be directed to alternative uses that can generate cash for the business. BH3 construction, for example identified alternative uses for its private housing sites, saw it was suitable for social housing and it redeployed its private housing skills into the social housing sector. This generated some cash for the business. Also, during a downturn, banks are more likely to fund social housing projects than private housing projects.

5.5.3 Private Equity

Companies must look to increase equity by any of the strategies mentioned in the Table 5.2 above or result to borrowing when financial drought begins to occur. Typically, companies would try to raise funding privately in the form of equity financing, unless and until equity financing proves unattainable should a contractor consider borrowing from the banks (Netscher, 2014). This is called the pecking order of financing. A more recommended source of equity is private/owners equity. 8 companies mentioned generating equity from shareholders/owners. In other words the owners could inject more cash into the business. 5 unsuccessful turnaround companies stated private equity firms were a better source of financing than the banks. Now, if all attempts to generate equity fails, bank loans remains the last option. However, it is rather difficult for the small and medium contractors to get

funding from the banks anyway, since they are perceived as high-risk companies (Chiang et al, 2010).

Management Buyout (MBO) and Management buy-in (MBI) also came up a ways of increasing the working capital position. Actually, BH3, MLC4, and AWH5 construction adopted MBOs and MBIs to generate cash but unfortunately, the companies did not make it through the recession. A management buyout (MBO) is – letting in management buy the company off the owners or shareholders; of the company also known as Leverage Management buyout (LMBO) if the money was raised through the banks; and Management Buy-In (MBI) – raising money through a private equity firm who also comes on the ownership structure of the company (Altman, 1993). According to Badertscher et al (2014), because privately owned companies have a higher risk of default, the companies controlled by private equity (PE) firms, have higher cost of debt than those that are not, unless a large PE firm controls it. Where the construction company is controlled by a large PE firm, the PE firm can use its size and market reputation in the market to enable the construction company obtain lower cost loans and benefit from less restrictive debt covenants.

5.5.4 Bank loans and overdraft

Overdraft facilities provide ready available cash for a construction company to use to fund operations, but may rather be a very expensive source of finance because it can be withdrawn without notice and is payable on demand (Ross and Williams, 2013). A few of the unsuccessful companies in this study, CB1, HFB2, and CM3 construction were all victims of banks recalling overdraft facilities. Long-term borrowings from the banks such as bonds and debentures and short-term finance (STF) are better ways of financing as seen in the research analysis of gearing.

In construction, some sources of finance are not easily accessible especially to the small construction business. Large contractors find it easier to get funding than small contractors (Hall et al., 2004). Apart from size, there are other factors that can hinder a contractor from getting working capital such as high gearing levels relative to profitability, breach of banking covenants, over exposure to risky markets, etcetera (Ross and Williams, 2013).

A construction company trying to turnaround must realize that by virtue of being in the construction industry, recovery would generally be more difficult than in other industries. One respondent stated *“the economy works against your recovery” because one is in the construction industry.*” The construction sector is always first into recession and the last sector out of recession. Unfortunately that is an issue associated with the sector. People stop spending on capital assets, purchasing or expansion, and because of the low margins in the industry, there is a reluctance of investors to actually get involved in construction because they see it as high risk and low return (Jonathan, 2002). It does not take much to go wrong in construction.

Historically, construction is not exactly the darling of the investment market, and therefore getting access to additional working capital would be very difficult, whether from banks or private equity firms. Companies in manufacturing or IT (Information Technology) industries raise finance more easily than companies in the construction industry. Unfortunately the combination of low margin and high risk in construction, when things get tight, construction becomes the first sector to suffer in terms of investment decisions., financial institutions are not really interested in those sorts of businesses with high risk and low returns, when things get difficult.

All the respondents stated that “access to additional working capital” was necessary for a construction business recovery in today’s economy. Whether that is from the banks or whether it’s from a financial institution, it did not matter. The Finance Director of SWB8 construction stated that, in his opinion, *“access to investment is probably the number one”* requirement for recovery. Also, CB1 construction respondent asserted this claim

“The support of the banks is absolutely essential. So you need the banks to be supportive of whatever strategy you adopt”

The Operations Director at MLC4 construction acknowledged the need for support from the banks. He said, *“you need the banks, you need support, and you need money.”* However, he is not a fan of the banks. He and a few other respondents believe the banks as the main villains of the construction industry today. They believe that the banks do not

understand the industry or the needs of contractor. According to the Operations Director, the money from the banks has corrupted the quality of work in construction. He explains:

“Slowly and slowly, over the years, the banks got involved, they were lending more money. It became more financial as opposed to producing a quality product. So you ended up with a bank running a developer. They didn’t give a monkeys about quality, all it was, was the bottom line,” He continues:

“The banks have an awful lot to answer for – their practices. You only have to look at the news now to see what’s going on with RBS recently, about them shutting businesses down to make their books look better. Forcing businesses into receivership and liquidation. Its just shocking behavior.”

The Chairman and CEO of HFB2 construction also shared this concern:

“Our difficulties have been entirely due to our lending banks withdrawing facilities unilaterally during the banking crisis. They simply would not support private house building developments and would not extend loans, even on sites that were in progress with forward reservations”

Inferring from the many failures of contractors solely due to banks withdrawing overdraft facilities, it can be said that contractors also do not understand the banks and the nature of its relationship with the construction industry. Contractors need to understand the nature of the agreements they makes with the banks. They need to read the fine print and understand fully what they are getting into. The findings show that the successful turnarounds understood this and were not dependent on bank loans and overdraft to finance their operations especially not in recovery time. In fact in Figure 5.2 only two successful turnaround companies suggested that the support of banks was necessary for business recovery in construction. They stated that getting funding is necessary for recovery but not through bank overdraft facilities, rather through short-term finance and private lenders.

According to the Chairman and Owner of CDJ7 construction, *“when the banks want to shut you down, they become like sharks.”* The findings show that the financial model of using

the banks as sole providers of leverage should be avoided. It is a bankrupt model. Two of the respondents proposed that private investment is the way forward, that contractors should boycott the banks and go with private investment.

“Private investment. Get rid of the banks all together. Get money from overseas, however you do it, even syndicates (groups of people who lend money). Not banks... But it’s slightly different with a private investor because you’re in a contract. With the banks, you have no contract. You might sign a contract with the bank but it is completely written for them. It’s not a two way thing.”

Most of the companies that were heavily reliant on the banks went out of business when the banks withdrew their funding. Overdraft facility has ruined a lot of construction business because of the terms. There is no contract with banks and therefore they can withdraw the facility at anytime. That is why the Director of MLC4 construction is calling for construction companies to get rid of the banks all together and go with private investment instead because the risk element with private equity is slightly different from that of the banks. With a private investor, there is a contract, which the construction company signs with the private investor. It therefore means, they cannot recall the money at any until the period of the contract has ended. *“But with the banks, you have no contract”* said the Director, a contractor might sign a contract with the bank but it is completely written entirely in the interest of the bank.

“It’s not a two-way thing. If you read a contract with the bank there’s usually a clause in there that says ‘we can have it back at any time we want.’”

“Get money from overseas, however you do it, even syndicates (groups of people who lend money). Not banks. You’ve got to be looking at something where no one has a hidden agenda. And unfortunately, the banks always seem to have a hidden agenda. They don’t care. They just say “we want our money back now, today, or we want the money back next week... It’s ridiculous!”

On the contrary, the director of AWH5 construction feels the private equity providers are more complicated than the banks. He states that bank loans are usually straightforward but

private equity is more complicated. They do not loan money too much, they buy into the company and, they then decide how they are going to finance it. And if they do not inject enough cash, or if they perceive the risk to be too high, then they do not assign sufficient moneys to the business. This is the precarious situation of private investment but if the company can convince the investor to extend sufficient funds, then, in the long-term the business is more protected because of the contract. A variation from the contract terms would constitute a breach.

However, regardless of the sentiments contractors have against the banks, they still need the banks in times of recovery when private investment becomes difficult to secure. It is even faster and cheaper to get borrowings from the banks than from most private institutions. So how can a company get bank's support when it's in trouble?

According to the Director of SWB8 construction, *"to get cash in from banks or financial institutions, you basically have to sell yourself."* A contractor may spend several months seeing various institutional investors, venture capitalists, and everybody under the sun. But the reality is, while everybody may sympathize, there is seldom a banks prepared to advance any more money due to the fact that banks and investors do not see construction as a sector that brings high returns. The Director of SBW8 recalls the company's attempt to raise working capital through borrowing:

"It was an endless round of beauty parades endless rounds of meetings, presentations, updating the business plans, you know.... We put together revised business plan. We put together forecast for recovery of the debt if it was possible, we did all sorts of sensitivity tests in terms of modeling of the numbers... I actually went back to Mersey Side Investment Fund (MSIF) and said to them I was prepared to put all my pension, I'd cash it up and put that cash into the business if they were prepared to match it, and the Fund refused."

The banks and most financial institutions were not lending money during the recession. Most contractors were working from hand to mouth; differing payments, or delaying paying creditors; giving discounts from receivables to get money in and asking for discount, and basically managing the working capital to bring in cash. In Appendix 2, this research has outlined how a construction SMEs in recovery can dress itself nicely in order to get

funding from the banks or investors. Basically, the strategy is, the company uses the Z-score as a target. That is, it sets a healthy Z-score as a target, which ultimately corresponds with a good credit rating on the Standard & Poor's (S&P's) Credit rating. When investors see a good rating, hopefully, they honor the loan.

5.5.5 Novate contracts/unfinished sites

Three companies BH3, MLC4, and CDJ6 construction mentioned the need to novate contracts across to other competent contractors legally, with the consent of the clients of course. The company should identify a competent contractor who will basically develop the remaining sites and take a fee from the client for managing the sites. To novate a contract, the contractor should have an honest conversations with the clients to see if they are happy for existing contracts to be transferred across to another contractor or to a contractor of their choice so that what was promised to the client can be delivered.

5.5.6 Retained Earnings

In terms of putting profit back into the business, the Director of SWB8 construction said; “retained profit is gold standard.” Retained earnings are necessary because is that which is used to service the debt of the company. It is imperative that management understands that in a turnaround, paying dividend to shareholders is a luxury and therefore it is necessary to keep the money within the business.

“We didn’t take any money. I didn’t get salary for four months. At the end of every year most of the money went back into the business” – Director of MLC4 construction

We put all our profit back in the business. We retained our earnings. Any profit we made stayed with the business. – Managing Director of CF7 construction

A number of the companies under the study had negative retained earnings in their decline years. CB1 construction, HFB2 construction, BH3, AWH5, EJ6, CDJ6, BT1, GP4, CF7, and CI8 construction, all had negative retained earnings in their respective decline years.

Negative retained earnings, also known as accumulated deficit, means the company has had more retained losses over time than accumulated net income and therefore, has no

funds to invest in growth or expansion (Kokemuller, 2015). In addition, it also means the business lacks profitability and has incurred more losses than net earnings for given periods. Kokemuller (2015) states that, long periods of negative retained earnings looks bad on a company's management team because it shows that they still haven't figured out how to improve profitability. Furthermore, negative retained earnings means the business has no safety net except for cash on hand and with each loss, the company uses up its cash reserve until there is no cash anymore and the business faces bankruptcy. Also, the business cannot pay dividend to shareholders or owners, meaning, they get nothing on their investment and would only be paid out of the cash balance received when the business is dissolving or liquidating. Table 5.2 shows that the successful turnaround companies retained much or all of their earnings to grow the business than the unsuccessful companies. Some unsuccessful companies continued to pay dividend to their shareholders even in the recovery period and used much of their savings and earnings on redundancy fees and debt repayment.

5.6 Organizational Turnaround Strategies

Organizational turnaround strategies are those strategies that are not directly part of the operating working capital cycle but are those strategies that management adopts to influence the working capital position of the company. For example, management competence, a functioning market or business development, are not part of the operating cycle, but do impact the operating cycle ensuring that cash inflow is consistent and cash outflow is controlled, thereby increasing the cash flow position of the company.

5.7 The Right People

All respondents stated that a key and probably the most important factor to a successful turnaround in construction after access to working capital, is – People. According to Collins (2001), 'people' are the most important factor in any transition. Repeatedly respondents have said "people" are the most important element of a recovery. The "right people" is defined by respondents as "competent people, people who believe in the leadership, who are leaders themselves, and most importantly, loyal people". This echoes the words of Bennis (2009), who confesses that in his many years of writing on leadership, only recently did an invaluable truth hit him – *"a vital aspect to any organisation's success is not great*

leadership but great followership.” Without dedicated people who will follow and fight for the leader’s vision, the company will dwindle away.

The difficult times of the crunch revealed that the support of the staff was absolutely essential for a company’s recovery. According to the Operations Director of MLC4 construction, people are the key to the success of any business and recovery. He states:

“The key thing to any business is people. And will not succeed if you don’t have the right people around you, and if those people don’t believe in you and what you are doing. If you’ve got a work force that, for lack of a better term, that will die for you, then you gonna win anything. You will turn anything around. But you’ve got to be able to do the same for them. They’ve got to feel that you’ll die for them. If you know what I mean.”

According to Netscher (2014), every company depends on people. The most common mantras in the business world are; pick your people well, train them well, and the third, pay them well. This is even more important for a company staging a turnaround. A contractor staging a turnaround needs good people, able people, and most importantly, loyal people. The Operations Director of MLC4 construction couldn’t have said it better. Table 5.3 show the important strategies pertaining getting the right people during a turnaround process.

Table 5.3: The Right People

<div>Strategies</div> <div>Firms</div>	Unsuccessful Turnaround												Successful Turnaround									
	CD1	HEB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SRW8	KUP1	MK2	LD3	RT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
A Cohesive management team	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21
Leadership/Management Competence				+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17
Business Skill and Entrepreneurial Spirit				+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	16
Management Change								+		+	+	+				+			+			6
Getting the support of your staff				+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17
<ul style="list-style-type: none">The right people in and the wrong people outCompletely Restructure putting the best people in the critical positions				+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17
<ul style="list-style-type: none">Identify alternative use of staff skills and	+		+						+		+					+						5

[illegible]

The Right People

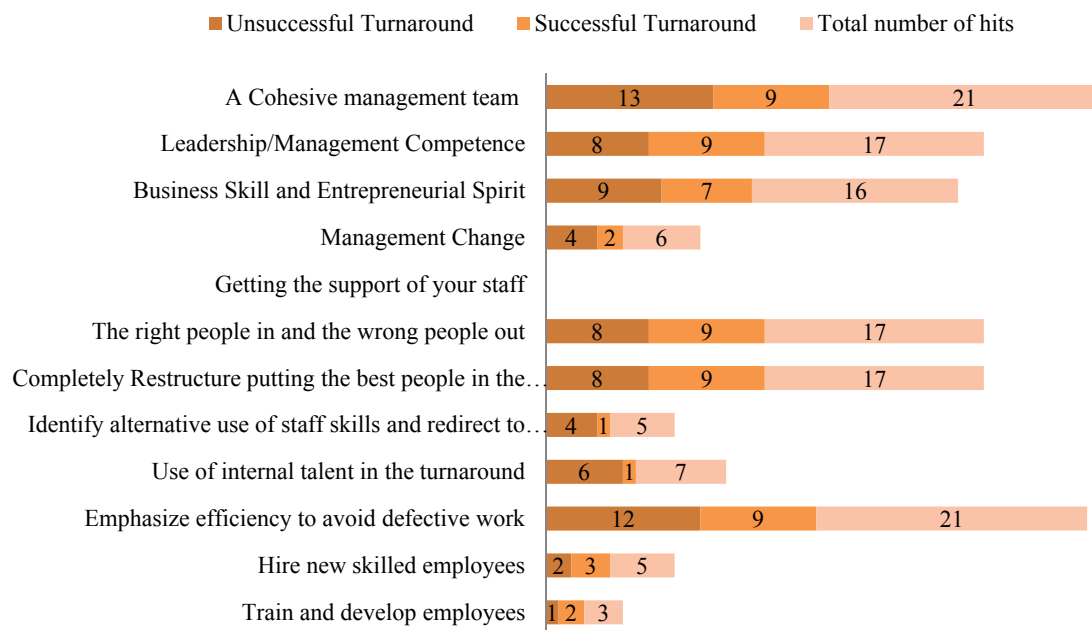


Figure 5.3: The Right People

5.7.1 Leadership and Management Competence

During a turnaround, leadership and management competence cannot be overemphasized. Literature has identified ‘management incompetence’ as one of the main determinants of business failure (Everett and Watson, 1998). It is so important that management knows what its doing. Otherwise, there is no recovery. A combination of financial management, poor value-chain analysis, poor human resources management, poor communication, poor strategic planning, poor environmental scanning, etcetera, are business failure factors that proceed from management incompetence (Dikmen et al, 2010; Ardit et al, 2000; Everett and Watson, 1998). These are factors a company in a turnaround cannot afford to be affected by. At this stage, the competence and leadership of the management team must be top notch as well as their cohesiveness.

“It is important that the management team is a cohesive unit and agree on whatever the plan should be so that focus is on executing the plan rather than arguing about whether the plan was the right one in the first place. “ – Finance Director of BH3 construction

17 companies within the study stated the absolute importance of having a cohesive and competent leadership team in a turnaround. According to the Director of SWB8 construction, the quality of the senior management team is very important. All the members of the management team need to be able to keep to pace with the turnaround programme. When the plan is agree upon, or when there is an agreement to do something and to do it by a certain time, there has to be that confidence that everyone is pulling their weight and that everyone has gone away to execute exactly what was agreed. Not just going through the motions, overpromising and under delivering. According to the Director of SWB8 construction, his role as a business owner is to have an entrepreneurial spirit, to have that vision see where the business can go. He explains further:

“I always could see the future for that business. And therefore was very supportive of it. And some other people even the people in the business itself, could not see the opportunity and therefore were not so sure. But you know, my job is to inspire and motivate those people.”

Collins (2001) states that in a transition or transformation period, companies do not need any kind of managers. They need managers who are level Level 5 leaders. Leaders that have a vision and are focused on achieving it, putting the company's needs above their own personal interests.



Figure 5.4:Level 5 Hierarchy

Table 5.4:The Two Sides of Level 5 Leadership

Professional Will	Personal Humility
Creates superb results, a clear catalyst in the transition from good to great.	Demonstrates a compelling modesty, shunning public adulation; never boastful.
Demonstrates an unwavering resolve to do whatever must be done to produce the best long-term results, no matter how difficult.	Acts with quiet, calm determination; relies principally on inspired standards, not inspiring charisma, to motivate.
Sets the standard of building an enduring great company; will settle for nothing less.	Channels ambition into the company, not the self; sets up successors for even greater success in the next generation.
Looks in the mirror, not out the window, to apportion responsibility for poor results, never blaming other people, external factors, or bad luck.	Looks out the window, not in the mirror, to apportion credit for the success of te company – to other people, external factors, and good luck.

Collins (2001), found that the Leaders who ignited their companies' transformation did not first start by setting "a new direction, or a new vision and strategy for the company and then get people committed and aligned behind the new direction. No, they first got the right people on the bus (and the wrong people off the bus) and then figured out where to drive it." He asserts that if you have the wrong people, it doesn't matter whether you discover the right direction; you still won't have a great company. Great vision without great people

is irrelevant. This statement captures the prerequisite of leadership and team spirit within a turnaround company.



Figure 5.5: Comparison of a Level 5 and Level 4 Leader

Unfortunately, most of the unsuccessful turnaround companies did not have the right leadership or a cohesive management team. For example, EJ6 construction, an unsuccessful turnaround, did not have the leadership necessary to make a successful turnaround. There was not much of cohesiveness between the management team. During the interview, the research asked the Director if the company had the leadership and management cohesiveness necessary for a turnaround, he said:

"No. A number of my colleagues showed a total lack of interest almost to the extent that they were not bothered what happens. They were not bothered about the jobs or the employments, they were not bothered about the staff or the supply-chain; they've had enough out of it over the years. So if something happens, something happens. They just didn't want to join in... I even suggested reduced salaries among the management team, but they refused. Greed comes into it because people get greedy. Its just human nature."

Though he lamented the failure of his company, in some respect he felt his colleagues let him down. They let the staff down they let the subcontractors and suppliers down, and they

let the company down. In some respect it was a morale issue as much as anything. Is everybody pulling-in in the same direction? Is everybody focused on doing what they can? These are the fundamental questions. There has to be a united goal, a plan and the drive to execute the plan. All leadership must be focused on survival.

The management of the successful turnaround companies had greater cohesion and discipline that was necessary to drive the recovery. The only successful turnaround company that suffered the absence of a lack of managerial cohesiveness and control is GP4 construction. The Owner and Director recall the situation at the time:

“The business was growing very fast, and it was doing more work, but it was losing money, because of lack of managerial control, lack of systems and processes, lack of cohesion in the team, and it took us two or three years to get the whole thing turned round before it started to produce healthy profits”

According to the Director of AWH5 construction, a cohesive and competent management team is very important for a construction business during a turnaround. He says it applies more when trying to recover than when things are good. *“When things are good, you know, you can paper over some of the cracks. I’d agree a hundred percent”*. On the other hand, the Director of CV5 construction feels it should be present at all times. In other words a company’s management team must have this quality in recession or not. From a management perspective having a cohesive management and staff team spirit makes things a little bit easier to do, which is simply, everybody understanding what is to be done and why. Another situation is LD3 construction, an unsuccessful turnaround, but a non-liquidated company, whose leadership team is still somewhat un-united, is struggling with a lack of cohesion within its leadership. The Group Finance Director does not think the members of the management team is united and focused on a common goal.

“Well, we don’t think we have that at the moment. We feel three of the four, are very much team players. We feel one or passively two of our operating directors have their own agenda and that’s what we are going to try and resolve over the next year as well.”

Similarly, BH3 construction and SWB8 construction, which are both unsuccessful turnaround companies (failed) suffered from lack of cohesiveness in their respective company management teams, the same groups that are supposed to drive the turnaround. The Directors recall:

I think in 2010 when it became apparent that the debt for equity investment might not happen then human nature starts to run its course and people start, sort of, jockeying for position. So there were various alternative plans being worked on in the background by some individuals, which created quite a bit of friction at board level.” – Finance Director of BH3 construction

“I ended up carrying a number of my colleagues either because they weren’t capable of standing up and doing what was being asked of them, or they were lazy. Looking back now, I think one of the things I would’ve done differently was probably, maybe got rid of some of the senior management team earlier because they weren’t pulling the weight. You need a team that is very focused on survival.” – Director of SWB8 construction

“When I decided I wanted to make changes, they just wanted everything to stay as it did. So I think that was something to definitely consider in the future. From a personal point of view, I think I’d be a bit more ruthless in some of the decision-making.” – Director of SWB8 construction

Successful turnaround companies had greater managerial stability and greater consensus between managers and directors while unsuccessful turnarounds had more managerial change and less cohesion. Unsuccessful turnarounds experienced a lot of top management change, which led to even greater confusion and lack of cohesion within the companies. While successful turnarounds maintained their top management, and some, added to the existing skills within the company. Having a cohesive and a competent management team is very important during recovery. In the case of BH3 construction, EJ6 construction, SWB8 construction, and LD3 construction, that was the difference between success and failure.

Now what does a company do when it recognises that there are members of the management team who are disrupting the team spirit? During boom times, companies can continue to trade successfully without much bother to the cohesiveness between the management team. However, in a recovery, the answer to that question is quite clear – change them! Act quickly to change the management when there is a sign of management incompetence, putting aside sentiments or past relationships. One has to do the job for the sake of company survival. Getting the wrong people off the bus, and the right people in becomes the next priority. That is, the leadership must divorce the company of those people that cannot see the vision of the turnaround. Respondents mentioned that for a successful turnaround, the management team has to have a business mindset and an entrepreneurial spirit. They have to see those opportunities that others do not see. And if there are people on the management team who can not see the vision and chose to disrupt the cohesiveness of the team, then management change becomes necessary.

“You know, you feel something and believe that it can work. And if some people can’t feel it then you have to move them on but the people who can feel it are part of the team then go on to greater things. Any transition from one management team to another is going to cause disruption... A cohesive management team, absolutely, that’s critical, I mean, it took sometime to create that cohesiveness within our management team... and they need to work together well to engineer a turnaround in the business.” – Owner and Director of GP4 construction.

5.7.2 Management Change

6 companies in the study stated that management change is important in a recovery when cohesiveness cannot be achieved. Bruton et al. (1997) states that if poor management is the problems, then a change in management is the recommended solution. In most cases of turnaround, a precondition for success is the replacement of the current top management usually the CEO (Sheppard and Chowdhury, 2005; Collins, 2001; Hofer, 1980). The replacement then automatically becomes the change agent. Replacing top management may be imperative but even more important is getting the right manager that will replace the outgoing one.

Now, when changing management, certain things have to be in place. Sheppard and Chowdhury, 2005; Collins, 2001; Zimmerman (1989); Hofer, 1980; and many authors in literature identify characteristics and leadership qualities that have to be considered when changing members of management. Netscher (2014) also gives a list of how to choose the right people. However, in recessionary times, certain things become more important than others. For example, GP4 construction employed two people on its management team to replace an exiting one. This strengthened the turnaround. The rationale for choosing these particular guys was that:

- They had a lot of experience in that industry,
- They were younger, full of enthusiasm and ambition,
- They knew the business well,
- They had an already existing relationship with the clients GP4 construction was working for. They knew the client very well,
- They had a very good pedigree, and a very good track record with the customer from other companies. So that helped to strengthen the ties.

This is a recipe for choosing the right transition team to replace any outgoing management. A contractor in recovery mode needs to take on people that can hit the ground running. Netscher (2014) adds that the new team needs to fit in with the culture of the company and must ascribe to the company's values. With regards to remuneration and incentives, all the respondents stated that they did not need to incentivise the staff. The staff saw that things needed doing and they just got on with it. Sometimes management change does not go as expected.

“I chose the guy because I knew him from when he was a young surveyor and he was excellent all along with clients... I had a very high opinion of him. But I never realized that he's an excellent Quantity Surveyor but a useless businessman. There's a massive difference between running a company, or running a division, and having a technical skill. Massive difference! Of course, I realize it now.” – Chairman and Owner of CDJ7 construction.

Coming out of the recession, the turnaround company must Hire, promote, and develop employees to consolidate the turnaround, Change systems, structures, and policies that don't fit with the turnaround.

5.7.3 Business skills and an entrepreneurial spirit within the management team

14 companies mentioned that business skills and an entrepreneurial spirit within the management team are very important for recovery. During a turnaround, it is imperative that construction companies are rigorous with cutting overhead for the sake of survival – adhering to the wise saying ‘cut your clothe according to the size’ (Anon). They must also secure sufficient work to cover overhead and regularly monitored and control overheads as they slug it out through the recession. Companies must also strive to be efficient on projects, making use of value engineering to reduce cost without compromising quality. Management must lay aside every sentiment they may have with employees and act like a businessmen. They must be willing to cut down to the bone, and that involves letting some good people go. It is imperative when making redundancies that management preserves the existing team spirit or creates a new one.

As well as cohesiveness amongst the team, SWB8 construction respondent stressed the importance of having different skill sets within the turnaround team. In his experience, Business skills and an entrepreneurial spirit within the management team is very important. He explains;

“You need different skills sets in the team. One of the things that became very apparent (in SWB8 construction) was that some of the members of the management team were lacking in their skills in terms of what they could bring to the table to help deal with the issues. And I think if you are trying to turn a company around, you do need a different mindset of a different skill set. So I think the quality of the management team is pretty high on the list”

In a turnaround, you also need a different mindset – leadership mindset not management mindset (Kotter, 1990) as well as a business and an entrepreneurial spirit - the drive to survive and a belief that you would win. Quite a few of the respondents emphasized that there is a massive difference between being a businessman and a man with technical skills. And construction has this massive gap. Sadly, it seems the gap is increasing otherwise the

industry would not have had this much failure. SWB8 construction respondent continues and ends with this bold statement:

*“I think you needed people with a mix of skills; people who actually had more general business skills as opposed to just engineering or construction skills. That was probably one of the problems. **YOU NEEDED BUSINESSMEN, NOT ENGINEERS!**”*

A construction company in recovery needs the management team to have a businessman’s approach to recovery because engineers usually have a sort of black and white approach – “it will either work or it won’t work” type of approach. That is in their make up, and that is in their training. Whereas, what a company in recovery actually needs, are entrepreneurs – skilled businessmen who have business skills as opposed to engineering or construction skills. This requirement was echoed by several times by the Director of SWB8 construction. According to Stone (2012), one important factor necessary to survive in this business, construction, is to *“Fall in love with your company... Marry your business, not your work.”* While this is good, it is important that, when making cuts, the love for one’s company and or employees does not impede decision-making. Management must critically assess whether the business is worth saving or not, using the lens of a businessman. Otherwise, it will just be throwing money into sinking sand.

Some owners are just too attached to their companies or employees and would not do what is needed. Their emotion gets in the way of common sense, cripples their decision-making process, and starts the decline of the business. Although, love for one’s company is good, owners must remember that they are in business and hence act like businessmen. The Chairman of CDJ6 construction continues:

“I was too attached to it. I just couldn’t let go... I put more money in, my personal money. I put a lot of money. Again that was the stupidity and the sentiment. It’s almost like being in love with a woman. I was in love with my company. I almost put all the money I got from the MBO ... It was a big, big, big, mistake... Definitely, I let the heart take a bigger portion of the decision than the business portion – I should’ve faced the facts.”

However, selling a construction company may prove to be a tall order. No one wants to buy a construction company at a time of recession. The best bet for a company in such a situation is to shrink the company by consolidating the company and reducing it to a much smaller one until the economy recovers. A form of guerrilla competitive business strategy (Drucker, 2004; Rawson, 2009; Swaim, 2010; Chesley and Watson, 2010)

This research recognizes that it would be unfair to just tell managers to be ruthless and make redundancies, to be more focused on saving the company than saving its people. People are the most important part of a business (Netscher, 2014; Collins, 2001). The people were the ones who got the company to where it is in the first place, and therefore must be treated fairly and with respect. Many managers in the study could not bring themselves to put some people out of employment. Therefore, an ability to cut cost without sentiments or emotions was a luxury for some managers. Now, because these companies could not shrink cost of overheads down to the bone, the companies did not survive the recession. Of course their failure cannot be entirely attributed to an inability to cut overheads, but it is definitely a contributing factor.

5.8 Getting the support of Stakeholders

The stakeholders of a construction company would usually constitute, the people that work for the company – the staff, the subcontractors and suppliers, creditors, and clients. First and foremost, during a turnaround, being honest and open with stakeholders is very important (Stone, 2012). That is the only way a contractor can get support. If creditors, clients, subcontractors and suppliers do not trust you, they will not give their support, and so, the company goes out of business. Literature indicates that co-operation from stakeholders is crucial if the strategy for recovery is to succeed. The probability of co-operation is increased if management effectively establishes and communicates its credibility (Balgobin and Pandit, 2001). For recovery sake, it is important that a company is open with its stakeholders: partners, lenders, clients, etc. speaking honestly with them and presenting the facts helps everyone know where they stand and where they come in, in terms of recovery. Also people are more relaxed and willing to help when they feel that they are not being lied to or manipulated. When it comes to negotiations, present the facts, and negotiate based on the current situation within the market to reflect what the current reality is.

In this study, four types of stakeholder are identified as particularly important: banks and/or financial institutions, subcontractors and suppliers, clients, and employees. Being open to stakeholders may be difficult for some contractors to do but it has to be done. Managing Director of MK2 construction was asked the support of its stakeholders during the recession. He said:

“I think the fact that we had support of the whole group, we had the support of our people, we’d got the support of our clients in terms of the local authorities, and we got the support of the bank and we’d got a business model that I think was more robust for us. It enabled us to recover.”

As a contractor in a recovery process, it is imperative to get all the support necessary, because that might just be the difference between survival and failure.

5.9 Getting the support of your staff

All 21 companies reported that they generally had support from their employees. Employees understood that it was strange times and gave their employers full co-operation; accepting pay cuts and pay freezes, and taking on more responsibilities. Obviously, the “staff” is a big stakeholder in a company and therefore their support is very essential. Management must be very open and honest with its staff on the difficulties the company is facing and solicit their support both in terms of being efficient at their tasks and in terms of recovery strategies. It is important that the situation of the company is communicated to them quite clearly, on what the situation is, and what management is doing about it. Management has to keep talking to the staff on a regular basis, keeping them updated on whatever the situation is, particularly when redundancies have to be made. Good communication is essential. It works to clear any worries and fears within the staff so that they can get back to the recovery plan with full focus. It’s basically making sure that they understand what is being done, why it’s being done, and the importance of achieving it, so everybody knows, ultimately, what they are doing is contributing to the overall turnaround and survival of the company. It is essential that people feel they are really involved in the business; that their actions will result in the recovery of the business. It’s making them

understand *“that they are a small part of a big wheel”* said the Director of CG6 construction.

“Everybody needs to work harder (people/employees). That’s quite simple. Everybody’s job is at risk. If you don’t work hard, you won’t get the reward. From the person sweeping, up to the directors” - Director of EJ6 Construction

5.9.1 Emphasize efficiency to avoid defective work

Both successful and unsuccessful turnaround companies within the study emphasized ‘efficiency’ to avoid repeat or defective work. The staff must be encouraged to work efficiently to avoid re-doing work (avoid defective work). Losing money on defective work defeats the purpose of increasing working capital and hence recovery. Primarily construction has a low margin, so it is all about being efficient. In a recession, it is even more important to be efficient, to avoid defective work. During a turnaround, communication becomes ever so important. Speaking to people, being open with them, letting them know what is happening, what is changing, and how doing their jobs right is what will get the company through the downturn.

“Make sure the work is done right so nobody can question the workmanship and stop them.” – Director of EJ6 construction

“One of the things you learn very quickly in those situations (recession) is that the biggest user of cash is probably losses. One of the things we did do is make sure that we were efficient. One of the big things was probably making sure that everything we did we did very carefully so that we didn’t do defective work that needed doing twice. If you only get paid once and you do the work twice already, you’ve lost money and that sort of uses up cash.” – Director of SWB8 construction.

To ensure efficiency on site, lines of communication have to remain unbroken so as to avoid problems. Everyone needs to be doing his or her tasks exactly as specified and do it right the first time. There are layers of management. The people on site get their orders from the site managers and the site managers, the contract managers and the contract managers, the directors. The Directors tell the contract managers what to do and it goes

down the chain of command. So if that line of communication stays clear, and everybody does as they should, then everything, theoretically, should work out ok. But where that becomes disjointed, that is when problems occur and people are not doing on site what the managing directors promised to the client. That line of communication needs to be maintained at all times.

5.10 Getting the support of subcontractors and suppliers:

The same honesty and openness shared with other stakeholders, is to be shared with subcontractors and suppliers (Stone, 2012). Seldom are subcontractors a pain to main contractors during tough times. But a wise main contractor will know how to appease them. More often than not, they are very supportive (Netscher, 2014). Both successful and unsuccessful turnaround companies stated that the support of subcontractors and suppliers was essential during recovery. The breakdown can be seen in Table 5.5. Most of the respondents sited that their respective subcontractors and suppliers were very understanding during their turnaround and did not bug them about payments.

Table 5.5: Getting the support of Subcontractors and Suppliers

<div>Firms</div> <div>Strategies</div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HEB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SRW8	KUP1	MK2	LD3	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
<div>Getting the support of Subcontractors and Suppliers</div> <ul style="list-style-type: none">Asking subcontractors for additional time to make payment (Change in payment terms)Asking subcontractors and suppliers for extended line of creditAsking suppliers for discounts	+			+		+		+	+		+	+					+				+	9
	+	+	+	+	+	+	+		+	+	+	+			+	+	+	+	+	+	+	18
	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	20
Negotiate heavily with subcontractors and suppliers to bring prices down	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	19
Delaying payment to subcontractors (pay-when-paid)		+							+		+	+									+	5

Getting the support of Subcontractors and Suppliers

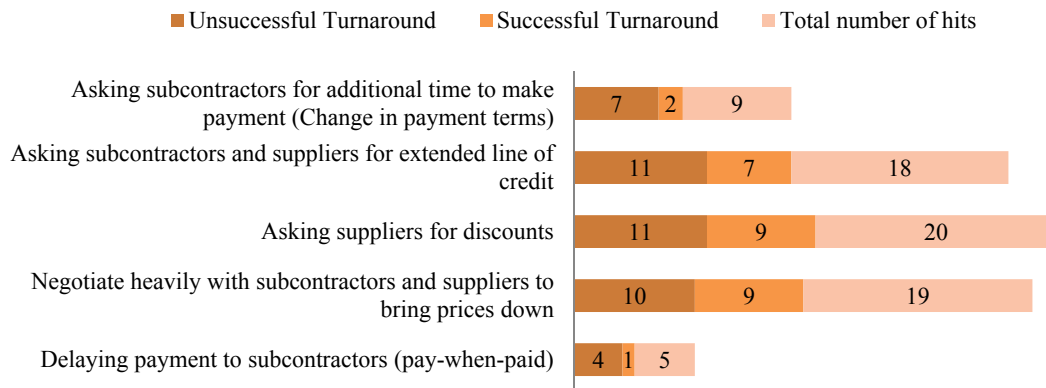


Figure 5.6: Getting the support of Subcontractors and Suppliers

The most common ways that subcontractors and suppliers can give support to contractors are:

- Accepting change in payment terms
- Extending lines of credit
- Giving trade discounts

During a turnaround, contractors must ask subcontractors and suppliers for extended lines of credit and trade discounts respectively. Trade credit extension could be from 14 to 90 days (Ross and Williams, 2013; Netscher, 2014). If things are really bad then perhaps ask for additional time to make payment. Delaying payment to subcontractors (pay-when-paid) is not uncommon in the industry, although, only five companies mentioned this strategy. Also, taking a longer time to pay suppliers and subcontractors or failure to make payment may lead to suspension of work by subcontractors, suspension of supplies, county court judgments (CCJs), disputes and loss of reputation.

As part of the recovery, contractors must negotiate heavily with subcontractors and suppliers to bring prices down. For the sake of survival and recovery, contractors must try whatever possible to get their subcontractors and suppliers to reduce their prices. At the time of recession when everybody was tightening their cost base, most contractors adopted this strategy and were generally successful. The research shows that most unsuccessful turnaround companies did not enjoy support from their subcontractors and suppliers. Therefore, their demise could be associated to a lack of support from subcontractors and

suppliers as well as a combination of poor cash flow management and lack of support from the banks. Successful turnaround companies experienced better support from their subcontractors and suppliers and also exercised better cash flow management by micro-managing their day-to-day cash inflow and outflow, and by adopting short-term finance over bank loans and overdraft (see Section 4.6 on gearing).

Contractors can also renegotiate packages, not the already awarded ones because that would constitute breach of contract, but the multi-phase packages yet to be tendered for. So instead of going to the subcontractor to price the item with the rates of former contract packages, new package can be taken to the market. That is, put up for competitive tendering so as to get the best market rate at that time, which would be considerably lower than the rates prior to the recession. One of the major issues is that prior to the recession, many contractors went into contracts with supplier and/or subcontractor for a full site without any fixed time period instead of having the projects in packages or in stages. So that subcontractors and suppliers could tender for packages as the project moved along. Hence these contractors were stuck with the contract and prices that was agreed upon prior to the recession, with no room to re-negotiate prices or retender packages to attain competitive prices.

Some contractors did not have the luxury of getting support from their subcontractors and suppliers. In the recession, it was very difficult to obtain any sort of credit. People were very cautious, because there were a lot of insolvencies. *People, lost a lot of money through insolvencies – clients and contractors just going bust on them*” said the Director of SWB8 construction. As a result some subcontractors and suppliers were unwilling to give credits, extensions or discounts. Therefore, contractors who wanted to do business had to look for money and pay upfront. Basically, the recession broke the trust that once existed between contractors and their supply chains. So contractors had to build that trust coming out of the recession. The research asked the Director of EJ6 construction how his company got the support of subcontractors and suppliers and he replied:

“With great difficulty... We are trading with people now on an equal footing in terms of when we get paid, we can generally pay people but, at the start we having to find money to

pay suppliers up front. In some instances on a weekly basis or a fortnightly basis just to build up some trust”

5.10.1 Delaying payment - Pay-when-paid

Delaying payment to subcontractors and suppliers shows an overreliance on the supply chain for cash flow on the part of the contractor (discussed extensively in Appendix 1). In other words, if contractors do not get paid, they end up withholding payment to subcontractors and suppliers to improve their cash flow positions, indicating a possible application of the ‘pay-when-paid’ strategy (Richardson, 2005). The problem with this strategy is that when it is done without consideration of the supply chain, it breaks good relationships, which might have taken years to build. If all subcontractors withdraw their support, the company is in trouble. This strategy can also lead to the bankruptcy of some of some subcontractors or suppliers who are depending on their monthly or fortnightly cheques (Engstrom, 2014).

“Good credit control. Get paid before you have to pay your creditors. Watch out for the large faceless creditors with automatic credit controls. They will cut you dead without notice, but look after the small creditors who rely on your orders and will support you as long as they get paid in a timely fashion.” Manager of HFB2

Pay-when-paid – although outlawed by the Construction Act 1996 (Ross and Williams, 2013), still exist in the industry. Only now, tier 1 (main) contractors use excuses to cover up this trick. According to the Company Secretary of CDJ6 construction and the Finance Director of TW9 construction, pay-when-paid strategies still exists, only now, contractors, so as not to be in default of the law, design their contracts in such a way that incorporates pay-when-paid but in an obscure way. In other words, the contracts are being re-written so that the contractor only pays the subcontractor after a certain period of time and that period of time is after the client pays the contractor. So at the end of the day, it is pay-when-paid in another guise. For example, contractors would include a clause in the contract that says *‘a subcontractor would receive payment 45-60 days from the valuation date’* when the contractor knows that by then the client would have made payments. Contractors have re-written the rules to ensure that they only pay subcontractors after they have been paid. Therefore, any subcontractor or supplier that wants to work for them would have to sign

the contract and accept the payment terms. The Financial Director of TW9 construction states:

“Most subcontractors, I think, accept that it will never change... there are subcontractors that do not expect to be paid within 45 days”

Some contractors take up to 100 days and more before making payments. The Financial Director of TW9 construction stated that at the time of the interview, his company has been waiting 100+ days for payment, and the main contractor is still yet to make payment. According to him, as a subcontractor, you have three options, continue waiting until you get the paid, write it off as bad debt, or chase it down through arbitration and ultimately through litigation if the contractor refuses to pay. However, going the route of arbitration and especially litigation, the subcontractor risks not ever getting work from that main contractor again. Basically, *“the subcontractor at one point has to make up his mind never to work for that main contractor ever”* said the Financial Director of TW9 construction, and therefore should always sue when in doubt,

It is better that subcontractor are told payment will arrive late so they can plan for it in advance as against just delaying payments without communicating that to them (Richardson, 2005). From the findings, most subcontractors would normally give their support and wait to be paid on a later date. According to the Finance Director of TW9 construction, this is achieved only through building personal relationships with the subcontractors and suppliers. Construction is a people business (Netscher, 2014). The director elaborates:

“By building personal relationships and getting close to them, you’ll be able to tell them, ‘look you’re not going to get paid by the second Friday of the month, it’ll be the third Friday.’ And if they can plan for that, they are happy with that than thinking, ‘we’re not gonna get paid at all’. Or for them to think they’re getting paid on the second Friday, and they make commitment to get paid and that money doesn’t arrive, they are much happier to know that the money will arrive on the third Friday.”

Contractors generally do intentionally drive a policy of delaying payment to subcontractors and suppliers. Sometimes due to shortages in cash flow, subcontractors may be asked for extended payment time and therefore are stretched a little. On other occasions subcontractors are paid on time, on the due dates promised. Also, there are situation where subcontractors and/or suppliers may ask for payment in advance (Richardson, 2005), and they get paid (Netscher, 2014; Ross and Williams, 2013). For example CI8 construction paid one or two suppliers who wanted to be paid on shorter terms or upfront. This action builds trust and shows commitment on the part of the contractor. Subcontractors and suppliers can work with peace of mind knowing that they have been paid or that they are going to get paid on time. This also elevates the contractor's reputation in the community of subcontractors and suppliers. With this kind of trust, the supply-chain is always willing to give their support *because they know they are not going to be taken for a ride*, said a respondent.

Furthermore, with the Construction Supply Chain Payment coming into effect in 2014, hopefully thing will get better for subcontractors and suppliers from here on end (Department for Business, Innovation and Skill, 2014; HM Government, 2014). The charter states:

“Our ambition for 2025 is that the construction industry’s standard payment terms are 30 days and that retentions are no longer withheld. 30 days/30 days & ZERO retentions”

However, many of the respondents believe that the charter is a marketing tool for the tier 1 (main) contractors because at the moment, even though the payment charter has been signed, there is no mechanism for enforcing it. Therefore, subcontractors do not have any confidence in the payment charter.

5.11 Support from the Banks and Creditors

Again like in the other stakeholders, the research found that honesty, communication, and reassurance are key to getting support from the banks and creditors. According to the Group Financial Director of BH3, as much as it is necessary to get the support of the banks and/or investors, it was equally important to be completely open with them. A company in recovery must keep the creditors absolutely up to date with what they were doing and

making sure that they had regular dialogue with the banks or financiers and that there were no nasty surprise for them. Because any sign of dishonesty can turn the relationship or agreement sour. More often than not, the creditors need to have an ample amount of trust and confidence that the company knows what it's doing in order to give full support.

Table 5.6: Support of Banks or Creditors

Strategies \ Firms	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HEB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SRW8	KUP1	MK2	LD3	RT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW0	Total
Reduce gearing																						
Identify and withdraw (if possible) from future debt commitments			+						+		+										+	4
Re-negotiate debt repayment	+		+	+	+	+		+	+	+	+	+									+	11
Company Voluntary Agreement (CVA)		+																				1
Debt for Equity swap			+																			1
Payment holiday			+					+	+													3
Debt waiver			+																			1

Support of Banks or Creditors

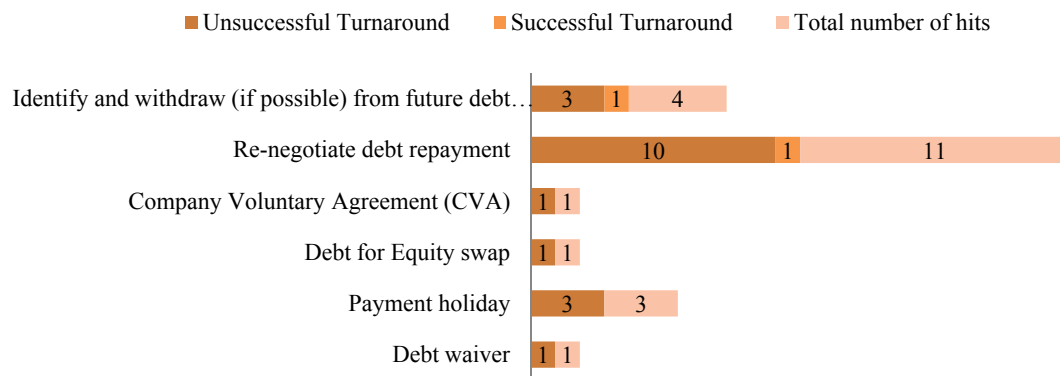


Figure 5.7: Support of Banks or Creditors

In Table 5.6 and Figure 5.7, only one of the successful turnaround companies stated renegotiations of debt repayment with banks or creditors. The rest did not operate or operated with very little bank loans and overdraft and therefore did not see the need for

renegotiations. However, this strategy was a reoccurring theme amongst the unsuccessful turnaround companies.

5.11.1 Reduce gearing

During a turnaround, the construction company must identify and reduce debt obligation. Having a reduction in quantum of debt carried by a company not only strengthens the balance sheet but also frees up cash (Clough et al, 2005). Reducing gearing is done in the right interest of the business. So it puts the business in a more solid foundation, to strengthened the balance sheet of the business. One of the first steps to recovery is to Identify and withdraw from future debt commitments anywhere possible. This will free up cash. The next step is to re-negotiate debt repayment. Having a debt repayment plan is also absolutely essential. In order to do this, first, a company needs to demonstrate to the creditors that it is able to repay the debt. For example, according to the Finance Director, BH3 *“needed to demonstrate to them (banks) that the company was able to repay its debt.”* Now, this may the following forms; Company Voluntary Agreement (CVA), Debt for Equity swap, payment holiday, Debt waivers.

The first thing a turnaround company needs to do after assessing all debt obligations, is to demonstrate to its lenders that it has the ability to repay its debt. This may involve putting together a plan that contains present and future Cash flow projections, cutback strategies, and other ways of income generation such as liquidation of certain assets.

“So we identified a recovery plan, we executed it very quickly, we got the banks on board with that plan, and we were very open with them. Which is why they supported us for as long as they did but ultimately the market still hasn’t really recovered” – Finance Director of BH3 construction

Company management should prepare their recovery plan and try and sell it to the creditors. Alternatively, they could bring in an independent examiner who would come in, assess the survival plan of the company, assess its prospect for recovery, and then make a proposal to the company’s creditors. Which if the company’s creditors accepted, then the company would survive and they would not need to go into administration. The recovery plan must

be deemed credible by the independent examiner and must obviously see that each creditor does not suffer a loss but recover the full value of their debt. This is not always the case.

It became quite clear that the companies that actually made it through the recession, most did not have bank loans and overdrafts. The successful turnarounds looked at loans as additional overhead. *“I suppose you’ve got to pay it if you have borrowing. And if you’re not making half as much as you used to, it would be very difficult”* said one respondent. They ran everything strictly on equity from the company itself or on short-term finance.

5.12 Getting the support of Clients

When things are tight, the last thing a contractor want is payments coming in three or four weeks late. Words spread through the industry very quickly and rumors can be disastrous for a company. It is absolutely important that the company get the support of the people it is working for – the clients. In order to secure clients’ support, the respondent emphasized that it is important a company gives confidence to the client by showing that they know what they are doing. Table 5.7 and Figure 5.8 outline the different strategies used by contractors to gain support of their clients.

“We had a number of clients that were very supportive. That was the other thing we did. We went and met all our clients and explained the situation to them if there were any performance issues with our existing contract so that they understood. They were very sympathetic to the situation and it was amazing the sort of support we got from our existing clients over all.” – Director of SWB8 construction

Table 5.7: Support of Clients

<div><div>Firms</div><div>Strategies</div></div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HER2	RH3	MLC4	GCE	AWH5	EJ6	CDJ7	SBW8	KUP1	MK2	LD3	RT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
Give confidence to the client				+		+			+		+					+			+	+	+	8
Getting paid quickly by clients		+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18
Request for advanced payment		+		+					+	+	+	+										6

Negotiating more favorable payment terms		+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18
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Support of Clients

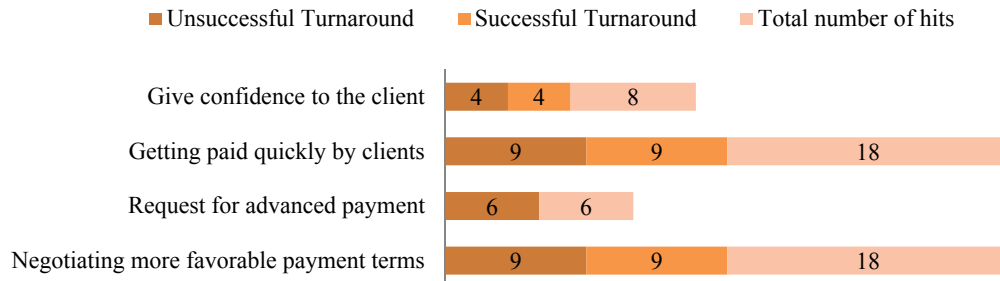


Figure 5.8: Support of Clients

18 companies asserted that the support of clients is one of the strategies for construction business recovery. This can take different form. Clients can show their support by paying contractors quickly (on time), honoring requests for advanced payment. Contractors can further increase their cash positions by negotiating more favorable terms with clients: requesting milestone payments, and site set-up costs, holding back less retention, etcetera. For example, CF7 construction was supported by its clients' base during its recovery.

"We had a variety of clients. A lot of our clients make a real effort to try and pay as quickly as possible. For the same reasons we do our subcontractors. But that's not to say that every client is like that. But the bulk of them are." – Managing Director of CF7 construction

The clients of SWB8 construction also supported its recovery but that alone was insufficient to save the company.

"Clients were very good because they paid us early. We did the work and they paid us early cause they knew that that was one of the ways that they could practically provide us with support."

It is evident that successful turnaround companies got better support from their clients than unsuccessful turnaround companies. Many clients shut down funding as soon as they are aware that a contractor is having financial problems. And many of the unsuccessful

turnaround companies had substantial money issues spanning from bad debt to mismanagement. As a result, clients were not willing to give further support.

Nutscher (2014), Ross and Williams (2013), and Engstrom (2014) have outlined a number of ways that a contractor can get clients to give their support.

- Negotiating more favorable payment terms, according to Nutscher (2014) may include:
- Paying the valuation within a shorter period than stipulated in the tender
- Being able to submit invoices at an earlier date or more frequently
- The client withholding less retention
- Payment for unfixed materials on site
- Reducing the amount of retention withheld
- Replacing the retention money with a surety bond
- Asking the client to provide a payment guarantee, which could ensure that if they got into financial difficulties the contractor, could claim against it
- Requesting the client to make an advance payment (particularly to cover the purchase of major items of equipment or materials)
- Structuring the tender in a manner that a larger portion of the project overheads are paid at the start of the contract, or that work done earlier in the project has a higher value than work done later
- Requesting the client release retention money earlier by:
- Shortening the duration it's held
- Releasing it in tranches as milestones are achieved
- Reducing the value of the guarantees
- Allowing the guarantees to be released earlier or when the important milestones have been achieved

5.13 A functioning market (Being in the right area of the industry)

The “Market” is one of the first factors the respondents picked on. 19 companies mentioned that “*a functioning market*” is very essential for a successful recovery. The market being; commercial/institutional sector, residential sector, industrial sector, and utilities/civil engineering sector. The demand side of the economy has to pick up for supply to be sustained. This factor is external to the company and therefore not in the control of the firm.

However, the firm is in control of whether or not they choose to exploit the business of a sector of the industry that is buoyant regardless of the recession.

“I think a functioning market is pretty important and ultimately one of the reasons for the failure of the companies” – Finance Director of BH3 construction

Different areas in construction, actually, are much more successful than others. Therefore contractors have to make sure that they are in the right areas of the construction industry. They have to make sure they are able to get the work in the sector that is ruling construction overall. From Table 5.8 and Figure 5.9, Commercial/institutional sector is seen to be the most lucrative during the 2007-2008 recession especially by the successful turnaround companies. All the successful turnaround companies, some of which had operations in other sectors, recognized that commercial was the sector with the most spend, and so, focused on winning jobs there. When the recession bit, residential suffered first and then the others followed. But according to some respondents, commercial did not suffer as much. Nevertheless, all sectors were hit. According to the Finance Director of CB1 construction, during the recession spending was more on the commercial side of things, more on commercial development, including the school extension scheme in education. He continues:

“Obviously, I can’t speak for all sectors, but my understanding was that, particularly in the school education sector where money was being put to build more schools and also the academies were being built. So that was quite a good area to be in during the recession in terms of recovery, whereas, at that time the residential, at that time, wasn’t, but that’s now turned a corner and come back on again. It seems to go into paces and waves in terms of what government funding is available for what construction sectors.”

Table 5.8: A Functioning Market (The right industry sector)

<div><div>Firms</div><div>Strategies</div></div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HEB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SRW8	KUP1	MK2	LD3	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
The Right Sector Commercial/Institutional	+			+					+	+	+		+	+	+	+	+	+	+	+	+	14

Residential Sector						+					+						+					3
Industrial Sector															+						+	2
Utilities/Heavy Civil							+					+				+						3
Remain true to the company's core business strategy	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+			+	+	17
Maintain the market presence								+			+		+	+	+		+			+		7
Expand the market presence										+	+					+						3
Diversify and Expand portfolio	+				+	+	+			+						+		+	+			8
Merger and acquisition										+						+						2

A Functioning Market (The right industry sector)

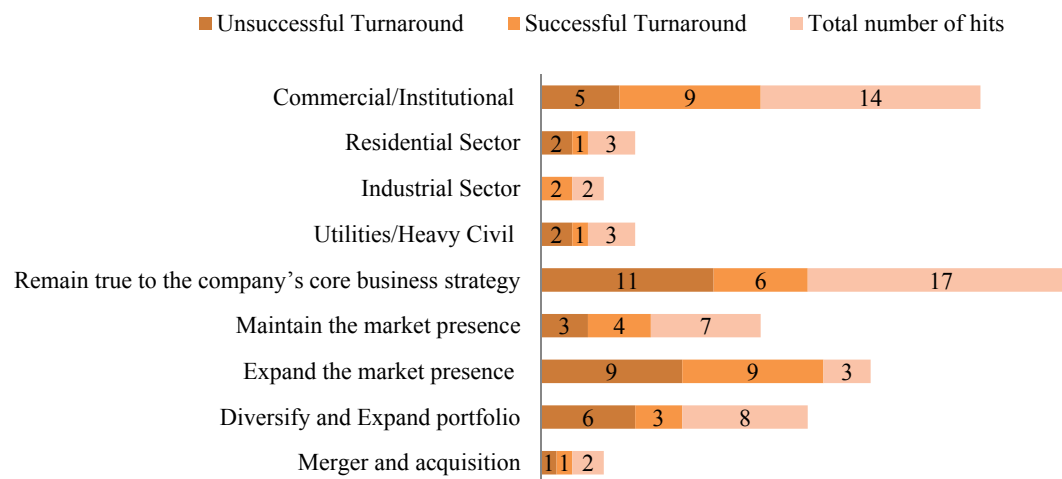


Figure 5.9: A Functioning Market (The right industry sector)

In simple terms, a construction company must concentrate its efforts on the areas of the construction market that are profitable, and the sector(s) that they think there is going to be significant government spend made, and concentrate their efforts on securing work within those sectors. Some contractors were lucky to have held framework contracts before the recession began. The government injected money into education and local authority works, and so those contractors that were in commercial/institutional work were well placed to take advantage of that in terms of having work to undertake and make a profit. Respondents also depicted the Utilities sector as a very good sector to be in during the recession. The gas tunnel and the oil refineries have very steady order books and therefore clients that were in that sector were not affected much by the recession. For example, GP4 construction credits its survival to being in the utilities sector. However, the utilities sector is a very

closed sector. It is not easy to break into because its been dominated by a handful of specialized contractors. It is not sector that a company can easily diversify into. Contractors need to be extremely specialized to work in those places. Commercial/institutional sector is said to have been the most lucrative during the recession. These areas are; health, education, retail, medical centers, care homes, private and student accommodations, some local authority jobs, etcetera. Education has been mentioned by one of the respondents as one of the areas to look at during a recession. Because, during 2007 recession, a lot of people were out of jobs and therefore looked to improve their skills, hence, they went back to universities, which is more money for the universities. The universities then try to expand to accommodate the growing number of students by providing new facilities such as: accommodation, lecture theatres, new labs etc.

“Yes, there’s some truth in that. We have done some work on schools whereas, previously, we haven’t. So I suppose, yes, that is correct. We did start to do work in the education sector.” – Director of CG6 construction

When a company is in trouble, it is inevitable that some form of strategic and operational market assessment will be done. The market assessment usually involves an assessment of parts of the industry that are functional in relation to the strength and competence of the company. The research shows that the successful turnaround companies understood this more than the unsuccessful turnaround companies. Successful firms more accurately gauged their ability to implement fully their strategic plans by choosing the commercial sector the most buoyant of the industry sectors at the time. Unsuccessful firms often had strategic plans that were either inconsistent with the market or inconsistent with the company’s resource base. The findings show that a number of questions have to be asked in order to discover the right market:

- Is the company in the right market?
- Is there another market the company can venture into, that its skills can be transferred to?
- Can the company go into a different sector? For instance if the company doing only commercial work can it start doing domestic work?
- Does the company stay in construction or can it offer something else?

The company has to reinvent itself. Perhaps through these questions the company realizes that actually, the sector it is in, is the right sector, and what it is doing at the moment is ideal. Perhaps, what is needed is fine-tuning. Collins (2001) proposes the adoption of the ‘Hedgehog Concept’ whilst doing this analysis (see Figure 5.10).

The search for a functioning market is not a search for a change in business strategy but competitive business strategy (Martin, 2014; Drucker, 2004; Porter, 1998). The concept basically encourages companies to remain true to their company’s core business strategy but reassess their competitive business strategy either through product differentiation, cost leadership or niche (martin, 2014). Collins (2001) and Netscher (2014) are advocates for contractors sticking to what they are good at. The Accountant of CI8 construction said about his company’s business strategy.

“Basically we get the commercial and industrial which we know we are good at. We didn’t look to expand our market into something that we haven’t got proven experience.”

Netscher (2014) echoes this respondent’s comment by asserting that it is unwise for contractors to tender for jobs which they have absolutely no experience in just because they are desperate for work. Contractors must remember that the ramifications of work done poorly can impact on a company’s reputation not to mention the losses.

Speaking about making the product better, CF7 construction for instance adopted ISO 14000, and ISO 9001 for quality. That streamlined its business.

“We stuck to our core areas, we didn’t go outside what we know how to build, but we did go outside geographically.” – Director of KUP1 construction

18 companies, both successful and unsuccessful turnarounds stated that during recovery, it is better for a company to remain true to its business strategy. However, most successful turnaround companies advocate for some type of product differentiation, which is inline with Porter’s (1998) competitive strategies (see Section 2.19). It is important that a company has a very clear strategy; to know what it wants to create, what it wants to do,

where it wants to go, and to stick to that strategy. The tactics might change, the operational performance might change, and things done on a day-to-day basis might change as challenges emerge from the market place but the company's strategy should remain the same. 17 companies within the study subscribed to the strategy of remaining true to the company's core strategy. While 8 companies thought that perhaps it was better to diversify. Successful companies focused on their core business strategies and were more concerned with improving their product qualities and to produce differentiated products. Unsuccessful firms were more willing to diversify into new sectors and so were not invested on improving existing products even when product shortcomings were widely perceived. This finding is consistent with Zimmerman's (1989) findings with regards to the attitude of successful and unsuccessful recoveries towards differentiation of products.

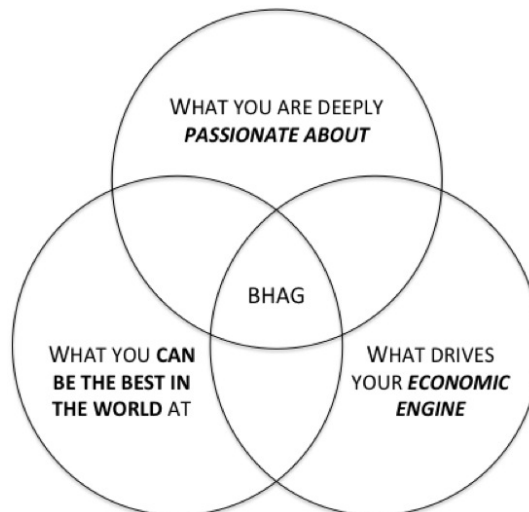


Figure 5.10: Three Circles Of The Hedgehog Concept (Source: Collins, 2001)

However, the Hedgehog Concept holds little water during a turnaround as the change is born out of necessity rather than passion. At the point of crisis, the idea of “What you can be best in the world at” is overruled by “what will make us money now? According to the Director of CG6 construction; *“really, you’re just after what there is. You’re sort of forced down that line. If you want to do anything at all, you’ve got to look at what jobs are being done and you go and bid for them... so we focused on areas where there is a lot of buoyancy, and we targeted those particular sectors.”*

Companies are left to work with whatever works at the time. What works may or may not be the company's "Economic Engine". This was the situation with CF7 construction, one of the successfully recovered companies. The respondent explains:

"We were heavily involved in social housing. Over 75% of our turnover was in social housing, which stopped over night. There was no business to be done in social housing. The government removed the funding, and there was no work to be done. So we moved into education, working for local authorities and private schools... That was the sector that showed the biggest growth in the area at that time."

This is not to say the concept is entirely inconsistent with the findings. Companies can definitely benefit from analyzing themselves using the three circles. It maybe that a company gets lucky and finds "itself", whilst, fostering the recovery process. What can be seen from the findings (Table 5.8 above) is that all 9 of the successful turnaround concentrated their resources in the commercial sector of the industry. 14 companies within the study stated that during the recession, the commercial sector of the industry performs better than others. 3 stated that residential performed better, 2, mentioned industrial to be doing better and 3 utilities. In the case of CF7 construction, the education sector (commercial) was their 'economic engine' and they put all their resources into it, even though, earlier, they had maintained a much diverse portfolio.

5.13.1 Diversify and expand portfolio into other sectors of the industry

There are companies that diversify or have a wide range in their portfolio and there are others with only one specific specialty trade. Nestcher (2014) affirms that, though he is an advocate of construction companies sticking to what they know best, it is not to say that contractors should not be looking at alternative fields in which to work, but, these should only be considered after considering all the risks and opportunities. According to the Director of GCE and Co. construction, *"you might be involved in housing, you might be involved in building schools or industrial works. But ideally you want to have a finger in every pie."* In other words a company should strive to have a diverse portfolio in different sectors of the industry.

However, it is not easy to spread your customer base, said the Finance Director of CB1 construction; Because if a contractor is specialized in an area, it is not easy to just shift into a different sector. In his opinion, the construction market at that time was particularly stagnant. *“There were no new avenues. So it would be quite hard to diversify.”* Most of the companies in the study stated that diversifying was quite a difficult thing to do during the recession. CB1, KUP1, GCE and Co., AWH5, EJ6, and TW9 construction were very vocal about it. Lets look at a few comments by these companies.

“If you’ve got a big company that say, builds schools, you can’t then turn around and start building say, a post of office or a village pub. You haven’t got the right technical staff to do that sort of work. So I suppose the answer is to have a broad range of work always available.” – The Director of GCE construction

“We were way too specialized in our niche to be able to consider sensibly going into other sectors. Our whole business is absolutely, exclusively built round it. And going into other sectors would have been a very bad decision because we didn’t know enough about the markets and we weren’t organized to do that. So, for those companies that were able to do that of course had one way. But that avenue was not available to us. – Director of AWH5 construction

“My personal opinion is stick to what you’re good at. So if you’ve got a proven track record in residential and you’re in times of recession, or you’ve got a proven track record in commercial or retail or whatever, then stick to that. Do what your good at. Don’t try to experiment too much. You know, things can probably get out of hand again. You need to stick to what you know.” – Director of EJ6 construction

According to Everett and Watson, (1998), small firms are able to reduce their likelihood of failure by diversifying. In construction, over-reliance on one customer or one sector of the industry is never a good thing. Because, any slump in the overall demand of that customer or that sector, would result in proportional nose-dive of the company’s turnover. Depending on the intensity and longevity of the slump, the company may never recover. It is important for a company to have a varied clientele both with regards to customers and sector. All the respondents to the research emphasized ‘sticking to the company’s core principle’ –

sticking to what you know best; but also advised spreading the risk across different sectors of the industry.

If you are a residential contractor, try and add some commercial work to your portfolio. If you are a commercial contractor, add industrial or utilities or whatever to your portfolio. The objective is having a mix so when one part of the industry is down, the others can keep you afloat. A typical example of actively and intentionally spreading one's risk is that of GP4 construction. The owner and MD stated that one client provided 95% of the company's workload, and only 5% was with other clients. The company realizing the risks, later grew the business and balanced its order books to a 60/40 spread. It means they recognized that they were in a rather precarious situation. If this one customer's demand slashes in half or more, the company would be in serious problem.

CB1, KUP1, MLC4, GCE and Co., and AWH5 construction said spreading one's customer base is perhaps a good thing and in hindsight, they would have preferred to be a bit more diverse. For example, here is a comment by the Finance Director of CB1 construction:

"We were very happy with the arrangements that we had with our trust. But yeah, if we'd seen time, and knew what would happen, then yes, absolutely right, we would've tried to diversify a lot more than we had then, and by the time we had to try and do so, it was too late."

Although diversification seems like a very good idea, it is not easy to accomplish in the crux of a recession. If a company is interested in spreading its customer base, it is advised to do so prior to difficult times, that is, in its good years and as a growing strategy – slowly and carefully. It is very unlikely that a company would be able to diversify during a recession. Much of the market is stagnant and quiet. Besides, skill is not acquired overnight. When a company does not specialise in an area, it would be futile to attempt to compete in that area with companies who have been doing that job for years. Although, it could be argued that with good contacts, good marketing, and the right skill to do the job, a company could break into a market that is not its original niche area. The financial director of CB1 construction states about the concept of diversifying during a recession:

“The construction market at that time was very ... stagnant. And there was no where new. No new avenues (even if you wanted to try and support them), that were opening up. They (contractors in other sectors) were very much in the same boat that you were in. So it was very hard to try and widen that market at the time.”

Warren Buffet states *“Diversification is a protection against ignorance. It makes very little sense for those who know what they’re doing.”* I dare to say that this statement is an oversimplification of decision-making, and frankly, dismissive of diversification. Yes, it is true that knowing what you’re doing is the single most important thing in business. But knowing to do one thing well is only affordable to those in a more stable industry. Knowing to do two or three things well, especially in a market that fluctuates like construction, is a survival strategy. For example, CF7 construction was only able to turnaround because it originally operated in 3-4 different sectors of the industry. When it become heavily involved in social housing and government funding for the same was cut, the company would have gone bust had it not been for its diverse portfolio of sectors. The company was then able to redirect its assets and existing skill into one of the sectors that was more buoyant.

Construction fluctuates too quickly and recovers too slowly. Therefore, construction companies can no longer afford to know how to do one thing very well. They need to know how to do two, three, even four things very, very well in order to survive. Having two or three specialties is one of the sure ways of ensuring longevity in this fragile industry. When one sector is down, the other two pulls you through. Buffet late advises that *“Should you find yourself in a chronically leaking boat, energy devoted to changing vessels is likely to be a more productive than energy devoted to patching leaks.”* In other words, it is better to shift into a new vibrant sector of the industry than sticking to the declining existing market. With respect to the contractor that knows how to do only one thing very well, the avenue of “changing vessels” is simply not available to you, and patching leaks remains the only available option. Unfortunately for some companies, the boat sinks.

However, the statements by Buffet are valid. It is good to hold onto one and not let go of the other. Do not diversify for the sake of diversification. If you know how to do one thing, do it well. If you know how to do or have an opportunity to do three things well, then, do

them as well. In a period of decline, one or more of those things might save you. In theory, a construction company with a portfolio of diverse sectors is more likely to survive a recession than a one-specialty construction company.

The findings show that most construction companies stick to what they know best during a turnaround. But it does not necessarily mean that that was the best strategy. Amongst the successful turnarounds, three companies suggested diversification as a recovery strategy while five companies in the unsuccessful companies suggested diversification as a turnaround strategy. However, eleven out of twelve of the unsuccessful turnaround companies, stuck to what they knew best to do but they did not recover, while three out of nine of the successful companies diversified and had a successful turnaround. Percentage wise, diversification gets the better of the 'hedgehog' concept. Nevertheless, we must recognise that six companies out of nine of the successful turnarounds, stuck to their core business strategy and recovered. If through market research, a construction company in a turnaround finds that its market is the most buoyant one, then, that's great. Otherwise it is imperative however, that the company concentrates on finding work in whatever sector is buoyant at the time.

5.13.2 Maintain the market presence.

7 companies mentioned keeping the market presence. In other words, keep the market share. The company can use pay cuts to augment cash flow. Pay cuts and pay freezes are pretty good strategies to adopt in term keeping valuable staff (people the company does not want to lose), in the business for when the market turns around. Rather than lose valuable staff and when the market gets better, the company then, cannot take advantage of opportunities. So, in trying times, it is a good strategy to keep valuable staff on a pay cut while slogging it out. The staff of course would not like it. The company may even get push-back but when something has to be done, it has to be done. Sentiments aside. Therefore, management has to work hard on gaining the support of its people; staff, subcontractors, creditors and customers. Unsuccessful turnaround companies were particularly keen to shrink their company size through redundancies, thereby shrinking their market share. Whereas, successful turnaround firms avoided losing their market position by keeping their staff but used pay cuts and pay freezes to save money. Drew

(1994) also did not support losing market share, he proposed rather, that the company should find other ways of reducing the cost of production without losing their market share.

For example, MK2 construction was very keen about keeping the regional presence that it had and keeping the leaders in those regions within the company. In other words, it kept its best people, especially the top management. The company decided to centralize the business, keep the regional presence but still keep the structure of the business flat. A type of 'limited horizontal decentralization' structure observed by Mintzberg et al (2003), where there is power sharing between the strategic apex and the company's 'technostructure' or technical staff. And so it happened. When the market got better, the firm was able to restart quicker, first because of its flatter organisational structure and keeping a presence in its market share; and second, because of the change in business model of building in smaller units and smaller batches. Hence, the firm was able to restart those sites they had stopped, and bid for, and win more work.

5.13.3 Merger and acquisition

One strategy for reinforcing a company and driving a turnaround is to merge with or purchase another company. Companies in the study seldom used this strategy because it usually requires substantial funds and is fraught with risks (Netscher, 2014). Mergers and acquisitions could be very successful and may contribute to the growth of the company (Swaim, 2010; Potter, 1998). Unfortunately, some could be unsuccessful and end up costing the company more money than expected. In order to diversify, some companies go the route of merger and acquisition. Though mergers and acquisitions are a way to ensure survival and growth, they are not without their disadvantages. If the cultural fit is not right or is not shared across the businesses quickly, disruptions and breakdown in communication can be expected, which may cost the company dearly. Sometimes it may not be as extreme. Purchasing a company during a recessionary time is unfortunately not a very good idea unless it makes for a compelling business opportunity. This is because the new company often demands a lot of management time and takes time away from running the original company, which can ultimately impact on the company's performance and reputation.

Two companies MK2 construction and GP4 construction stated that they adopted mergers and acquisition as recovery strategies during the recession. MK2 construction went through

a change in its financial structure and saw an opportunity to merge with another company because of their complementary business strategic positions and common interest. There were also two acquisitions by MK2 construction. According to Netscher (2014) a construction company must only look into merging with or purchasing another company if the new company:

- Is working in a different region and it will help the original company expand into this region.
- Has established relationships with different clients to the ones the company normally works with.
- Has expertise in a different field.
- Has a large pool of personnel, and
- Has a lot of equipment

Coincidentally, MK2 and GP4 construction met these criteria. According to the Managing Director of MK2 construction:

“The merger element was an absolutely compelling business case to do because of the locations in both businesses, and the complementary nature it had... XXX were really strong in the south, MK2 was starting to grow south. And MK2 was really solid in the north and Apollo was starting to grow north. So the compelling logic was, put both businesses together to merge. Another compelling argument to the merger, was that, XXX never did housing for sale work that we did in old GP4” – Managing Director of MK2 construction

So clearly the compelling reasons to the merger, was that not only did MK2 construction get national coverage, but it also got the opportunity for the new company to start doing things it previously didn't do like the homes for sale business. So that was the logic. MK2 construction is still live and still trading working as an integrated one business, although it is still classified as an unsuccessful recovery because it has not registered a Z-score above 1.10 for two years or more consecutively.

5.14 Selective Tendering

It is clear from Table 4.1 that apart from the intense competition created by the economic downturn; the number one cause of failure amongst the cases was a 'bad debt'. Therefore

selecting the right project to tender for is of utmost importance (See Table 5.9 and Figure 5.11). Bad debt is an extremely sensitive issue in the construction business because of its massive impact on working capital and cash flow. Cash is the fuel that runs the business (Clough et al, 2005). And when a construction-related business fails, the cause is almost always poor cash flow (Netscher, 2014; Stone, 2012, Clough et al, 2005). Six unsuccessful turnaround companies fell to bad debt with only three companies amongst the successful turnarounds falling to bad debt. Successful turnarounds demonstrated a better ability in selecting the right clients (clients that could pay) over the unsuccessful turnaround companies. Therefore, successful turnarounds were able to make a profit or at least enough earnings to remain in business.

Table 5.9: Selective Tendering

<div><div>Firms</div><div>Strategies</div></div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HER2	BH3	MLC4	GCE	AWH5	E16	CDI7	SRW8	KUP1	MK2	LD3	RT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
Checking that the client/agency can pay		+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18
Only projects that are profitable				+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17
Review Economic Engine				+				+	+	+	+	+		+	+	+	+		+		+	12
Reduce prices or margins to win work			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		17
Below-cost bidding	+				+		+	+		+					+							6
Adopt competitive tendering for supply-chain								+	+	+	+		+		+		+	+				8
Bid for smaller jobs		+		+	+		+	+	+	+	+	+	+	+			+	+	+			14
Bid for bigger jobs															+	+						2

Selective Tendering

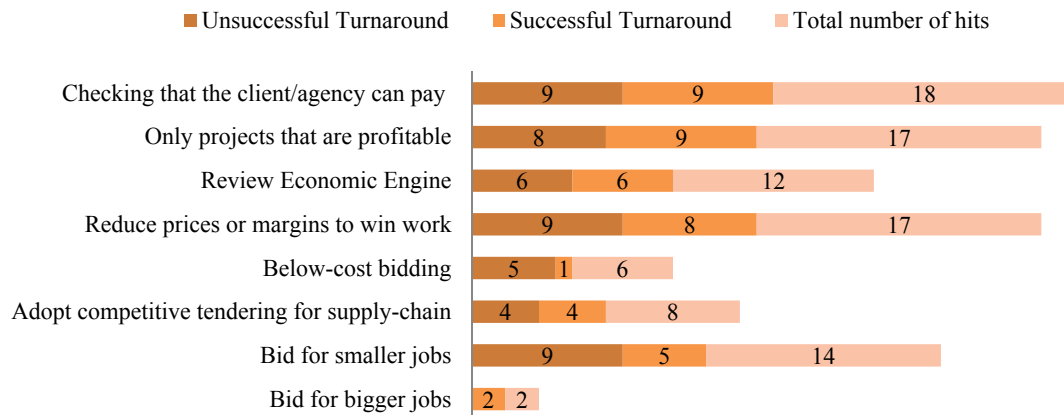


Figure 5.11: Selective Tendering

5.14.1 Checking that the client/agency can pay

Nine companies within this study have suffered from a bad debt, five of which have failed – CB1, MLC4, AWH5, CDJ7, SBW8 construction; one still struggling to recover – LD3 construction; and three have successfully recovered – GP4, CG6, and CF7 construction. Cash flow problems occur when a company is squeezed between slow/non paying clients, impatient suppliers and subcontractors, and lenders who are unwilling to make up for the short fall (Lowe and Moroke, 2012). This issue of cash-draught caused by bad debt is pervasive in the construction industry today. This finding therefore reinforces the importance of “*project choice*” and “*clients’ ability to pay.*” According to the Group Chairman of HFB2 construction, it is imperative to:

“Check out your customer’s ability to pay before you enter into any contracts or obligations and agree early on staged payments or up-front payments where possible.”

In Figure 5.11, 18 companies within the study echoed the same thing – the clients’ ability to pay is key to a construction company’s recovery. Lets look at a couple of these comments.

“When you’re picking your customers or your clients, whatever you want to call them, you need to be working for people who are making money. Who are successful, because, if there’re not successful, there’s a very good chance that you’re not gonna be successful. It

is very important to me that my clients are making a good profit. Because if they're making a good profit, they can afford to pay me” – Director of EJ6 construction

“Primarily, being more selective on who we will tender for, and the type of contract we will tender. In other words, making sure the client was a good client, and could pay us” – Financial Director of TW9 construction

Therefore selecting the right project to tender for is very important. According to Netscher (2014) the risk of taking on a wrong project not only impacts directly on the profitability of the project, but it impacts on other projects and the company as a whole. Netscher outlines a number of criteria for selecting the right project in his book “Building a successful construction company: a practical guide”. But here, the research findings show that the overarching criteria for selecting a project are “client’s ability to pay” and “profitability”. According to the Managing Director of GP4 construction, when a company is deciding on a project to tender for, it must answer two questions

1. I’m I going to get paid? – Because in the construction industry, contractors very often do not get paid, and
2. I’m I going to make a profit?

Other common selection criteria found in this study are:

1. How many are tendering,
2. Location of the project,
3. Type of project
4. Value of the project, and
5. Whether there is an existing relationship with the client or the consultant team, say the architect or the structural engineer.

A successful project is one that is, profitable, completed on time, to the required quality, with zero incidents (Nestcher, 2014). Over and over again through the research interviews with respondents, company ‘success’ has been tied to project selection. According to the Managing Director of GP4 construction, success is “sustainable profitable growth”. Therefore, sustainable profitable growth means, getting paid, making a profit and growing the business. Many of the respondents could not overemphasized the pre-requisite of

making sure that a client can pay before tendering for or accepting to price a job. Numerous contractors and subcontractors have gone out of business because of a bad debt. It is a knock-on-effect. The client goes bankrupt, the contractor does not get paid, he goes out of business, the subcontractors does not get paid, and of course he goes out of business too. It is very important that a company gets paid for work done. *“You’ve got to look very carefully at the client and ensure that you’ve got certainty of payment. And eliminate as many potential risks as you can”* said the Director of CG6 construction.

Other contractors identified the strategy for selecting clients that are in industries or sectors that are government funded, like local authority and health trusts clients. For example, the Director of CG6 asserted that education and health care are mostly government funded and therefore there is certainty of payment. He elaborates:

“We targeted those because the client within those sectors, government funded, local authorities, health trusts, they are not going to disappear. They are not gonna go bankrupt. They are not gonna leave you with a bad debt. So we looked at those sorts of clients, those sort of sectors where we knew the money was safe.”

Now, how can a contractor assess a client’s ability to pay? Checking that the client can meet their financial obligations on the project can be done via credit checks and company account information. Contractors can check whether their client or agency is solvent before starting a contract. The sign of a potential client/agency’s credit risk would show up in the form of poor credit score (Altman, 1993), low cash balances and/or county court judgements (CCJs). Upon these results, a contractor can decide whether or not to do business with such a client. If a contractor decides to do business with the high-risk client, he/she should ask for payment up-front or negotiate shorter payment periods (Contractor Calculator, 2015).

Sometimes credit checks are insufficient and do not give a true picture of the clients financial position. MLC4 construction did a credit check on its client but it was still crippled by a bad debt. All what credit checks tell you is that the client is good at borrowing money. More checks have to be done. For example, the company’s financial books and order books should be checked. Netscher (2014) suggests asking the client for their bank statement. But

this is unlikely to be honored by the client. Therefore, the contractor must do more research: reading newspapers, newsletters from industry institutions, and talking to subcontractors and suppliers. The research findings suggest that construction companies should always do the following when researching a potential client.

1. Ask the following questions;
 - Is there an existing relationship?
 - Was the client recommended by someone the company trusts?
2. If a client comes recommended, further questions could be asked when speaking to referrals, or subcontractors and suppliers;
 - How do you know them?
 - Where do you know them from?
 - Who else have worked for them?
3. Follow up and speak to those other subcontractors who worked for them. Give all of them a phone call. If they listened, ask how they got along with the client? Was everything ok? How did they pay? Etcetera.

The directors of MK2 and LD3 construction said that they only look for projects that the client is someone whom they've had a good working relationship with, and whether or not the company can get better margin on the job. *"Unless we can be assured that we've had a relationship with a client with a contractor that, you know, we like working for, and whether or not we can get a better margin out of it, we certainly will not do the job."*

Unfortunately, sometimes even when a client comes recommended and a company does all the due diligence, things can still go wrong, like in the case of SWB8 construction.

5.15 Bidding Strategies

As discussed in Section 2.22, as part of contractors' overall competitive business strategy (Porter, 1998), when tendering for jobs, contractors develop bidding strategies that ensures or gives them a higher chance of winning the job (Male, 1991). Winning the job may come about only by submitting a serious bid (Skitmore, 1989). This competitive business strategy may be in form of: price leadership, where contractors try to lower their margins in order to become the lowest bidder especially with public sector clients; focus on niche, where contractors focus on specific markets and apply either a cost leadership or differentiation

strategy; and product differentiation, where bidders are hoping to win contracts through, for example, reputation even though their bids may not be the lowest (Porter, 1998; Drew, 1994).

The Financial Director of TW9 emphasized the need for selective tendering and not aggressive tendering. With aggressive tendering or random tendering (Fine, 1975), contractors can easily find that they have overtraded, with their order books full of jobs but having limited resources to handle them. That results is an unhappy client, loss of future work, and bad reputation. According to the Director, *“aggression will get you nowhere, but critical selection, will get you where you wanna be”*.

Skitmore (1989) has outlined six bidding options that contractors choose to exercise depending on preference or constraint (Drew, 1994): decline to bid, return tender documents, submit a cover price, produce a rough estimate and add mark-up, add 'non price features', and produce a detailed estimate and add mark-up. It can be argued that non of the first five options are genuinely competitive, hence, non-serious (Skitmore, 1989). As a turnaround strategy, respondents only mentioned submitting serious bids to the client i.e. a detailed estimate with a mark-up added. Cover pricing was mentioned in literature as a survival strategy that contractors adopt in order to control their workloads efficiently and profitably – whether as a strategy to remain on a client’s good side and therefore on the clients list of future enquiries, to stop competitors from getting the job or whether to stop competitors from reading their bidding strategy (McHugh and Forster, 2012; Gruneburg, 2008; Drew, 1994).

Granted that type, size, complexity, location, and client type influence decision to tender (Drew, 1994), respondents however, horned in on another factor – the profit margin on the project. The bottom line question; how much profit will we make on the job?

5.15.1 Bid only on projects that are profitable

17 companies within the study stated that another key to a successful recovery in the construction industry is making sure that projects return a profit. Most contractors and subcontractor among the successful turnarounds, within the study refuse to tender for jobs with the aggressive clients/main contractors, unless they can get a good margin on the

contract. This is because of the known history of aggressive clients or main contractors who always look to squeeze the contractor or subcontractor, which makes them weary. However, there are those clients/main contractors who seem to understand the way the market works, and have much more understanding of the needs of the contractor/subcontractor than others. Therefore subcontractors feel free to develop trusting relationships, and will generally give support where they can. In the absence of this trust, subcontractors are weary of exposing themselves. The importance of making profits on projects cannot over-emphasized. Authors have been reiterating this for a long time (Sears et al, 2015, Netscher, 2014, Ross and Williams, 2013, Stone, 2012, Clough et al, 2005, (Kirk, 2005), Collins, 2001, Gruneberg, 1997, Altman, 1993, and so on. All emphasize that profit is the lifeblood of a business.

5.15.2 Reduce prices or margins to win work

Margins naturally reduce because of the recession. However, according to many researchers including but not limited to Skitmore (1989), Drew et al (2001), Drew, (1994), Fine (1975), in order to secure jobs, contractors tactically reduce margins to win work so as to get cash back into the business (Not the same as suicide bidding) (Merna and Smith, 1990). So both successful and unsuccessful turnaround companies had to reduce margins to win work. 17 companies within the study pointed to reduced margins. However, they also confirmed that, this was not a strategy of choice. The market forced margins down. During the recession, as a general practice, contractors become keen on reducing their margins to be competitive. Construction, even in boom times does not have great margins on contracts because the competition is always fierce. So in recession, margins will always reflect what the market levels are at the time.

Not all contractors succumbed to the market though. For example TW9 construction maintained its margins and was not prepared to lose any money. Definitely, the company understood the ramifications of taking on work with no profits. Plus, there is no certainty that things will not go wrong. And when that happens, the company starts hemorrhaging money and the company's reputation is put on the line. Financial Director of TW9 construction speaks:

“If you cut your margins to a stupid figure, you concentrate on cutting everything else, and not doing the job. And therefore, you end up with a shoddy job, and with a disgruntled client... we have a reputation to maintain.”

5.15.3 Below cost bidding

Unfortunately, during a recession, and of course recovery, profitability is not necessarily the number one thing on the minds of contractors, ‘survival’ is. According to a respondent, *“It was all about minimizing loses rather than making a profit”*. And therefore, out of desperation, some contractors adopted ‘below cost’ bidding to survive. Intense competition usually leads to desperation on the part of some contractors who then result to ‘below cost’ tendering. Much of the industry calls it ‘suicide bidding’ because it is a bankrupt model (Fine, 1975; Drew, 1994). On projects where this strategy is adopted, when things go wrong, they really go wrong. According to respondents, some contractors defend the strategy on the basis of improved Cash flow and cost savings. But it must be done only in the very short term, and must not be for prolonged periods. Some contractors do it to generate some cash in the short term to maintain their labour forces especially if they have a job in the pipeline which they require a certain amount of labour. So, rather than incur cost reducing the labour base, and then more cost to increase it when they need it, (cost of redundancies and hiring), they keep the men employed. The Financial Director of LD3 construction and CG6 Construction said they understood why some contractors would bid ‘below cost’, but said, nevertheless, it was a *“recipe for disaster”*. For example, CB1 construction is a case where below cost tendering was employed. The Financial Director comments:

“There was much more aggressive tendering process that went through. And we were sort of going up against other subcontractors that were just, totally, sort of, wiping us out of the tendering process.”

Needless to say, the strategy did not help CB1 construction, as it did not make it through the recession. 7 companies from the research sample mentioned ‘below cost’ tendering as a recovery strategy for their companies – 3 from the successful turnaround companies and 4 from the unsuccessful turnaround companies. Many companies, coming out of the recession, found that it was not a particularly good policy bidding ‘below cost’ because as

the recession eased up, the supply chain started to rapidly increasing their prices and so contractors were caught in no man's land. A lot of companies suffered by tendering below cost, coming out of the recession. *"The industry can be safe if contractors remain honest with themselves and with the customer,"* said one respondent.

Contractors must refuse to buy work. There is enough risk in this industry without putting one's self in risky positions. It is better to slightly cut overhead margin, but maintain the margin where overheads are covered in the pricing, and then later, try to make a profit, even if the profit is marginal, than bidding 'below cost' and losing money. The Financial Director of TW9 completely rejects the justification behind 'below cost' tendering. He says:

"There's enough risk as it is. Because all that happens is that if you cut your margins to a stupid figure, you concentrate on cutting everything else, and not doing the job. And therefore, you end up with a shoddy job, and with a disgruntled client. You know, we have a reputation to maintain."

It also leads to adversarial culture of doing business, where contractors result in manufacturing variations and claims in order to offset the difference. Contractors that do this take the risk of upsetting a client and even losing reputation and hence, future work from the client. Recession or not, a contractor can not afford to upset a customer by coming back with a whole load of extras. That sort of brutal relationship can only work if the contractor has to work with that customer once in every five or ten years. But surely in a small local economy, he/she cannot afford to upset customers in that sort of way. Because, trust and integrity is what brings repeat business, without which, contractors are side-lined by customers. Therefore it is important that when 'below cost' strategy is used; the contractor remains honest with the budget and the client. Integrity is the key to repeat business (Stone, 2012). Many of the successful turnaround companies acknowledged that some contractor use below-cost bidding but they themselves have not adopted the strategy, except for GP4 construction. The Managing Director of GP4 construction comments:

"If we take a contract below brake even, then we'll execute it below brake even. We don't result to claims to try and turn things around. But our customers some times do that against

us because they are suffering the pain. They'll kick downwards, down the supply chain and make life difficult for us."

The place of honesty and integrity in the construction industry cannot be overemphasized. To reiterate, the root of many disputes and lawsuits in construction is the absence of honesty. Stone is an advocate for best practice in business and strongly points out that: *"To be successful, you must conduct yourself and your business in a manner beyond reproach at all times. For peace of mind, for the acceptance of the people you work with and the people in the community that you work in, there's simply no other way to do business."*

Some contractors do not deliberately pursue the policy of pushing margins below break even though, but that was the effect of the recession. For example, due to the intense competition at the time, KUP1 construction employed the strategy of bidding below cost to win work. This is how the Director defended his company's employment of the strategy:

"If we put any margin on the bid, we would lose it. So we were going in at cost or below cost. Now, you can't do that for long periods of time and what we found was, we were able to negotiate our cost base with our subcontractors. So we might have bid below cost or slightly below cost. But eventually we made money on the job. So we were aware that if we started off thinking 'well, we'd go on and put some margin on it', we weren't gonna win. So that is the case."

Since KUP1 is still live and trading, even though it is classified as unsuccessful turnaround, it seems that the strategy worked for the company. The strategy might have worked for KUP1 but it does bring back the adversarial culture that the industry is working hard to leave behind (Lathan, 1994; Egan, 1998). Also, many of the respondents discouraged the use of this strategy.

The recession brought back the adversarial culture and it has affected both the clients and contractors. There was a change in attitude, change in approach to tender, and change in relationships. Pre-recession, clients and contractors negotiated work but come recession, the jobs always went to tender. Contractors in return took their work packages to competitive tender process, when in the past they would have negotiated with

subcontractors and suppliers. So there goes the chain – client squeezes the contractors, the contractor squeezes the supply chain, and the adversarial culture returns. But no body is in business to lose money so the contractor will always try to find ways to outwit the client through variations and claims, and the subcontractor will try to do the same to the contractor, and there goes the cycle.

Another problem with below cost tendering is that when things go wrong, and contracts have to be transferred to a different contractor, the company normally would get a haircut. But now, the loss would be even greater since the company went in at below-cost. A typical example is the case of CDJ7 construction that badly priced a massive project at 20% below what it was supposed to be. The company won the work, but as the recession got worse and CDJ7 had to novate its contracts, the company lost a lot of money. And so it started the avalanche of the company's decline. 'Low pricing' simply as a strategy to remain in business long enough for the recession to wear out. The Chairman and CEO of CDJ6 construction in retrospect entertained this survival strategy.

"If I could see the future in March of 2007, I would've priced everything 10% less, I would've got enough work for two years... because within two years, we were pricing 30% lower than March 2007. It was a catastrophe! But how could you know? Next life, I come as a magician."

This raises the question on the ethics of 'suicide bidding' or 'below cost bidding. An overarching number of respondents in this study said it is absolutely not a dependable recovery strategy, because of the risks involved.

5.15.4 Bid for smaller jobs (more competition)

By reducing the size of job, the contractor reduces the overheads required on the job. According to the Director of GCE and Co. construction, small jobs are what a lot of people survive on, in a recession, even though the figures are so *"cut throat, and the margins so tight, that you tend to do the job for the sake of it, and finish up losing money."* Within the study, 14 companies stated that shrinking the company to a manageable size and bidding for smaller jobs was a strategy for business recovery in construction. Below are a few comments from respondents.

It is important to know that during a downturn, there will be increased competition on smaller jobs as everyone in the industry cuts down. Usually, the big jobs are none existent or put on hold, and the smaller jobs are what is left. Therefore competition naturally will be more. The Managing Director of CV5 construction explains:

“There’s work and there’s more contractors bidding for the same work and equally in recession, you’ve got the bigger contractors now fishing in smaller waters. Because the immediate announcements post recession basically is, the big big projects are cut or completely not happening. So those contractors that were bidding for big projects suddenly started to feed their mouth and they started fishing in different waters that they wouldn’t ordinarily be doing so.”

5.15.5 Bid for bigger jobs

The research findings show that, a construction company in a time of recession, will normally look to cut cost, reduce the work force will shrink the company, reduce overheads, shrink the company to a manageable size, bid for smaller jobs, etc. That is the trend. However CM3 construction completely did the opposite and started bidding for bigger jobs. According to the Operations Director, through some analysis, the company found that the bigger jobs had less competition. Generally, the big companies shrunk down to reduce expenses and bidding for smaller jobs and therefore, the competition at that level was intense as everybody was fishing in smaller waters. But companies like CM3 construction that went the other way, found there was less competition on the bigger jobs. This strategy helped the company recover.

“Through market research and everything, the smaller market i.e projects below £7.5m, they were tighter, reduced margins, competition was high and you were bidding against many contractors. We actually aimed for projects of £7.5 upwards. Whereas, before the recession we tendering the opposite of that sort of £3m or £4 million in value. – Operations Director of CM3 construction

5.15.6 Adopt competitive tendering for supply-chain

As the recession bit, there was a change in attitude and relationship between clients and contractors. Primarily, during that period everything was down to the best price. As such, the relationship between contractor and supply chain also changed.

“I think, you’ll find that with most clients 99% of the time. Although they might say they look for best value but it’s always lowest price that they go with.” Contracts Director of BT1 construction

“From when the recession started on the uplift, clients took the very hard stance to drive the lowest price – maximizing their return.” – Operations Director of CM3 construction

Clients’ and contractors’ change in attitude towards lowest price over best value was the result of the recession. At tender evaluations, clients moved towards lowest price because they knew they could take advantage of the highly competitive market. The conditions were good for the client and bad for the contractor. However, according to Drew (1994), the contractor whose strategy is cost leadership would be more successful with clients who are more inclined to ‘lowest cost’ bids. Prior to the recession, clients would usually negotiate contracts with the contractors. Some client-contractor relationships were built on loyalty and trust, and on an open book basis. But come recession, *“clients never negotiated”*, said a respondent. It always went to tender. So clients were always looking at lowest price. So contractors also took their work packages to tender in order to get the best price.

But ultimately, it was not necessarily to the client’s own advantage because contractors get smart. They can always manufacture extra work and claims when they feel they are getting their backs pinned to the wall. This practice sees the return of adversarial culture of construction. That is why the MD of GP4 construction advises that clients and contractors alike must recognise that price is not the ultimate in construction, ‘value’ is. He states:

“We certainly recognized that price is not necessarily the best reason for buying something. You know, sometimes something could be a little more expensive but could be a lot better and represent better value. It’s value you’re looking for really rather than just price.”

8 companies within the research sample mentioned adopting competitive tendering for recovery purposes – 4 from successful turnaround companies and 4 from unsuccessful turnaround companies. Amongst the unsuccessful turnaround companies, 3 are non-liquidated unsuccessful turnarounds. It seems the strategy was fairly used by those companies that survived the recession. Therefore, an important recovery strategy is adopting competitive tendering across the supply-chain.

Because of the recession, the market was changing all the time. Prices were dropping within the market. So, in some instances contractors were able to go back to the market with work packages and retender those particular work packages to get better terms and conditions. So it was either prices reduced or they got better payment terms. According to the Director of KUP1 construction, *“the market was in free fall”* and prices were changing on a fairly regular basis. So, contractors seized the opportunity to retender some of the later packages that were due, instead of just going to the usual subcontractor or supplier, they sort of widened the net in competitive tendering.

“It was more a case of us just being more prudent in terms of opening the work up to other organizations to get a bit more competitive prices and save a bit of cash.” – Director of SWB8 construction

“They are tendering for work. So, they were in a bid process as well. So they had to cut their cost to be able to work for us. So it was very competitive for them as it was for us. So we were all in the same boat really” – Director of KUP1 construction

The relationship part of the industry suffered. It all became too mechanised. The people touch was missing. For example, prior to the recession, MK2 had a more partnering relationship with its supply-chain partners, in terms of discussing their future work, establishing needs, talking about the way they were going to do it, looking at the quality side of things, and negotiating prices. But come recession, the company innovated by adopting an “e-procurement method” for its supply chain order to keep a close knit on market prices. The e-procurement enabled the firm to constantly monitor the current market rate to get the best possible price but stifled this pre-existing relationship the company had with its supply chain. In the words of the Managing Director:

“The e-procurement approach was effective but was quite a blunt instrument in terms of the relationship side of things and was at odds with how we like to do our business both then and now. So, you know, if you’re asking me on reflection, it did a job for us but categorically it’s not the way we like to do our business... I think, there’s a danger that there are other things, relationships, sharing best practice, a whole host of factors which can get lost”

5.15.7 Review Economic Engine

The economic engine is a concept by Collins (2001) that helps a company assess the most effective way to generate sustained and robust cashflow and profitability. 12 companies affirmed that a construction company in recovery has to review its business model (economic engine) and find out how best to generate cash flow. That is, it must look at its primary source of income and check whether that is still valid in the current market situation. If the answer is ‘no’, then it is time to change it.

Change in Business Model

MK2 construction, before the credit crunch, has a split of the company’s land pipeline 60% partnerships and 40% speculative schemes (traditional spec. schemes) but in 2008-2009, the firm changed its business model to 95% partnership with local authority and 5% speculative. The reason was that the company was trying to move away from the ‘one-off, high profit’ projects associated with traditional speculative business model, and move to a more partnership approach of repeat business, where the aim is not to make lots of profit but to have a promise of steady flow of future works in the pipeline. Of course the shift in business model did not come without sacrifice. Moving away from the traditional speculator model meant that they sacrificed profit for the sake of sustained growth and survival.

Framework contracts and Repeat business

Many contractors have perhaps confirmed the veracity of long-term approach of repeat business as the silver lining of the recession in construction (Netscher, 2014; Stone, 2012). The companies within the study have also credited ‘repeat business’ as the sole reason for surviving the credit crunch. Many contractors advocate for this business model rather than

a one-off model. In their opinion, the ability to see and secure future works is the key to surviving in the industry. According to the managing director of MK2 construction, one of the reasons for his company's recovery is because of long-term pipeline visibility. He comments:

"I think for us, it's about the visibility. If you think about, a speculative deal is a one-off, not a repeat business approach. Whereas for us, culturally, the partnership approach and that long-term approach, and being able to see future pipeline, being able to invest and put the infrastructure in with our people, commit to the employment and training initiatives, and things like that. We are much able to do that, if we've got that long-term pipeline visibility."

Framework contracts and multiphase or repeat contracts are seen as the gem of the industry because of their pipeline visibility. In addition, framework contracts are government funded and therefore, there was certainty of payment even if the margins were not great, but there was visibility. Since, Government contracts can pay within 14 days on framework contracts. The survival of companies depends largely upon the amount of work a company has, for how long, and profit margin of those works to produce cash to meet its long-term obligations. The Chairman of CDJ6 construction, an unsuccessful turnaround company, regretted not securing long-term contracts to ensure survival. In confirmation of this, the Director of TW9 construction (Successful turnaround) said that the reason why other companies failed was because they were *"running on short-term contracts, and were not being honest with themselves"* about the harshness of the situation. In other words, successful turnarounds especially TW9, CF7, and GP4 constructions' actively pursued a survival strategy which was about winning long-term and multi-phased or repeat contracts.

The Director of KUP1 construction also recognized the potency of framework contracts to recovery in the construction industry, as his company could not break into the contractors' list reserved by local authority work – the EMPA list. The Director believed his KUP1 construction would have recovered better had they landed some framework contracts. He states; *"Prior to the recession, we hadn't done any local authority work at all. So we were all private. Which is why our turnover just fell off a cliff."* Basically, if a contractor was not on the local authority list or in the framework agreements it was almost impossible for him

to break into the market. If a contractor had not done any local authority work, prior to the recession, it's not a straightforward switch to make. According to KUP1's Director, *"It's quite a difficult thing to do"*, because already the market is saturated.

Type of Contract

The concept of the economic model is that the company has to assess how best to get money in. Changing the economic model could be as little as changing the type of contract. MLC4 construction changed its company's contract type from lump sum and/or unit cost to cost-plus. Cost-plus fee arrangements are negotiated contracts whereby the client agrees reimburses the contractor for the full amount of the construction cost and pay a stipulated fee for the contractor's services (Clough et al, 2005). The Operating Director states: *I work now on an open book system where they see what it costs for me to do the job for them. They see all the cost of labor and invoices and all receipts, so before we start work, we agree on a profit margin of say 15 – 20% to cover overheads and costs.* For MLC4 construction, this is how best it felt it could get money into the company, where profit margins are already agreed upon before the contract starts. However, to be able to do this during a recession, the construction company must be very good at what it does for the client to agree to sit and negotiate. This dealt with the type of contracts tendered for at the time of turnaround.

The analysis has shown that successful turnaround companies adopted long-term contracts and multiphase contracts to survive through the recession; while unsuccessful turnarounds were operating on short-term and one-off contracts.

Table 5.10 and Figure 5.12 below deals with the last four factors on Table 5.1, which are: business development, use of technology, access to advice, and luck.

Table 5.10: Other Factors necessary for Recovery in Construction

<div><div>Firms</div><div>Strategies</div></div>	Unsuccessful Turnaround												Successful Turnaround									
	CB1	HFB2	BH3	MLC4	GCE	AWH5	EJ6	CDJ7	SBW8	KUP1	MK2	LD3	BT1	TG2	CM3	GP4	CV5	CG6	CF7	CI8	TW9	Total
Business Development				+		+	+			+	+			+	+	+		+	+	+		11

Use of technology - BIM and e-tendering				+							+										2
Access to advice	+	+	+	+		+		+	+	+	+	+									10
Luck										+			+			+					3

Other Factors necessary for Recovery in Construction

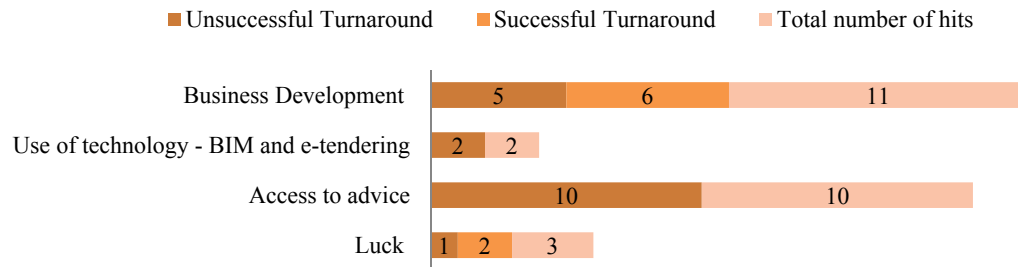


Figure 5.12: Other Factors necessary for Recovery in Construction

5.16 Business Development

11 companies within the study mentioned business development as a strategy necessary for construction business recovery, 8 of which are still live and trading today (mainly successful turnarounds). Therefore, successful turnarounds focused on business development as a recovery strategy than unsuccessful turnarounds. This strategy is very important because it ensures that the company wins enough work to keep it going through the recession. Business development also brings about ‘repeat business’ - this involves building relationships, and the proper use of referrals and customer relationship management software (CRM). CRMs help the contractor organize and keep track of contacts and manage business development activities, which ultimately help the company stay on top of upcoming project bids. For example, CM3, and KUP1 mainly focused on repeat work type contracts and actively pursued relationships to win those types of contracts. They were able to do this by maintaining existing relationships and building new relationships with clients. KUP1 construction also took what may be considered a proactive step of appointing a Business Development/Marketing manager part way through the recession. According to the owner and director, this was one cost, which they needed not to cut. This meant that the company was able to win enough work to keep on going through the recession and was even better placed coming out of it.

“We’ve got quite a strong business development. There’s a lot of work to actually know it’s through relationships with clients. Getting them to understand our business because we are different... because at the end of the day, that’s what brings you new work. That’s what brings you opportunities.” – Operations Director of CM3 construction

5.17 Use of technology

Two companies mentioned the use of technology as a business recovery strategy. For example, for MK2 construction to keep a close knit on market prices, the company innovated by adopting an “e-procurement method” for its supply chain in 2009. The e-procurement platform was that provided by Bravo Solutions UK. Because the market was in a confused state in terms of its rates, the platform enabled the firm to constantly monitor the current market rate to get the best possible price. However, the company quickly dropped the system in 2010 because they believed that while the system was effective at the time when the market was really adversarial, it was not compatible with the company’s business strategy of building relationships with its supply chain. The Managing Director reflects:

“It wasn’t a cultural fit for us. We didn’t think it was the best way of doing things.”

He was later asked if the technology severed the relationship the company had built with its supply chain partners. The Director said, *“No, It didn’t break completely, but it impacted on it. And we worked hard to bring that back to what it was before”*. In summary, e-procurement is effective and will do the job that it is employed for (that is, setting a cost base); but it must only be employed in severely adverse market conditions and only for a period of time. Managers must be aware of the cost of adopting such a technology. The entire business of construction feeds on relationships and the future of the industry is integration and collaboration. Therefore, in adopting e-procurement, a company must be careful not to sacrifice good relationships on the altar of cost reduction.

Another company, CF7 construction also rolled out the IT and BIM through out its business in 2008 and 2009. According to the Director, the investment made a difference. Probably everyone had a laptop or a computer, said the Director. This enabled to the business to be more efficient, and save time. The Director comments:

“I mean it’s been a big learning curve. Some of our guys are still learning. But I think it made the business quicker. So there’s a pro and a con. But it made the business quicker because it allowed us to build quicker and also manage the clients’ expectations better. The investment in IT was worth it.”

Investments in IT are often justified with the benefits it can bring. But it is not easy to measure such benefits (Lautanala et al, 2013; Hannus et al, 2003). It is generally known that investment in IT takes a long time to reflect benefits on the company books. Often times, the financial savings is subtly spread across years. But it is good the CF7 construction quickly started to see the return on its investment in the form of increased efficiency, improved management of information and clients’ objectives, and time saving.

5.18 Access to advice

10 companies within the study mentioned that access to advice was a very important factor in construction business recovery. Knowing what to do is a fundamental thing. Quite a few of the companies stated that they got advice mainly to know how to cut cost and overheads, and ultimately to know how to secure additional finance. Others asked for advice on a general plane, sort of, to get the feel of how people felt their companies could recover. The Director of SWB8 construction states:

“Nobody has got all the answers and there are probably people out there who are doing this all the time. So it would be useful I think to be able to talk to people who have actually experienced it in the past. Or are dealing with it at the time. So it’s purely experience as much as anything. You could probably use it as a sounding board. So you’ve got some idea what you should be doing and maybe more importantly, what you shouldn’t be doing.”

However, according to the Group Chairman of HFB2 construction, contractors should not always trust that they are getting advice especially from the banks, and should not assume that they are receiving advice unless they are paying for it. The bank is always looking to sell a product and what a person might think is advice, may turn out to be product sales, he said. Contractors must be able to tell the difference.

5.19 Luck

Three companies within the study stated the ‘luck’ had a hand in their recovery. Business leaders have often mentioned ‘luck’ as the reason for their success (Collins, 2001). The Owner and Director of KUP1 construction was asked how his company was able to remain alive through the recession, he said it was “*a mixture of ‘good luck’ and ‘good management’*”. Luck may be abstract, but many managers credit ‘luck’ for their good fortunes. However, luck has to be complemented with ‘preparation’, which is where good management comes in. According to Thomas (2013), there are two types of luck; there is ‘lottery luck’ and then there is ‘Pasteur luck’. Lottery luck is random and requires very little effort but buying a ticket. But Pasteur luck/chance only favours the prepared mind. In other words, this type of luck can only be exploited through deliberate action to acquire certain skills, knowledge or wisdom. So, when opportunity presents itself, the firm or individual can exploit it. Construction companies in turnaround must work to build that preparedness so they are able to take advantage that come up as the economy recovers.

As ‘luck’ would have it, for a small company, KUP1 construction was fortunate to have a staff internally, in the management team that was experienced in business finance, and so, drove the turnaround.

5.20 Comparison of Recovery Strategies of Successful and Unsuccessful turnaround companies

1. A chief finding of this Chapter is that, although both successful and unsuccessful turnaround companies agree that increasing working capital and cash flow management are very important, it was the successful turnaround companies that were able to exhibited better cash flow management and thus increased working capital than the unsuccessful turnaround companies. Both successful and unsuccessful turnaround companies subscribed to the ‘guerrilla or niche approach’ before launching an offensive or defensive business strategy in the market (Drucker, 1961; Three Sigma, 2015). However, the successful companies exhibited far better control of their costs and implemented traditional measures that reflect more efficient management such as reduction of overheads, implementing pay cuts and pay freezes in order to keep

valuable staff, and putting earnings back into the business in the form of retained earnings. The unsuccessful turnarounds focused more on redundancies, and sourcing new equity, including and especially through bank loans and overdraft, which successful turnaround companies stayed away from. As such, successful turnaround companies were more cost conscious and demonstrated more discipline. Successful companies handled money conservatively on an ongoing basis. The argument of the successful turnaround companies was that redundancies does away with a company's work force, not to mention the redundancies fees paid out. While bank loans and overdraft facility are an unreliable source of financing because the banks can withdraw the facility on demand without prior notice. This is consistent with Zimmerman's (1989) findings.

2. An important lesson was learnt by the both successful and unsuccessful turnarounds as they progressed through the turnaround process. Both turnaround companies learned that 'people' with leadership, cohesiveness, business and entrepreneurial skills drive a turnaround. Respondents believed that without loyal people, with the right skill and focus (cohesiveness), recovery would be very difficult if not impossible. Successful turnaround companies seemed to understand this more and focused on keeping their work force, even hiring new and better skilled staff to drive the turnaround, while the most of the unsuccessful turnaround companies did not have cohesive management teams and took drastic measures of cost reduction through redundancies that saw their skilled work force greatly reduced. The findings show that successful turnaround companies had greater managerial stability and greater consensus between managers and directors while unsuccessful turnarounds had more managerial change and less cohesion. Unsuccessful turnarounds experienced a lot of top management change, which led to even greater confusion and lack of cohesion within the companies. While successful turnarounds retained their existing top management and added to the existing skills within the company through new recruitment.
3. It was found that successful turnaround companies enjoyed better support from their stakeholders: staff, subcontractors and suppliers, than unsuccessful turnaround companies. The banks were particularly notorious at withdrawing support when contractors need it most. The successful turnarounds, since independent of the banks

for funding, were able to avoid the disappointment of not getting support from the banks. On the other hand, unsuccessful turnarounds were greatly disappointed when the banks withdraw funding and had to start sourcing for funds elsewhere. Companies that were not able to secure funding, naturally, went out of business.

4. Both successful and unsuccessful turnaround companies within the study emphasized 'efficiency' to avoid repeat or defective work. However, the successful turnaround companies were noticeably more efficient in executing their systems.
5. Successful firms more accurately gauged their ability to implement fully their strategic plans by choosing the commercial sector the most buoyant of the industry sectors at the time. Unsuccessful firms often had strategic plans that were either inconsistent with the market or inconsistent with the company's resource base.
6. Both successful and unsuccessful turnarounds stated that during recovery, it is better for a company to remain true to its business strategy. However, most successful turnaround companies advocate for some type of product differentiation not diversification. Unsuccessful firms were more willing to diversify into new sectors and so were not invested on improving existing products even when product shortcomings were widely perceived.
7. Unsuccessful turnaround companies were particularly keen to shrink their company size through redundancies, thereby shrinking their market share. Whereas, successful turnaround firms avoided losing their market position by keeping their staff but used pay cuts and pay freezes to save money.
8. Successful turnarounds demonstrated a better ability in selecting the right clients - clients that could pay over the unsuccessful turnaround companies. Therefore, successful turnarounds were able to make a profit and remain in business. They were also not keen at reducing profit margins to below-cost because that meant losing money deliberately. However, unsuccessful turnarounds were more willing to reduce margins to below-cost just to win work in the name of survival. The problem with this strategy

is that it brings back adversarial relationships and when things go wrong, the cost might be insurmountable for the construction company.

9. Companies that survived the recession understood the cost saving ability of adopting competitive tendering across the supply chain.
10. Successful turnarounds actively pursued survival strategies that were about winning long-term and multi-phased or repeat work type contracts; while unsuccessful turnarounds were operating on short-term and one-off contracts.
11. Successful turnarounds focused on business development as a recovery strategy than unsuccessful turnarounds by actively pursuing relationships that will bring 'repeat business'.

5.21 Summary

In summary, construction business recovery is primarily concerned with increasing working capital and cash flow which may take different dimensions, having the right people to drive the turnaround, having the support of the stakeholders; staff, subcontractors and suppliers, creditors, and clients; finding the right market, selective tendering, business development, use of technology, access to advice and luck.

The findings show that operating strategies mainly involve cost cutting, disciplined cash management, and other strategies that increase the working capital position. The aims of operating strategies are to improve the cash flow position of the company by exploring every avenue of increasing cash inflow and decreasing cash outflow. On the other hand, the organisational strategies are those strategies that involve; getting the right people, ensuring team spirit, getting the support of stakeholders, and ultimately making sure that there is a disciplined approach to choosing projects that are profitable. From the findings, it can be seen that operational and organisational turnaround strategies overlap and the lines that divide both strategies blur as they come together to perfectly drive the turnaround process of the small and medium sized construction company. It also shows how both successful and unsuccessful turnarounds have applied these strategies with varying levels

successes. The next chapter shows how these strategies combined to form the turnaround framework.

6 CHAPTER 6 | DEVELOPMENT OF FRAMEWORK

6.1 Introduction

This chapter discusses the details and the process by which the framework was developed. The framework implicitly combines knowledge from literature and the findings from this research.

6.2 Strategies for Construction Business Recovery

“Leadership” is said to be the focal point and the necessary factor for a successful turnaround and for changing a company from good-to-great (Ng, 2011; Dikmen et al, 2010; Colins, 2001; Arditi et al, 2000; Kotter, 1990). However, both leadership and management are necessary and the turnaround agent must know when to wear which hat (Panthi et al, 2008; Bennis 2009; Blackaby and Blackaby, 2001). According to Kotter (1990) people want hope and they will follow anyone who can promise them that. They need, deserve, and want to be led (Warner, 2009).

Collins (2001), states that ‘people’ are the most important factor in any transition and that company executives must focus first on finding the right people before even deciding on what the plan is. He called it the “first who then what” concept. He states that if leaders begin with “who” rather than “what,” then the company can more easily adapt to a changing world. On the other hand, if people joined the team because of “what” rather “who” else is on the team, then it becomes much more difficult to change direction when situations change. The right people come first.

6.3 Leadership and People

Bennis (2009) asserts that the leader or turnaround agent has to be flexible and adaptive to the new situations and challenges; *coping with the changes* – setting a direction, developing a vision of the future and the strategies needed to achieve that vision, enlists the support of stakeholders. He/she must coordinate his/her team to pursue goals that align perfectly with company values; *aligning people* – communicating the direction by words and examples so that others understand it and are committed to its achievement (Northhouse, 2007). The turnaround company must adopt the Human Resource Management culture that is concerned with ‘getting the right people in the right jobs at the right times (Henderson,

2011), motivate them, train and develop them, and reward performance (Nayab and Wistrom, 2015). That is, a leader (turnaround agent) must be able to empower his team, delegating and giving them responsibilities without breathing down their necks – a bit of autonomy is useful (Torrington, et al, 2008; Armstrong, 2006). The manager must also be able to motivate them and let them loose. An effective manager must also be willing to offer a helping hand when necessary. He/she must be willing to coach some employees. A mentor-protégé culture always builds bonds and increases loyalty of employees to the company. Lastly, he/she must *adopts a personal and active attitude towards goals* – set goals but question regularly whether they are still appropriate and adapt them if necessary (Kotter, 1990). Section 2.16 and 2.17 deals with people management in greater detail. The discussion here will reside around having the right leadership and people to drive the turnaround.

It is evident from the findings that having the right leadership and the right people to drive the turnaround are key for construction business recovery. This also raises the point on strong leadership skills. A construction company staging a turnaround needs the right leadership, the right people, good people, competent people, people who believe in the leadership, who are leaders themselves, and most importantly, loyal people. The leadership must also be a competent one, a cohesive one, and the kind of leadership that the company people are ready to follow. Furthermore, recovery needs a leadership team focused on survival, a leadership that believes in the turnaround and therefore can motivate and inspire its people to act as a unit to give their best to the turnaround endeavor. Finally, the leadership team must have business skills and an entrepreneurial spirit. That is, they must have more than just engineering skills. One or more within the leadership must possess business skills as against just technical skills.

6.3.1 Face the facts

There are both quantitative and qualitative facts that management. The quantitative aspect would revolve around the company's financial position and the qualitative aspect will revolve around, leadership, employees, customers, and business strategy, etcetera. This analysis is necessary; as it should show what areas the company needs to act on. "*Facts are better than dreams*" says Collins (2001). The incoming management must analyze the situation but also be ready to accept the diagnosis and face the facts with regards to the

company's cash flow position, revenue position, gearing level, profitability, and solvency positions (Stone, 2012). It must also look at aspects, which are not so easy to quantify, the leadership within the company and among the staff, employee morale (Henderson, 2011), customer satisfaction, loss of market share (Stone, 2012), etcetera. The results may either reveal that the company is profitable as a going concern or may reveal that the business is not worth saving and hence better to liquidate (Hofer, 1980).

Owners and Managers must be willing to accept the facts. Stone (2012) suggested that most owners of construction businesses “...do not take the time or initiative to analyze their approach to their own businesses. And even when they do, they don't follow up to correct the things that they are doing wrong. They continue to generate the same problems; and eventually their businesses fail.” Analyzing the situation involves information gathering both at strategic and operational level. And this will include assessing the current; financial position, market position, technological position, and production capabilities (Hofer, 1980).

According to Collins (2001), while management must confront the facts of their situation, they must not allow themselves to be disheartened by the bad news. They must maintain an unwavering resolve that they will prevail in the end, regardless of the difficulties. A concept he calls – the Stockdale Paradox (see Table 6.1), which is based on the true story of Admiral Jim Stockdale, who served eight years in the “Hanoi Hilton” prisoner-of-war (POW) camp during the height of the Vietnam War.

Table 6.1: The Stockdale Paradox

The Stockdale Paradox		
Retain faith that you will prevail in the end, regardless of the difficulties.	AND at the same time	Confront the most brutal facts of your current reality, whatever they might be.

This is not to say that management should ignore the facts before them and embrace the optimist's position, but rather, they should have courage to go the long haul. CDJ6 construction experienced this situation of ignoring the facts. The respondent recalls:

“One of our good Directors there was very very good to get the work done etc. but not to think as a businessman. He kept on saying, ‘we can make a lot of money. We can make a lot off money’, but we didn’t. By the time I realized that he was so optimistic to stupidity, it was too late to do anything.”

Just as Stockdale’s fellow optimists POWs didn’t survive the war, the optimist director who ignored the facts pulled his company down. Therefore, it is imperative that management has an unwavering belief in the plan – the belief that the company will successfully turnaround. Only then can management instill a level of confidence to its staff and other crucial stakeholders.

6.3.2 Act quickly

After facing the facts the company leadership must act quickly to make changes, whether it’s management change or other types of changes (depending on the problem) in order to stabilize the company. Timing is of the essence. The earlier the problem is tackled, the more the chance of saving the company. This finding re-echo’s the first step propagated by many change management literature, which is to “create a sense of urgency” (Kotter, 1995). This involves alerting the whole company to the need for change; explaining the situation, and motivating everybody to work more efficiently, to give their support in the cost cutting and cost reduction efforts, to give up old ways of doing things and to adapt to the new changes.

6.3.3 Changing the management team

If the problem is management incompetence, then the company must act quickly and make the change. Schendel et al, (1976); Thain and Goldthorpe’s, (1989); Slatter, (1984); Grinyer et al, (1990) all confirm the importance of management change as the first step towards recovery. Their works showed that management change occurred more in the successful turnarounds than in the unsuccessful turnarounds. Bibeault (1982) explains:

“A turnaround situation is an abnormal period in any company’s history. It requires management approaches unique and distinctly different from those of stable or growth management. In a turnaround situation, many of the old or proven management tenets, applicable in more stable situations, lose their validity.”

It was also evident from the findings that most construction companies do not result to management change when staging a turnaround. However, the findings show that sometimes that is necessary in order for the company to survive – getting the right people on the bus and the wrong people off the bus (Collins, 2001). Management change is especially necessary when there are a few within the company or within the leadership team that are disrupting the harmony and team spirit necessary for the turnaround. Having the right people in the right seats (critical positions) will definitely ensure that the company moves in the right direction towards recovery. Also, with a cohesive management team and the right people, the company can easily adapt to change since in a time of decline, in this case, recession, there is very little certainty as to how strategies will turnout or how the economy will change for that matter. Therefore, having a cohesive management team and the right people can allow for flexibility, decisions can be agreed upon quickly and tasks executed efficiently and according to plan. In addition, the right people (staff) do not need much motivation or incentives to do tasks. They are focused on being efficiency to avoid defective work and are motivated by the desire to save the company.

During a downturn, one of the toughest decisions facing a company that needs and wants to make a management change, is, finding the right replacement. Finding the right person(s) that will be the right fit. It is almost always a trial and error thing for a lot of companies. But this research has been able to draw out a few pointers that may help management find the right fit for a management transition. When management decides it wants to make a change or make an addition to its management team, it must find individuals, internally or externally, that have a lot of experience in the construction industry, have a lot of enthusiasm and ambition, know the business well, and most importantly, have a very good pre-existing relationship with the company's most important customers or is bringing new relationships, hence new business. Outside cash, construction thrives on relationships. Therefore, a company in a turnaround situation and making a management change needs to hit the ground running. It cannot afford the luxury of trying to build relationship from scratch. Making an error in this important principles could cause a company to lose control of its business and cause performance to plummet, which could lead to the demise of the company. There could be a host of reasons why some managers would accept to move to a company that is facing problems. But the top reasons are usually: the compensation is good,

and/or they like a challenge. According to Bennis (2009), the 70s saw CEOs in America receive forty times the average workers salary in compensation and by the year 2000, the same receive more than three hundred times the average worker's salary.

There are challenges that come with making a management change. Apart from the obvious and sometimes subtle difference in leadership styles, there is the case of stakeholders, especially staff members accepting the change. Of course, there are people who would be on board with the change(s) but there are obviously others who would frown at it. What management hopes for, is to have most of its important employees on board with its decisions. Moving forward, redundancy is an old fashioned way of getting rid of people you don't want, but only if the company can afford to pay redundancies fees. Perhaps a better recommendation would be that, as long as these people are not disruptive and have chosen to stay with the company, management should integrate them in its plan – give them a sense of belonging and even more responsibility as part of seeing the vision realized. On the other hand, the company can let the people get off the bus themselves. Company leadership can also go for the four day a week, or three days a week, to try and get the wrong people to retire early.

“The people whom we wanted to get off the bus, those people, their noses were put out of joint by us bringing ... new people on. And so some of the people started getting off the bus themselves... So, they voted with their feet, might we say. They left and went and did something else. That's one of the best ways for things to happen.”

When the 'who' – that is, the right leadership and the right people are in place, then the 'what' comes next. This would involve a plan. The leadership team must act quickly to access the situation and develop the turnaround plan. Sometimes the plan is no different to what company has been doing all along. It just needs fine-tuning.

6.3.4 A Clear Plan

Management has to have a plan. Not only that, it must have an unwavering belief in the plan – the belief that it will work. The findings show that a clear and well-written plan is necessary for business recovery. However, the recovery plan and goals must be flexible enough to amend as circumstances change. A cohesive management and staff team spirit

makes this possible because, everybody understands what is needed and why. There seems to be an overall consensus on this factor. All the respondents mentioned a clear and concise plan as a major factor necessary for recovery. According to Balgobin and Pandit (2001) successful turnarounds show that incoming top management, within a very short period of time, formulate a recovery plan. For a situation where the change agent is a group or a team of individuals, a clear plan is only as good as the turnaround drivers – the team. It therefore means having a cohesive management team is very important. However, a cohesive management team is also only as good as the plan. The two factors are important, but are not mutually exclusive; one cannot exist without the other in the pursuit of a successful recovery. Also full-on commitment and believe to achieving the goals is an essential ingredient in achieving a successful turnaround.

6.4 Improving Cash flow

Cash is king and is the lifeblood of a construction business. Improving the cash position and working capital usually involves sourcing for additional funds and the adoption of cutback strategies in the early stages of the recovery in order to stabilize the decline in performance. Cutback strategies would normally involve cost cutting and cost reduction: value engineering, reduction of overheads, redundancies, pay cuts and pay freezes; stricter management of cash, stricter cash flow monitoring and control, putting profit back into the business in the form of retained earnings, keeping the change in working capital positive (in the case of contractors) and keeping the change in working capital negative (in the case of developers). Furthermore, the conservative contractor differs from the progressive contractor at this stage in that, the conservative contractor might novate some contracts across to other competent contractors in his effort to shrink to company to a manageable size. On the other side of the spectrum, the progressive contractor does not shrink its size but rather expands the market presence by keeping its staff in their positions and uses pay cuts and pay freezes to augment cash flow. Many contractors result to redundancies to cut cost because staff cost form the biggest part of a contractor's overhead. Therefore, during cutback, reduction in staff levels is the first thing to happen. Now if a company decides against losing its staff, the alternative is to effect pay cuts and pay freezes throughout the company from top management to the guys on site. This frees up cash and makes the company lean, and hence improves the working capital position of the company.

In conjunction with cost cutting and cost reduction strategies, managers also try to raise funds, first, privately through personal equity or through private equity firms. If these prove unattainable, then bank loans and overdraft becomes the last option. That is usually the pecking order of financing in the business world.

6.5 Support of Stakeholders

The next key factor necessary for construction business recovery is getting the support of subcontractors, in the form of extended lines of credit, trade discounts, Negotiate heavily with subcontractors and suppliers to bring prices down, and favorable change in payment terms, usually between 45 to 60 days, sometimes much longer. This is a management strategy that ultimately helps to improve the working capital position of the company. The common mantra in recovery, is ‘make sure you get paid before paying your subcontractors and suppliers.’ This is a reflection of making sure that the change in working capital remains positive for the contractor. In other words making sure that the company is cash flow positive. A contractor can keep change in working capital positive by talking to the suppliers and subcontractors to give their support. The supply chain more often than not, give support to the contractor. However, some contractors adopt the pay-when-paid strategy disguised under a clause in the contract. Pay-when-paid has been outlawed but contractors have found ways around it by re-writing the rules.

The next aspect of getting stakeholder support is, getting the support of clients and this may be in the form of advanced payment, faster or quicker payments, holding back less retention, paying back retention in full, paying the final valuation, and negotiating favorable payment terms, for example, changing the contract from a lump sum or unit contract to a cost-plus contract, where the client agrees to pay the contractor a predetermined profit margin for executing the work. At the same time, management should try to reduce gearing by paying back some of the debt through its profit levels. If no profits are made, management should try to re-negotiate debt repayment with creditors (sometimes banks). This may take different dimensions and may be in the form of extension of payment period, company voluntary agreements (CVA), debt for equity swop, debt waiver, payment holiday etcetera. These strategies give the company a breather in terms of debt repayment and keeps cash within the business, at least in the short-term. The whole aim of gaining support of stakeholders is to maintain a positive change in working capital especially when

the company does not have a huge cash bank to fall back on. These strategies influence the operating cycle and increase the cash level by increasing deferred income and trade creditors account, while reducing trade debtors and stock. This enables the company to have a good operating cash flow.

6.6 A Functioning Market

The next key factor to a construction business recovery is a functioning market or sector in the industry. This is another management strategy that allows management to find the best areas in construction within which to concentrate resources in order to turnaround the company. As the company stabilizes and starts to find work to increase turnover, the company must assess the market through proper market research to determine which sector of the industry is performing better and concentrate its efforts to winning work in those areas. In this research study, the sector of the industry that was found to be doing better than others was commercial/institutional, followed by utilities/heavy engineering, then residential and lastly the industrial sector.

However, through this market research a company may find that the most performing sector of the industry is the very one the company is already in. This makes everything easier especially for those companies that do not have the skill, knowledge, or resources to diversify into a different sector. Most construction companies would normally stick to their core business strategies but the choice to expand the market presence through mergers and acquisitions largely depends on how much cash the company has to fuel the expansion. Progressive companies would adopt expansion strategies to boost their recovery.

6.7 Selective Tendering

The findings also showed that selective tendering is key to construction business recovery. Contractors must pay attention to the type of projects they tender for. The most important aspects of choosing a project to tender for are: client's ability to pay and profitability of the job. It is imperative that a contractor does all the due diligence of checking that the potential client is able to pay, as this study and literature alike, have shown that the number one cause of cash flow shortages and ultimately company failure is 'bad debt'. A contractor must make sure he gets paid for his work. And one makes sure of this from the beginning – choosing a good client and then the project. Furthermore, the company must make sure that

they will make money on the project. Profit is the lifeblood of a construction business and there is no point doing a project that will not bring a profit (Kirk, 2008). The findings show that framework contracts, and multi-phased or repeat contracts, are the gems of the industry during a downturn. Companies within the study have also credited 'repeat business' as the sole reason for surviving the credit crunch. Many contractors advocate for this business model rather than a one-off model. In their opinion, the ability to see and secure future works is the key to surviving in the industry. In other words, framework and multi-phased contracts may not be the most profitable but they are sustainable, ultimately they keep the company afloat through the rough times. In addition, framework contracts are government funded and therefore, there was certainty of payment even if the margins were not great, but there was visibility. Since, Government contracts can pay within 14 days on framework contracts. This puts money faster in the company's pockets and therefore improving the cash flow of the company.

Often times, taking up a project with little or no margins, or below-cost, end up costing the company more money (Drew et al, 2001). There is enough risk in the industry as it is without putting one's self in risky positions. The findings show that it is a bankrupt model. However, some contractors adopt below cost tendering for the sake of keeping their workforce employed and ride out the storm at a loss in the hope that the market improves sooner than later. Where this strategy is adopted, more often than not, there is the return of adversarial relationships where contractors come up with loads of extras and claims in the project in order to offset the difference. That is why it is not always to the advantage of the client to go for the lowest tender because of this type of adversarial approach. But at a time of recession or downturn, the lowest price is seen as the most competitive price and therefore value for money (it is not always the case).

Contractors can also adopt competitive tendering for their supply chain to monitor market rates and get the most competitive rates. E-procurement is one of the best methods of securing competitive rates from the market. However, contractors who adopt this strategy do so at the expense of existing contractor-subcontractor relationship, which might have taken a long time build. This may take a lot of effort to restore coming out of the recession.

Conservative contractors adopt the strategy of bidding for small jobs complementary to its new shrunken size. This helps the conservative company to have a better grip on its finances and cash flow – better control and management overall in the company. However, the competition at the level of small projects is intense and greater than that of big value projects because most companies in the construction industry are conservative in nature and would implement similar strategies, thereby increasing the competition at that level. However, there are those companies (progressives) that bid for bigger projects in order to take advantage of reduced competition that exist in the market of big value project. In order to adopt this strategy, though, a contractor would require a good amount of cash in the bank.

The role of selective tendering in construction business recovery is to produce short-term wins. When a company is in difficult times, it is inevitable that things would change (even in the slightest of ways) for the company to get back on track. This is more so in a turnaround situation. New company culture and processes do take time to simmer in the minds of people, and therefore takes time to produce results, which often leads to confusion, loss of vision, or discouragement. It is then imperative that management sustain the turnaround momentum by creating short-term wins says Kotter (1995). According to Kotter, most people will not go along with the stress of change unless they see compelling evidence within 12 to 24 months that the journey is producing results. For a construction company in a turnaround mode, consistently winning new work with better margins and profits, winning bigger jobs, improved yearly turnover, and/or better completions with better overall performance, etc. are such short-term wins that keep the company leadership and people motivated. The company leadership must plan this; it is not something that should happen sporadically. They must continuously seek short-term wins and plan visible performance improvements that can be celebrated along the way. Management cannot afford to lose the momentum otherwise; the company might get back down to where it was again and may not survive the difficulties this time.

6.8 Business Development

To consolidate growth, the company needs to adopt a business development strategy to its business by fostering and building relationships with new and existing clients. Customer relationship management software (CRM) are out there to help contractors organize and

keep track of contacts and manage business development activities, which ultimately help the company stay on top of upcoming project bids. This is important because good relationships bring repeat business. If you're not on a client's radar, they may not remember to call when jobs come up (McHugh and Forster, 2012; Drew, 1994). It is important to consolidate recovery through business development.

6.9 Use Of Technology

Depending on the need and the cash level at the time at the time of recovery, contractors can roll out IT, say BIM, or purchase or hire new plant and equipment in order to explore new opportunities in the market. A company cannot make good use of technology until it knows which technologies are relevant for the company given the times. Therefore, carefully selected technology that fits with a company's business model can accelerate recovery and growth of the business (Collins, 2001). Technology when used right becomes accelerators of momentum. However, it is important to remember that the benefits of IT are not easily recognized and may not be seen until after a few years.

6.10 Access To Advice and Consolidating gains

Finally, access to advice has been identified as key to construction business recovery. When in doubt, it is important to ask for advice. Management cannot assume it knows everything and therefore must not work in isolation (Henderson, 2011). A good advice might just be the difference between success and failure. However, a respondent warned that contractors should never assume they are getting advice from the bank unless they are paying for it, because the banks may be selling you a product instead of focussing on what is best for the company.

Consolidating gains, combined with the best advice will see to it that the company recovers even faster. Consolidating gains is a change management principle proposed by Kotter (1995). It is an aspect of consolidating growth where management continues to seek advice on how to make things better, how to produce still more change by improving company systems and policies. According to Kotter (1995), celebrating short-term wins is fine; declaring the war over is dangerous. Kotter warns that premature celebration of victory kills momentum and opens the door for old traditions to suffice because change takes time to sink. Complacency is dangerous for a construction company at any point in time but

more so in a recession. Therefore company leaders must continue to seek for better ways of doing things, innovate to tackle the problems and cause more positive changes in the systems and structures that are not consistent with the turnaround vision, promote employees, or hire better skilled individuals who can give impetus to the turnaround.

Furthermore, company leaders need to ensure that the new company policies, and discipline, whether it's with regards to cash flow management, criteria for project selection, debt management, or relationships with stakeholders; are anchored in the company culture. Pfeifer et al., (2005) and Kotter (1995) state that change is only complete when the new behavior becomes the social norms, values, culture and pattern of doing things. The turnaround changes must be anchored in the minds of people within the company. The notion is that the organisation will move successfully from the state of the unconscious incompetent to that of the unconscious competent (see Figure 6.1), where the organisation has now mastered the new processes and discipline that it no longer thinks about it (Carnall, 2003).

The two factors necessary for anchoring change in corporate culture: a conscious step to show how the new approaches, behaviour, and attitudes have helped improve performance; and second, sufficient time to gather knowledge of how the employees dealt with the change (Kotter, 1995). Ensuring these two factors, helps the next generation of top management understand and personify the new approach, which will enable them to react more quickly, and more flexibly to future declines or economic downturns (Pfeifer et al., 2005; Kotter, 1995).

Finally, the guiding coalition and the senior management are advised to consolidate the turnaround process through organisational learning. Achieving sustainable competitive advantage, Hayes (2002) argues, depends on the ability of a company to learn from its experience and use the learning to enhance its collective ability to act more effectively in the future (See Figure 6.1). Collective learning as shown in Figure 6.2, is one of the main preconditions for sustainable change that ensures the full implications of an organisation's view of its environment and can subsequently inform actions over the long-term and, in turn, the way in which future shifts in the environment are approached (Pettigrew and Whipp, 1993:18; cited by Burnes, 1996).

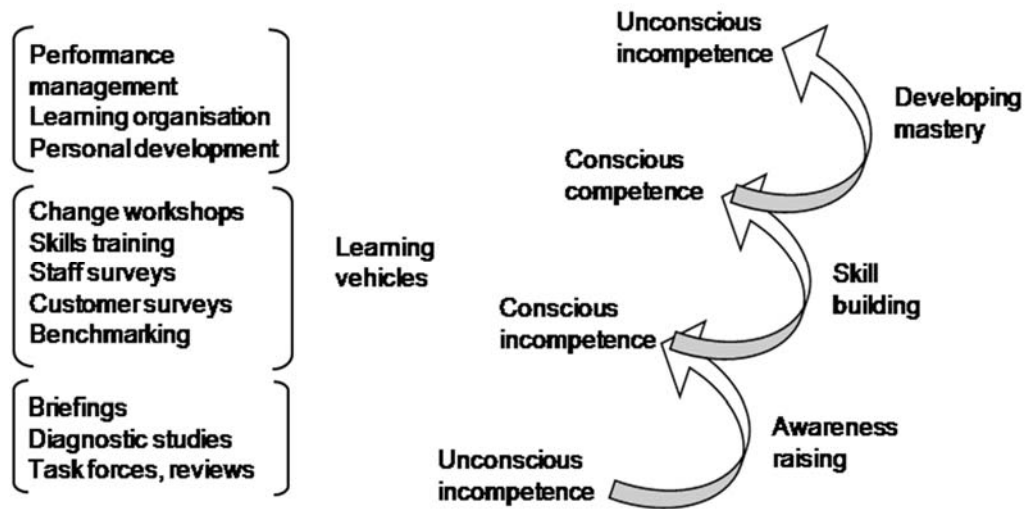


Figure 6.1: Competence development in change (Source: Carnall, 2003)

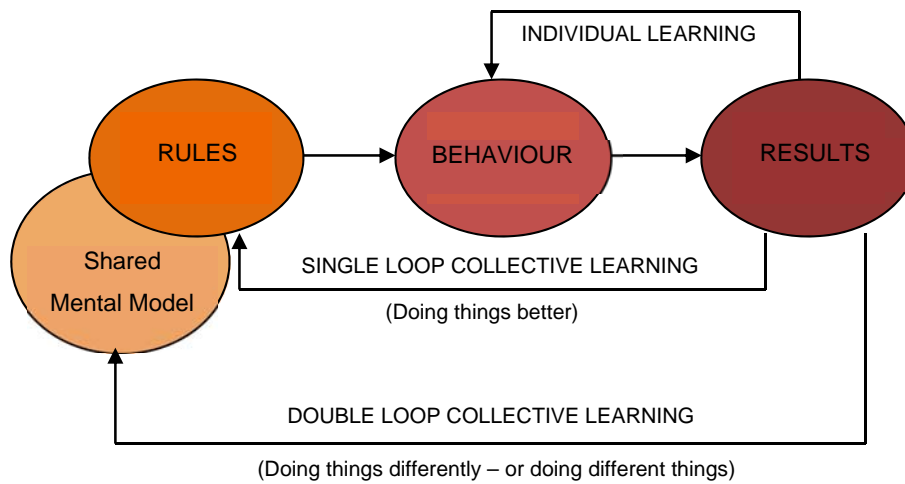
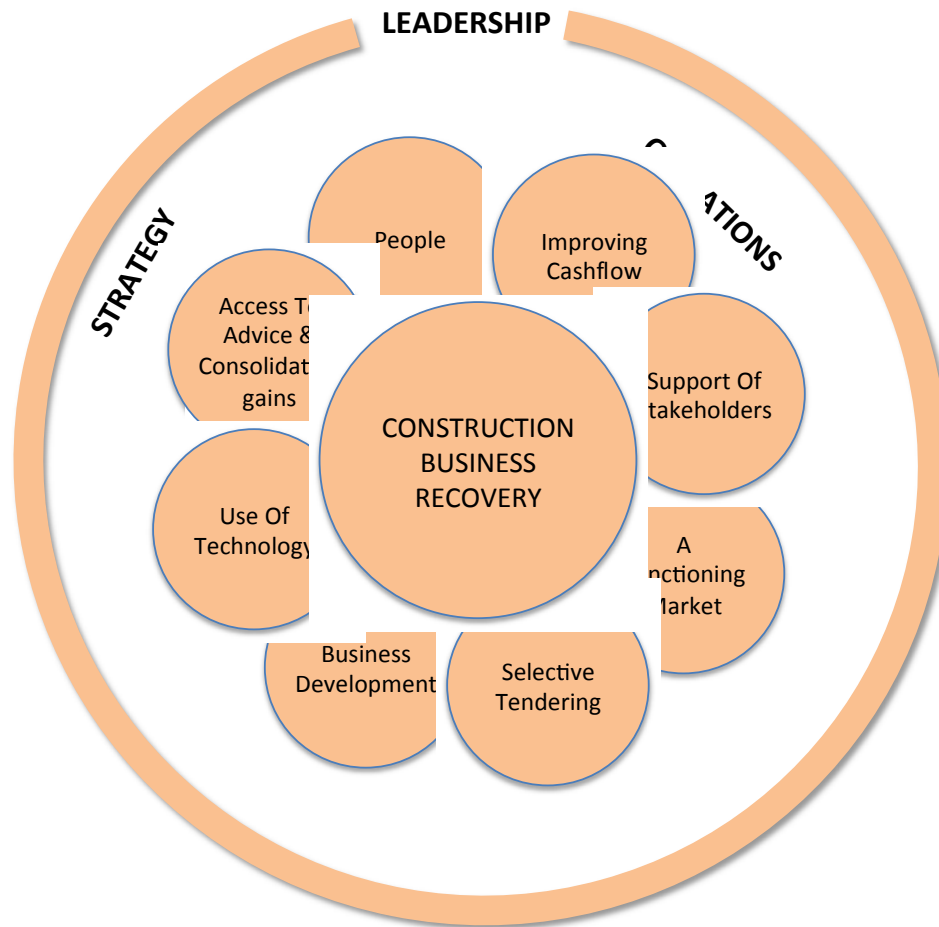


Figure 6.2: Individual and collective learning in organisations. (Source: Hayes, 2002)

Strategies for Construction Business Recovery



Leadership Drives Strategy, and Strategy, Operations and Recovery Is Achieved.

Figure 6.3: Strategies for Construction Business Recovery

The above finding in Figure 6.3 (Leadership Drives Strategy, and Strategy, Operations and Recovery Is Achieved) is completely in line with the findings of Miles (1991) who stated that contractor's bidding process follows a structure where: contractors define a strategic domain at the corporate strategy level (senior management level) with the domain establishing the market dimensions within which contractors plan to operate and compete for work. Contractors then make decisions on which contracts to bid for at the business strategy level. If opting to bid, the cost estimate is then formulated at the operational strategy level and fed back to the business strategy level where senior management (Leadership) then decides the appropriate level of mark-up at an adjudication meeting (Drew et al, 2001).

6.11 Categorisation of turnaround strategies

Guerrilla or niche strategy involves either an offensive approach or defensive approach to turnaround or recovery (Drucker, 2004; Swaim, 2010; Robbin, 2015). Now, the first actions of guerrilla strategy is to shrink company to smaller size and then launch an offensive step on, or take a defensive stance to, the market. This research shows that in construction business recovery, guerrilla strategy always starts with a defensive approach to stabilize the company, and then an offensive approach is taken to foster recovery. Although, some contractors may chose to remain defensive all through until the economy recovers. Reducing the size of the playing field, as Drucker puts it, would involve “cost-cutting” measures. Cost reduction strategies in construction involves but not limited to the following: reduction of overhead, strict cash management, value engineering, redundancies etc.

According to Robbin (2015), a defensive strategy is basically one of two things: It’s either a cost-reduction strategy, where spending more won’t produce growth; or the protection of a vulnerable position. Strategies adopted for defending vulnerable positions is to “stabilize the company” from losing more grounds in the market place or for stopping the haemorrhage of money. These strategies usually involve selling unprofitable assets, price reduction to clients, maintaining existing clients and relationships, and/or increasing product or service value (Chesley and Watson, 2010; Robbin, 2015).

If a construction company decides to take the advice of Drucker (1961), which states that, *“taking a defensive position can, at best, only limit losses”* and decides to be “proactive” to launch an offensive strategy, then the company would focus on actions like developing; new products and/or services, new talent, new distributions channels and new customers, among other things (Chesley and Watson, 2010). Drucker observed that in tough times, market leaders often gain market share at the expense of marginal players. Therefore, it makes sense to adopt an offensive strategy since sometimes the best defence is offence. Provided the company has the resources and the level of risk is acceptable.

To reiterate Chesley and Watson (2010), in recessionary or difficult times, the turnaround company must first *“stabilize by reversing declining performance, then rebuild by strengthening ‘core’ capabilities and finally begin rebuilding through creating ‘niche’*

market positions”. According to Kotter (1995), rebuilding requires ‘improving’ company business strategy, making things better, producing still more change by improving company systems and policies. Such “improvement” strategies involve training and developing staff, and changing structures that do not fit with the turnaround vision.

Therefore the research classified the strategies for turnaround under the following four categories: cutback strategies, stabilization strategies, proactive strategies, and improvement strategies. In a construction business recovery process or endeavor, the whole purpose of cutback strategies, stabilization strategies, proactive strategies, and improvement strategies is to explore ways of increasing the cash flow position of the company as discussed in Chapter 4 and 5.

6.11.1 Cutback strategies

Involve exploring every avenue of increasing cash inflow and reducing cash outflow. These strategies are usually adopted when the company recognizes that performance has started to decline. They are employed for stabilization purposes. When performance decrease in the form of reduced turnover, or lack of profitability, working capital issue surface and it is especially bad in construction because cash outflow is much stronger when performance is plummeting than when at the bottom. In other words, the cash position is worse on the way down than it is at the bottom. Hence, performance continues to dip as management tries to get the business under control using cutback strategies. These strategies include, but not limited to: cost cutting and cost reduction; reduction in overheads, debt reduction, value engineering, stricter management of cash, increase in working capital, etcetera.

6.11.2 Stabilization strategies

Involve strategies used to strengthen the company in its new stabilized form, hence the emphasis on efficiency. This usually involve plans on how to turnaround performance, getting support of stakeholders, reviewing the company’s business strategy and economic engine to find the best model for growth and profitability, finding the right sector and employing selective tendering strategies to win work in those sectors. Stabilization strategies are for the general purpose of gaining competitive advantage in new market conditions without losing ground to competitors.

6.11.3 Proactive strategies

Involve a blend of growth and restructuring strategies. These strategies are mainly expansion strategies and are employed by companies with good cash backing. Often, proactive strategies are opposed to conservative mindset, and adopted solely for the purpose of mounting an attack on the market, exploring opportunities to take advantage of, and getting ready for any slight improvements in the economy. Proactive strategies according to the findings are; rolling out new information technology such as BIM, purchasing new plants and equipment, hiring new and better skilled staff to reinforce the turnaround, bidding for bigger jobs, and mergers and acquisitions.

6.11.4 Improvement strategies

Involve exploring avenue of consolidating the recovery and making sure the company builds on the growing momentum. This usually involves business development, nurturing existing and building new relationships with clients, seeking professional advice on how to make things better, changing systems and structures and policies that do not fit with the turnaround, adding new expertise to the company, hiring, promoting and developing employees to consolidated the turnaround, expanding company portfolio into allied sectors of the industry, and lastly, recording the lessons learnt from the recession and adopting a strategy to avoid making the same mistakes again.

6.12 Turnaround Approaches in Construction SMEs

The findings of this research revealed that in times of difficulty or recession, two distinct types of construction companies emerge – the Conservative Company, which adopts the defensive approach, and the Progressive Company, which adopts the offensive approach. As such, it was also revealed that there are two distinct business turnaround approaches in construction – the Conservative and Progressive Approach.

6.13 Conservative Turnaround Approach

These contractors are more focused on efficiency. They are also called ‘Defenders’ (Miles and Snow, 2003). They are mainly concerned with preservation. When faced with tough times like the recent recession, conservative companies make use of a mixture of cutback and management turnaround strategies to focus more on improving the efficiency of their

existing operations and then wait for the storm to pass before growing slowly again – more like hibernation. Basically, the strategy is; shrink the business down to a manageable size, tender for much smaller jobs with faster turnarounds, and do them as many as practicable through out the year. See Table 6.2 for more detail.

6.14 Progressive Turnaround Approach

On the other hand, progressive contractors, though efficient, use growth and restructuring strategies to take advantage of the downturn in the market – employing better skilled and experienced employees that other companies could not afford to keep, tendering for much bigger jobs and buying other companies. They also make use of innovative strategies e.g. BIM, invest in new plant and equipment to continuously seek and exploit new market opportunities; hiring the best skilled force, and expanding market share through mergers and acquisitions. Coming out of the recession, the progressive contractor recovers faster than the conservative contractor because of its early preparedness to take advantage of growing opportunities in the market (see Figure 6.4). However, if things do not go according to plan, it can be dangerous for the company's survival since its risks and exposure is now greater. Companies that adopt the progressive approach are also called Analysers (Miles and Snow, 2003). Analyser organisations are those organisations that combine both efficiency and innovation.

Table 6.2: Turnaround Approaches Adopted by Companies

	Companies	Cutback Strategy	Stabilization Strategies	Proactive Strategies	Type of Turnaround Contractor
Unsuccessful Turnaround	CB1 Construction	x	x		Conservative
	HFB2 Construction	x	x		Conservative
	BH3 Construction	x	x		Conservative
	MLC5 Construction	x	x		Conservative
	GCE and Co. Construction	x	x		Conservative
	AWH5 construction	x	x		Conservative
	EJ6 Construction	x	x		Conservative
	CDJ7 Construction	x	x		Conservative
	SBW8 Construction	x	x		Conservative
	KUP1 Construction	x	x	x	Conservative
	MK2 Construction	x	x	x	Progressive

	LD3 Construction	x	x		Conservative
Successful Turnaround	BT1 Construction	x	x		Conservative
	TG2 Construction	x	x		Conservative
	CM3 Construction	x	x	x	Progressive
	GP4 Construction	x	x	x	Progressive
	CV5 Construction	x	x		Conservative
	CG6 Construction	x	x		Conservative
	CF7 Construction	x	x	x	Progressive
	CI8 Construction	x	x		Conservative
	TW9 Construction	x	x		Conservative

From the table above, only 5 companies out of 21 were adopted the progressive approach in their turnaround – 3 from successful turnaround companies (see Table 6.3), and 2 from unsuccessful turnaround companies (non-liquidated). In other words, all the progressive companies are live and still trading. On the flip side, 16 companies adopted the conservative approach – 6 from successful turnaround companies (see Table 6.4), and 10 from the unsuccessful turnaround companies. This shows that most construction companies in a turnaround would normally adopt the conservative approach to recovery. Below, using only successful turnarounds (ST), the average Z-score of progressive and conservative turnaround companies is shown.

Table 6.3: Average Z-score of Progressive Turnaround Companies (ST)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
CM3	1.27	1.96	0.59	0.69	1.07	1.77	1.42	1.46	1.41
GP4		5.30	7.42	4.73	0.85	1.94	3.07	3.96	3.63
CF7	0.58	0.70	1.09	1.78	1.73	1.54	1.40	1.82	
AVERAGE	1.27	3.63	4.00	2.71	0.96	1.85	2.24	2.71	2.52

Table 6.4: Average Z-score of Conservative Turnaround Companies (ST)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
BT1	1.79	1.77	1.29	1.29	-0.77	1.43	1.39	1.91	1.39
TG2	3.38	0.53	1.25	0.46	1.38	1.63	1.75	3.21	
CV5	-1.57	-0.44	0.04	-0.04	0.36	1.35	1.73	2.58	2.65
CG6	0.88	1.21	0.98	0.95	1.41	1.47	1.72	1.72	1.50
CI8	1.40	1.20	2.45	2.96	3.24	3.53	2.29	2.48	3.20
TW9	1.71	1.22	2.39	2.98	2.64	1.87	2.40	1.78	
AVERAGE	1.26	0.92	1.40	1.43	1.38	1.88	1.88	2.28	2.18

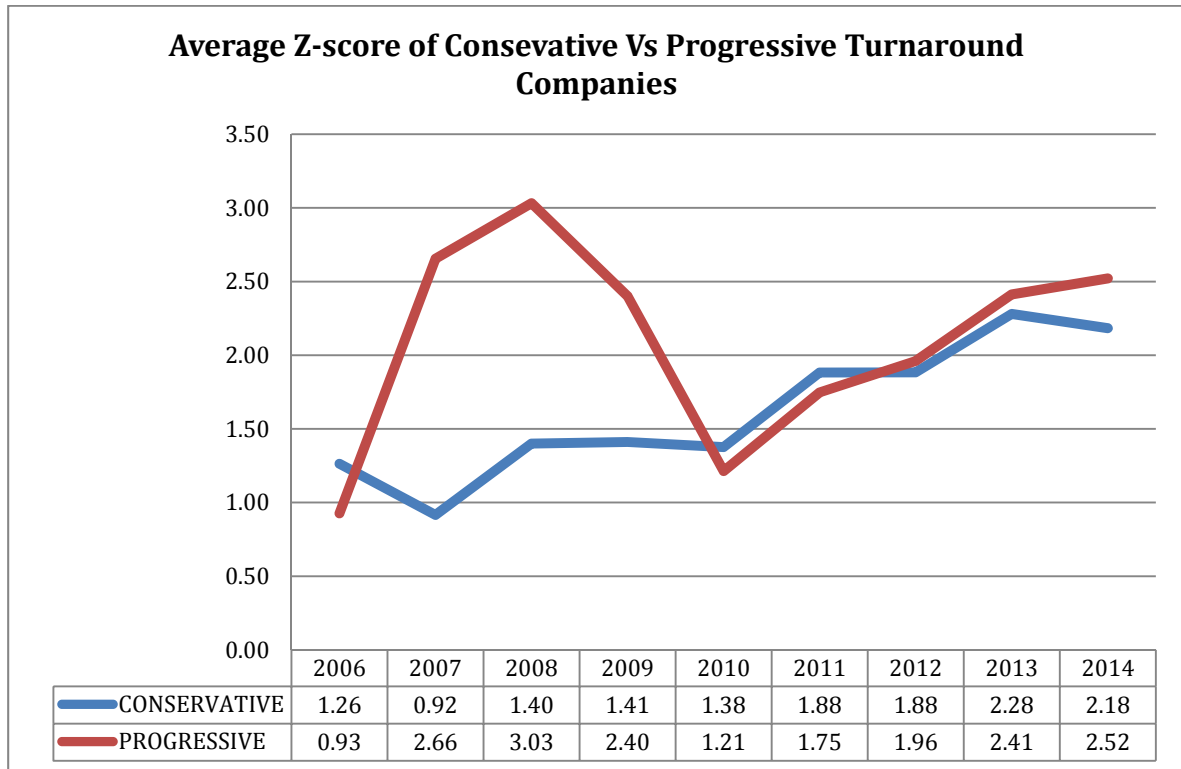


Figure 6.4: Average Z-score of Conservative Vs Progressive Turnaround Companies

Using the Z-scores of the companies under the study, the research was able to model the profiles of both progressive and conservative companies (See Figure 6.5). The profile reveals that both conservative and progressive companies recovered almost at around the same period, 2010, but as they grew through the years, the progressive companies' growth was accelerated. As such, companies that adopt the progressive approach seem to recover faster.

Table 6.5: Independent sample *t*-test for conservative and progressive turnaround companies

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Conservative	1.33	1.26	0.92	1.40	1.43	1.38	1.88	1.88	2.28
Progressive	1.27	3.63	4.00	2.71	0.96	1.85	2.24	2.71	2.52
Alpha	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Df	7	7	7	7	7	7	7	7	7
T Value	-0.08	1.68	1.39	1.00	-0.73	1.33	0.63	1.01	0.25
P Values	0.668	0.332	0.536	0.520	0.811	0.719	0.903	0.884	0.815

However, an independent samples *t*-test was performed on the means of conservative and progressive turnaround companies to ascertain whether conservative turnaround companies

actually recovery slower (numerically) than progressive turnarounds companies (see Table 6.5). Taking into account all the assumptions from our earlier independent samples *t*-test, and keeping in mind that correlation is not causation, the result show that the mean of progressive turnaround companies was *NOT* associated with a statistically significant difference, since non of the *p* values were greater than $\alpha = 0.05$ (Table 6.5). Therefore, the thesis cannot conclude that progressive turnaround companies recover statistically and significantly faster than conservative turnaround companies. This finding is still valid and supports the assertion by Drucker (1961) who states that it is impossible, theoretically as well as practically, to predict in advance whether one strategy, offensive (progressive) or defensive (conservative), will succeed over another. The strategy chosen will have to fit the context and issues present in the company. As a note for further research, the size of the sample should be increased in order to reach some degree of confidence in the results of the *t*-test with regards to the recovery of conservative and progressive turnaround companies. Now, the thesis captures the output of all the analysis done in Figure 6.5 below.

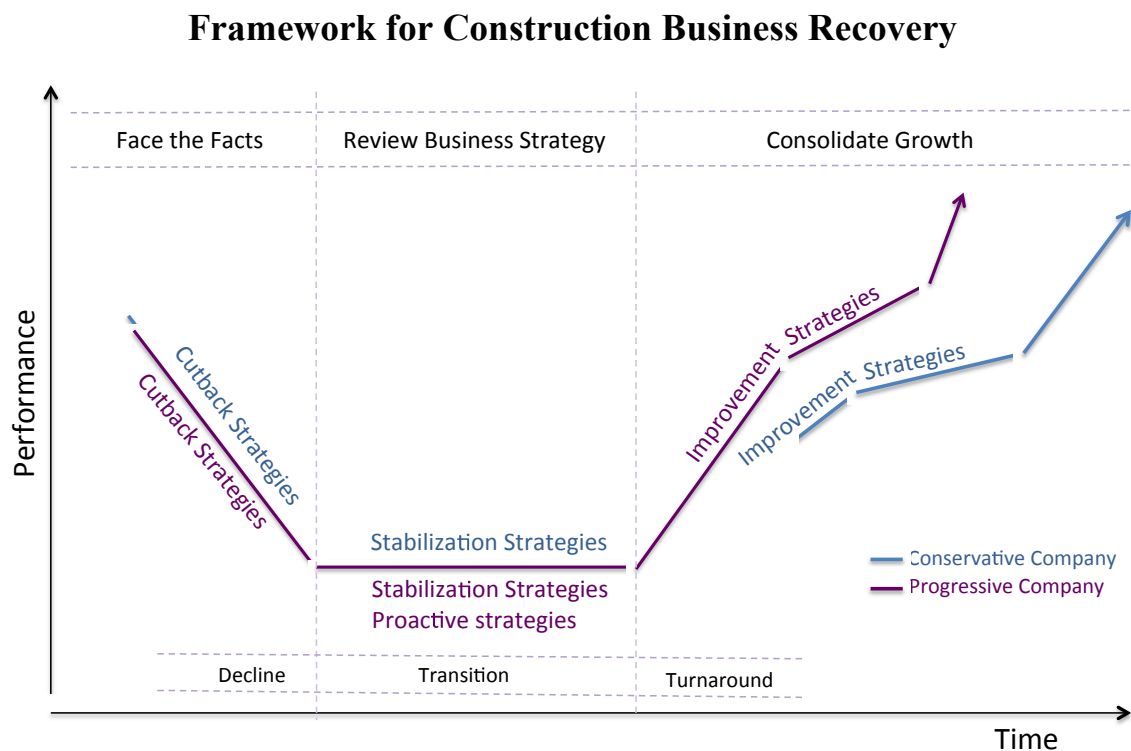


Figure 6.5: Framework for Construction Business Recovery

Figure 6.5 shows the framework for construction business recovery developed by the thesis based on the findings. Tables 6.6 and 6.7 support the framework, as they show the different components of the strategies and at what point within the recovery time are the strategies

adopted. The tables show that Conservative companies adopt “cutback strategies” during the decline stage, followed by “stabilization strategies” during the transition stage and “improvement strategies” during the turnaround stage. On the other hand, Progressive companies adopt both “stabilization strategies” and “proactive strategies” during the transition stage.

Table 6.6: Conservative Turnaround Approach

Cutback Strategies	Stabilization Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Reduce overheads - Cut cost – value engineering - Strict management of cash - Daily cash flow review and weekly cash flow forecast - Increase working capital (this could take different dimensions) - Reduce gearing - Novate contracts across to other competent contractors - Shrink company to manageable size - Bid for smaller jobs (more competition) 	<ul style="list-style-type: none"> - Management change - Remain true to the company’s core business strategy but innovate to make services and products better - Re-negotiate debt repayment - Get support of stakeholders – getting paid quickly by clients, asking subcontractors for additional time to make payment, asking suppliers for extended line of credit, ask for discounts, or search for alternative cheaper supplies, and asking staff to give their best in the jobs that they do - Identify alternative use of assets and redirect to income generating ventures - Adopt competitive tendering for supply-chain - Emphasize efficiency to avoid repeat work - Luck 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don’t fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other sectors of the industry

Table 6.7: Progressive Turnaround Approach

Cutback Strategies	Stabilization Strategies	Proactive Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Reduce overheads - Cut cost – value engineering - Strict management of cash - Daily cash flow review and weekly cash flow forecast 	<ul style="list-style-type: none"> - Management change - Remain true to the company’s core business strategy but innovate to make services and products better - Review Economic Engine - Re-negotiate debt repayment - Get support of stakeholders – getting paid quickly by clients, asking subcontractors 	<ul style="list-style-type: none"> - Hire experienced and skilled people to reinforce and drive the turnaround - Use of technology: BIM and etendering, CRM software - Bid for bigger jobs (less completion) - Merger and acquisition 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don’t fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other

<ul style="list-style-type: none"> - Increase working capital (this could take different dimensions) - Reduce gearing - Maintain the market presence. In other words, keep the market share and use pay cuts to augment cash flow 	<ul style="list-style-type: none"> for additional time to make payment, asking suppliers for extended line of credit, and asking staff to give their best in the jobs that they do - Identify alternative use of assets and redirect to income generating ventures - Adopt competitive tendering for supply-chain - Emphasize efficiency to avoid repeat work - Luck 		sectors of the industry
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It is imperative to understand that our analysis showed that approaches turnaround companies adopt, are neither exclusively conservative or progressive, rather companies tend to lean more toward one approach than the other. Similarly, Drucker (1961) states that it is impossible – theoretically as well as practically to predict in advance whether one strategy will succeed over another. Just as most medicines have side effects, so also most corporate solutions have side effect. Whatever strategy is chosen will have its distinct issues. The goal is to adopt the strategy that will handle the situation with minimal side effects.

Progressives look for opportunities and try to take advantage of the market during the recession. They employ the very skilled individuals and labour that have been made redundant by other companies and reinforce their companies awaiting changes in the market. When the market gets better, the progressive contractor's recovery is accelerated and propelled by its foresight of taking advantage of the market in the downturn. However, progressive companies, though they recover faster, fall the hardest in the event of a downturn. Accelerated growth is the only advantage the progressive contractor has over the conservative contractor. The conservative contractor on the other hand, only reacts to the market conditions. So that when things starts to get better, that is when the conservative contractor starts to look for the skilled individuals and the right labour it needs to do work and enable it grow. Unfortunately for the conservative contractor, a continuously reoccurring theme in construction now, is "Skills Shortage". These highly skilled people are now a scarce resource. Other contractors have either taken them on or they have been lost to other industries during the recession. The conservative contractor has no choice but to settle for the mediocre labour because of skill shortage in the market.

On the positive side of things, the growth and security of the conservative company is steady, more assured, predictable, controlled and manageable. When things do not go to plan, the effect on the company is less, because of its low risk and low exposure. In both cases, there are pros and cons. A company in a turnaround would have to decide which approach to adopt. The analysis show that six out of nine of the successful turnaround companies adopted the conservative approach while only three adopted the progressive approach. Overall, only five companies adopted the progressive turnaround approach and sixteen companies adopted the conservative turnaround approach, which suggests that most construction companies are conservative in nature. When faced with a recession or an economic downturn, the first point of call is to cut cost, reduce overheads, free up cash by making redundancies, taking pay cuts or pay freeze, raise working capital through equity or debt, and slog it out until the market gets better.

6.15 Summary

We have seen in the last chapter that every strategy for construction business recovery is directly or indirectly related to improving cash flow. The findings show that leadership and people, improving cash flow or working capital, support of stakeholders, a functioning market/sector, selective tendering, business development, use of technology, access to advice and sometimes ‘luck’ are necessary factors for business recovery and work together to drive the turnaround process of a small and medium sized construction company. Since there are two distinct approaches in a turnaround, it therefore means that the strategies will be intrinsically embedded in the approaches as seen in the conservative and the progressive approach tables above. It was found that there were two distinct turnaround approaches; the conservative turnaround approach, and the progressive turnaround approach. Although the averages of the Z-scores of conservative and progressive turnaround companies show that progressive turnaround companies recovery faster than conservative turnaround companies, the *t*-test results suggest otherwise. Therefore, this thesis cannot conclude that progressive turnaround companies recover statistically and significantly faster than conservative turnaround companies.

7 CHAPTER 7 | VALIDITY AND RELIABILITY OF RESEARCH

7.1 Introduction

This chapter deals with the reliability and validity of the research. That is, it tests the consistency of the results as well as the objective interpretations of data collected. The aspect of generalizability is also considered.

7.2 Member Checking

Member checking was adopted as the main method for evaluating the validity, credibility and reliability of the research findings, although other validation methods such as; use of rich descriptions, presenting negative or discrepant information, triangulation, in-depth methodology descriptions, and examination of previous research to frame, were also used.

According to Tongco (2007), choosing a qualified person to answer questions about the cultural domain the researcher is studying shows both competency and reliability in the sample. Successful and unsuccessful turnaround companies were chosen in a robust way using a set of criteria and then the application of Altman's Z-score to get the right profile (for successful turnaround companies). The research approached highly knowledgeable, top management officials, those who would have participated in the decision making process of the recovery e.g. CEOs, owners, directors, etc. Therefore, we can conclude that the research has both reliability and competency in information received from respondents. A trip back to the field site near the end of the study is highly recommended to clean up these inconsistencies as much as possible (Sanders 1960). Therefore adopting a member checking technique is appropriate and must be done to verify the findings. But if it appears that the respondents continue to confirm their initial data, then the researcher has to accept the reliability of the information given (Tongco, 2007).

The member checking process was done by sending the final report to a subset of the research respondents to determine whether the findings are accurate and/or representative of reality. The research finding, specifically the framework, was sent to 9 out of 24 respondents that were interviewed. The choice was entirely based on the availability of the respondents. Phone calls were made to all 24 respondents, and those that the research was able to get a hold of, were sent emails with an attachment of the framework and the research findings. Only 6 returned a response either through phone call or email. That makes 6

companies out of 21 respondents. The companies that participated in the member checking are:

- Director of CI8 construction
- Director of CG6 construction
- Company Secretary of CDJ6 construction
- Director of KUP1 construction
- Owner and Director of GP4 construction, and
- Financial Director of TW9 construction

Percentage wise, 29% replied. The validation invitations sent to respondents is the one found Appendix 6. These short excerpts were given to explain the strategies.

- **Cutback strategies** involve exploring every avenue of increasing cash inflow and reducing cash outflow.
- **Stabilization Strategies** involve strategies to strengthen the company in its new form, hence the emphasis on efficiency
- **Proactive strategies** involve a blend of growth and restructuring strategies
- **Improvement strategies** involve exploring avenue of consolidating the recovery and making sure the company builds in the growing momentum

Overall, respondents were quite pleased with the framework. They had little additions or changes to make on the framework. They generally just expanded on certain points as they relate to the different turnaround approaches.

7.3 Overall comments on the framework and findings

- *This is a very insightful document and seems to me to capture the essence of different approaches to Business Recovery. The only addition I would make is another Management Strategy for the progressive Turnaround Approach, which is: Identification, assessment and active management of risks in all categories; commercial, technical and other. All in all it is an impressive piece of work (Addressed in Section 7.4 under Risk Management).*

- *This is interesting, but would benefit from some statistical analysis of your data (which you may have done elsewhere in your analysis) – for example you could compare the approaches of the different companies that you interviewed last year and look at the latest data from their filed accounts. It would be interesting to see if you could deduce whether one approach was more or less successful (although as you say most companies will use a blend of strategies depending on their individual circumstances) (Addressed in Chapter 4).*

Expansion on certain points discussed with respondents can be found below.

7.4 Confirmations and/or additions to what was already included

Use of IT and Business Development: The respondent here was looking at BIM and CRM from the marketing point of view. He stated that BIM *“may be proactive for a company that hasn’t done much marketing. But for a company already using BIM, a lot of companies have a client base and they just expect that client base to come and give them work and they work as the enquiries come. Other companies can be a lot more proactive to seek out new clients and new projects. Now using IT, to secure tendering opportunities, to research markets would make them far more proactive and lead them into getting newer client base or an additional client base.*

His point is, a company can only be considered as proactive and hence, progressive, if prior to the recession company was not using BIM, or did not have the said plants and equipment. But rightly so, the strategy is “Use of Technology”. BIM, CRM, plants and equipment, these were only examples of use of technology especially when the company does not have that technology prior to decline. The technology can then be used to accelerate the turnaround. However, owners and company managers must not look at technology as the driver of the turnaround. Use of technology must only be in support of the business strategy and plan to turnaround. If the plan is wrong, the technology will only accelerate growth in the wrong direction. Often times, that leads to the demise of the company.

Risk Management

The research has not touched much on the importance of risk management in construction business recovery. However, the strategies of project choice and selective tendering discussed in this research implicitly deals with risk management and control. Management controls its risk of bad debt by choosing the right client who is able to pay, by choosing profitable projects and operating in the right sector of the industry. It reduces its exposure through cutback strategies: reduction of overheads, stricter cash management, controlling day-to-day cash flow, debt reduction, adoption of short-term finance as against bank loans and overdrafts, negotiation of prices with subcontractors and suppliers etcetera. The turnaround company also manages its exposure to risks by remaining true to the company's core business strategy (conservative company), by not diversifying into new areas where it has limited skill, rather fine tuning its existing business model and innovating to make services and products better. Furthermore, re-negotiating debt repayment, adopting competitive tendering for the supply-chain, emphasizing efficiency to avoid repeat work,, choosing the right project and the right client in order to reduce the risk of low profit margins, and so on, all pull together to reduce risks. As we have already seen that losses are the biggest users of cash and therefore controlling the risks of defective work, delays, and spillage in completion time over the set contract time, more specifically, the risk of LADs (liquidated and ascertained damages) is of utmost importance for the turnaround company. Expansion or proactive strategies on the other hand, even though controlled, are more precarious in terms of risk exposure.

But yes, identification, assessment and active management of risks in all categories – commercial, technical and others aspects of the company is very important. In every contract, there is a degree of risk (Clamp et al., 2007). Therefore in a turnaround, risk elimination, risk avoidance, and risk transfer must be top priority for management.

Overheads, Contract size, and Turnover

During the validation, quite a few of the respondents focused on company overheads as it relates to contract size and turnover. The main discussion here was about which strategy was better: bidding for smaller jobs and doing them in large quantities to increase turnover, or bidding for bigger jobs to increase turnover. There was a general consensus that bidding for bigger jobs is a better strategy than bidding for smaller jobs because of the implications on overhead. Respondents believe that bidding for bigger jobs is quite a good strategy. In

theory, not only is there less competition and perhaps better success rate in those markets, contractors would also have a resulting lowering of their staff and overhead levels. To illustrate this, if a company for instance does, say, £20m of turnover, if that £20m turnover was with on average, £1m projects – that is, 20 projects a year, now looking at the staff overhead needed to manage 20 jobs a year, construction managers, contract managers, surveyors, estimators, would be quite high. In other words, the staffing levels required to secure twenty £1m projects would be quite high compared to say, if the company goes for bigger jobs, with less competition and better success rates. The logic is, with bigger projects there is a resulting lowering of staff and overhead levels, because if say a turnaround company were to go for £5m jobs to get the same £20m turnover, it's only 4 jobs a year, so the number of staff the company would need to manage four jobs, would be far less than the number of staff it would need to manage 20 jobs.

Alternatively, if the construction company is used to doing jobs around the value of £21m, and decides to do four £25m projects, then, that's a hundred million pounds (£100m) turnover a year. However, here, there wouldn't be a five-fold increase in the number of staff that would be needed to manage a £100m worth of work. So in both cases, the construction company is looking at a lesser overhead percentage per turnover. This is all in theory.

But in reality, said another respondent, companies that are around £25m turnover and above, that have a fixed overhead base. They may trim the edges, cut cost here and there, but at the end of the day, their overhead is quite high and fixed. So construction companies with turnover that size, cannot suddenly shrink down and start bidding for smaller jobs. In addition, they are in competition with like minded contractors and cannot just get more work because (a) the recession has made sure that there is a finite number of enquiries that will lead to contracts and (b) there are other contractors in the same market looking to win that work and win it with a margin, and therefore a contractor cannot necessarily get the extra jobs that they need at the lower reduced overhead to cover the lower margins, because the work isn't there in the first place.

“The conservative turnaround approach is right, no matter which company it is, or whichever size; you downsize, you look at your markets, I won't say small jobs, but you're

probably looking for the jobs that will give you a better return. The smaller jobs don't necessarily give you a better return unless you get them in bulk. At the end of the day, you still need £X thousand pounds a week contributions towards your overheads. And therefore, if you are looking at smaller jobs, you need two of them to get you that £X thousand pounds a week. And obviously, with the recession those two jobs aren't there."

The notion that construction companies can reduce their overheads down to a level where they are comfortable bidding for smaller jobs is not much of a reality during a recession because the jobs are not there. Contractors cannot reduce their overhead to that extent. A lot of a company's overhead is fixed. Now, because of the recession, there were not enough jobs to go around, competition was fierce, and the margins were quite low. Therefore, a contractor is unlikely to get 2 or 3 jobs that will give him the money that he needs to cover his weekly overhead.

According to respondents small and medium sized contractors can do more work at less margins without it seriously affecting overheads. So that ties in with the first illustration above. Understandably so, because those companies, especially those in the housing markets that are doing refurbishments, repairs, alterations, and so on, those contractors can, to a certain degree, buy jobs, can turnover more jobs at a reduced contribution level and still make money. But with the bigger companies, it doesn't work because their overheads are quite fixed and quite high.

Pay cuts and Pay freezes are better than redundancies

According to the Director of TW9 construction, a construction company cannot cut a lot from overheads because

"At the end of the day, most of the company's overhead walks on two feet and you can only cut it back to a certain level, you still need the top management, you still need the middle management, and you still need those that do the invoices and so on, and there is a lot of that that you can't cut. So you tend to have a high fixed overhead element."

The respondent feels that redundancies are not always the best option because the company needs that skill in the business. So cutting overheads to save money is limited in the sense

that much of a construction company's overhead is tied in staff levels which the company needs to continue to function and definitely needs in terms of recovery. Therefore, he subscribes to using 'pay cuts' and 'pay freezes', and shorter days a week strategy in order to preserve the staff within the company. But, perhaps the Director has a recent change of mind because the initial interview (at data collection phase), the Director, while stating TW9's recovery strategy, mentioned that the company made some redundancies. So, is it more of a lesson learnt on his part? May be so.

These strategies, ('pay cuts' and 'pay freezes', and shorter days a week strategy) do not only save the company from having to use agency workers or contract workers whose abilities they do not trust, but they ultimately free more cash for the company to use as working capital. The combined strategy of using pay cuts, pay freezes, and 3-4 days a week, with no redundancies, has been used by CV5 construction, CI8 construction, TG2 construction, and CF7 construction

Bank loans and overdraft vs Short-term and Long-term finance

The Validation revealed that respondents found that in the recovery period (not in the recessionary periods but in the recovery period) most construction companies went out of business because the banks called in their loans as soon as the companies got some money in. From the analysis of the 21 companies in this research, it was found that those companies that failed were those heavily reliant on bank loans and overdraft. So when the banks pulled the plugs on loans and overdraft, those companies when out of business.

“Well the banks will always call in their debt when they can get the most money out. They'll ride it to a certain period of time but the minute that one big check arrives into their account to reduce the bank's indebtedness or liability, they'll stop it then, because they've gotten most of their money out. The banks have the ability or facility to do that. They're the ones who control the destiny of most companies because they are the providers of funds. It's their cash the companies are playing with.”

The findings also showed that the recovered companies were mostly using only short-term finance and a few long-term loans.

“Yes. Those that are recovering yes, and are successful that’s quite true, those that have failed were mostly on bank overdraft facilities, not long-term loans. With the unsuccessful recoveries, the minute they had the cash to reduce the bank overdraft, then the banks stopped the cash.”

Positive and Negative Change in Working Capital

Another respondent shared his understanding of the research finding that most small and medium sized construction companies staging a turnaround would generally try to keep a positive change in operating working capital to increase cash inflow but decrease outflow.

“Because construction work contracts are generally cash positive That is, change in working capital is generally positive. This is particularly so for companies that operates entirely as a management contracting company. The company getting paid say 14 days after monthly valuation, but its not paying subcontractors and suppliers (labourers, bricklayers, joiners) until after a month after the valuation...A lot of companies now employ companies now and pay them on a monthly basis after valuation. So a lot of it would be cash positive.

The problem you’d have is if you had a bad debt. If they had a bad debt, then it would be very difficult for them if they haven’t got a cash balance, because they have to carry that debt, and the contract becomes cash negative. They would have to have a very good strategy on managing the risks and looking very carefully at the clients that they work for to make sure that their clients were financially sound.”

This is a testament to the research findings in Chapter 4. Keeping a positive change in working capital is necessary to control the outflow of cash and ensure that the cash in the company is always greater than that going out. The ‘pay-when-paid’ strategy is one of the most common ways of achieving this in the construction industry.

Redundancies vs. Hiring more experienced staff.

Respondents agree that proactive companies take up better skilled and experienced staff are marketable and therefore recover faster because they have the skill base. In addition,

clients will always want a company that has a steady workforce, they said. So for example, if the client-contractor relationship has existed for sometime and have done a few jobs together, then the client becomes either suspicious or disinterested if the contractor is having to plan his workforce every time the client places an order. Clients want continuity. Clients want to know that whoever did the last job, that was good, or did the job before that, is still with the contractor. They find comfort knowing that the core skills are still preserved within the company, and therefore this job will be properly executed. Clients do not want to consistently talk to different sets of people every time they place an order. So there are cons to redundancies.

The right sector

The discussion with respondents on which sector was the more buoyant during the recession revealed that commercial performed better than other sectors. This goes in line with the research findings. The findings showed that most contractors in the study believe that commercial is the best place to be in during the recession. Let's look at the break down.

- **Residential:** In a recession, all the sectors suffer but residential suffers more and therefore its recovery is slower than other sectors.
- **Industrial:** With industrial, because of the capital-intensive nature of projects on such projects, during the recession, there is less activity. Also, most industrial works are geared to the general economic climate and therefore, industrial clients will always defer capital expenditure if they are not sure of the future.
- **Utilities sector:** The utilities sector is quite steady and therefore good to be in. The general population's demand is quite consistent and that makes the sector quite steady. In the utilities sector, there is more certainty of payment as it is mostly framework contracts, but it's hard to break into the market. It more like – if you're in, you're in, and if you're not in, it's a closed market in many respects. So contractors can't really break in, or diversify into the utilities sector during recession.
- **Heavy Civil:** With heavy civil, the government mostly governs the sector, with little or no private spending in the sector. Civil is all government money, and depends on whether the government is spending money or not.
- **Commercial:** With commercial, because over the last two decades the UK economy has become more service oriented, we now live in a more commercial world. There is less manufacturing going on, and therefore, commercial is the sector with the most

money. The sector has been growing as part of the UK economy for a long time. The commercial retail industry, which is under commercial, for all its internet shopping, is still going strong, retail parks are still being built everywhere.

Lets look at how respondents feel about a few individual strategies.

Mergers and acquisitions

During the validation, respondents showed their understanding of how mergers and acquisitions could be a recovery strategy if the cost/benefit analysis makes sense and the companies are a right fit to promote the company's growth through the tough times. Mergers and acquisitions could be very successful and may contribute to the growth of the company (Swaim, 2010; Potter,1998). However, just as companies in the study seldom used this strategy because it usually requires substantial funds and it is fraught with risks, respondents hear reiterate the dangers of this strategy to a company in recovery. Unfortunately, some mergers and acquisitions could be unsuccessful and end up costing the company more money than expected. One of the respondents illustrates this point.

“I suppose there could be certain synergies between companies if they were to merge and a resulting reduction in overhead creating a higher turnover company with reduced overhead. But in a recession, you’ve got to be a little more careful with acquisitions – which company you’re looking to buy. If companies are for sale, they’re trying to sell for reasons. But yes, that’s a proactive strategy if the research is done correctly and you could see that there’ll definitely be some synergies between the two companies and the resulting overhead benefits.”

Purchasing a company during a recessionary time is unfortunately not a very good idea unless it makes for a compelling business opportunity. It could very much be a business opportunity as we saw with KUP1 construction and GP4 construction. However, majority of respondents do not recommend ‘mergers and acquisitions’ as a go-to strategy. This is because the new company often demands a lot of management time and takes time away from running the original company, which can ultimate impact on the company's performance and reputation.

Cutback strategies

Respondents agreed with this finding one hundred percent and stated that cutback strategy is gold 'standard'. *"It has to be done"* if the contractor intends to remain in the market. The ability to cut cost and reduce outgoings drastically is fundamental to construction business recovery. However, what is more crucial is not whether a construction company in recovery cuts costs but rather the cost reduction strategy adopted because the different strategies having varying effect. That is, whether it is reducing overheads, value engineering, pay cuts and pay freezes, redundancies, they would costs and therefore the company differently. Just as Drucker (1961) has stated that whatever strategy is chosen will have its distinct issues. Therefore, the goal is to adopt the strategy that will handle the situation with minimal side effects. For example, the research findings have shown that, adopting pay cuts and pay freezes (for the company that can do it) is better than redundancies because of the advantages of retaining both the company's skilled force and market share.

Business Development

Respondents stated that the importance of 'business development' to a turnaround company could not be over emphasized. If a company does not have jobs in the pipe line, that means that they don't know where the next check is going to come from and therefore, is able to see when it will run out of cash. Business development ensures that the company has jobs in the near future, and therefore enough earnings to sustain itself through the difficult time. According to a respondent:

"If you've not got the market presence or any more contracts, certainly, you have to market yourself with the professionals that you deal with in the market. Let them know you're still around. That's the important thing. Let them know you haven't been able to work for various reasons. You know, to the outside world, you're still busy, you're still doing work, and you're still there to do work."

Business development also brings about 'repeat business'. This can only come about through building relationships with clients, and the proper use of referrals and customer relationship management software (CRM), which enable the contractor manage his clientele list.

Subcontractor and supplier support

Again, respondents confirmed the findings by reiterating the importance of getting the support of subcontractors and suppliers, which is shown through extended credits and discount to the contractor. It frees up some of the financial pressures on the contractor, and therefore can concentrate on finishing the job and getting enough payment from the client to pay suppliers and subcontractors. According to respondents, the bad thing is that some contractors delay such payment to suppliers and subcontractors, which causes relationships to be severed and a culture of distrust to creep in. Therefore, we find some suppliers and subcontractors demanding for upfront payment before commencing the project (Richardson, 2005). It therefore means that the contractor in recovery would have to spend money before getting paid, hence defeating the effort of maintaining a positive change in working capital. One respondent states: *“Asking suppliers and subcontractors for credits and discounts is fairly normal. When there is no cash, and suppliers get paid later and later ideally, with their approval in the first place rather than just get by and not paying and causing ill will.”*

Advance or Upfront payments

Though the research shows advanced and upfront payment is a good strategy of getting money into the business, as well as how clients can show their support to the contractor in his recovery endeavor, some respondents believe that it might be impossible to get that on bigger projects. This means that the contractor on a big job must be ready to fund the job as he goes along and collect payment later, which would mean negative cash flow for the most part of the project (Netscher, 2014). However, in the place of advanced or upfront payment, contractors may ask for ‘shorter payment term’, which is more plausible.

Luck

Only 3 out of 21 companies within the study mentioned ‘luck’ as a factor to their recovery. This is in confirmation of the literature. Warner et al, (2008); Souza, (2010); Mohmood and Shahrukh, (2012), and many other authors have stated that executives of construction firms seldom mention luck as a factor playing a part in their companies’ success. Only in the work of Hutchings and Christofferson (1999) did a small percentage of his respondents mention luck as a factor of success. Perhaps, the technical nature of the industry is the reason for this. Most construction executives have a technical background – the know-how

background. *“It will work, or it won’t work. Simple.”* It is in their training. Hence, their thought patterns do not dwell on the abstract; therefore, they cannot attribute their company’s success to something so inexplicable as luck. The findings are quite in line with the validation of the framework. The member checking system adopted by this research showed that some contractors still do not see ‘luck’ as a valid factor. And so, in the validation document, they crossed it out. See below an abstract from the validation document sent out to respondents.

Table B: Progressive Turnaround Approach

Cutback Strategies	Management Strategies	Proactive Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Reduce overheads - Cut cost – value engineering - Stricter management of cash - Daily cashflow review and weekly cashflow forecast - Increase working capital (this could take different dimensions) - Reduce gearing ? Be clear about priorities - - Maintain the market presence. In other words, keep the market share and use pay cuts to augment cashflow 	<ul style="list-style-type: none"> - Remain true to the company’s core business strategy but innovate to make services and products better - Review Economic Engine - Re-negotiate debt repayment - Get support of stakeholders – getting paid quickly by clients, asking subcontractors for additional time to make payment, asking suppliers for extended line of credit, and asking staff to give their best in the jobs that they do - Identify alternative use of assets and redirect to income generating ventures - Adopt competitive tendering for supply-chain - Emphasize efficiency to avoid repeat work - Luck 	<ul style="list-style-type: none"> - Management change - Hire new and better skilled employees to reinforce and drive the turnaround - Use of technology - Bid for bigger jobs (less competition) - Merger and acquisition 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don’t fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other allied sectors of the industry - Recording the lessons learnt from the recession and adopting a strategy to avoid making the same mistakes again.

Figure 7.1: ‘Luck’ still not a success factor in construction

It is important to note that the above comments and suggestions along with other comments and suggestions from the validation were addressed and modifications were made to the research findings to enhance the content and increase clarity.

Based on the research findings and the points raised in the validation process the tables for conservative and progressive has been modified accordingly in Tables 7.1 and 7.2.

Table 7.1: Validated Conservative Turnaround Approach

Cutback Strategies	Stabilization Strategies	Improvement Strategies
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<ul style="list-style-type: none"> - Cost cutting: value engineering Reduce overheads, redundancies, pay cuts and pay freezes - Stricter management of cash - Daily cash flow review and weekly cash flow forecast - Put profit back into the business - Novate contracts across to other competent contractors - Shrink company to manageable size - Keep the change in working capital positive (for Contractors) - Keep the change in working capital negative (for Developers) 	<ul style="list-style-type: none"> - Management change - Chose the right people for the turnaround - A clear plan - Emphasize efficiency to avoid repeat work - Better Risk Management - Dispose off Bank loans and Overdraft and adopt Short-term finance, or operate with no debt if possible - Get support of stakeholders: staff, subcontractors and suppliers, creditors, and clients - A functioning market/sector - Selective tendering - Bid for smaller jobs (more competition) - Business Development - Access to advice 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don't fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other allied sectors of the industry - Improve profits levels - Recording the lessons learnt from the recession and adopting a strategy to avoid making the same mistakes again.
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Table 7.2: Validated Progressive Turnaround Approach

Cutback Strategies	Stabilization Strategies	Proactive Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Cost cutting: value engineering Reduce overheads, redundancies, pay cuts and pay freezes - Stricter management of cash - Daily cash flow review and weekly cash flow forecast - Put profit back into the business - Keep the change in working capital positive (Contractors) - Keep the change in working capital negative (House Builders) 	<ul style="list-style-type: none"> - Management change - Chose the right people for the turnaround - A clear plan - Emphasize efficiency to avoid repeat work - Better Risk Management - Dispose off Bank loans and Overdraft and adopt Short-term finance, or operate with no debt if possible - Get support of stakeholders: staff, subcontractors and suppliers, creditors, and clients - A functioning market/sector - Selective Tendering - Business Development - Access to advice 	<ul style="list-style-type: none"> - Hire new and better skilled employees to reinforce and drive the turnaround - Use of technology: BIM and etendering, CRM software - Bid for bigger jobs (less competition) - Expand the market presence and use pay cuts to augment cash flow - Merger and acquisition 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don't fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other sectors of the industry - Improve profit levels - Recording the lessons learnt from the recession and adopting a strategy to avoid making the same mistakes again.

It is imperative to understand that our analysis showed that approaches turnaround companies adopt, are neither exclusively conservative or progressive, rather companies tend to lean more toward one approach than the other.

Purposeful/purposive sampling technique is most effective when one needs to study a certain cultural domain with knowledgeable experts within. According to Tongco, (2007), the inherent bias of the method contributes to its efficiency, and the method stays robust even when tested against random probability sampling. Choosing the purposive sample is fundamental to the quality of data gathered in this research; thus, reliability and competence of the informants or respondents must be ensured (Tongco, 2007). The nature of purposeful sampling requires that only those with knowledge in the field of enquiry can confirm or discredit the data and findings derived from said sampling techniques (Creswell, 2003). Since the research has reached saturation, it can be concluded with reasonable confidence that other successful and unsuccessful turnarounds in the construction industry will give the same information. As such, the bias can be seen in the validation technique as respondents confirm that the research captures the true picture of the situation and that the findings are accurate.

7.5 Summary

This research made use of member checking to assess credibility of findings because it provides an opportunity for the respondents to see whether the findings actually represent the reality they live in. In addition to this validation strategy, there were rich descriptions and documentations, which adds to the credibility of a research finding. Presenting discriminant opposite points of views within a research added to the credibility of findings for the reader. For example, some of the companies believe in the conservative approach to turnaround, while others believe in the progressive approach to turnaround. As such the reader is provided with the results from different perspectives or angles. In-depth methodology descriptions were also used to tests conformability; which shows that the research methodology is described in detail and the documentations of the research process actually led to the conclusions.

In light of the application of all these strategies, evident in the research work itself, the study can conclude that the findings are valid and reliable. Six out of the seven strategies

mentioned in the validation strategies were adopted in this research, and it is strong evidence of the validity and reliability of the research.

8 CHAPTER 8 | CONCLUSION AND RECOMMENDATION

8.1 Conclusions

In conclusion, the chief finding of this research is that: leadership and the right people, support of staff, support of subcontractors and suppliers, support of the banks and creditors, support of clients, choosing the right sector – a functional market, choosing the right project – selective tendering, business development, use of technology, access to advice, the factors necessary for construction business recovery. And, all work together to achieve one thing, improve the working capital or cash flow or liquidity position of the construction company staging the turnaround. When the cash position of the company becomes stronger, the company does better and the company is healthier.

This thesis addressed the question how can a failing small and medium-sized construction company turnaround from failure to success. A review of literature on business failure and business success in construction suggested that a number of common themes unequivocally links failure and success in the construction industry, hence, two sides of the same coin. These themes are: management and leadership, capitalization and financial management, organizational knowledge/culture, business knowledge/strategy, company image/reputation, industry/market knowledge: and sales and marketing/bidding strategy. These themes were later found to support the research findings as every one of the themes were found emanate from the data analysis.

Purposive sampling was used to select the cases under the study (successful and unsuccessful turnaround companies), which were later coded for data analysis (content analysis). The next stage was to conduct a quantitative analysis, i.e. an analysis of the financial information of the cases under the study to see how successful and unsuccessful turnaround companies performed. The findings from the Z-score analysis revealed that working capital is the most influential variable that determines both successful and unsuccessful turnaround companies' financial health. The analysis showed that F1 (WC/TA) ratio has the greatest effect on the Z-score of a construction company. Therefore, when working capital decreases, company financial health becomes weak and when working capital increases, company financial health becomes strong. It therefore means that increasing or maintaining a good level of working capital is pivotal to the survival of a construction company. The next variable with the most effect on the Z-score of a

construction company is F3 (EBIT/TA), which looks at the earning potential of a company's assets (profitability); followed by F4 (NW/TL); which inherently looks at gearing and solvency; and lastly F2 (RE/TA), which looks at growth.

The results of an independent samples *t*-test showed that unsuccessful turnaround companies do not particularly perform worse than successful turnaround companies in their respective decline years. That is, the decline in both groups is similar or the same. There was no statistical significant difference in the Z-score, F1, F2, F3 and F4 means of unsuccessful turnaround companies to the Z-score, F1, F2, F3 and F4 means of successful turnaround companies. On the other hand, the results of a paired samples *t*-test showed that successful turnaround companies performed better in their turnaround years than in their decline years. The Z-score, F1, F2, and F3 means of the turnaround years were found to be statistically significantly different from the Z-score, F1, F2, and F3 means of the decline years. On F4 showed that there was no significant difference in solvency of successful turnaround companies before and after recovery.

The Z-score *t*-test also revealed that successful turnaround construction companies performed generally better on average coming out of the recession than prior to the recession. Like Gandhi says “adversity is the mother of progress.” The recession looks to be a blessing in disguise as the companies that made it came out even stronger. The recession made contractors to be more efficient, to pay more attention to their cash flow needs, to have better discipline in cash management, it made them to be more prudent with their gearing levels by letting go of bank overdraft facilities, it increased team the spirit within the companies, it awakened construction companies to need to reinvent themselves and find their economic engine – what business model puts more money in their pockets and ultimately help them recover? It awakened them to the need for business development, the for going out and finding work by building and cultivating relationships with clients and industry professionals alike, and maintaining a good reputation in the industry because that is what brings repeat business.

Findings revealed that during a turnaround, the objective of most of construction (contracting) companies with regards to operating cash flow, is to keep the change in working capital positive, which involves keeping cash up and debt down; keeping deferred

income and trade creditors balance up, while reducing stock and trade debtors accounts. In other words, the objective is to increase the cash inflow and reduce the cash outflow. On the other hand the house builder needs to keep change in working capital negative. For the house builder it is somewhat different because he needs to maintain a good level of stock in order to get cash coming in. So, naturally, trade creditor will be low, and so the house builder would have a negative change in working capital. Therefore, the house builder must strive to increase deferred income, adopts value engineering to reduce cash outflow, while keeping trade debtors low; and maintain a good stock level to sell in order to increase profits, hence increased cash inflow.

The research also found that turnaround companies have realized that being heavily reliant on bank loans and overdraft facility is a bankrupt model. Rather operating with short-term and/or long-term finance or operating with no debt at all, allows the contractor to be more alert to his cash flow need and therefore, will have a more disciplined cash management approach.

It was later evident that there are two distinct approaches to turnaround amongst construction SMEs – the conservative and the progressive turnaround approaches, where conservative takes a defensive approach to recovery while progressive, takes a more offensive approach to recovery. It is imperative to understand that the findings showed that the approaches turnaround companies adopt, are neither exclusively conservative or progressive, rather companies tend to lean more toward one approach than the other.

Due to the 2007 recession, there has been a change in attitude of clients and contractors. Prior to the recession, contractors were moving into a more partnering approach in contract agreements but the advent of the economic down turn saw more use of the JCT form of contract, which separates entities and therefore risks, and spells out clear lines of responsibilities for which breaking them would constitute a breach of contract. Most of the respondents in the study said they adopted the JCT contract form on most of their projects except for the local authority works that required the use of NEC.

This research findings show that due to the adverse conditions in the market, contractors' definition of success change to a combination of a 'Bottom-liner' profile with any one of

the other four (see Section 2.11). Financial results became the primary focus and every other sentimental objective, like building relationships became secondary. The bottom line is, “no money, no company”, thus, there should be no sentiments. Because of the intensity of the recession, different forms of the bottom-liner emerged. The primary issue was no longer about maximizing profits but rather, minimizing losses. The findings also showed that contractors and clients sacrifice quality and ‘good relationships’ for ‘lowest price’. Most contractors fought hard to restore these lost relationships coming out of the recession. Most of the respondents were about survival, not the kind of ‘survival and sustainability’ asserted by Warner et al., (2008) but rather, survival through ‘profit and wealth’ asserted by the same author. Cash flow and profit maximisation becomes the paramount of doing business. Most contractors in the study did not really have the luxury of making profits in the thick of the recession. They settle for operating on very low margins, breaking even or even taking the hit of a loss just to remain in business and ride the wave until the market became favourable again. Some respondents, especially owner-contractors, were about profit maximization, increasing shareholder value, and the creation of value for the community.

8.2 Recommendations

Repeat Business & Reputation

Contractors who focus on repeat business and framework contracts and multi-phased contracts have a better chance of recovery in the construction industry. Building long-term relationships with clients, customer focus, competitive pricing, and maximization of service and product value (quality) bring repeat business. The customer is happy with the contractor both on the grounds of fulfilled project objectives, and a good, trusted and professional interpersonal relationship. Quality also brings a contractor his next job. Even if he is not the cheapest, but because he is known for quality services and integrity, clients will prefer to spend a little more for peace of mind. A good reputation is a big part of survival and growth in the construction industry. Success is having the respect of clients, and the respect of subcontractors and suppliers.

Construction companies should not take banks as sole provider of leverage

After this crisis, quite a number of contractors have recognized that the model for using the banks as sole providers of leverage was flawed. And frankly, some of these contractors

have developed a sort of contempt for the banks. Many managers of construction businesses believed construction companies should try to be more independent of the bank. Private investment is better because with the private investor a contract exists with the contractor. In a contract, the duties and responsibilities of all the parties to the contract are explicitly stated. So any digression from the stated duties in the contract document by any party to the contract would constitute a breach and therefore may require legal action. For example, in such agreements, the private investor cannot come in half way through the project and demand for their money back (like the bank does) because the document would have stated the period of time the contractor is supposed to be in possession of the funds. Asking for the money back when that period has not expired would constitute a breach of contract. It is not the same with the banks. The contract document between a bank and a contractor allows the bank to renege on the agreement without prior consent or agreement of the contractor. As such if a contractor must get leverage, private investors should be the first option. Banks must be the last resort.

Clients and main contractors must revert to ‘best value’ rather than ‘lowest price’ mentality

Some clients made the mistake of ignoring the relationship they had built with contractors - neglecting the reputation of the company for doing good quality work and were focused too much on getting the most competitive price during the recession. This does not always pan out to the benefit of the client because this only makes contractors focus on saving cost rather than doing the job, in addition to them generating extras and claims to offset keenly priced job. Clients often run into problems by going to the lowest cost instead of best value in the name of saving money, which cost them more in the end. In a recession, it is inevitable that prices would reduce but clients must not ignore the good reputation of their subcontractors and the relationship that they have built over the years.

Subcontractor should always sue in the case of a bad debt

“When in doubt, sue”. Not enough subcontractors actually sue. They tend to negotiate and just hang on and hope to get paid rather than taking the hardline approach that contractors are entitled to pay up. Maybe if subcontractors sue more, and rumors of disputes and litigation gets out that a main contractor is being taken to court by many subcontractors, then the main contractor gets a bad reputation and subcontractors will begin to avoid that

client. If this happen often to many clients, then bad paying clients can be black listed and boycotted, and perhaps that will make them get their acts together.

Contractors should watch out and not overtrade

Unfortunately, during recession, some contractors believe that their only hope out of the recession is aggressive tendering, which often leads to overtrading. By overtrading, many contractors end up with full order books, executing projects that; are not bringing a profit, or even worse, incurring losses; and quite possibly underperforming in the area of completion time and compromising quality of work. This bad practice often makes a good contractor lose his good reputation. Netscher (2015b) has touched on what bad reputation can do to a company in the construction industry especially in recessionary times. Some companies try to bid themselves out of the recession. This is not exactly a bad strategy but when done without caution, it can be really bad for a company's financial standing coming out of the recession. The problem with trying to bid your way out of the recession is that you most likely end up with losses that could cost you. First of all, to win the works, the company must have tendered at very low margins and sometime even below margin. Then, the contractor has to struggle over prices with the client or main contractor. These struggles definitely lead to delays in payment, disputes, and sometimes to non-payment or bad debt. In addition, coming out of the recession, material prices begin to go up and the contractor is left to pay for the shortfall because he tendered at a lower rate. The effect of overtrading does not stop with the contractor; it trickles down the supply chain, to the subcontractors and suppliers. When the contractor fails he takes with him his loyal subcontractors who trusted him.

High gearing and growth fever

There are many practical examples of 'growth fever' and high gearing within this study. The companies wanted to grow too fast, too quickly. They borrowed more in order to expand. It may have been a strategic decision to take advantage of the boom of the early 2000s but clearly, there was no doubt that any slight problems with Cash flow, (boom or not), would threaten the survival of the company because of its high gearing. Overexpansion can be very costly. Gearing must be reduced anyway possible and quickly too.

Delaying payment and/or incomplete payment

The main contractors must make a profit but they cannot make a profit at the expense of their subcontractors. Plus, this research has shown that overdependence on subcontractors and third party funding is a bankrupt model. Contractors must not try to run their business on the backs of their subcontractors and suppliers. It is bad for everybody, both for the contractor and for the subcontractors. Some contractors try to get big too quickly and they depend on third party money to fund their business, come recession, they could not handle the accumulated liabilities. This problem is prevalent in the industry.

Cross-collateralization

With regards to the way money is borrowed, the strategy of “Cross-collateralization”, where the group borrows money on the combined assets of all the companies in the group, is not particularly a good strategy, because it means that all companies in the group are liable to the debt. This strategy works very well in good times, but when the bad times come, you find companies, that might have otherwise survived on their own assets, getting pulled down to bankruptcy by the sheer weight of the debt of the parent company. In other words companies are better off borrowing on their own assets without any contingent liability.

8.3 Further research

According to Tongco (2007) and (Bernard (2002), in purposive sampling, interpretation of results is limited to the population under study, but for it to be valid over a greater realm or to form the basis for a theory, the study may be repeated for confirmation in a different population, still using a non-probability method. Purposive sampling enabled this thesis to identify a number of turnaround strategies used by construction companies in distress, which can be further explored in future research with other construction companies in recovery. In addition, although Guest et al. (2006) has shown that saturation is reached at twelve interviews, and metathemes seen between five and six interviews (Seidler, 1974), increasing the sample size would certainly strengthen the reliability and generalizability of the research, and to also compare their respective recovery to see which company performs better over time.

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APPENDICES

Appendix 1

Introduction

This Chapter introduces the financial information of the unsuccessful turnarounds as well as their respective company histories, background, main activities, cause of decline and Z-score profiles. The Z-score model is not only easy to use, but it also provides clear distress, grey and safe zones that can be used as milestones/benchmarks for the turnaround (Ross and Williams, 2013; Kirk, 2008).

Company Profiles

In Figure 1, as already mentioned in Chapter 3, the names of the companies have been changed and the names of respondents withheld (coded) for anonymity and confidentiality sake.

Table 1: Unsuccessful Turnaround Companies

	Company Codes	Role of Respondent	Years with Company	Cause of decline	Age	No. of Employees	Company status
Unsuccessful Turnaround Companies	CB1 Construction	Finance Director	10 years	High gearing levels, losses, and Lack of support from the banks, over reliance on local authority work	11	0-50	Dissolved
	HFB2 Construction	Group Chairman	24 years	Lack of support from the banks, high gearing levels	59	0-50	Liquidation
	BH3 Construction	Finance Director	9 years	High gearing levels, Growth fever	71	0-50	Administration
	MLC4 Construction	Operations Director	20 years	Bad Debt	42	23	Dissolved
	GCE and Co. Construction	Director	13 years	Cashflow and tighter competition	60	89	Dissolved
	AWH5 construction	Director	7 years	Cash-flow and tighter competition	52	200-250	Liquidation
	EJ6 Construction	Director	7 years	Cash-flow and tighter competition	46	200-250	Administration
	CDJ7 Construction	Chairman & Civil Engineer	38 years	Over-expansion and Management incompetence	48	159	Liquidation
	SBW8 Construction	Director	10 years	Bad Debt	60	247	Liquidation
	KUP1 Construction	Owner & Director	9 years	Tighter competition	15	0-50	Active

MK2 Construction	Managing Director	8 years	Decline in the housing market	27	150-200	Active
LD3 Construction	Group Finance Director	10 years	Over reliance on local authority projects; and contractual mistakes leading to massive losses	93	0-50	Active

Unsuccessful turnaround companies would generally show only one of the three stages in a turnaround, and that is only the decline stage; while successful turnaround companies will show: a decline point (inside the red zone or close), a transition point, and a recovery point (out of the red zone and into the grey zone or healthy zone). Here is the Z-Score model used in this study:

$$Z = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4).$$

Where:

Z = Overall index of corporate health;

X₁ = Working Capital/Total Assets (WC/TA)

X₂ = Retained Earnings/Total Assets (RE/TA)

X₃ = Earnings Before Interests And Taxes/Total Assets (EBIT/TA)

X₄ = Net Worth/Total Liabilities (NW/TL)

Components of Z-score

$$Z = F1 + F2 + F3 + F4$$

Where:

$$F1 = 6.56(X1)$$

$$F2 = 3.26(X2)$$

$$F3 = 6.72(X3)$$

$$F4 = 1.05(X4)$$

These components show how the variables performed yearly and most importantly, which one of them had the greatest influence on the company's Z-score.

Disclaimer: The financial data used for this analysis was obtained from Company House and therefore a reliable source. This research is operating on the ‘trust’ that companies have submitted ‘true’ company financial figures to the Company House.

Unsuccessful turnaround companies

CB1 Construction

This 15-year-old house builder specialized in single-family housing construction and was a family run business, which ultimately went bankrupt during the 2007 recession. The firm employed a staff of approximately 31, and had an annual revenue of a little over £8m.

Cause of decline

During the economic downturn, most banks withdrew or froze funding to small and medium sized companies. NatWest bank supported the CB1 Construction, but NatWest at the time, had decided, not to be supportive of the construction sector. At the same time, CB1 was heavily geared and was very reliant on external funding. The company was also carrying a huge chunk of losses, which increased its account receivables. According the financial director of CB1, the company was haemorrhaging money due to a pension deficit the company was paying off. It was a big part of the company’s outgoings. The company also worked for a council who was unwilling to pay for work done. So, due to a combination of; high gearing levels, lack of funding, lack of tender wins, over reliance on one client base, delays in payment, and project losses, the company was unable to pay its bills and sustain itself in the market. This caused CB1 to go bankrupt

CB1 construction went out of business in 2010, but before it did, signs of bankruptcy had started to show 3 years prior. Since 2005 the company did not make any money in the market – reporting negative profitability five years consecutively. Lets take a look at the Z-score for CB1 construction prior to bankruptcy in Figure 1.

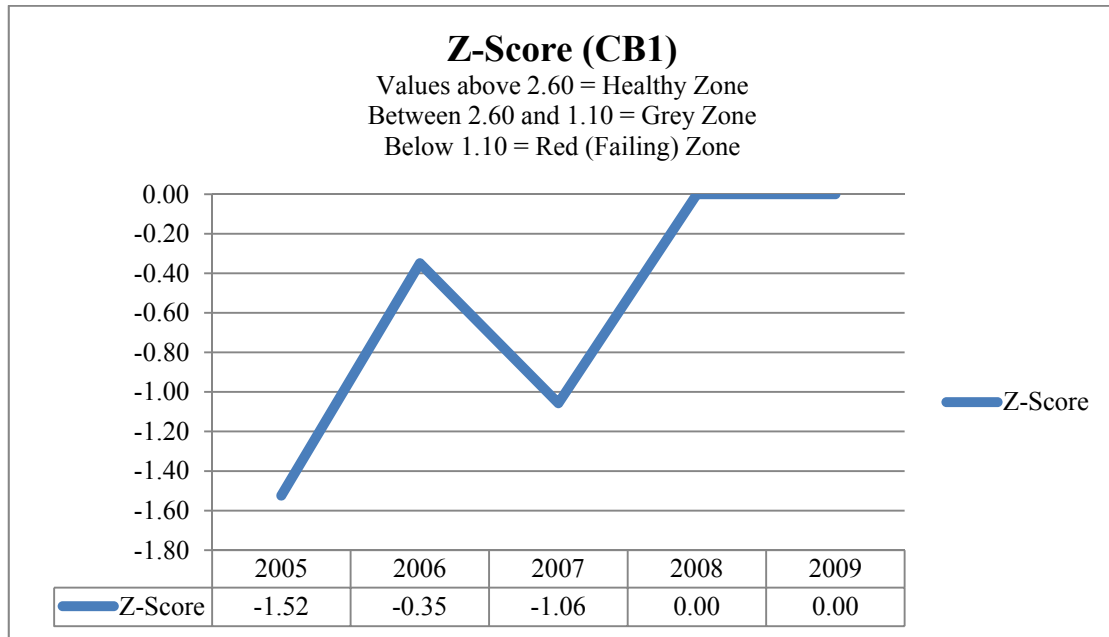


Figure 1: Z-score profile of CB1 construction

Evidently, CB1 has been in the Red Zone for 3 years prior to bankruptcy. After 2007, the annual financial reports (2008, 2009) submitted by the company to Company House, reported £0 for all variables; total assets, total liabilities, cash in bank, net worth, working capital, retained earnings, EBIT, etcetera; all reported as £0, hence the “0” Z-scores for 2008, and 2009.

Table 2: CB1 construction’s Z-score variables two years prior to decline

	2007	2006
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	4,538,000	5,850,000
Current assets	1,003,000	1,826,000
Total Assets	1,064,000	1,888,000
Current liabilities	1,050,000	1,849,000
Total Liabilities	1,306,000	2,046,000
Net Worth	-242,000	-158,000
Working Capital	-47,000	-23,000
Retained Earnings	-84,000	-78,000
EBIT	-50,000	-15,000
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	-169	-772.8
Current ratio	96	99
Liquidity/Acid test	88	96
% Of Cash/CL	0.19	0.11

% Of Debt/CL	19.4				60.8
	X1	X2	X3	X4	Z-Score
2007	-0.044	-0.079	-0.047	-0.185	-1.06
2006	-0.012	-0.041	-0.008	-0.077	-0.35
Change (Δ)	-0.032	-0.038	-0.039	-0.108	-0.71

Table 2 above shows the following about CB1's performance in 2007

X1 – Working Capital was negative and continuously decreasing. Change in Operating Working Capital was positive, and was 20.8% of the company's turnover

X2 – Retained earnings was negative and further decreased by £6,000.

X3 – A loss of £84,000 (after tax) was incurred

X4 – Net worth decreased by £84,000

Turnover (sales) decreased by 22.4%

X1 (WC/TA), the measure of net liquid assets relative to a firm's total capitalization, measures liquidity. CB1 construction's Working Capital was negative, meaning the firm was experiencing operating losses and its current assets are shrinking relative to its total assets (Altman, 1993). CB1 has had a negative working capital in its last three years consecutive. That meant that the business' current liabilities had surpassed its current assets and may be an indication of financial distress. That is to say that the firm would have had difficulties in fulfilling its short-term financial obligations.

Recall the concept of negative working capital in Chapter 2? Negative working capital could be a sign of management efficiency, where turnover increases thereby increasing deferred income, and the excess cash is invested in fixed assets or other long-term investments (Sears et al, 2015; Thomas, 2013). However, this strategy only works as long as turnover continues to rise. But in 2007, CB1's turnover decreased by 22.4%, causing a short fall in the company's Cash flow. It also had very little stock compared to its 'trade creditors' and 'short-term debt balance', which meant that, even if all its stock was sold to pay the debt, there would still be much financial obligations yet to be serviced. In simple terms, CB1 construction was insolvent in 2007. Furthermore, negative working capital is not consistent with a house builder's business model because CB1 construction is required to generate additional cash through its stock, which is not possible because CB1 has no stock. The house builder is expected to pay all costs related to building the houses prior to their sale (Thomas, 2013; Sears et al, 2015). He spends money first, then, makes a profit

on sale. On the other hand, a contractor generates additional cash through advance payments as he starts on site. Which means the contractor has a negative Working Capital requirement.

Furthermore, the company had a positive Change in Operating Working Capital (excluding cash and debt) in the year 2007, which amounted to £944,000. This indicated that operating current liabilities were increasing by more than operating current assets. This is good for Cash flow. However, a positive change in operating working capital could also mean one or a combination of the following; that the company is increasing its turnover, thereby, increasing deferred income; delaying payment to its subcontractors and suppliers, has little or no stock, may be getting paid up-front, and/or has a good collection policy. Since turnover decreased, the company had little or no deferred income at its disposal. So it remains that CB1 construction was highly dependent on its subcontractors and suppliers. It also meant that the company was holding back cash to augment its Cash flow. With its dilapidated stock levels and no cash in the bank, CB1 construction had no source of income to settle its bills and so became insolvent both in the short-term and the long-term.

CB1 construction was highly geared with a gearing of -772.8 in 2006 and -169 in 2007. These figures are considerably greater than the recommended gearing levels for construction suggested by Clough et al. (2005), which is, anything between 1-50%. For a gearing level of this magnitude, the slightest thing to go wrong can be very detrimental to a company's survival.

Negative retained earnings, also known as accumulated deficit, meant, the company had more retained losses over time than accumulated net income and therefore, has no funds to invest in growth or expansion (Kokemuller, 2015). In addition, it also meant the business lacks profitability and has incurred more losses than net earnings for given periods. Kokemuller (2015) states that, long periods of negative retained earnings looks bad on a company's management team because it shows that they still haven't figured out how to improve profitability. Furthermore, negative retained earnings means the business has no safety net except for cash on hand and with each loss, the company uses up its cash reserve until there is no cash anymore and the business faces bankruptcy. Also, the business cannot

pay dividend to shareholders or owners, and would only be paid out of the cash balance received when the business is dissolved or liquidated.

In addition, the CB1's liquidity ratios; current ratio and the liquidity/acid test, were both under 100%. According to Gruneberg (1997) values less than 100 means Cash flow difficulties can be expected. The recommended values for liquidity in the construction industry are figures between 150 and 200 (Clough et al, 2005).

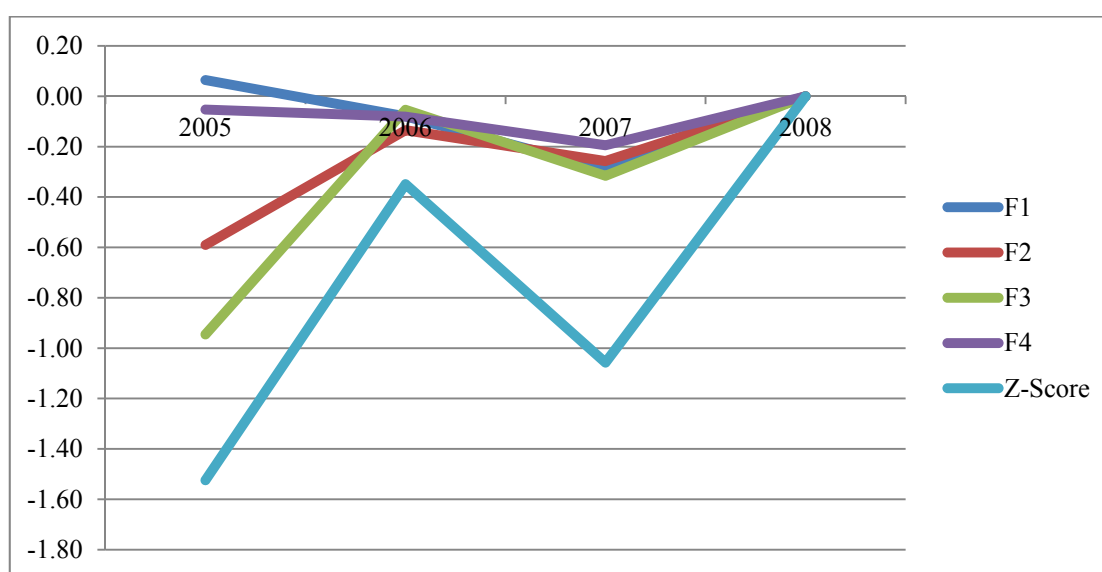


Figure 2: Components of Z-score as applied to CB1 Construction

Figure 2: shows that F3, component of X3 (EBIT/TA), which is the profitability ratio in the Z-Score model determined the outcome of the Z-Score more than the other variables (liquidity, gearing and solvency). Therefore, when profits decreased, the Z-Score of CB1 construction fell and vice versa.

HFB2 Construction

This construction company is principally a house builder and developer, but also had a contracting subsidiary and a property investment subsidiary and considered itself a well-balanced and profitable group up until its demise.

Cause of decline

The main difficulties of the HFB2 had been entirely due to the lending banks withdrawing facilities unilaterally during the banking crisis. Its bank, simply, would not support private

house building developments and would not extend loans, even on sites that were in progress with forward reservations said the Chairman of the group. In the heat of the credit crunch, banks were being squeezed and every bank wanted to show good financial standing as a result, many banks recalled loans. Unfortunately, they were unsympathetic to many companies especially construction companies. As it was, the banks exercised their right to take 100% of all sale proceeds rather than the 65% and 80% agreed in the facility agreements. Thus stripping the company of all working capital and forcing the sale of other property assets at whatever price it could obtained to support overheads. Eventually, with no prospect of continuing to build or make a profit, the company had no option but to make all staff redundant and enter into a Company Voluntary Agreement (CVA). The CVA proved unsuccessful and the company went into liquidation.

HFB2 construction went into liquidation in 2012. Figure 3 shows that the company had already started showing signs of bankruptcy two years prior. In fact, the company showed signs of insolvency since 2008, with its total liabilities threatening to surpass its total assets and reporting a Net worth of £33,919. The company's Z-score in 2008 was below the 'red zone' at 0.75; again, the Z-score pointing to signs of trouble in the future. Insolvency became apparent in 2009 and 2010 as the company's liabilities became much greater than its assets with Z-scores 1.11 and -5.27 respectively. The company had a very poor year in 2010, hence the low Z-score, and so the company had no choice but to liquidate its assets and pay its debt.

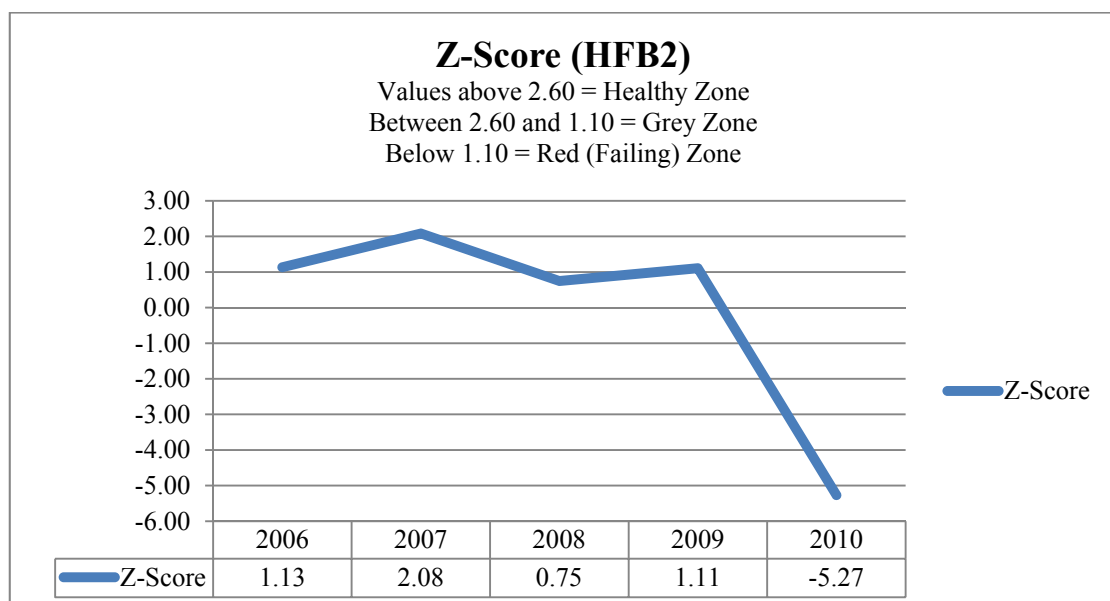


Figure 3: Z-score profile of HFB2 Construction

Table 3: HFB2 construction's Z-score variables two years prior to decline

	2010	2009
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	3,371,225	3,113,199
Current assets	3,366,062	7,739,610
Total Assets	3,590,466	7,960,539
Current liabilities	2,825,952	5,249,041
Total Liabilities	7,182,644	8,732,575
Net Worth	-3,592,178	-772,036
Working Capital	540,110	2,301,028
Retained Earnings	-2,820,142	-805,955
EBIT	-1,693,932	-435,057
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	-197.3	-1106.6
Current ratio	119	142
Liquidity/Acid test	3	6
% Of Cash/CL	0.04	4.63
% Of Debt/CL	96.9	96.5

	X1	X2	X3	X4	Z-Score
2010	0.150	-0.785	-0.472	-0.500	-5.27
2009	0.289	-0.101	-0.055	-0.088	1.11
Change (Δ)	-0.139	-0.684	-0.417	-0.412	-6.38

Table 3 above shows the following about HFB2's performance in 2010

X1 – Working capital decreased by £1,760,918. Change in operating working capital was positive, and was 119.6% of turnover

X2 – Retained earnings was negative and further decreased by £2,014,187

X3 – A loss of £1,693,932 was incurred

X4 – Net worth is negative and further decreased by £2,820,142

Turnover increased by 8.3%

Here, unlike CB1 construction, HFB2 construction had a positive working capital in the years prior to failure. However, HFB2 construction's net liquid asset relative to its total capitalization (X1) was shrinking. In succinct terms, the firm's liquidity greatly decreased. On a long-term basis, the company was already insolvent as Total liabilities exceed Total assets.

Like CB1 construction, HFB2 construction had a positive Change in Working Capital in 2010, which is still not consistent with the house builder's working capital requirement (Sears et al, 2015). Also, the increasing liabilities completely overwhelmed turnover by 119%. The financial records also revealed that HFB2 increased very little of its stock and was making losses on sales. With the house price crisis, the company was struggling to make sales. The company's current liability, excluding debt financing, was 3%. In other words, 97% of the company's financing was debt and therefore ran its business entirely on borrowings, indicating high gearing levels (-1106.6 and -197.3 in 2009 and 2010 respectively). Therefore, operating Cash flow was very poor as HFB2 had stock it could not convert quickly to boost its cash position. In addition, the company had no cash to support its activities. Its cash level was 0.003% of the current assets. Basically, the company operated solely on borrowing and was at the mercy of the banks.

HFB2 construction also had negative retained earnings for long periods of time (5 years). Therefore X2 was continuously decreasing. Although this is common with aggressive companies like house builders, it still meant the business has had more retained losses over time than accumulated net income and therefore, had no funds to invest in growth or expansion, lacked profitability, had no safety net except for cash on hand, and had a dividend restriction (Kokemuller, 2015). A company with prolonged periods of negative retained earnings is a sign of an unhealthy or troubled company.

In terms of liquidity, the company also showed a reasonable current ratio of 142 and 119 in 2009 and 2010 respectively. For a construction company in its state, these figures look quite good in terms of liquidity since the recommended values for the construction industry are values between 150-200 (Clough et al, 2005). However, the liquidity or acid test, tells a different story with values of 3 and 6 in 2010 and 2009 respectively. These values are way below the 150 recommended mark. The acid test deducts stock from the total current assets and focuses more on cash and other liquid assets because with stock, there is no guarantee its value can be realised quickly when cash is needed urgently. Although this data is for two years prior to failure in the table above, acid test shows HFB2's liquidity to be below 10% for five consecutive years running. The acid test, like the current ratio, measures the ability of a firm to meet its short-term obligations.

Furthermore, the company was insolvent. Its net worth (equity) in relation to its debt (X4) was consistently negative for three years. Therefore Net Worth/Total liability (X4) was very low. Table 3 shows that HFB2 construction's total assets decreased by more than half of total liabilities and therefore the ratio of assets to liabilities was 1:2 in 2010, and the company's performance clearly did not yield any profit three years prior to business failure (2007-2010).



Figure 4: Components of Z-score as applied to HFB2 Construction

Figure 4 shows that F3, component of X3 (EBIT/TA), determined the outcome of the Z-Score more than the other Z-Score variables. Therefore, when profits decreased, the Z-Score of HFB2 construction falls, and vice versa.

BH3 Construction

This 60-year-old house building company was set up in the 1950s. Prior to its demise, the company had experienced consistent growth in the UK through a series of strategic acquisitions and organic growth. The activities of the company and its subsidiaries comprised of private house building and social house building, working with a variety of registered social Landlords.

Cause of decline

An overwhelming amount of debt caused BH3 Construction to fail. The strategy to borrow more and to expand quickly had a severe detrimental impact on the group when the property market crashed. Its Cash flow was affected and it could not service its debt. Therefore, the company's ability to trade without substantial additional finance was limited. Consequently, the business had to fold. In other words, due to the fall in property values across the country, effectively reducing the value of the Banks' security, together with the significant overhead base of the business in a shrinking market, the business was no longer viable and additional cash to restructure the operation was not available. The Group Finance director said: *"The gearing level was too high. It didn't leave any margin for any kind of a down turn.... The only way the company was going to survive was if the banks wrote-off a significant proportion of their debt."*

Although BH3 construction enjoyed very good spells years prior to the recession, 2009 was not so good. The company had a Z-score of -7.17 falling into the red zone abruptly, from a very healthy Z-score of 4.40 (See Figure 5). This thesis have already discussed the cause of BH3's decline but the Z-score shows the extent of the decline.

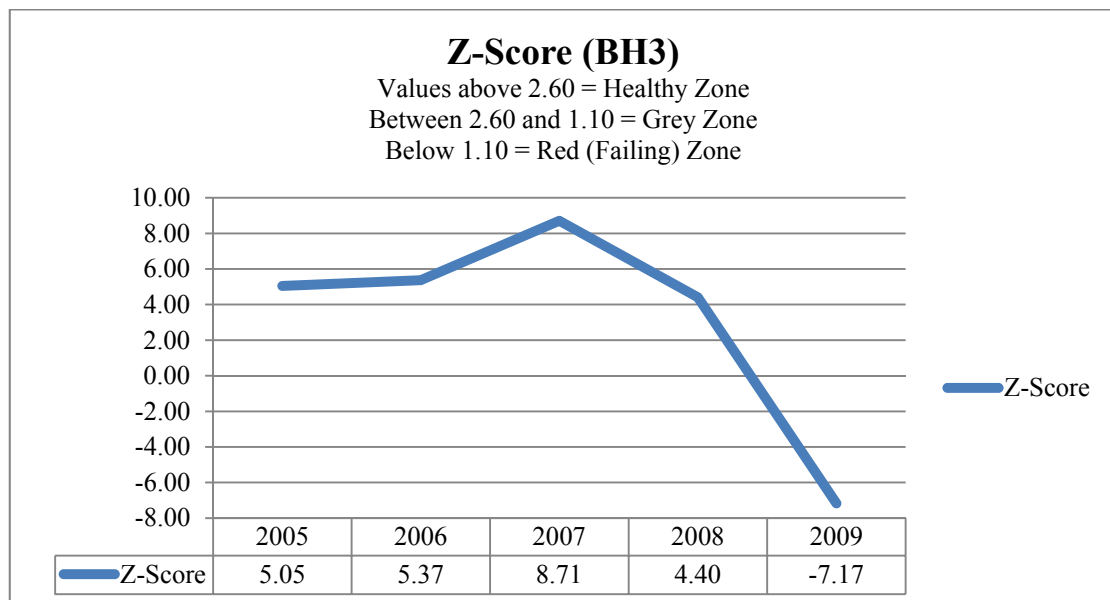


Figure 5: Z-score profile of BH3 Construction

Table 4: BH3 construction's Z-score variables two years prior to decline

	2009	2008
Financial variables	£m	£m

Turnover	8,157,641	14,455,184
Current assets	8,952,061	20,162,642
Total Assets	8,964,110	20,179,697
Current liabilities	6,117,332	8,436,001
Total Liabilities	6,117,332	8,436,001
Net Worth	2,846,778	11,743,696
Working Capital	2,834,729	11,726,641
Retained Earnings	-8,896,918	-1,895,455
EBIT	-8,670,214	-1,692,124
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	0	0
Current ratio	146	239
Liquidity/Acid test	1	114
% Of Cash/CL	0	0
% Of Debt/CL	64.9	47.5

	X1	X2	X3	X4	Z-Score
2009	0.316	-0.993	-0.967	0.465	-7.17
2008	0.581	-0.094	-0.084	1.392	4.40
Change (Δ)	-0.265	-0.899	-0.883	-0.927	-11.58

Table 4 above shows the following about BH3's performance in 2009

X1 – Working capital decreased by about £9m and change in operating working capital is positive, and 109% of turnover

X2 – Retained earnings is negative and further decreased by £7m

X3 – A loss of £8.7m was incurred

X4 – Net worth decreased by £9m

Turnover decreased by 44%

In Figure 5, the value of net liquid assets relative to the firm's total capitalization (X1) was quite good. Meaning the firm had enough current assets to run its day-to-day activities. In 2009, BH3 construction had a positive working capital. It would seem that the company had enough current assets to meet all current liabilities since even the current ratio places BH3 construction in a comfortable place, with a figure of 146, just about the recommended range given by Sears et al. 2015), Gruneberg (1997) and Cluogh et al. (2005). However, the acid test index of '1' does not put BH3 in the clear. Meaning the company had little or no cash and its current assets were heavily in stock. This is because, in hard times, there is the possibility that stocks may not be easily liquefied. And may be sold at a loss.

BH3's change in operating working capital was positive, indicating current liabilities growing more than current assets. Consequently, the company had a limited cash flow, operated solely on debt financing, and was completely at the mercy of the bank. BH3 construction, like CB1 and HFB2 also had negative retained earnings. Meaning, BH3 construction has had more retained losses over time than accumulated net income and therefore, had no funds to invest in growth or expansion, lacked profitability (reflecting the massive loss of £8.7m), had no safety net as it had no cash reserve, and had a dividend restriction (Kokemuller, 2015). Clearly, this is not a sign of a healthy company

Net Worth/Total liability (X4) shows that the company was solvent. However, the group Financial Director claimed that the company was heavily geared. Therefore, it must be a little confusing then that the table is showing '0' gearing levels for BH3 construction. The issue is easily resolved when we remember that BH3 construction is a subsidiary of a parent company. According to the group financial director, the group's borrowing was done from the parent company and distributed to the subsidiaries accordingly (a form of cross-collateralization). That is why the books of BH3 construction would show zero gearing level. However, because the parent company was heavily geared with levels of -125 and -528.6 in 2009 and 2008 respectively, BH3 construction unequivocally was heavily geared as well. When the research asked the group financial director to state the group's gearing level on a scale of 1-10, he said, "10" – *"It was far far far too high. It was 10. I mean it was too high... The banking facilities were in the name of the Group Holdings Company – the parent company. But there was a series of cross-collateralization, which basically meant that all companies were liable for all of the debt of the whole group. So you are right from what you said that on the face of it, the company was solvent and was able to survive. But effectively, there was a liability that wasn't on the balance sheet, which is the obligation to repay about £90m pounds of the debt to the banks."*

With a 44% decrease in turnover (sales), BH3 was not only shrinking in size, it was haemorrhaging money, registering huge losses in 2009. The company, although solvent (depending on liquidity of its stock), the company was not making any money and was incurring losses. All these affected the company's cash flow. With a bulk load of debt to pay, the parent company sank and took all its subsidiaries with it. The issue of cross-collateralization will be discuss in a later section.

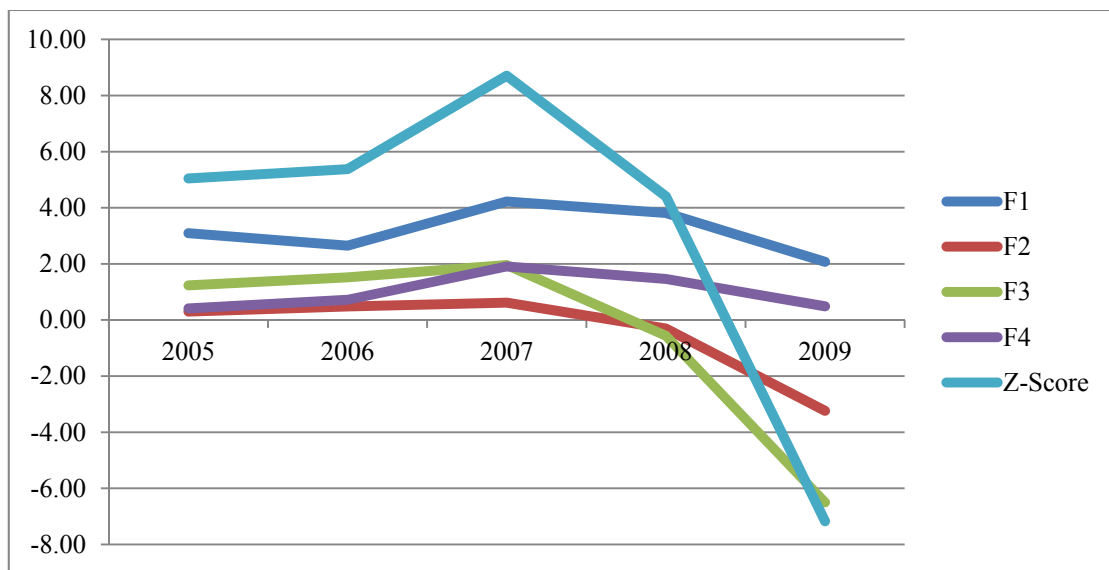


Figure 6: Components of Z-score as applied to BH3 Construction

Like CB1 and HFB2 construction, Figure 6 shows that BH3 construction also focused on maintaining a high profitability level F3 (X3 component). But here, F1 (X1 component) also was a determining factor on the Z-Score.

GCE and Co. Construction

This company has been in business for more than 50 years, and, a lot of its employees had been with the company since its inception. The company had enjoyed some good years in commercial building until it ran into cash flow issues at around 2005-2006. Prior to its bankruptcy, GCE and Co. employed about 89 people and had an annual turnover of about £11m.

Cause of decline

Due to cash flow problems and tighter competition, GCE and Co. was not able to survive, as it could not pay its bill. At the same time it was not able to cut down in size quickly to accommodate its shrunken workload. Some of the staff had been with the company for as long as the company was set up and a great bond and sentiment had been created. The company was not willing or able to lay some people off because of this. In retrospect, one of the former directors of GCE and Co. stated that in order for the company to survive, “*the ability to scale down is a fundamental thing*”. Since the company could not scale down, with its overhead being several millions pounds a year, and its turnover halved, the

company faced really difficult times ahead. He said, the company needed “*to be able to cut the size of the company to the size of the work that was available.*”

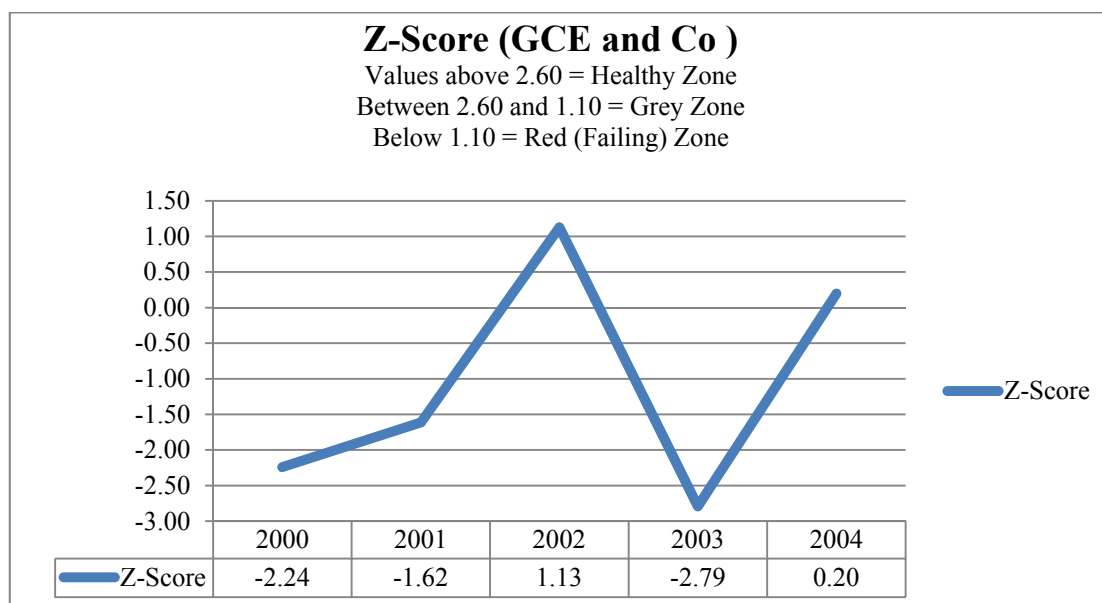


Figure 7: Z-score profile of GCE and Co. Construction

Table 5: GCE and Co. construction's Z-score variables two years prior to decline

	2004	2003
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	11,127,000	7,094,222
Current assets	3,104,000	1,352,264
Total Assets	3,245,000	2,436,019
Current liabilities	3,039,000	1,781,647
Total Liabilities	3,056,000	2,263,675
Net Worth	190,000	172,344
Working Capital	65,000	-429,383
Retained Earnings	18,000	-405,960
EBIT	-8,000	-425,125
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	103.2	279.7
Current ratio	102	76
Liquidity/Acid test	99	68
% Of Cash/CL	0.03	6.66
% Of Debt/CL	0.37	0.57

	X1	X2	X3	X4	Z-Score
2004	0.020	0.006	-0.002	0.062	0.20
2003	-0.176	-0.167	-0.175	0.076	-2.79

Change (Δ)	0.196	0.172	0.172	-0.014	2.99
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Table 5 above shows the following about GCE and Co.'s performance in 2004

X1 - Working capital increased by £429,448, and Change in Operating Working Capital was negative, and -7.12% of turnover

X2 - Retained earnings increased by £423,920

X3 - A loss of £8,000 was incurred

X4 – Net Worth increased by £17,656

Turnover increased by 57%

Table 5 above shows that GCE and Co. did very well to improve all the relevant variables the Z-score is interested in, hence the Z-score improved from -2.79 in 2003 to 0.20 in 2004. However, these improvements were still insufficient to get the company out of the red zone. According to Altman (1993), “*ordinarily, a firm experiencing consistent operating losses will have shrinking current assets in relation to total assets.*” GCE and Co.'s current assets (net liquid assets) were shrinking relative to its total assets due to consistent losses as reflected in the EBIT figures of 2003 and 2004.

But in 2004, Working Capital increased by a significant amount, which would imply that GCE and Co. had enough cash to meet its current financial obligations. But with regards to cash flow, the company had a negative Change in Working Capital, which indicated that current assets were increasing by more than current liabilities (Thomas, 2013). Looking at the balance sheet of GCE and Co., the company had too much cash in the hands of debtors. In other words, it was waiting too long for payments from trade debtors. As current asset increased, cash flow decreased. The implication of this is that if GCE and Co. could not generate additional cash to grow.

The company was also delaying payment to subcontractors and suppliers. In other words, since the company was not getting paid fast enough, in turn, it was withholding payment to subcontractors and suppliers to improve its cash flow position. Indicating a possible application of the ‘pay-when-paid’ strategy (Richardson, 2005). A negative change in working capital also shows that GCE and Co. was dependent on its subcontractors and suppliers. The problem with this strategy is that when it is done without consideration of

the supply chain, it breaks good relationships, which might have taken years to build. If all subcontractors withdraw their support, the company is in trouble. This strategy can also lead to the bankruptcy of some of the subcontractors or suppliers who are depending on their monthly or fortnightly cheques (Engstrom, 2014).

It is also evident that the gearing level was high; 50% over the recommended range for construction. Although, the company was solvent in 2004, as X4 improved, total liabilities were very near exceeding total assets. Clearly the company had too high a liability compared to its total assets. The liquidity tests (both current and acid tests) were also lower than the recommended range for construction, which is between 150 and 200 (Clough et al, 2005; Gruneberg, 1997). All these, contributed to the cash flow issues of GCE and Co. and ultimately lead to the failure of the business.

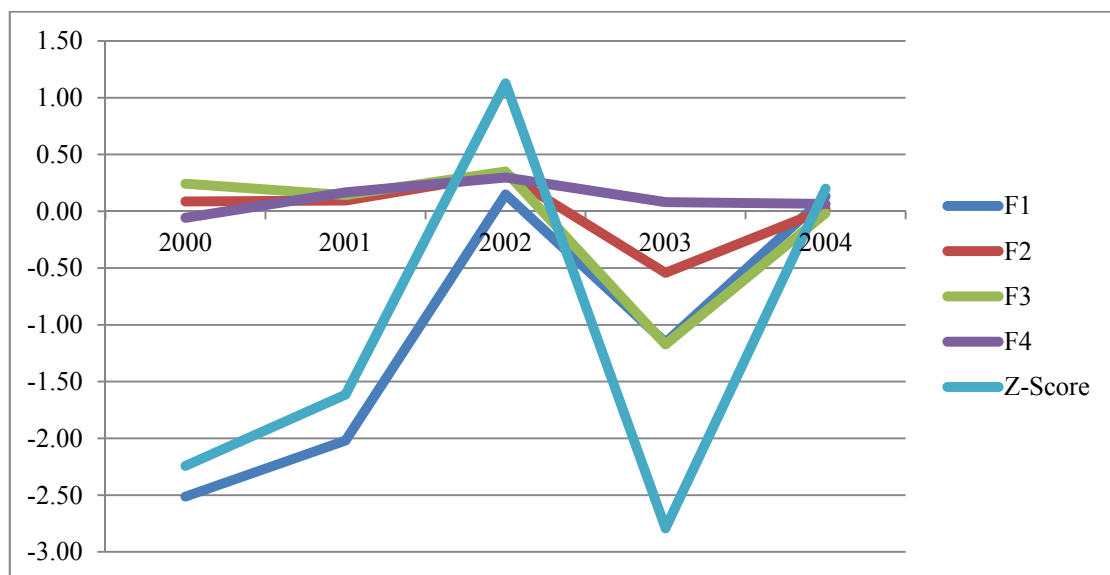


Figure 8: Components of Z-score as applied to GCE and Co. Construction

Figure 8 shows changes in F1 (X1 component) had the greatest influence the Z-score positively and negatively. It therefore meant that improving the working capital (liquidity) was pivotal to the health of GCE and Co. construction.

AWH5 construction

AWH5 had been in business for a little over 50 years, and specialized, almost exclusively, in high-end residential housing. Before the recession in 2007, AWH5 employed between 200 to 250 people and was turning over 60 to 80 million pounds annually.

Cause of decline

Similar to GCE and Co. construction, AWH5 faced issues of cash flow that eventually drove it out of business. With tighter competition and the banks refusing to lend money, AWH5 needed to source funds and quickly too. Private equity injection and three rounds of redundancies was not enough to save it. Therefore, the company ended up using much of its cash reserves on redundancies as against using the same on projects to generate cash flow. The recovery of AWH5 was made even unlikely due to damages to its reputation. Rumours of the company having cash flow issues spread amongst clients and made it difficult for the company to win work.

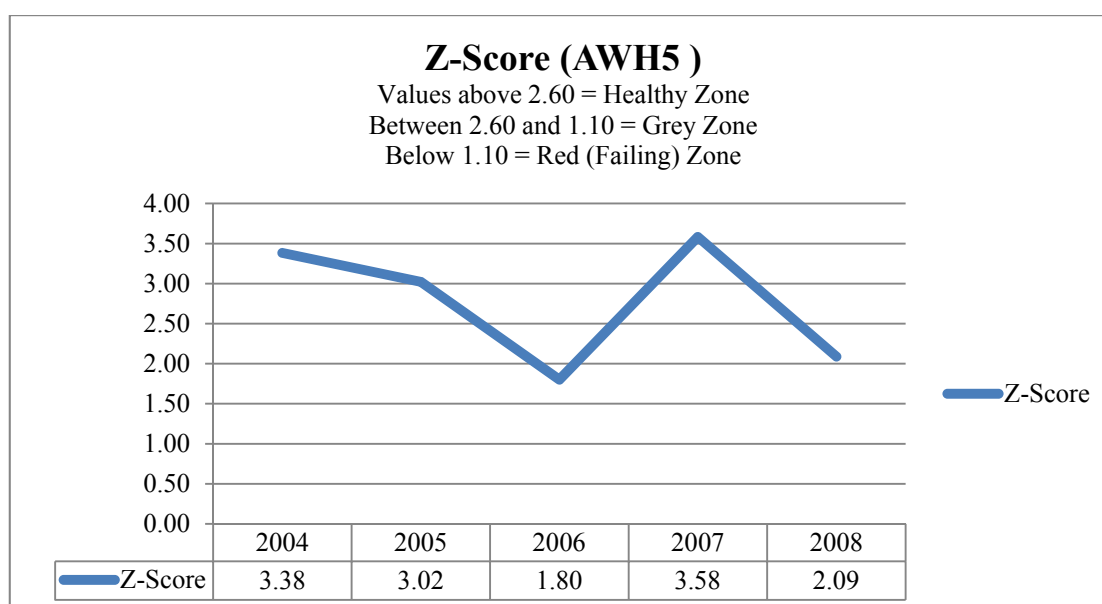


Figure 9: Z-score profile of AWH5 Construction

The director stated that the company did not have any unusual problems. Clearly in Figure 9, the company was in top shape with good Z-scores prior to 2009. Obviously the company could not handle the rough times of the recession going forward into 2009. 5 years prior to its demise, the company had registered strong healthy Z-scores. Compared to other construction companies at that time.

Table 6: AWH5 construction's Z-score variables two years prior to decline

	2008	2007
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>

Turnover	80,526,261	65,275,581
Current assets	27,967,687	22,407,564
Total Assets	31,744,313	25,471,088
Current liabilities	23,340,957	17,002,370
Total Liabilities	23,939,866	17,300,113
Net Worth	7,804,447	8,170,975
Working Capital	4,626,730	5,405,194
Retained Earnings	-377,722	3,576,741
EBIT	3,912,350	4,690,900
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	7.7	3.6
Current ratio	120	132
Liquidity/Acid test	119	132
% Of Cash/CL	19.9	33.4
% Of Debt/CL	4.29	0.75

	X1	X2	X3	X4	Z-Score
2008	0.146	-0.012	0.123	0.326	2.09
2007	0.212	0.140	0.184	0.472	3.58
Change (Δ)	-0.066	-0.152	-0.061	-0.146	-1.50

Table 6 above shows the following about AWH5's performance in 2008

X1 - Working capital decreased by £778,464, and Operating Change in Working Capital was negative, -1.41% of turnover

X2 - Retained earnings further decreased by £4m as a huge dividend was paid out

X3 – Profit of £3.9m was made but a 17% decrease compared to 2007, profit level.

X4 – Net Worth decreased by £366,528

Turnover increased by 23% but profits decreased by £778,550

In 2008, the firm's net liquid asset relative to its total capitalization (X1) was quite good and showed that the company had a good amount of working capital. Although the company made £3.9m profit in 2008, the negative change in working capital showed that there was a shortage in current assets were increasing more than current liabilities. This meant that the company had a poor collection policy i.e. it was too lenient with its trade debtors and was waiting too long for payments. At the same time, the company was delaying payment to its suppliers to improve cash flow. To continue growing, the company required additional cash.

In 2008, the company had negative retained earnings, indicating that losses were incurred and AWH5 would have problems growing the business in the future unless it had a huge cash reserve, which was the case.

AWH5 had very good gearing levels, given its gearing falls between the 1-50% (recommended level for construction) (Clough et al, 2005). Even though the firm's liquidity test fell outside the 150-200 recommended mark for construction, it was quite close with 120 and 132 in 2008 and 2007 respectively. It is also interesting to note that the current ratio and the acid test are almost identical, meaning, that the firm had little or no stock at all. It operated with very liquid assets, that is, just cash and receivables. This is a sign of a healthy company, but with cash flow issues and tight competition, AWH5's made a business decision not put money into a recovery.

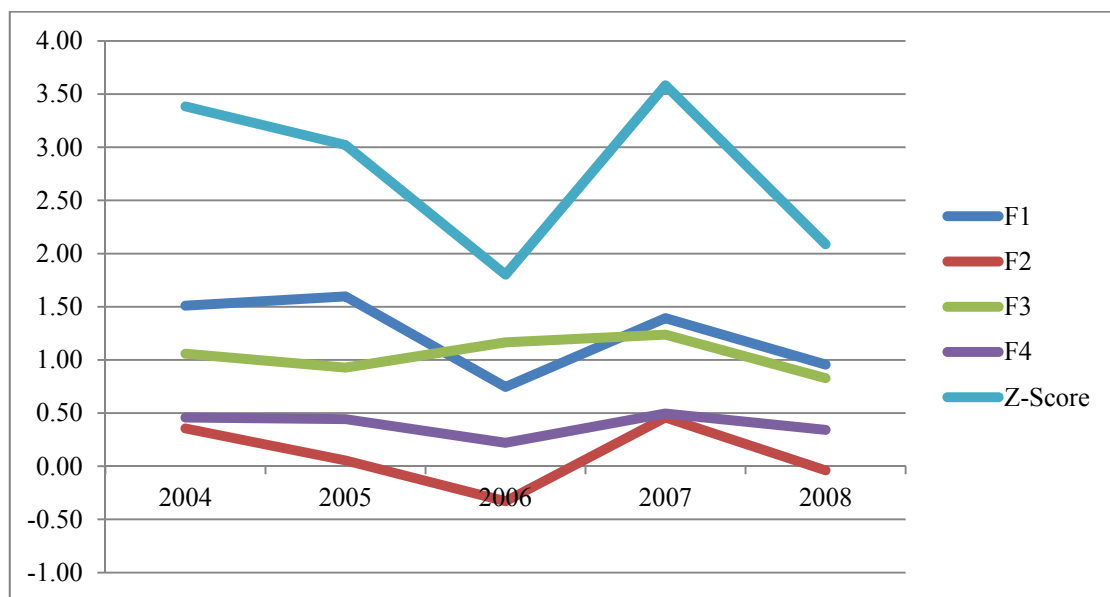


Figure 10: Components of Z-score as applied to AWH5 Construction

Figure 10 shows that AWH5 construction has actively improved its Z-score by influencing X1 component (WC/TA). When X1 increases, the Z-score improves and when X1 drops, the Z-score drops as well. It is almost uncanny that the Z-score mirrors F1.

EJ6 Construction

EJ6 Construction had been in the business for 46 years and operated in the Midlands. Its activities span across the construction of motorways, roads, railways, airfields and sports

facilities. Up until the company went into administration, it employed between 200-250 people and had a turnover of approximately £22 million.

Cause of decline

Cash flow problems and tighter competition in the market made it difficult for EJ6 construction to survive. As margins got thinner and competition got tighter and tighter, clients and main contractors whom EJ6 was a subcontractor to, became more commercially astute in terms of how they administered contracts, and therefore, held back money – creating more disputes. One main contractor was also procrastinating agreements so that it kept all the money and denied its EJ6 construction payment. Hence, the company could not meet its obligations anymore and so went into administration. It could not pay its subcontractor and suppliers as well.

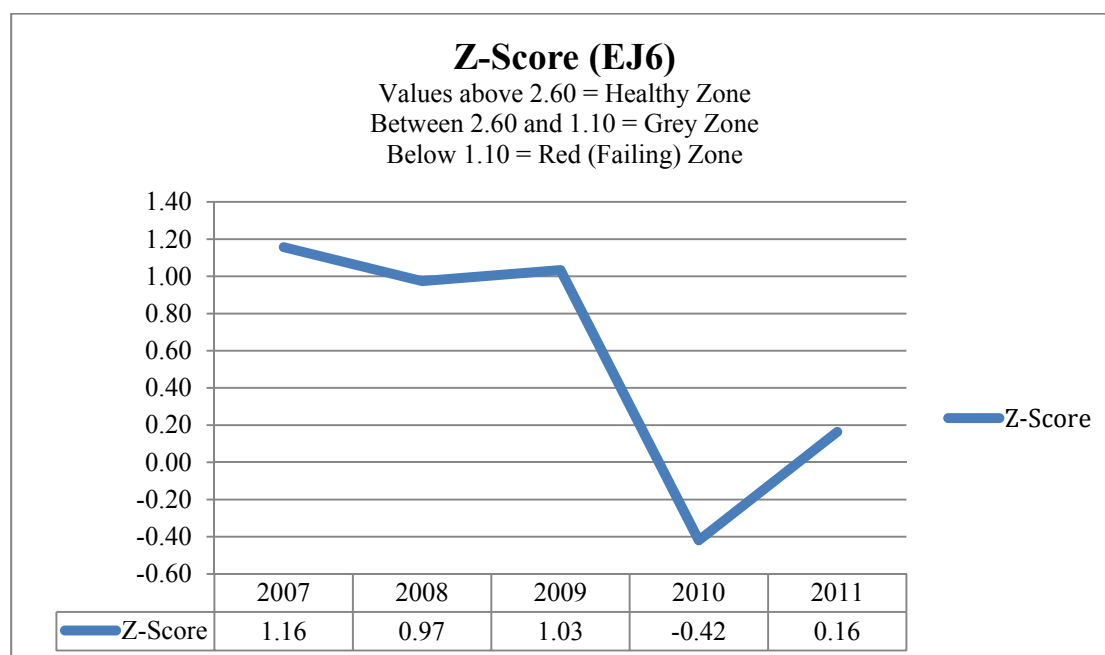


Figure 11: Z-score profile of EJ6 Construction

Figure 11 shows that EJ6 construction had started to feel the crux of the recession since the fourth quarter of 2007. In 2008, the Z-score had dropped into the red zone and continued to spiral down, with 2010 being its worst year with a -0.42 score.

Table 7: EJ6 construction's Z-score variables two years prior to decline

	2011	2010
--	------	------

<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	21,484,621	19,951,317
Current assets	7,934,430	7,044,450
Total Assets	12,017,503	11,705,531
Current liabilities	8,223,787	7,557,433
Total Liabilities	8,368,115	7,776,354
Net Worth	3,649,388	3,929,177
Working Capital	-289,357	-512,983
Retained Earnings	-279,789	-855,484
EBIT	-107,859	-739,453
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	67.4	65.3
Current ratio	96	93
Liquidity/Acid test	92	89
% Of Cash/CL	0	0
% Of Debt/CL	30.9	35.7

	X1	X2	X3	X4	Z-Score
2011	-0.024	-0.023	-0.009	0.436	0.16
2010	-0.044	-0.073	-0.063	0.505	-0.42
Change (Δ)	0.020	0.050	0.054	-0.069	0.58

Table 7 above shows the following about EJ6's performance in 2011.

X1 - Working capital was negative, and Change in Operating Working capital was negative, and -0.33% of turnover

X2 - Retained earnings was negative but increased by £575,695

X3 - A loss of £107,859 was incurred

X4 – Net Worth £279,789

Turnover increased by 7.7%

Table 7 shows that although turnover increased, the company consistently made losses and eroded whatever liquidity it might have had. The financial director explained that “*margins became a lot tighter than they previously were. So the margin per annum was a lot less. There was more competition for work so the prices weren't as high as they had been.*” Lower profit margins were not exclusive to EJ6 Construction. It is practically the same situation most contractors found themselves in during the 2007 recession.

X1 was very low for the year 2011 as the EJ6's current assets shrunk in relation to its total assets. EJ6 had a negative working capital, which is a normal occurrence in construction

since a contractor does not need to maintain a stock and is usually paid in advance in the form of mobilization advance payment (Palliyaguru et al, 2006) before placing any orders or making payments to suppliers; and, can invoice the clients for completed work before later settling suppliers and subcontractors (Thomas, 2013). The company also had a negative change in working capital indicating that current assets were increasing by more than current liabilities. EJ6 had too much cash in the hands of its customers with a huge account receivable.

Furthermore, the company also suffered heavy losses in 2010 and 2011, and the year before that. As a result, EJ6 construction had negative retained earnings for prolonged periods of time. This made X2 very low. This accumulated losses, and lack of profitability (X3) meant that the company had no funds to invest in growth or expansion. According to Kokemuller (2015), long periods of negative retained looks bad on a company's management team because it shows that they still haven't figured out how to improve profitability. Also, the gearing level of EJ6 construction shows that 67.4% of the company's capitalization is made up of debt in 2011. Meaning, its debt exceeded its equity. The company was not liquid either. Both current ratio and Acid test show low figures and no where close to the 150-200% recommendation for construction industry. In order words, EJ6 construction had little cash. In simple terms, EJ6 construction was insolvent in 2011 and the year before. The Z-score has correctly placed EJ6 Construction in the 'Red Zone'.

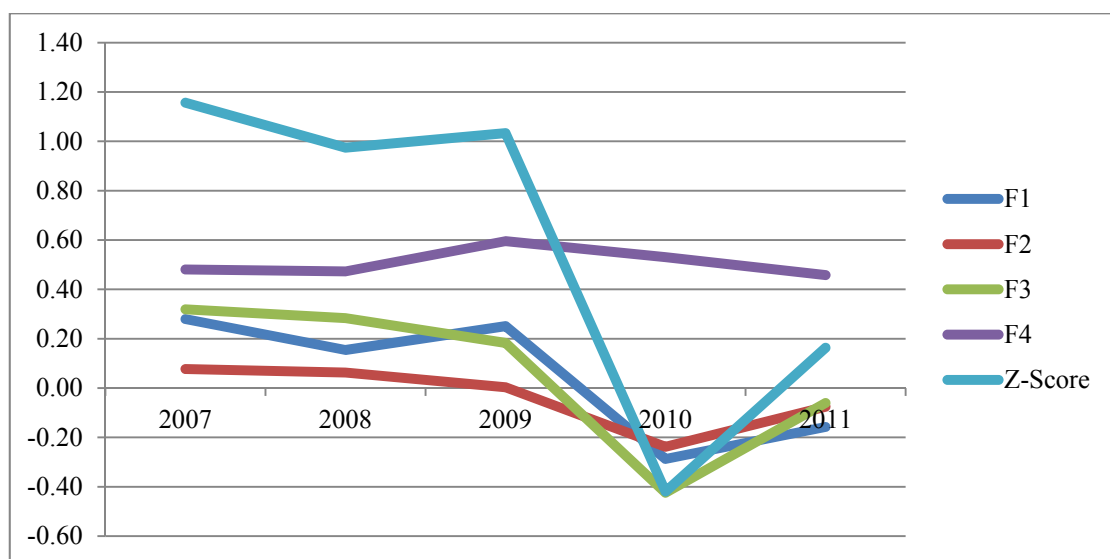


Figure 12: Components of Z-score as applied to EJ6 Construction

Figure 12 shows that although F4 (X4 coefficient) was high in the years before failure, the Z-score seems to mirror F1 (X1 component) and F3 (X3 component). Therefore liquidity and profitability were the most influential variables in EJ6 construction's Z-Score.

CDJ7 Construction

CDJ7 Construction was incorporated in 1966, and had built a reputation as one of the country's leading concrete contractors until its demise in 2010. It was a group of companies that were involved in civil engineering works and was run by one management team. It also had a fit out company. The group specialized in substructure, superstructure, and infrastructure works; fit out, plant hire, new-build & refurbishment residential, education and hotels.

Cause of decline

In 2006, the company was subject to a management buyout led by the then Owner and CEO of the company, this led to a change in management. The company owner stepped aside from the Chief Executive position and assumed the role of Chairman and someone else replaced him as CEO. When the recession hit, the group suffered a prolonged period of difficult trading which resulted in financial difficulties. In summary, CDJ7 construction had an avalanche of major internal issues that contributed to the failure of CDJ7 construction, ranging from leadership issues, below-cost bidding, loss of contracts, to overexpansion. The new leadership that took over after the Management Buyout in 2006 was later deemed incompetent in the area of business by the then Chairman.

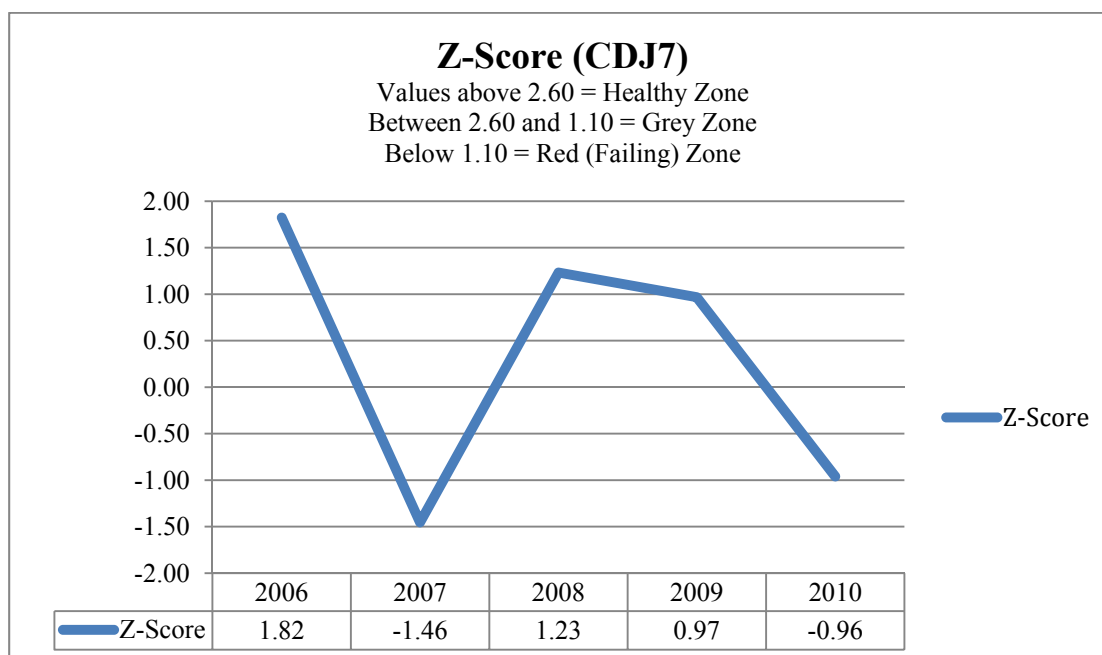


Figure 13: Z-score profile of CDJ7 Construction

From the Figure 13 above, it is evident that CDJ7 was in good shape before the management buyout in 2006 since the Z-score gives the company a 1.82 index in 2006. But the performance of the next year, 2007, shows us that the change in leadership did not yield good results. In fact the financial health of the company plummeted to -1.46 proving further that getting the right person(s) to succeed leadership was paramount to the future stability, health, profitability and growth of a company (Kotter, 1995).

Evidently, CDJ7 construction had been dipping in and out of the red zone since 2007. 2010 was the company's last financial report and it registered a -0.96 on the Altman's Z-score. This clearly tells us that the company was on the verge of bankruptcy.

Table 8: CDJ7 construction's Z-score variables two years prior to decline

	2010	2009
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	28,493,337	46,929,353
Current assets	15,318,535	16,006,146
Total Assets	16,536,394	17,401,904
Current liabilities	16,181,353	14,489,429
Total Liabilities	16,181,353	14,502,004
Net Worth	355,041	2,899,900
Working Capital	-862,818	1,516,717

Retained Earnings	-2,544,859	306,438
EBIT	-345,513	329,700
<i>Miscellaneous financials</i>	%	%
Gearing	512.3	32.3
Current ratio	95	110
Liquidity/Acid test	94	110
% Of Cash/CL	0.08	0.09
% Of Debt/CL	34.1	8.05

	X1	X2	X3	X4	Z-Score
2010	-0.052	-0.154	-0.021	0.022	-0.96
2009	0.087	0.018	0.019	0.200	0.97
Change (Δ)	-0.139	-0.172	-0.040	-0.178	-1.93

Table 8 above shows the following about CDJ7's performance in 2010

X1 - Working capital decreased by £2,379,535, and the Change in Operating Working Capital negative, and -6.93% of turnover

X2 - Retained earnings was negative and decreased by £2,851,297

X3 - A loss of £345,513 was incurred

X4 – Net Worth decreased by £2,544,859

Turnover decreased by 39.3%

Table 8 shows that CDJ7 construction had a shrinking net liquid asset base relative to total capitalization (X1) in 2010. This could indicate future financial troubles and cash flow problems for the company. The company was insolvent in the short-term since its current liabilities exceeded its current assets. In addition, the company had a negative working capital in 2010, which may not necessarily be a bad thing. In the situation where this strategy is used, negative working capital increases a company's cash flow and increases the immediate cash in the bank. However, the company is reminded of the 'turnover trap', which shows that the strategy only works if turnover continuous to increase (Thomas, 2013). However, in 2010, CDJ7 had a 39.3% fall in turnover and was left with a surplus of unfinished project that needed cash to progress. In other words, CDJ7 was left with "*many more payments to be made than receipts to be taken*" as liabilities grew (Engstrom, 2014).

Furthermore, the company had a negative Change in Working Capital, which indicated that current assets are increasing by more than current liabilities. Looking at CDJ7's financial books, the following was revealed: the company had too much of its cash in the hand of

customers with 99.9% of its current assets locked in trade debtor's account. CDJ7 was also delaying payment to subcontractors. The company also made huge losses, which exacerbated the cash flow problem. With major losses on projects, and with 100% of its cash in the hands of clients (trade debtors), CDJ7 construction could not pay its bills and could not service its short-term obligations.

The company's insolvency risk was greatly increased in 2010 as X4 significantly diminished compared to the previous year. However, the firm was not insolvent on the long-term since it had more total assets than total liabilities.

A huge dividend was paid out in 2010, which resulted in negative retained earnings and caused X2 to be negative as well. Here, the future of firm looked bleak. It will suffer from lack of growth and/profitability unless it gets substantial injection of new equity or borrowing. Prior to 2010, the company had maintained reasonable gearing levels, with its levels falling between 1 and 50% in 2009 (the recommended gearing levels for construction). However, in 2010, the gearing level shot up to 512.3%. Needless to say, the company could not survive as a going concern with this level of gearing. The current and acid test were not great either with 95 and 94 respective. These figures are way below the 150 to 200 recommended range for construction companies.

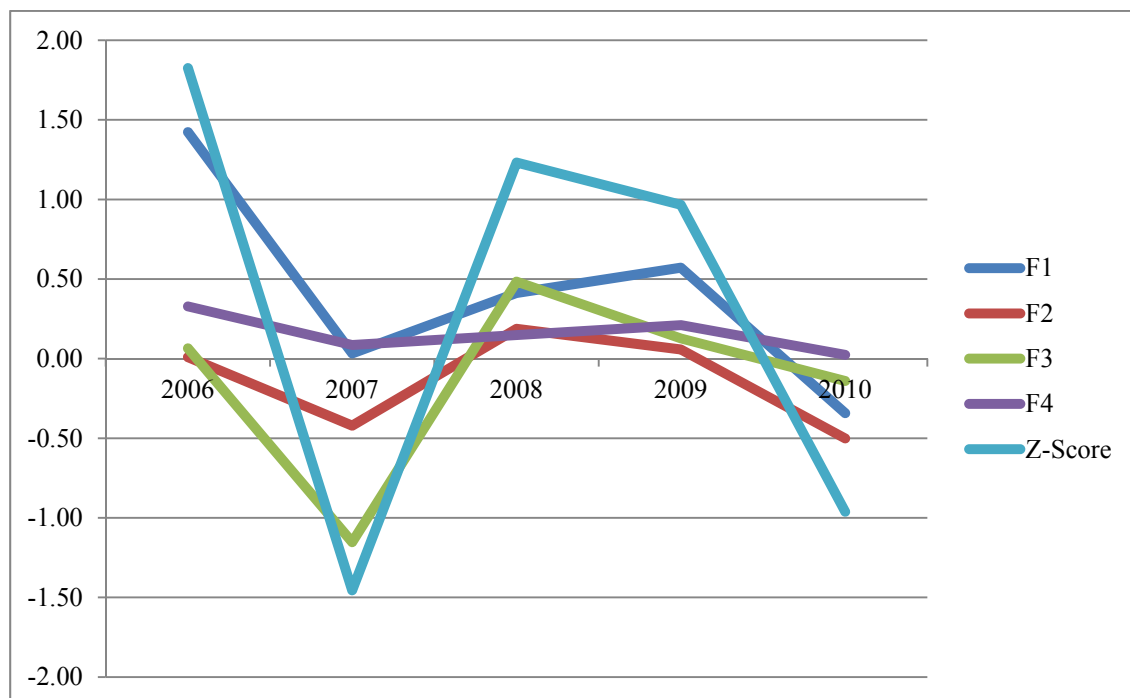


Figure 14: Components of Z-score as applied to CDJ7 Construction

In Figure 14 although X1 seems to have some effect on the Z-Score, X3 had the greatest effect on CDJ7's Z-score. It therefore meant that improving profitability and liquidity would bring the company out of the Red Zone.

SBW8 Construction

This company was established in 1955s until its demise in 2010. The company's activities span through repair, refurbishment, maintenance and new construction. The construction firm employed 247 staff, with contracts across the north west, and turning over £25m a year.

Cause of decline

SBW8 had a peculiar situation because at the time of its insolvency, the business was cash generative, it was profitable and it was still growing. The problem the company had was that of a bad debt. At the same time, the company's institutional investor was reluctant to support the company. Also, due to pressures in the market, the firm fell out of favor with its institutional investor. So, the problem was a combination of a bad debt, which resulted in working capital shortages, and an institutional investor who was not prepared to put more money into the business.

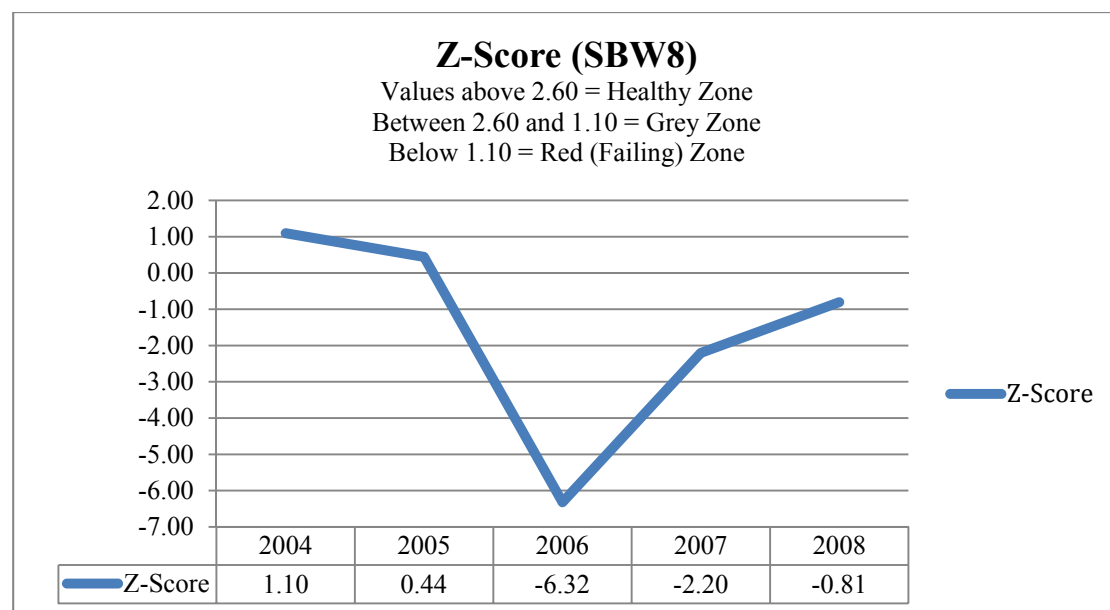


Figure 15: Z-score profile of SBW8 Construction

Figure 15 above clearly shows that SBW8 construction had been having financial troubles since 2005. It registered its lowest Z-score in 2006 but improved to -0.81 in 2008. Yet, its improvements were not enough to take it out of the red zone. And consequently, the rot was too deep for the company to make a recovery.

Table 9: SBW8 construction's Z-score variables two years prior to decline

	2008	2007
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	27,855,898	20,779,419
Current assets	6,675,711	4,912,786
Total Assets	8,759,550	6,664,702
Current liabilities	8,695,516	7,359,436
Total Liabilities	8,695,516	7,419,134
Net Worth	64,034	-754,432
Working Capital	-2,019,805	-2,446,650
Retained Earnings	818,466	185,262
EBIT	511,647	218,627
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	598.6	-86.1
Current ratio	77	67
Liquidity/Acid test	66	52
% Of Cash/CL	0	0
% Of Debt/CL	4.41	8.01

	X1	X2	X3	X4	Z-Score
2008	-0.231	0.093	0.058	0.007	-0.81
2007	-0.367	0.028	0.033	-0.102	-2.20
Change (Δ)	0.137	0.066	0.026	0.109	1.40

Table 9 above shows the following about SBW8's performance in 2008

X1 - Working capital was negative but increased by £426,845, and Change in Operating Working Capital was negative, and -0.79% of turnover

X2 - Retained earnings increased by £633,204

X3 - A profit of £511,647 was made

X4 – Net Worth increased from -754,432 to 64,034

Turnover increased by 34%

Negative working capital means that current liabilities exceed current assets, which may be an indication of future financial troubles. However, negative working capital is a normal

occurrence for contractors (Thomas, 2013). With increase in turnover, there is more available cash in the bank, which the contractor may choose to invest. Since SBW8's turnover increased by 34%, indeed this was the strategy of the company. Furthermore the company had a negative Change in Operating Working Capital in 2008. Which reflected an increase in current assets over liabilities, indicating too much cash tied in stock and trade debtors. The company was also keeping its subcontractors and supplier waiting. So with bad debt and no cash, no income and an increased liability, the company struggled to meet payments without additional investment.

SBW8 construction was also highly leveraged. The gearing level of 598.6 was simply too high for a SBW8 construction to bear without the support of the bank and the investors. So, as the company was hit with a bad debt and the financiers pulled out, the company became insolvent (in the short-term) and was left with a lot of payment to make. The total liability was almost equal to the total assets, which was pointing to bankruptcy. Ultimately, the company's cash flow had been cut short by the banks, to which the Financial Director stated that the number one factor to a successful recovery in construction is "Cash" – *"It's cash that kills you, it's not profitability. You can trade effectively with a continuing loss as long as you maintain the cash position."*

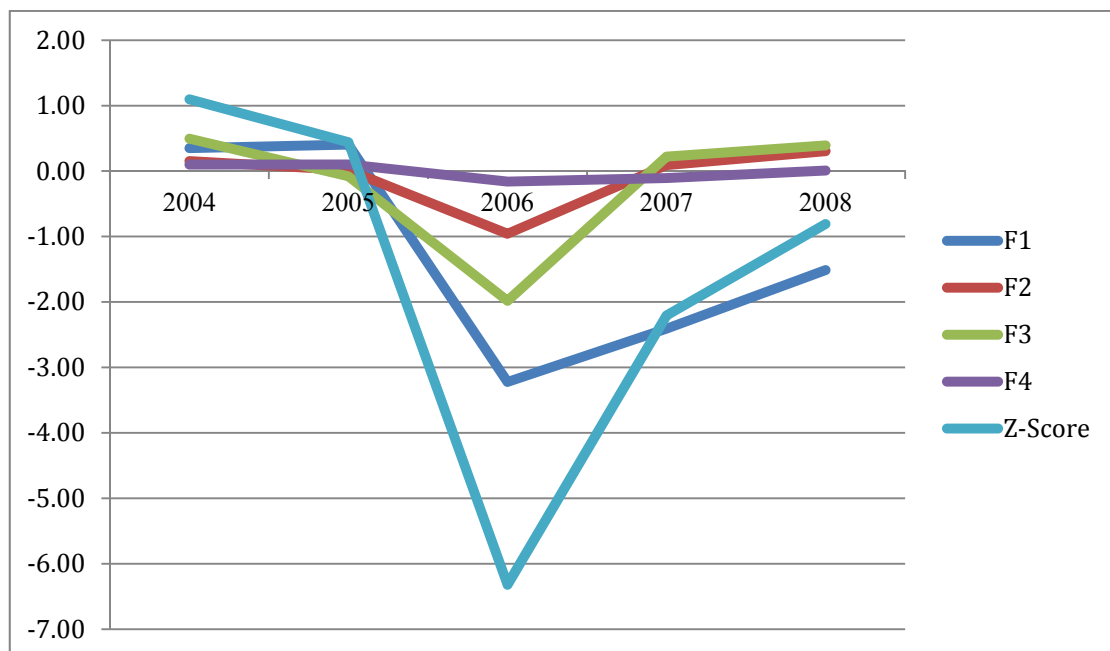


Figure 16: Components of Z-score as applied to SBW8 Construction

In Figure 16, X3 (EBIT/TA) and X1 (WC/TA) as well as F2 (RE/TA) respectively had the greatest effect on the Z-score. Therefore, in 2006, as profits, working capital, and retained earnings shrunk, the Z-score also dropped.

KUP1 Construction

This small company operates mainly in the building and civil engineering sector. It employs between 0-50, reported an annual turnover of £24.5 million in 2014 and is showing considerable improvements since 2014.

Cause of decline

Also, apart from KUP1's smallness, which perhaps also contributed to its decline, the tighter conditions of the economy made it even difficult for the company to recover. Here, the Owner and Director of KUP1 construction recalls the company's situation pre-recession:

“Our turnover pre-recession (2007) was ~ £22m and we were forecasting > £30m. Then our order book fell apart – clients either delayed or cancelled jobs over a period of 3 to 6 months – so that we finished 2008 with turnover of just £9m. After several years with annual turnover of ~ £12m we are now hitting approx. £25m per year and forecasting £40m for 2015-16.”

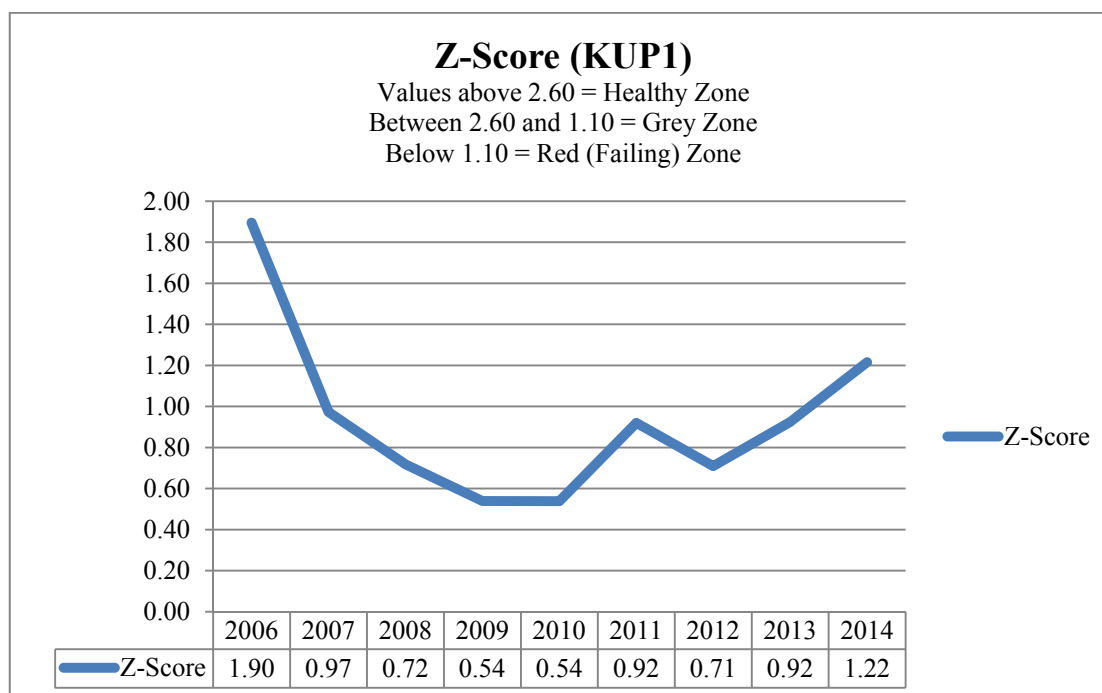


Figure 17: Z-score profile of KUP1 Construction

In Figure 17, KUP1 construction has consistently been in the ‘Failing Zone’ for seven years until 2014 but still on the lower echelon of the ‘Grey Zone’. In Figure 17 the chart line shows a continuous decline in company health from a Z-score of 1.90 (high Grey Zone) in 2006, to a Z-core of 0.54 (Red Zone) in 2009 and 2010. KUP1 did try to improve from 2011 onwards but was not able to get out of the ‘red zone’ until 2014. In 2013, the company had a Z-score of 0.92 and improved to 1.22 in 2014. The company is classified under unsuccessful recoveries because the company has not yet reported 2 – 3 consecutive years of improvements. Kotter (1996) states that, 2 – 3 years is good time to certify that the plans and actions taken during the turnaround were effective and sustainable. One year is simply not enough to say with any conviction that the turnaround plan has worked.

Table 10: KUP1 construction’s Z-score variables in the last two years

	2014	2013
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>
Turnover	24,497,247	25,641,999
Current assets	9,470,618	8,841,539
Total Assets	9,502,958	8,883,824
Current liabilities	8,579,891	8,103,818
Total Liabilities	8,985,281	8,578,868
Net Worth	517,677	304,956

Working Capital	890,727	737,721
Retained Earnings	212,746	48,093
EBIT	659,683	429,262
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>
Gearing	88	170.1
Current ratio	110	109
Liquidity/Acid test	100	97
% Of Cash/CL	19.8	14.6
% Of Debt/CL	0.63	0.54

	X1	X2	X3	X4	Z-Score
2014	0.094	0.022	0.069	0.058	1.22
2013	0.083	0.005	0.048	0.036	0.92
Change (Δ)	0.011	0.017	0.021	0.022	0.30

Table 10 above shows the following about KUP1's performance in 2014

X1 - Working capital increased by £153,006, and Change in operating working capital was positive, 1.41% of turnover

X2 - Retained earnings further increased by £164,653

X3 – Profit increased by £230,421

X4 - Net worth increased by £212,721

Turnover decreased by 4.5%

From Table 10, in 2009 KUP1 had consistently grown its working capital and turned in a profit each year. The Z-score also reflects these improvements over the same period, although, the company struggled to come out of the red zone. Over the last ten years, the company had maintained a positive cash flow, indicating healthy liquidity position for the company and also meant that its income (cash and account receivables) exceeded disbursement (Ross and Willaims, 2013).

Also, KUP1 construction had a positive change in working capital between 2013 and 2014, which meant that current liabilities increased by more than current assets. Looking KUP1's balance sheet, it was evident that the reason for the company's positive change in working capital was due to; increased accruals, and increased trade creditors' balance. Which meant that the company was delaying payments to its subcontractors and suppliers. The company was also being kept a considerable while for payment. However, the company was cash rich to supplement any cash flow issues. It had close to £2m of cash in the bank.

Although KUP1 construction consistently turned in a profit, its growth and expansion potential was limited since it had very low retained earnings relative to total capitalization (X2). This is not a very good sign of a healthy company. Also, the company's total liabilities were consistently growing to almost equal the size of the total assets. Therefore the Net Worth/Total liability (X4) was very low. X1 and X3 were the better performers but were still not strong enough, hence, the low Z-scores for KUP1 construction. The owner and director of KUP1 construction also confessed that the company could have done some things better to improve the standing of the company.

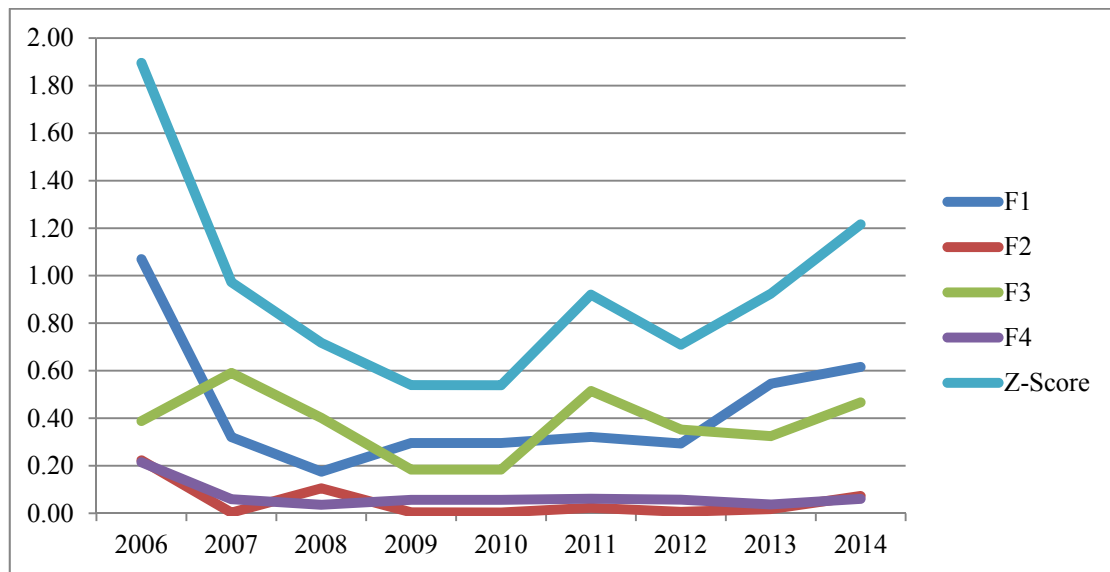


Figure 18: Components of Z-score as applied to KUP1 Construction

In Figure 18, the Z-score of KUP1 seems to be greatly influenced by F3 and F1, the components of X3 and X1– profitability and working capital, respectively, while F2 and F4 had little effect on the Z-Score. This indicates that if the firm actively increases working capital and profitability while reducing liabilities, the Z-Score will definitely improve.

MK2 Construction

MK2 construction is a house builder/contractor that operates majorly in the Midlands, and some parts of the Northwest. The firm specializes in new build homes. Prior to the recession, the company employed between 150-200 staff. In 2014, the company turned over £209 million and reported a 67% return on capital.

Cause of decline

MK2 construction was hit by the recession in 2009. The impact of the crunch resulted in the crippling of MK2's balance sheet, and performance started to fall. The Managing Director recalls the situation:

“During the credit crunch, clearly we were in economic melt-down both on a global and national level, and unfortunately through that period, we like other house-builder operations, had to shrink our operations to suit what the market gave us at the time.”

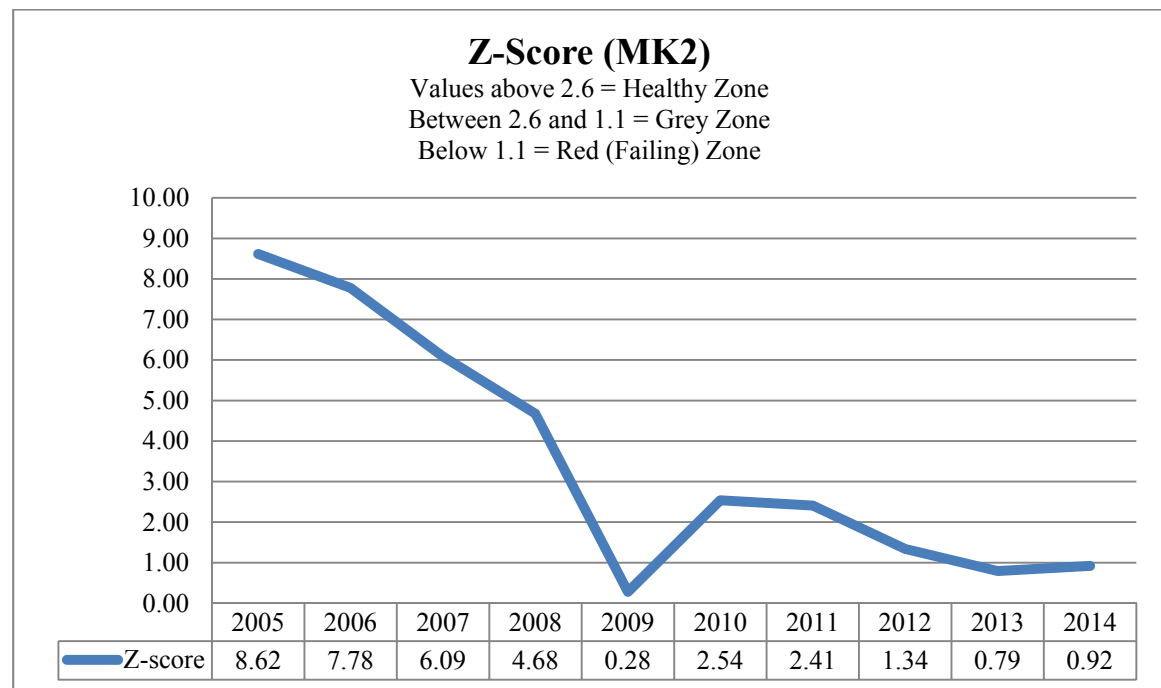


Figure 19: Z-score profile of MK2 Construction

From Figure 19 above, the Z-score of MK2 construction had been in steady decline since 2005. The company hit rock bottom in 2009 when the recession was at its worst. However, in 2010, the Z-score climbed out of the ‘Red Zone’ and almost climbed into the ‘Healthy Zone’ with a 2.54 but then started to decline again. By the end of the 2013, and 2014 accounting years, MK2 construction was back into the red zone with Z-scores of 0.79 and 0.92 respectively.

MK2 construction is not considered a successful turnaround because of the following reasons: its recovery from 2010 to 2012 was not sustained, and it is currently back in the ‘Red Zone’, therefore, trading as a high risk company.

Table 11: MK2 construction's Z-score variables a comparison of three periods

	2014	2010	2009
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	209,823,000	70,767,000	84,179,000
Current Assets	169,632,000	70,506,000	79,141,000
Total Assets	196,130,000	81,929,000	86,564,000
Current Liabilities	167,703,000	52,451,000	57,128,000
Total Liabilities	167,848,000	52,451,000	57,128,000
Net Worth	28,282,000	29,478,000	29,436,000
Working Capital	1,929,000	18,055,000	22,013,000
Retained Earnings	1,767,000	42,000	-15,564,000
EBIT	18,956,000	6,110,000	-17,298,000
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>	<i>%</i>
Gearing	0.5	95.9	122.7
Current ratio	101	134	138.9
Liquidity/Acid test	58	82	10.8
% Of Cash/CL	12.8	0.01	0
% Of Debt/CL	41.5	57.2	64.7

	X1	X2	X3	X4	Z-Score
2010	1.45	0.00	0.50	0.59	2.54
2009	1.67	-0.59	-1.34	0.54	0.28
Change (Δ)	-0.223	0.588	1.844	0.049	2.26

From Table 11 above, it is obvious that 2009 was a disastrous year for MK2 construction. Massive losses in that year resulted in an accumulated deficit of more than £15m – showing that accumulated net losses outweigh net earnings for the year 2009. Very low X2 also showed that there was little or no investment on growth and expansion. This is not the sign of a healthy company for anyone looking from the outside because it shows a lack of profitability, limitation of future growth, lack of safety net and a restricted dividend pay-out to owners or shareholders. Obviously, 2009 was not a very good year for MK2 and that's why the Z-score placed the company in the 'Red Zone'. On the other hand, 2010 was a different year for MK@ construction. There was great improvement

Table 11 above shows the following about MK2's performance in 2010.

X1 – Working Capital decreased by 18% in 2010; and the Change in Operating Working Capital is positive, 15.5% of turnover

X2 – Retained earnings increased by £15,606,000

X3 – A profit of £6,110,000 was made

X4 – Net worth increased slightly by £42,000

- Turnover decreased by 16%
- Total Assets decreased by £4,635,000

In 2010, MK2 construction had a positive Change in Working Capital, which meant that current liabilities were increasing by more than current assets. MK2 sold off a lot of its stock to add to cash flow. This is evident in the decrease in Total Assets by over £4.6m that year alone. So by decreasing its assets and increasing trade creditors account, its current liabilities went up, and so did cash flow. MK2 construction made good profits and held some of it back as X3 and X2 improved. This is a sign of a healthy company especially in the construction industry.

However, the company did not maintain the same level performance as it did in the previous years. Between 2010 and 2014 WC decreased further by 89%. In 2014 the percentage of WC to TA was 1% as compared to 16% and 22% in 2011 and 2010 respectively. 1% net liquid assets relative to total capitalization (X1), is not a sign of a healthy company. This contributed to the decline Z-score in 2014.

In addition, between 2012 and 2013, when the Z-score went down from 1.34 to 0.79, the company had a negative Change in Working Capital, and -23.2% of turnover. Which meant that operating current assets were increasing by more than current liabilities, and therefore decrease in cash flow. The company's turnover decreased and stock levels increased indicating increased outgoings and investment in growth.

Due to its merger, the firm's liabilities soared disproportionately to its Net Worth, and so, the risk of short-term insolvency (X4). The 'Gearing' level of the company in 2010 was rather high, with 95.9 - almost 100% geared. This meant that the firm's equity (Shareholders fund) was negligible and the firm was operating more on borrowed funds. However, as the years went by, MK2 construction meticulously deleveraged itself, reporting a 'Gearing' of 0.5 in 2014 and operating within the recommended 0-50% range for construction (Clough et al, 2005). The deleveraging activities was in the form of paying off its long term debt and overdraft to the bank and bringing on board a private equity firm who raised short-term finance for the firm to trade.

Although the Z-score puts MK2 construction in the red zone for 2014, the company is cash rich and has a healthy cash flow largely due to its deferred income balance (£61m), cash in the bank (£21m), and other short-term finance (£70m). Therefore, MK2 can continue to trade with no problems since “it is cash that kills you”, or rather, the lack thereof. However, with current liabilities almost equalling current assets, any financial loss of significance can cause the company problems in cash flow.

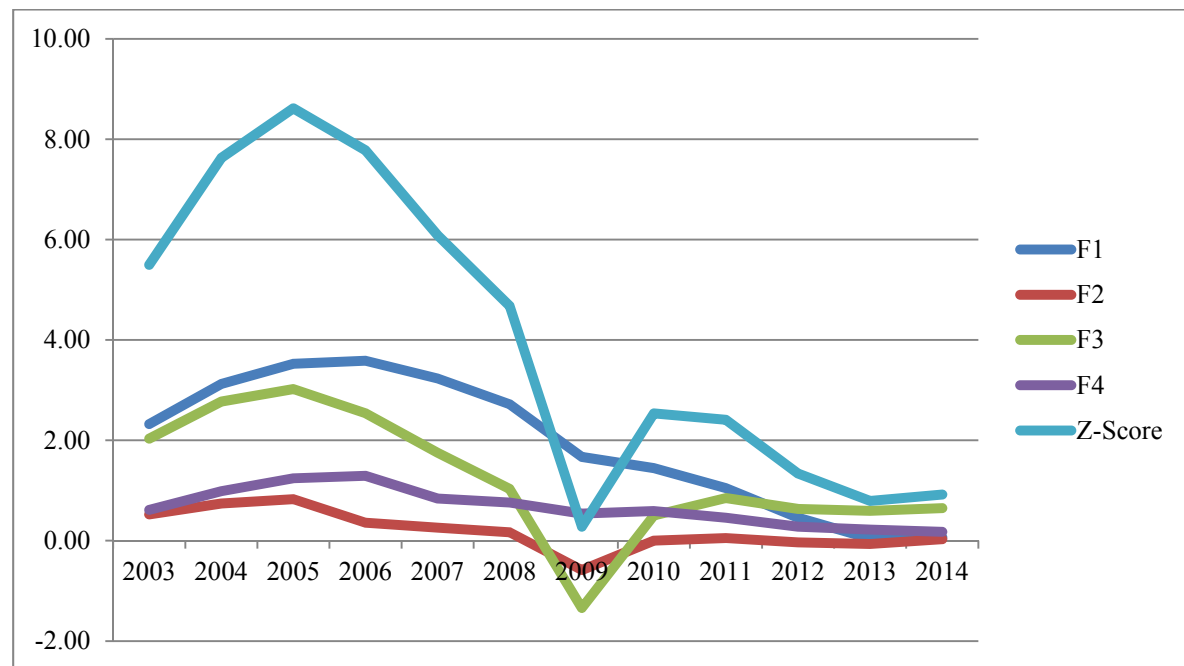


Figure 20: Components of Z-score as applied to MK2 Construction

Figure 20 shows that the component ratios F3, and F1 have the biggest effect on MK2’s Z-score.

The thesis is starting to recognise a trend here. F1 and F3 (Working Capital, and the earning potential of a firm’s asset – EBIT) seem to determine whether a company gets a high or a low Z-score. But one thing MK2 construction did in 2010 to improve the Z-score was to reduce Total Assets (TA), while improving the other variables. That is why the Z-score shut up to 2.54 in that year. TA is the denominator of three out of the four Z-score variables (X1, X2, and X3). Therefore, reducing the denominators (TA) while improving the numerators (WC, RE, and EBIT) will improve the Z-Score. Unfortunately the opposite happened for MK2 in 2014. As turnover tripled, TA and TL increased, but there was not a

proportionate increase in WC, EBIT, and RE. The firm is growing too fast, too quickly without the added benefit of increased profit and accumulated earnings (Retained earnings).

LD3 Construction

This is a family owned company that has been in operation since the 1920s. Its main activities are in building and civil engineering. The company employs between 0-50 staff and has an annual turnover between £7-10 million. The company is a subcontractor that works for the major main contractors of the industry today, the likes of Balfour Beatty and Bouygues.

Cause of decline

With LD3 Construction, there were two major reasons for its decline. First, LD3 was somewhat over-reliant on local authority work, and so when the austerity measures were effected by the government and government budget for infrastructure and development was cut. This left local authorities with no money to for new projects. Therefore, LD3 construction struggled and had to start looking at other avenues for work. Second, LD3 made contractual mistakes, which lead to massive losses. The group financial director stated that 2010-2011 was a disastrous year for LD3 Construction. LD3 tendered for a job at about £1.5m but it cost the company £3.5m to do. So the firm lost £2m on the job.

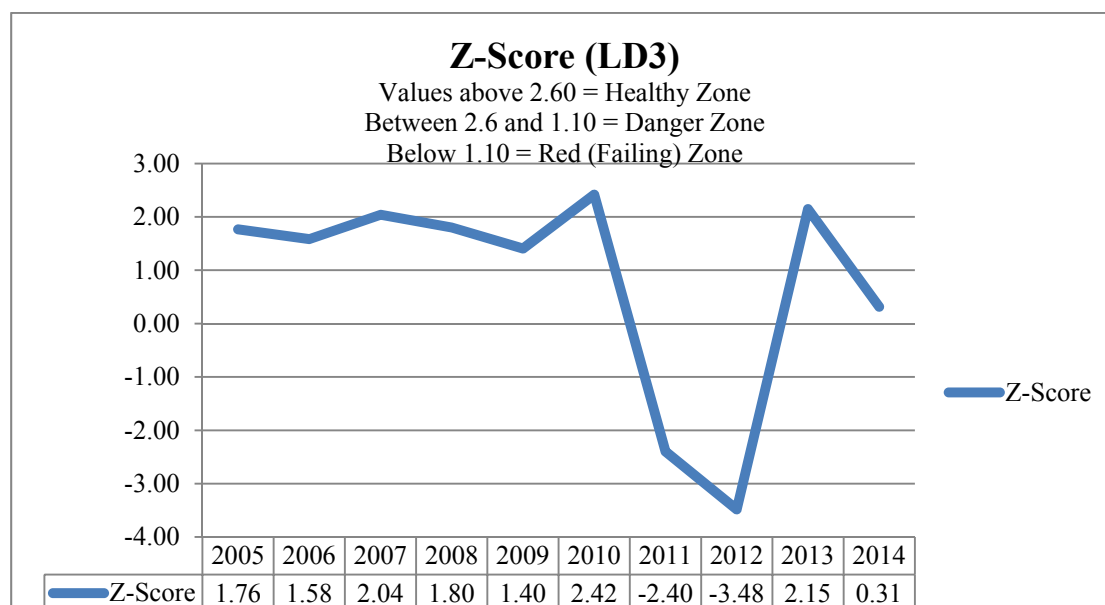


Figure 21: Z-score Profile of LD3 Construction

The Z-score profile shows the losses incurred in 2010, taking its full toll on the company in 2011 and 2012 with Z-scores of -2.40 and -3.48 respectively. However, LD3 was able to make a recovery out of the ‘Red Zone’ in 2013 with a high ‘Grey Zone’ index of 2.15. Unfortunately, the company was not able to sustain its recovery as it dropped back into the ‘Red Zone’ in 2014.

Table 12: LD3 construction’s Z-score variables a comparison of three periods

	2014	2013	2012
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	7,652,573	10,664,217	7,764,423
Current assets	1,658,253	1,889,778	1,623,716
Total Assets	1,792,923	1,903,744	1,648,947
Current liabilities	1,662,476	1,870,911	1,941,147
Total Liabilities	1,717,430	1,870,911	1,942,630
Net Worth	75,493	32,833	-293,683
Working Capital	-4,223	18,867	-317,431
Retained Earnings	42,660	326,516	-342,121
EBIT	54,569	426,428	-339,589
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>	<i>%</i>
Gearing	117.2	0	-163.6
Current ratio	100	101	84
Liquidity/Acid test	99	101	83
% Of Cash/CL	0	3.41	0
% Of Debt/CL	24.2	5.7	29.1

	X1	X2	X3	X4	Z-Score
2013	0.07	0.56	1.51	0.02	2.15
2012	-1.26	-0.68	-1.38	-0.16	-3.48
Change (Δ)	1.328	1.236	2.889	0.177	5.63

From Table 12, LD3 Construction had a massive decline in 2012, with a Z-score of -3.48. Working capital (X1), retained earnings (X2), profitability (X3), and net worth (X4) were all negative in 2012. The negative gearing of the company in 2012 also tell us that the company was heavily geared and was not even making enough money to cover its day-to-day expenses. Negative gearing may be common with development firms, but LD3 is a contracting firm, which indicates that this is a financial issue and not a business model issue. The company was also insolvent both in the short and long-term as its liabilities exceeded its assets. However, the company continued to trade in that year because it had a steady cash flow, even though its ‘Trade debtors’ balance made up 98% of its current assets. Which meant that the company was waiting too long to be paid. The company’s cash flow

came mainly from its large 'Trade Creditors' balance. Now, because the company was not getting paid, in return, LD3 was delaying payment to its subcontractors and suppliers as well, showing a possible over-dependence on the supply-chain. When the research asked the Director how the company increased working capital, he said:

"Very difficult. It was very difficult. We've been with NatWest bank for the previous years, and when we were struggling, they weren't very helpful. We were working from hand to mouth. We were differing paying creditors, or delaying paying creditors; we were giving discounts from our receivables, and basically managing our working capital from hand to mouth."

This delay in payment is evidence of the 'pay-when-paid' policy prevalent in industry. As main contractors squeeze their supply chain, they in turn squeeze their own supply chain and the ripple effect goes on. In effect, those companies that are not strong enough to weather the storm go out of business, especially the small contractors. The Financial Director of the company spoke on the issue of non-payment and the role main contractors play in perpetuating the problem.

"We're finding that the bigger contractors... have been particularly aggressive in their pricing to the end use client, and they've tried to recover a lot of that by squeezing the subcontractors, the likes of us. We are currently in dispute with valuations and payments terms, to the tune of somewhere like £1.5m... I'm not saying it's something illegal. I just think it's a tactic that they use to prevent having to pay their subcontractors. Squeeze the subcontractor to make a better margin for themselves because they probably tendered that job at very tight margins anyway."

However, things got better in 2013 with an improved Z-score. Table 12 above shows the following about LD3's performance in 2013

- X1 – Working capital increased by £336,298 from that of the previous year, but Change in Operating Working Capital was positive, and 1.74% of turnover
- X2 – Retained earnings increased by £668,637
- X3 – A profit of 426,428 was made
- X4 – Net worth increased by £326,516, and

Turnover increased by 37.4%

These positive changes meant that the Z-score improved dramatically. The positive Change in Working capital means that current liabilities are increasing faster than current assets. Which meant that because of the company's increased turnover, it had more immediate cash in the bank through deferred income, which increased its cash flow. The financial books show that the company's deferred income made up 58% of the company's current liabilities in 2013. Which, meant that LD3 had more immediate cash in the bank and had a healthy cash flow. LD3 construction was also delaying payments to subcontractors and suppliers, to increase its cash flow. The company was also kept waiting for payments given trade debtor's balance made up 93% of the company's current assets.

LD3 needed to be judicious in spending that cash otherwise it could be caught in the 'turnover trap' (Engstrom, 2014). But of course, the table above shows that that is exactly what happened. In 2014, the company had a negative Change in operating working capital, a -4.39% of turnover, which indicated that current assets were increasing by more than current assets. As turnover dropped in 2014, the company's deferred income dropped to 23% of current liabilities. 99% of the company's current assets were tied up in the hands of debtors and the company was paying its subcontractors and suppliers rather quickly. Which meant that LD3 had a shortfall in operating cash flow. Hence a contributing factor to the bad year, 2014 and the decline in Z-Score from 2.15 to 0.31. It also means that for the company to keep growing, it would require additional cash to do so.

Additionally, the company had no long-term debt in 2013. As a result, the gearing level was zero. This was quite good because the gearing level was within the recommended range of 0-50% for construction (Clough et al, 2005). This improvement was quite remarkable because the previous year (2012), the company had no shareholder equity, and was highly leveraged, The company returned to being highly leveraged again in 2014 with a gearing of 117.2.

The financial director of LD3 admitted to poor performance. Stating that the company's decline had little to do with the recession. It was majorly a result of its performance on contract during those times rather than the effect of the recession that caused its decline.

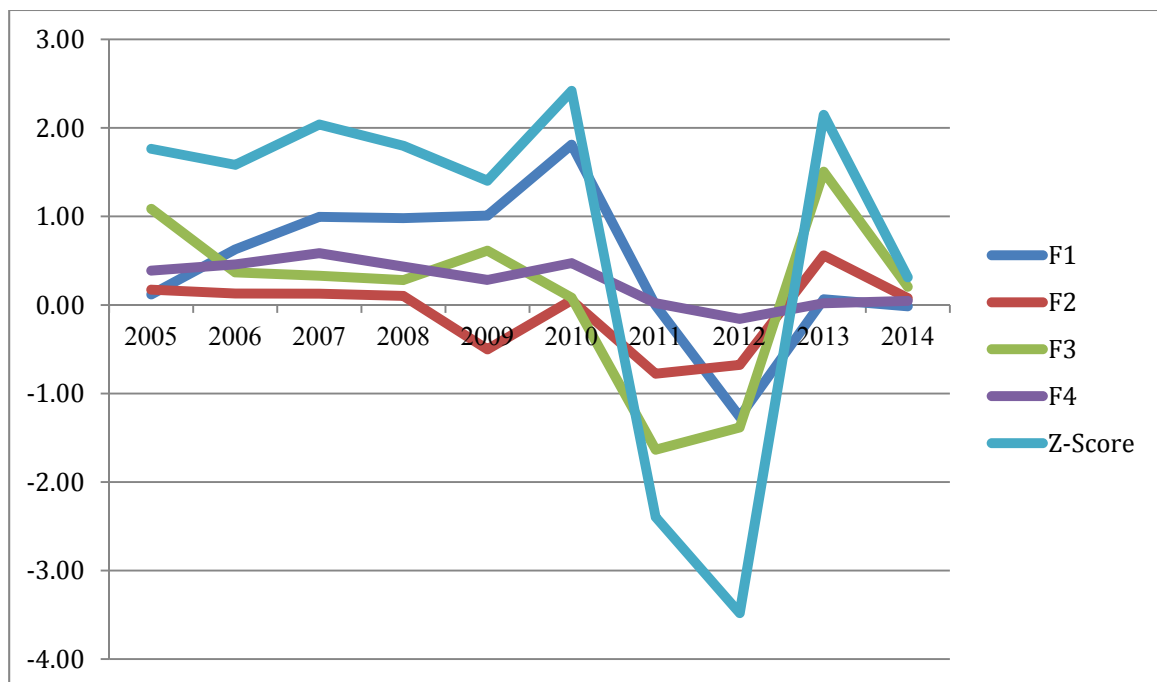


Figure 22: Components of Z-score as applied to LD3 Construction

Again, Figure 22 shows that X3 and X1 seem to determine the Z-score with F2 and F4 having little effect on the Z-score. From the figure, the Z-score seems to mirror F1 and F3 in part. This therefore means that, as LD3 construction works to improve its Working Capital and Profitability, while maintaining a good level of Total Assets, the company can continue to enjoy a healthy financial standing and of course high Z-score indexes.

MLC4 Construction

This is a small family business run by a father and his two sons. The company was started in 1973 with an investment to buy site machines. The company was built up to a substantial size towards the end of its life, turning over 7-8 million pounds in a year.

Cause of decline

MLC4 construction was dissolved in 2014. It was one event that caused the failure of the MLC4 – bad debt. The company had spent a lot of its working capital and relied on cash flow from the next valuation to make up for the deficit. And when the first valuation came in, *the amount that was paid, was nowhere near the total value of work done*. As a result, discussions were had as to whether the client was capable of paying. In the long run, it turned out that the client was not. So the company had to take a big hit.

Another contributing factor to the demise of the company was rumor going around, that the company was in trouble and was struggling financially. So, that meant that other clients were cautious and withheld their payments. The clients didn't want to pay incase the company was going to fail. It therefore meant that the money that was due and which would have kept the company afloat did not come. That put the company in a difficult situation and literally signed the death certificate for the company.

The research could not find the financial information of MLC4 construction because those records were not on company house database since MLC4 last filed its account in 1996. Therefore, the thesis will move on to discuss the recovery plan adopted by MLC4 construction.

Successful Turnaround Companies

Introduction

The last section discussed the unsuccessful turnaround companies under the study. This Chapter on the other hand, introduces the successful turnaround companies under the study, their financial information as well as their respective company histories, background, main activities, cause of decline and Z-score profiles. The first purpose for generating company Z-score profiles was necessary to identifying the successful turnaround companies. Successful turnaround companies will generally show: a decline point (inside the red zone or close), a transition point, and a recovery point (out of the red zone and into the grey zone or healthy zone). The second purpose was to identify the obvious areas of concern during decline and to investigate, during the interview, how each management dealt with the issues of their company's financial health. The areas of concern could be any or a combination of the financial variables, liquidity, leverage, profitability, and solvency.

Company profiles

As in Chapter 4, the names of the companies have been changed and the names of respondents withheld (coded) for anonymity and confidentiality sake.

Table 13: Successful turnaround companies

	Company Codes	Role of Respondent	Years with Company	Cause of decline	Age	No. of Employees	Company status
Successful Turnaround Companies	BT1 Construction	Contracts Director	8 years	Tighter competition	83	107	Active
	TG2 Construction	Company Secretary	25 years	Over reliance on one sector	24	137	Active
	CM3 Construction	Operations Director		Tighter competition	14	200-250	Active
	GP4 Construction	Chairman and Managing Director	8 years	Management transition leading to lack of managerial control	94	19	Active
	CV5 Construction	Operations Director	9 years	Tighter competition	38	150	Active
	CG6 Construction	Director Estimator	16 years	Tighter competition	93	70	Active
	CF7 Construction	Managing Director	20 years	Bad Debt, delays in payment and Over reliance on one sector	71	0-50	Active
	CI8 Construction	Company Accountant	10 years	Over reliance on one sector – Local authority work.	55	0-50	Active
		Director	26 years	Tighter competition			
	TW9 Construction	Accountant	7 years	Tighter competition	97	0-50	Active
		Financial Director	24 years				

BT1 Construction

BT1 construction is a building and civil engineering company operating in the Northwest. The business currently employs between 100 to 199 individuals and reports an average yearly turnover of £15-20m. Difficult conditions and tighter competition in the construction market caused the decline of the firm. Due to tighter competition in the market, BT1 construction, like many other construction companies at the time, suffered a decline.

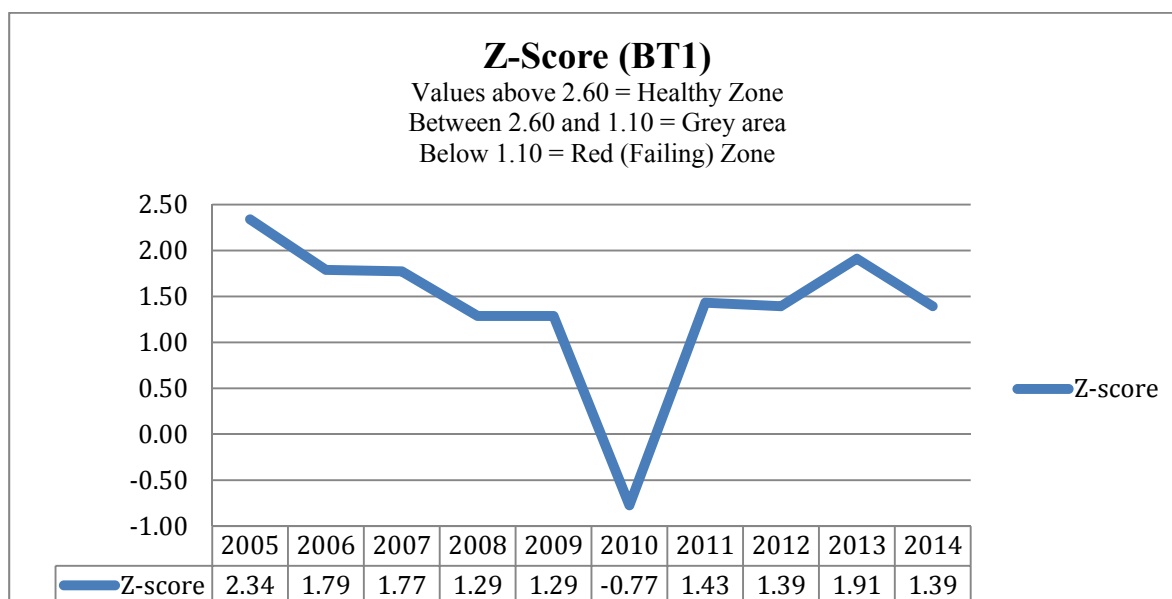


Figure 23: Z-score profile of BT1 construction

Figure 23 shows that BT1 construction enjoyed relatively good financial health prior to the recession but had been on the decline since 2005. The firm hit rock bottom in 2010 with a Z-score of -0.77. However, the firm recovered (out of the 'Red Zone' into the 'Grey Zone') the very next year. The firm is a successful turnaround because it has sustained its fragile health through the recession and is still in a good place in the grey zone.

Table 14: BT1 construction's Z-score variables: A comparison of turnaround and Decline years

	<i>Turnaround</i>		<i>Decline</i>	
	2014	2011	2010	2009
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	12,443,000	18,397,000	15,558,000	19,334,000
Current assets	4,117,000	7,954,000	5,812,000	6,761,000
Total Assets	4,964,000	8,148,000	5,925,000	6,916,000
Current liabilities	3,744,000	7,037,000	5,207,000	5,459,000
Total Liabilities	3,773,000	7,100,000	5,211,000	5,479,000
Net Worth	1,191,000	1,048,000	714,000	1,437,000
Working Capital	373,000	917,000	605,000	1,302,000
Retained Earnings	-15,000	334,000	-1,523,000	-250,000
EBIT	427,000	490,000	-661,000	-252,000
<i>Miscellaneous</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>financials</i>				
Gearing	2.4	6	0.6	1.39

Current ratio	110	113	112	124	
Liquidity/Acid test	109	112	111	124	
% Of Cash/CL	39.2	44.1	34.6	18.0	
% Of Debt/CL	3.15	0.5	2.01	0.66	
	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2011	0.068	0.972	1.154	0.011	2.20
2010	-0.086	-0.221	-0.075	-0.125	-2.06

Figure 23 shows that 2010 was a bad year for BT1 construction, with all variables X1, X2, X3, and X4 in the negative. The company made a massive loss of £661,000. As a result; the firm's accumulated net losses outweighed its accumulated net income – negative retained earnings. Therefore Retained earnings relative to total capitalization (X2) was very low. Looking closely into the financial books it was evident that the firm has consistently struggled with negative retained earnings since 2004. According to Kokemuller (2015), a company with persistent negative retained earning balance shows a sign management incompetence because it means that company leaders have not figured out how to improve the firm's profitability.

The firm continued to trade through the losses because it had a good cash flow. But with lack of profitability, limited growth, and no safety net, BT1 construction had to improve or be at risk of bankruptcy. Therefore, BT1 construction showed improvements in 2011.

BT1's performance in 2011 from Table 14

X1 – Working capital increased by £312,000, and the Change in operating working capital was positive, and 5.7% of turnover

X2 – Retained earnings increased by £1,857,000

X3 – A profit of £490,000 was made

X4 – Net worth increased by £1,762,000

Turnover increased by 18.3%

Losses caused the Z-score to drop in 2010. To recover out of the failing zone, BT1 construction improve Working Capital and Profitability, the two most important ratios as a result, the Z-score improved. This meant that the firm's net liquid assets increased in relation to its total capitalization (X1) and the firm's assets' earning potential improved greatly (X3). The acid test and the current ratio also show that the firm's liquidity was ok

though outside the recommended range for construction – that is, 150 – 200% (Gruneberg, 1997; and Clough et al, 2005).

The company's change in operating working capital in the year 2011 was positive, indicating that current liabilities were increasing by more than current assets. With increased turnover, there was more immediate cash in the bank for the company to trade. BT1 construction improved its cash flow through increased deferred income and by delaying payment to subcontractors and suppliers. Trade debtors account also increased compared to that of the last year, which meant that BT1 was also kept waiting – evidence of the pay-when-paid strategy as BT1 construction in turn did not pay its subcontractors fast enough. The company was collecting more receipts than it was giving. This strategy is pervasive in the industry because the contractor is often on the back foots, chasing the money for the most part of the project, and the subcontractors only get paid when he is paid.

However, the company has always been cash rich, even in 2010. Change in operating working capital in 2010 was positive, and 7.47% of turnover. Although BT1 did not perform very well in terms of overall company health, it maintained a healthy cash flow, which involved delaying payment to creditors, reducing assets, and having a good amount of cash.

The firm operated with no bank loans or overdraft and trades solely on the profitability of the company. Therefore, the firm's gearing level was very low through the years – operating within the recommended gearing level of 0-50% (Clough et al, 2005). Because of this low gearing level, during the tough times, BT1 construction was able to conserve its cash and reduce outgoings. There was no huge debt pressure on its finances. As Warren Buffet always says *“you can't go bankrupt if you don't owe anybody”*.

Going forward into 2014, turnover decreased, working capital decreased, retained earnings was negative, and the firm had a negative Change in Operating Working Capital, which indicated that the current assets were increasing by more than the current liabilities. Also, the change in working capital as a percentage of turnover was -7.39%. BT1 had too much cash in the hands of debtors and was paying its subcontractors rather quickly. The result of

2014 meant that BT1 construction would require additional cash if it intends to invest in growth. But the change is not significant enough to have a great impact on the company's cash flow.

The company also had negative retained earnings in 2014, indicating that losses were incurred during that year. However, it maintained its liquidity levels, which is very important in the construction industry since the lack of cash is what kills, and not the lack of profitability. Overall, 2014 the company did not particularly well, evident in the drop of the Z-score from 1.91 to 1.39.

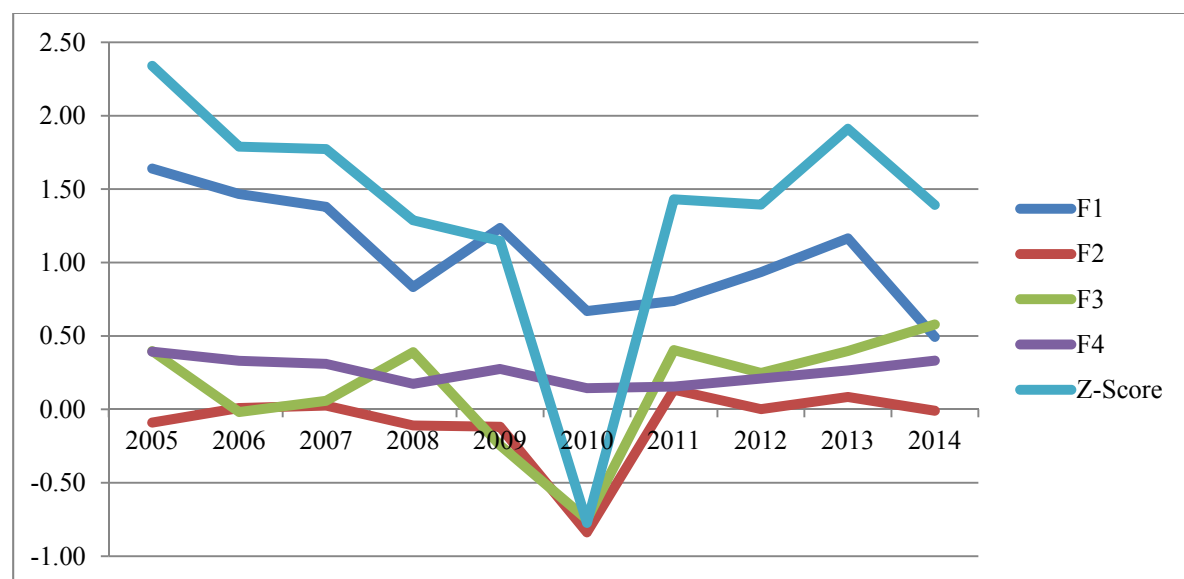


Figure 24: Components of Z-score as applied to BT1 Construction

From Figure 24 it is clear that the drop in profitability (F3), retained earnings (F2), and working capital (F1) caused the Z-score to drop into the red zone. But as soon as those variables improved, the Z-score also improved.

TG2 Construction

TFG2 construction is a small business currently listed as “Active”. The company employs between 100-150 people and its last reported turnover was over £65m. An over reliance on public and local authority work caused the decline of TG2 construction, especially between 2007 and 2009 when the recession was at its worse. Tighter competition also made TG2 construction recovery even more difficult as the market that drove larger contractors to begin to bid on small projects – the market in which TG2 operates.

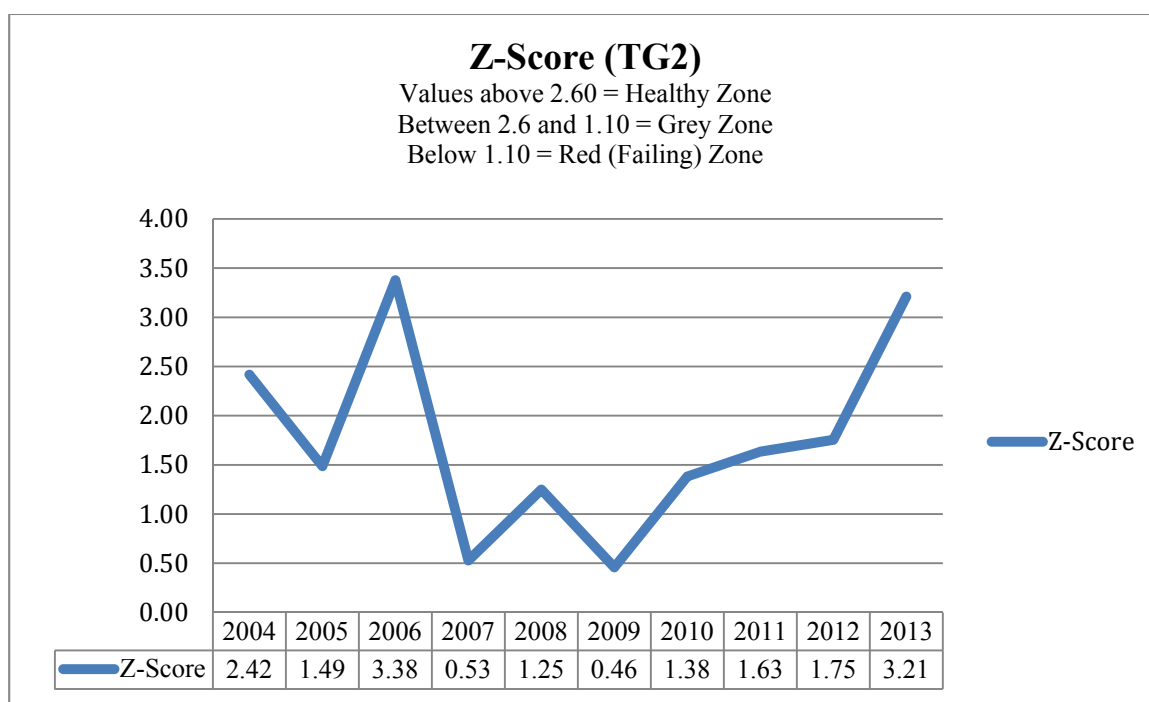


Figure 25: Z-score profile of TG2 Construction

Figure 25 shows that since 2007 TG2 construction has been going in and out of the ‘Red Zone’, hitting rock bottom in 2009 with a Z-score of 0.46 and then recovering the very next year. 2010 saw the start of the company’s turnaround, registering a Z-score of 1.38, and sustaining the upward trajectory through the years. TG2 construction closed 2013 with a Z-score of 3.21, recording a solid ‘Healthy Zone’ score. In 2009, the firm’s shrinking current assets in relation to its total assets (X1), and the firms shrinking equity base relative to its total liabilities (X4), caused the company’s Z-Score to dive into the ‘Red Zone’.

Table 15: TG2 construction’s Z-score variables: A comparison of turnaround and Decline years

		Turnaround		Decline
	2013	2010	2009	2008
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	
Turnover	65,930,675	57,645,747	49,939,614	51,412,523
Current assets	18,705,739	14,372,840	12,161,537	10,240,438
Total Assets	19,302,334	14,681,515	12,476,770	10,623,758
Current liabilities	13,698,316	12,937,107	11,602,880	6,071,484
Total Liabilities	13,888,460	12,937,107	11,602,880	8,825,273
Net Worth	5,413,874	1,744,408	873,890	1,798,485

Working Capital	5,007,423	1,435,733	558,657	1,415,165
Retained Earnings	2,157,274	870,518	-924,595	175,072
EBIT	2,111,303	885,397	608,650	169,629
<i>Miscellaneous financials</i>	%	%	%	%
Gearing	3.5	0	0	0
Current ratio	137	111	105	116
Liquidity/Acid test	136	111	104	116
% Of Cash/CL	85.3	57.9	36.7	50.6
% Of Debt/CL	1.47	0.87	2.95	1.63

	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2010	0.053	0.133	0.012	0.060	0.92
2009	-0.088	-0.091	0.033	-0.128	-0.79

Table 15, shows that the continuous increase in profitability, retained earnings, working capital and net worth through the years, aided the recovery of the company and took it out of the Red Zone.

Table 15 shows the following about TG2's performance in 2010, the turnaround year.

X1 – Working capital increased by £877,076, and Change in operating working capital is positive, and 4.49% of turnover

X2 – Retained earnings increased by £1,783,113

X3 – A profit of £885,397 was made

X4 – Net worth increased by £870,518

Turnover increased by 15.4%

Because of the firm's increased Working Capital, the firm's net liquid assets relative to its total capitalization (X1) doubled and continued to increase as WC increased. This meant that the company had enough money to meet its current liabilities. In 2010 the company had a negative change in operating working capital, indicating increasing current liabilities over current assets. As turnover increased, the firm's cash flow was increased through increased deferred income. The company was also waiting for payments. Trade debtors and trade creditors balance amounting to about the same, with trade creditors higher by a little. This indicated the pay-when-paid strategy. But with regards to cash flow, the company had a huge cash account, which serves as safety net when operating cash flow decreases. The company strategically keeps its change in operating working capital positive, which is good for cash flow.

In 2010, the current ratio and the acid test placed TG2 construction in good liquidity position, although outside the recommended 150-200% range for construction. As for X2, TG2 also held back some money for growth considering it had negative retained earnings the previous year. This number also continued to grow as the years went by. Profitability (X3) and Net worth (X4) also increased as turnover continued to grow.

In 2013, cash flow greatly increased. The company was cash rich. All the Z-score variables; working capital, profit levels, retained earnings and net worth, all increased, registering a Z-Score of 3.21 (healthy zone). The change in working capital was also positive, and 1.27% of turnover, indicating improved operating cash flow. Deferred income increased as turnover increased. However, TG2 showed some dependence on its suppliers and subcontractors as the company was collecting payments quite fast but was not paying its subcontractors at the same pace.

Gearing levels are extremely low since the company does not operate with debt but runs the company solely on its profitability levels.

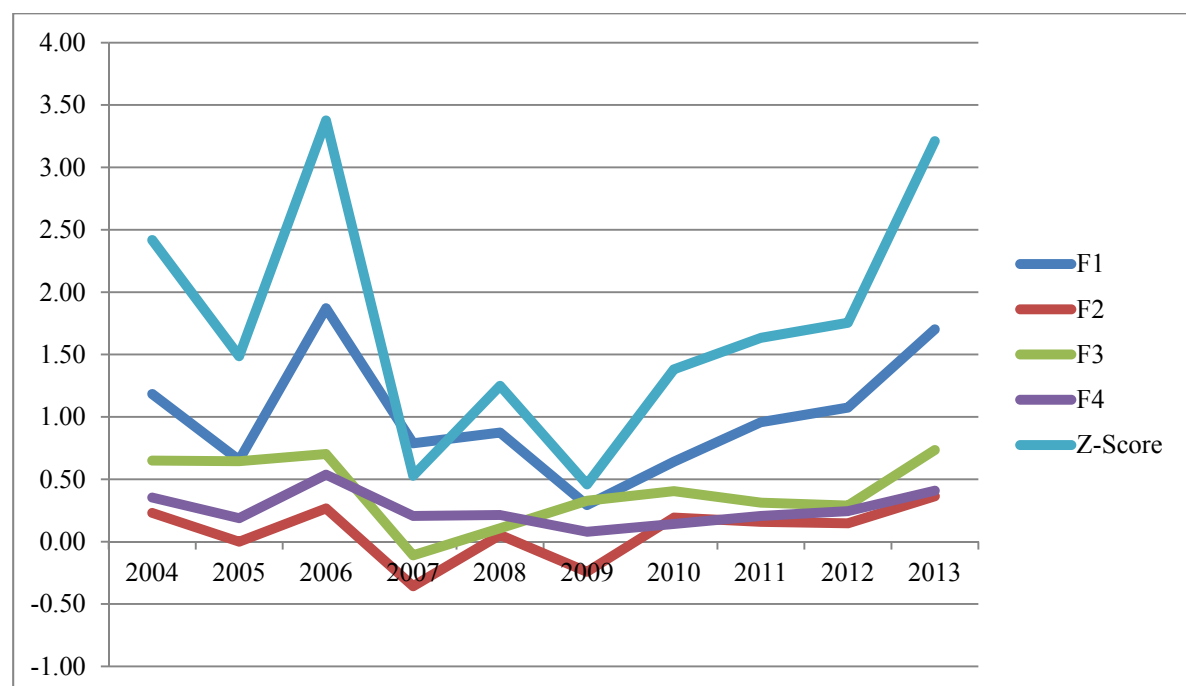


Figure 26: Components of Z-score as applied to TG2 Construction

Figure 26 shows that the Z-score mirrors increases or decreases in Working Capital (F1) and EBIT (F3). The company registered a strong financial standing in 2013 because of its large cash account, large deferred income account, increased profitability, increased working capital, increased retained earnings, and decreased liabilities. Its cash level was 63% of its total assets.

CM3 Construction

This privately owned general construction, buildings and civil engineering contractor specializes in industrial/commercial projects and covers the whole of England, mainly the midlands and north regions. At the time of decline, CM3 Construction employed between 150-200 people. But now, that number has grown to between 250-399 employees. CM3 construction hit a turnover of over £400m 2014. According to the Operations director, achieving this figure of turnover was a strategic decision by the company. CM3 Construction had always had a large turnover compared to companies in its market. But like many other companies in the market, CM3 faced fierce competition. While in the past (pre-recession), CM3 enjoyed being one of three or one of four contractors invited to tender for work, during the recession CM3 was one of six, seven or more companies invited to tender work as competition increased.

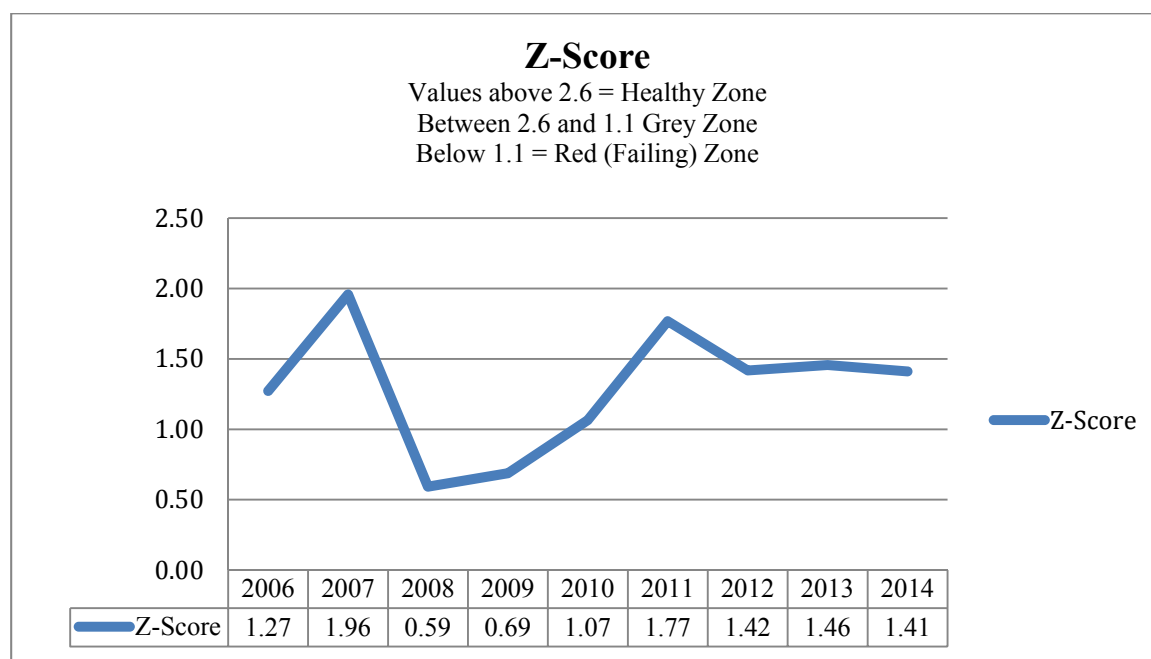


Figure 27: Z-score profile of CM3 construction

Figure 27 shows that the company dropped into the ‘Red Zone’ in 2008, 2009, and 2010, but recovered in 2011 with a Z-score of 1.77. The company has consistently remained on the upper part of the ‘Grey Zone’. CM3 construction sustained its improved Z-score into 2014 with an index of 1.41.

Table 16: CM3 construction’s Z-score variables: A comparison of turnaround and Decline years

	Turnaround		Decline		
	2011	2010	2008	2007	
Financial variables	£m	£m	£m	£m	
Turnover	266,496,002	152,693,037	131,904,844	133,842,694	
Current assets	78,440,415	52,396,133	37,853,414	45,376,310	
Total Assets	85,274,971	61,061,418	45,676,566	48,735,309	
Current liabilities	68,432,250	49,678,126	38,154,405	41,166,829	
Total Liabilities	68,439,630	49,678,126	38,116,676	41,237,758	
Net Worth	16,835,341	11,383,292	7,559,890	7,497,551	
Working Capital	10,008,165	2,718,007	2,290,132	6,812,175	
Retained Earnings	5,452,049	2,811,706	62,339	3,637,788	
EBIT	6,744,919	3,475,657	344,692	4,397,761	
Miscellaneous	%	%	%	%	
financials					
Gearing	0	0	0	0	
Current ratio	115	105	99	110	
Liquidity/Acid test	114	105	99	106	
% Of Cash/CL	8.0	34.7	0.63	74.3	
% Of Debt/CL	10	17.6	0.07	0	
	ΔX1	ΔX2	ΔX3	ΔX4	ΔZ-Score
2011	0.478	0.058	0.149	0.018	0.70
2008	-0.588	-0.239	-0.556	0.017	-1.37

Table16 above shows the following about CM3’s performance in 2011

X1 – Working capital increased by £7,290,158, and Change in Operating Working Capital was negative, and -2.03% of turnover

X2 – Retained earnings increased by £2,734,042

X3 – Profits of £6,744,919 was made

X4 – Net worth increased by £5,452,049

Turnover increased by 75%

The significant increase in working capital gave the company a serious boost in its net liquid assets relative to total capitalization (X1). However, the change in operating working capital was negative. This indicated that current assets were increasing by more than current liabilities. According to Thomas (2013), a negative change in working capital could mean: the company is investing heavily in growth, turnover is decreasing, too much cash tied in stock, a poor collection policy, and/or paying trade creditors too quickly. In 2013, the company had too much money in the hands of debtors, and its cash level dropped by 73%. Its trade debtors made up 93% of its total current assets. This meant that the company was waiting too long to be paid. At the same time, the company kept its suppliers waiting as well. 90% of the company's current asset was in trade creditors. The implication is improved cash flow.

Change in operating working capital in 2008 was negative as well, and it was -19.6% of turnover. This decrease in cash flow had a big impact on the company, hence the bad year, and decline in Z-score. However, the company operates with a huge cash safety net, which supplements any dip in operating Cash flow. The current ratio, acid test, and gearing also put the company in comfortable standing.

As profits decreased in 2013, retained earnings also decreased. These decreases although noteworthy, were not significant to cause the company any problems. Net worth to total liabilities (X4) also improved to give the Z-score a boost.

Between 2011 and 2014 change in working capital was consistently negative. CM3 continued to invest heavily in growth as turnover increased, working capital increased, deferred income increased, as well as the cash level. However, the company had too much cash in the hands of debtors. Another observation is that since 2011, the company has had decreasing trade creditors balance. It therefore means that the company waiting for payments but is paying its subcontractors and suppliers rather quickly. However, with increased turnover, there was more ready cash available as deferred income increased. In addition, the company is cash rich and could supplement any future cash needs. Therefore, as CM3 construction continues to grow, it would require additional capital to do so.

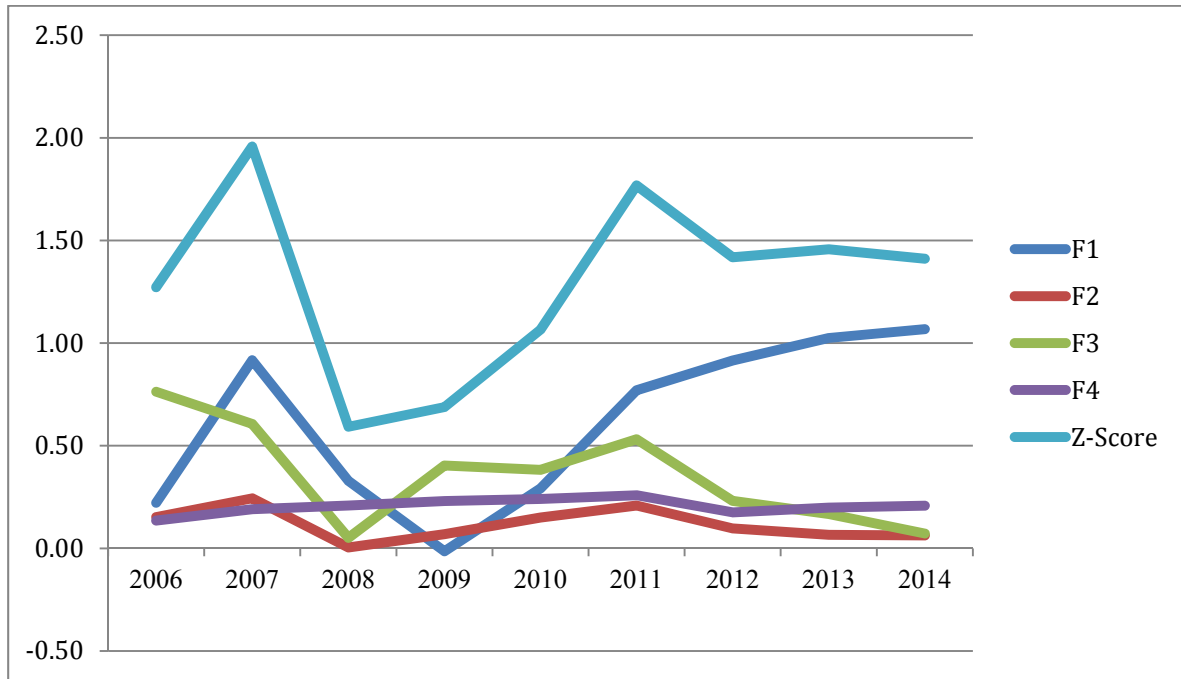


Figure 28: Components of Z-score as applied to CM3 Construction

Here, Figure 28 shows that the Z-score is greatly influenced by F1. That is, increases or decreases in WC/TA (X1) determine the Z-score for CM3 construction, followed by F3.

GP4 Construction

GP4 construction operates in the utilities sector, and has consistently sustained a very strong financial health until the recession. It employs 50-100 people and reports a growing annual turnover of about £14m. GP4 construction was originally owned and run by a man and his wife who later sold the company to the present chairman and managing director in 2007. So there was a management transition. At that time, the company was still very much financially strong with a Z-score of 5.30. It was a lack of managerial control that caused the company's performance to plummet. The chairman/owner and managing director explains GP4's managerial control problem:

“What was happening at the same as that slump in the Z-score from 2008 – 2010 is; the business was growing very fast, and it was doing more work, but it was losing money, because of lack of managerial control, lack of systems and processes, lack of cohesion in the team, and it took us two or three years to get the whole thing turned round before it started to produce healthy profits and it has done so almost ever since.”

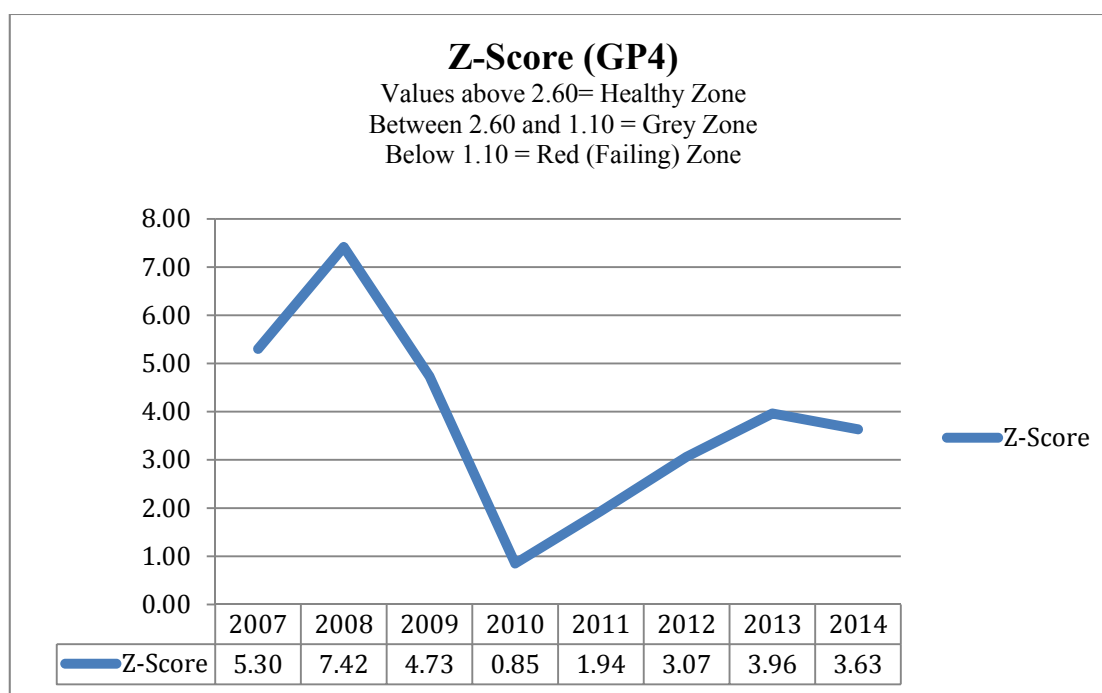


Figure 29: Z-score profile of GP4 Construction

Figure 29 shows that GP4 construction has consistently been a very strong company financially. However, due to lack of managerial control in 2010, the Z-score plummeted into the ‘Red Zone’. It didn’t take long for the company to get the internal controls, systems, and processes in place. 2011 upward has seen a consistent upward trajectory in the Z-score and hence company health.

Table 17: GP4 construction’s Z-score variables: A comparison of turnaround and Decline years

		<i>Turnaround</i>		<i>Decline</i>
	2014	2011	2010	2009
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	13,828,069	6,291,923	5,134,766	5,584,339
Current assets	6,277,016	2,735,336	2,597,152	2,322,815
Total Assets	6,641,937	3,010,685	2,909,699	2,657,040
Current liabilities	4,248,068	2,030,965	1,895,291	1,250,928
Total Liabilities	4,287,076	2,054,371	1,930,721	1,306,139
Net Worth	2,354,861	956,314	978,978	1,350,901
Working Capital	2,028,948	704,371	701,861	1,071,887
Retained Earnings	331,317	-22,664	-371,923	194,024
EBIT	877,792	-28,668	-367,425	301,611

<i>Miscellaneous</i>	%	%	%	%	
<i>financials</i>					
Gearing	1.7	2.4	3.6	4.09	
Current ratio	148	135	137	186	
Liquidity/Acid test	142	129	131	181	
% Of Cash/CL	31.9	15.0	54.1	45.8	
% Of Debt/CL	39.7	37.4	16.5	38.3	
	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2011	-0.007	0.120	0.117	-0.042	1.09
2010	-0.162	-0.201	-0.240	-0.527	-3.88

Table 17 above shows the following about GP4's performance in 2011 (turnaround year)

X1 – Working capital increased by £2,510, change in operating working capital is negative, and -35.8% of turnover

X2 – Retained earnings is negative but increased by £349,259

X3 – A loss of £28,668 was incurred

X4 – Net worth decreased by £22,664

Turnover increased by 23%

In 2011, the company increased turnover, and tried to break even with profitability and retained earnings whilst keeping liabilities and assets remained fairly constant, compared to 2010 where X2 and X3 were very low. The increase in working capital was negligible and the change in working capital was negative at -35.8% of turnover. This is a huge number, and therefore would impact the company's cash flow greatly. This means GP4 is investing too much in growth and is waiting too long time to be paid. So in order to increase its cash flow, GP4 increased its turnover thereby increasing deferred income. But the company was paying its subcontractors and suppliers in a rather timely fashion so its Trade Creditors balance was small, compared to its operations in 2010.

The firm's current liquidity (current ratio and acid test) and gearing position were quite good and remained in or close to the recommended levels for construction with 135 and 129 respectively (Gruneberg, 1997; and Clough et al, 2005)

Between 2013 and 2014, the company also had a negative change in working capital, at -4.51% of turnover. But as a % of revenue, this was very small so it made only a minimal impact on cash flow. GP4 was able to decrease its exposure from -35.8% in 2011, to -4.51%

in 2014, and continue to trade without fear of insolvency. However, as GP4 continues to grow, it would need additional cash to do so.

The negative retained earnings of both years 2011 and 2010 indicated that the company's accumulated net losses outweighed its accumulated profits over the years. It also showed lack of profitability, limited growth potential and lack of a safety net. The company management needed to do something fast to improve profits and retained earnings. Which it did from 2012-2014 with improved and positive values for all the variables of the Z-Score.

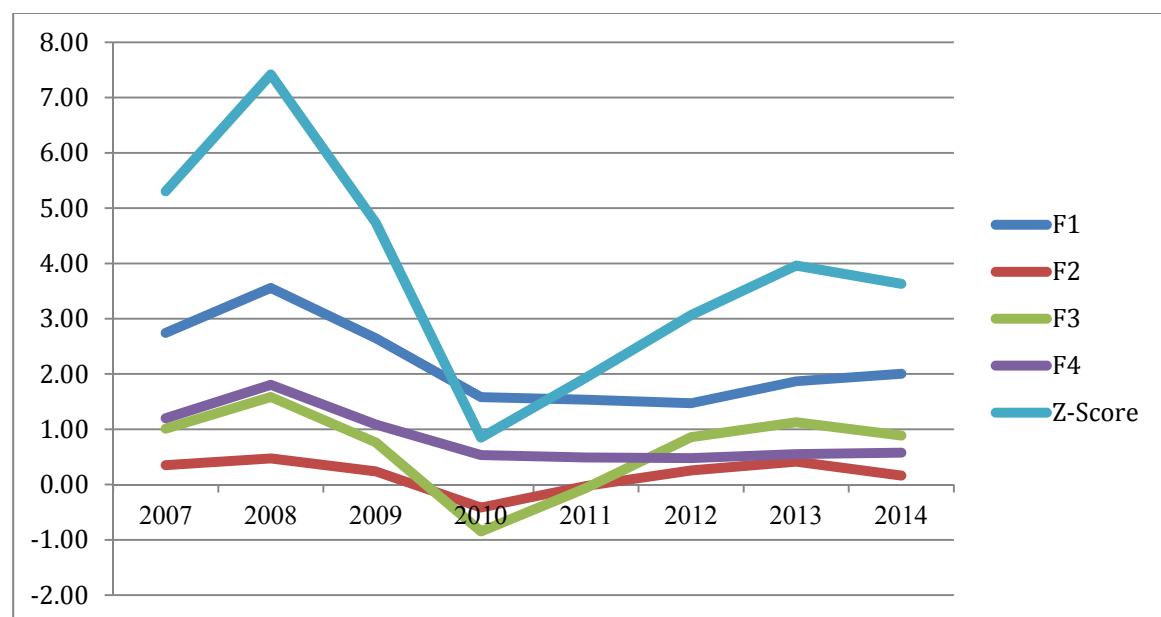


Figure 30: Components of Z-score as applied to GP4 Construction

Figure 30 shows that F3 and F1 determine the Z-score of GP4 construction. Therefore an increase or decrease in profitability and liquidity will greatly affect the company's Z-score.

CV5 Construction

CV5 construction is a family owned business that specializes in hotels, upmarket restaurants, and high-end residential. The firm employs between 100-199 people and has a forecasted annual turnover of £35m. Over the last four decades, CV5 construction has built its reputation as an excellent contractor in construction and refurbishment services. The stiff competition in the industry during the recession caused CV5 to struggle: going six years in the “red zone” before showing recovery in 2011 upward (see Figure 31). According

to the CV5's operations director stiff competition and the apparent entry of bigger companies into smaller markets caused CV5 to struggle.

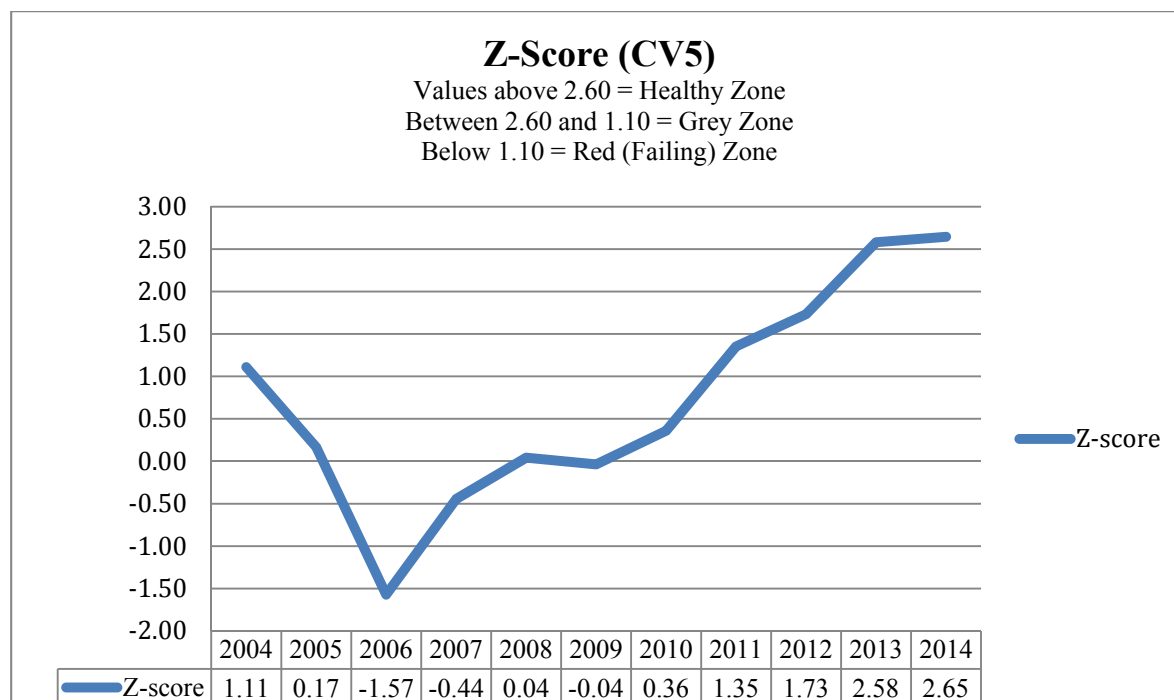


Figure 31: Z-score profile of CV5 Construction

Prior to the recession of 2007, CV5 construction had been in bad shape financially. The company health in 2006 was -1.57 on the Z-score index. Although the company was in the 'Red Zone' for the most part of the last decade, it nevertheless had a steady and consistent climb until it broke into the 'Grey Zone' in 2011. From that point on, CV5 has consistently improved its health and climbed into the 'Healthy Zone' with 2.65 Z-score index in 2014.

Table 18: CV5 construction's Z-score variables: A comparison of turnaround and Decline years

	<i>Turnaround</i>		<i>Decline</i>	
	2011	2010	2006	2005
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	40,042,361	26,502,415	21,345,000	22,658,000
Current assets	8,983,596	5,439,903	4,746,000	4,876,000
Total Assets	16,561,642	13,758,859	12,791,000	7,446,000
Current liabilities	9,207,998	7,164,530	5,688,000	4,531,000
Total Liabilities	11,625,708	8,653,660	8,390,000	5,236,000
Net Worth	4,935,934	5,105,199	4,401,000	2,210,000
Working Capital	-224,402	-1,724,627	-942,000	345,025
Retained Earnings	990,735	581,730	62,000	155,942

EBIT	1,974,846	869,295	158,000	326,168	
<i>Miscellaneous financials</i>	%	%	%	%	
Gearing	94.8	88.8	104	90.7	
Current ratio	98	76	83.4	108	
Liquidity/Acid test	97	75	82.4	98.7	
% Of Cash/CL	2.4	0	0.83	29.8	
% Of Debt/CL	24.6	42.8	0.33	28.9	
	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2011	0.733	0.057	0.377	-0.174	0.99
2006	-0.107	-0.090	-0.099	-0.070	-1.74

Table 18, above shows the following about CV5's performance in 2011 (turnaround year)

X1 – Working capital was negative but increased by £1,500,225 from 2010 figures; change in operating working capital was negative, and -1.20%. as a percentage of turnover.

X2 – Retained earnings increased by £409,005

X3 – Profits doubled

X4 – Net worth decreased by £169,265

Turnover increased by 51%

Although working capital was negative, working capital increased to match the rising turnover. Now the negative working capital (WC) meant that the company's current liabilities were greater than its current assets, and points to short-term insolvency if cash flow falls. However, here, CV5's had a steady cash flow because of its increased turnover, and its increased deferred income balance. The company had £224,146, in cash and its deferred earnings and accrual balance made up 56% of its current liabilities, with a 25% long-term debt. So CV5 had a healthy cash flow in 2011 compared to 36% of deferred income and accruals, £0 cash in 2010, and 43% long-term debt.

Change in operating WC (excluding cash and debt) was negative, which meant CV5's current assets were increasing by more than its current liabilities. This shows that CV5 paid its subcontractors and suppliers in a timely fashion but was too lenient with its trade debtors. In other words, the company was waiting too long to be paid. This is reflected in its balance sheet as 98% of its current asset was made up of trade debtors' account. Since cash flow was not a problem, CV5 construction was able to double its profit (X3), invest in growth (X2), and improve its Z-score.

In comparison to the decline period, all the variables of the Z-score decreased. Change in operating working capital in 2005 was negative and -2.86% of turnover. The company would have gone under had it not been for injection of short-term debt. In 2006, CV5 was heavily geared and its current ratio and acid test shows the company's depleting equity position and high dependency on external financing.

However, in 2014, things changed. WC was positive and increased by £2,267,167. Its equity position improved as the company deleveraged itself. Between 2013 and 2014, the change in working capital was negative, and -3.26% as a percentage of turnover, it was, which is not so significant on cash flow. Therefore CV5 will continue to need additional cash as it grows.

However, in 2014, the company's profit levels soared, its deleveraging meant that its net worth grew, and the company Z-score leaped into the 'Healthy Zone'.

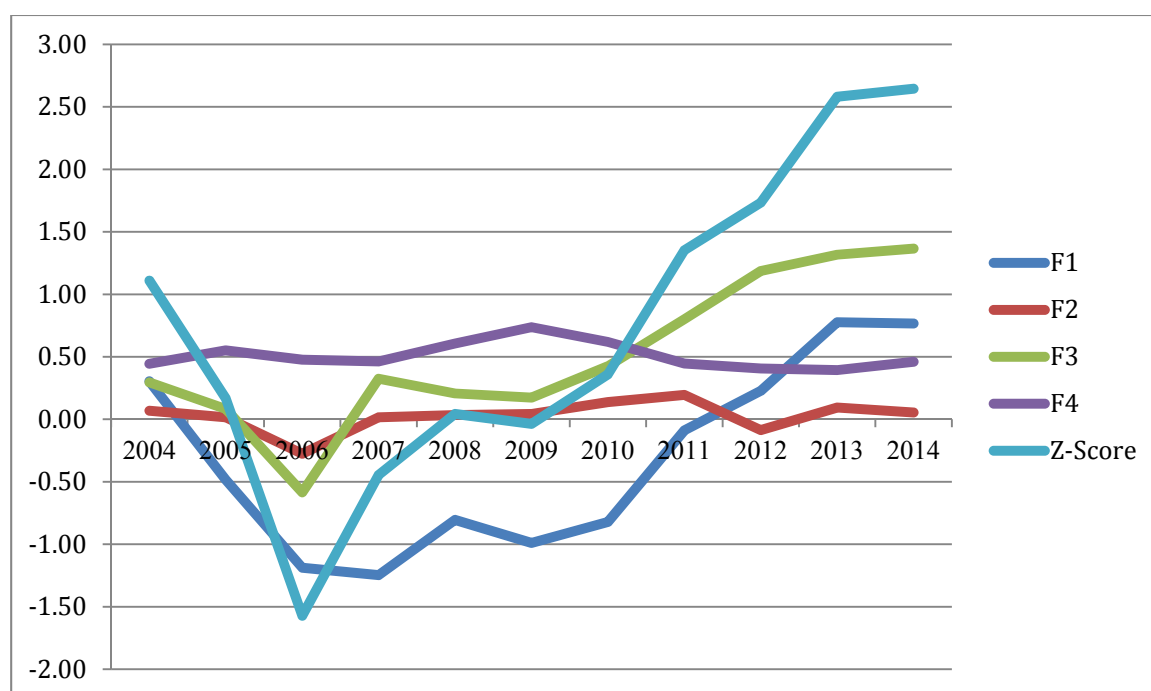


Figure 32: Components of Z-score as applied to CV5 Construction

In Figure 32 the Z-score was highly dependent on F1 and F3, the components of X1 (WC/TA) and X3 (EBIT/TA) respectively. Therefore, improvements in Working Capital and Profitability helped the company grow and maintain a healthy Z-score over the years.

CG6 Construction

CG6 construction is also a family owned business involved in commercial projects around the UK. It is currently listed as “active” and employs between 50-99 people. The business reports a forecasted annual turnover of £37m.

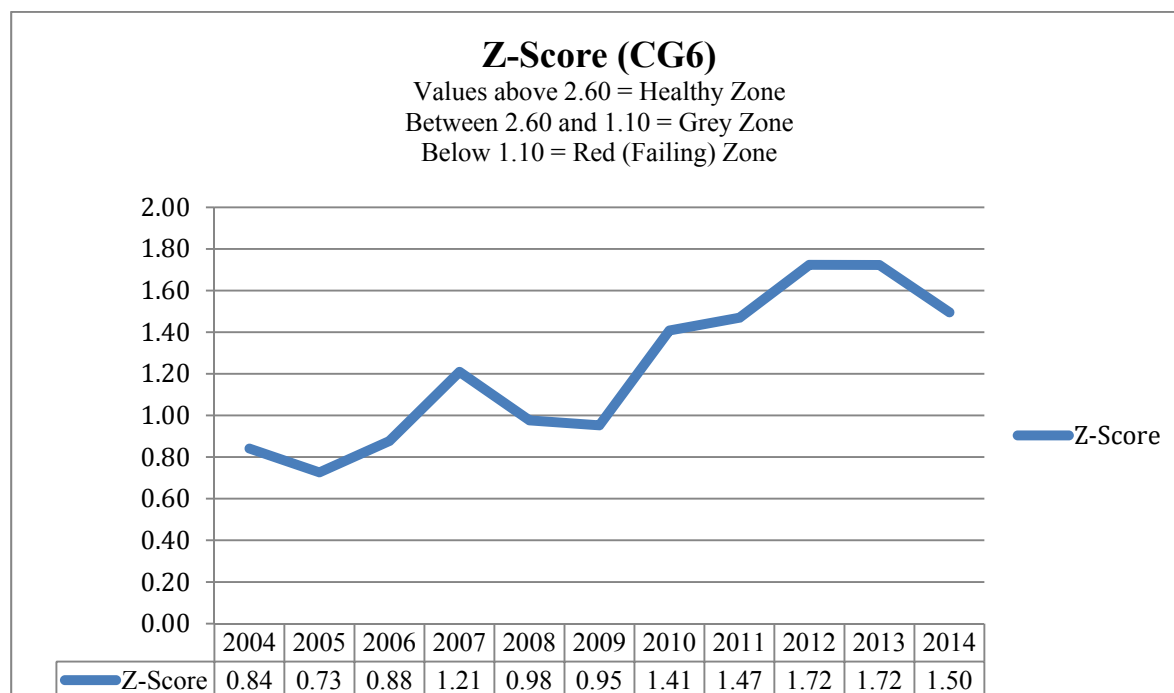


Figure 33: Z-score profile of CG6 construction

Figure 33 shows that for years prior to the recession, CG6 construction did not register a Z-score above the ‘red zone’ so the analysis can conclude that its decline in performance was not necessarily due to the recession. CG6 coasted through the recession up until 2010 when it registered a Z-score of 1.41 (showing recovery). From that point on, the Z-score has been fairly maintained around the high part of the ‘Grey Zone’.

Table 19: CG6 construction’s Z-score variables: A comparison of turnaround and Decline years

	<i>Turnaround</i>		<i>Decline</i>	
	2010	2009	2008	2007
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	23,376,261	30,185,108	37,301,325	25,773,244
Current assets	7,729,871	7,691,524	10,671,603	6,625,698
Total Assets	9,225,500	9,747,367	12,219,245	7,127,435
Current liabilities	6,883,359	7,558,086	10,051,892	5,895,931

Total Liabilities	6,921,201	7,596,783	10,286,571	5,910,351
Net Worth	2,304,299	2,150,584	1,932,674	1,217,084
Working Capital	846,512	133,438	619,711	729,767
Retained Earnings	208,715	217,910	331,307	130,987
EBIT	524,943	714,568	650,450	277,647
<i>Miscellaneous financials</i>	%	%	%	%
Gearing	6.5	1.8	49.3	1.19
Current ratio	112	102	106	112
Liquidity/Acid test	102	94	100	101
% Of Cash/CL	39.3	40.1	40.8	9.58
% Of Debt/CL	1.74	0	7.3	0.35

	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2010	0.078	0.000	-0.016	0.050	0.46
2008	-0.052	0.009	0.014	-0.018	-0.23

Table 19 above shows the following about CG6's performance in 2010 (turnaround year)

X1 – Working capital increased by £713,074, the Change in Working Capital was negative, and -4.92% as a percentage of revenue

X2 – Retained decreased by £9,195

X3 – Profits decreased by £189,625

X4 – Net worth increased by £198,715

Turnover decreased by 23%

In 2010, the company improved its working capital while reducing its total assets. This action increased the net liquid assets to total capitalization ratio (X1). The company also reduced its total liabilities and succeeded in maintaining good levels of profit (X3) and retained earnings (X2). With regards to cash flow, change in working capital was negative, which meant that total assets were increasing by more than current liabilities. The company was investing in growth, increasing its stock, while not being strict with its collection policy. This caused the current assets to increase. CG6 could do this is because the company is cash rich. It had enough cash to cover any immediate cash need. The typical turnaround company with no cash and no borrowing would seek to increase its operating working capital by delaying payments, borrowing more, increase deferred income by increasing turnover, and/or collect payment from its customers a lot faster. Which would make the change in operating working capital positive. Also, change in operating working capital in 2008 was positive at 7.87% of turnover, hence a negligible impact on cash flows.

X4 figures in 2010, shows that the company was solvent. The acid test and the current ratio test also supports this with 102% and 112% respectively, which are close to the recommended figures suggested by Clough et al (2005).

CG6 construction does not operate with any short-term or long-term debts and therefore has very low gearing levels. This is within the recommended range for construction given by Clough et al (2005) and Gruneberg (1997); and that is, 1-50% gearing.

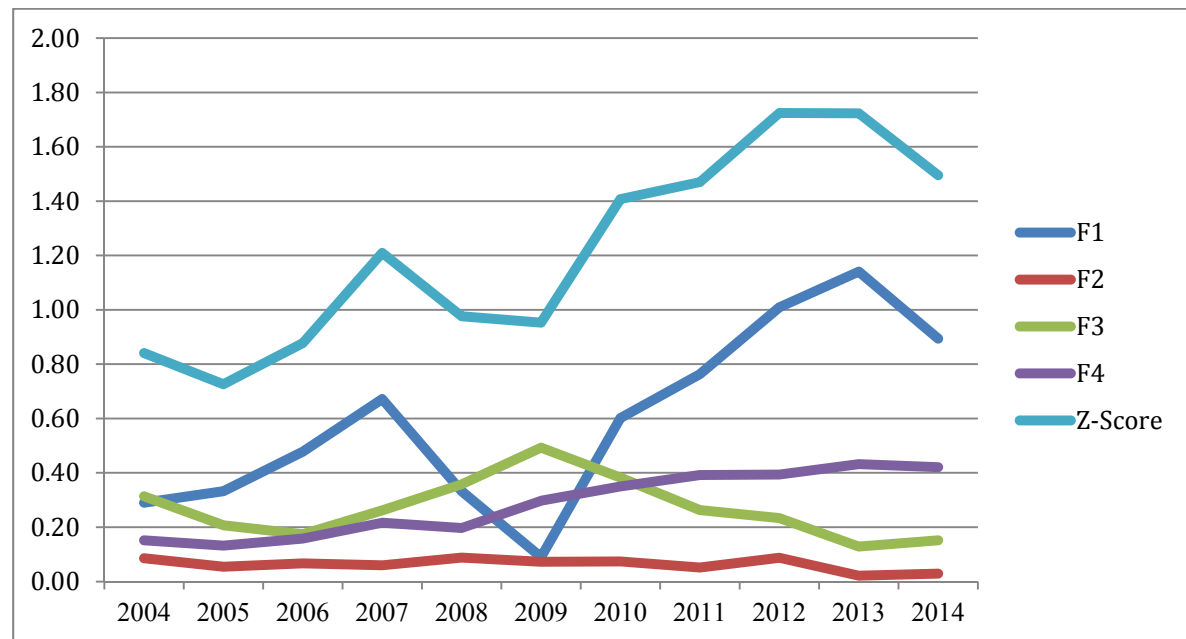


Figure 34: Components of Z-score as applied to CG6 Construction

Figure 34 shows that the Z-score is heavily influenced by F1 – the component of X1 (WC/TA). Therefore, as working capital continues to increase, CG6 construction's financial health also improves.

CF7 Construction

This is another family owned construction business founded in the early 1943's. It is involved in a wide range of construction works - housing, education, restoration, leisure, health, commercial and retail. The business currently employs between 0-50 employees and forecasts an annual turnover of about £12m.

The company was heavily involved in social housing, with over 75% of its turnover was in social housing. The government cut of social housing funding meant that turnover stopped over night, and so, CF7 had to look into other areas of the sector. The company also had a bad debt on some private residential projects, which caused that company health to decline.

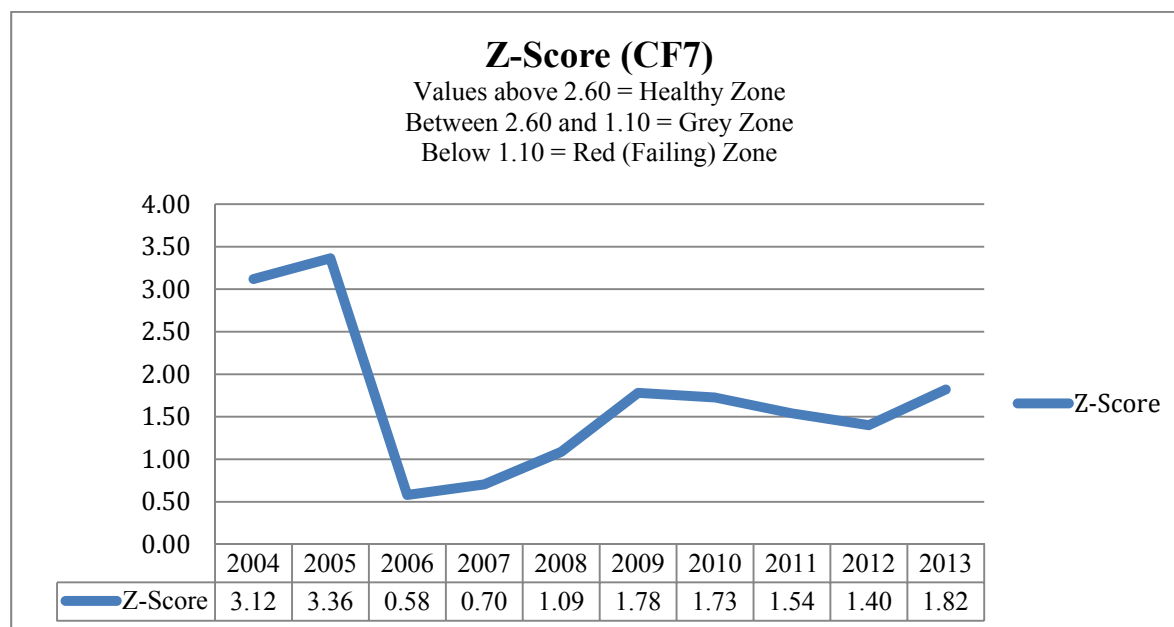


Figure 35: Z-score profile of CF7 construction

Figure 35 shows that CF7 construction had its lowest company health in 2006 right before the credit crunch, but it was able to get its act together quickly. Three years later, in 2009, the company was out of the ‘Red Zone’ with a Z-score of 1.78. The company has continued to maintain healthy Z-score indexes towards the upper area of the ‘Grey Zone’.

Table 20: CF7 construction’s Z-score variables: A comparison of turnaround and Decline years

	Turnaround		Decline	
	2009	2008	2006	2005
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	7,116,073	11,748,299	9,000,574	11,523,000
Current assets	2,685,182	3,245,280	2,836,867	4,086,000
Total Assets	2,944,114	3,524,314	3,147,495	4,282,000
Current liabilities	2,159,545	2,819,789	2,567,401	2,838,000
Total Liabilities	2,224,545	2,869,798	2,567,401	2,838,000
Net Worth	719,569	654,516	580,094	1,444,000
Working Capital	525,637	425,482	269,466	1,248,000

Retained Earnings	65,053	14,627	-863,806	309,000
EBIT	86,453	21,660	316,695	435,000
<i>Miscellaneous financials</i>	%	%	%	%
Gearing	22.4	48.2	88	18.2
Current ratio	124	115	110	144
Liquidity/Acid test	123	115	110	144
% Of Cash/CL	0	0	0.04	0.04
% Of Debt/CL	4.6	11.5	20.4	10.5

	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2009	0.058	0.018	0.023	0.095	0.69
2006	-0.206	-0.347	-0.001	-0.283	-2.78

Table 20 above shows the following about CF7's performance in 2009 (turnaround year).

X1 – Working capital increased by £100,155; change in Operating Working Capital was positive, and 1.77% of turnover

X2 – Retained increased by £50,426

X3 – Profit increased by £64,793

X4 – Net worth increased by £65,053

Turnover decreased by 39%

In the recovery year, 2009, the company's net liquid assets to total capitalization (X1) increased as a result of reduction in total assets and an increase in working capital. In the same year, the change in operating working capital was positive, which meant that current liabilities were increasing by more than current assets. This was as a result of the company implementing a strict collection policy while at the same time holding back payments to subcontractors and suppliers in the form of extended lines of credit to improve cash flow., CF7 had to generate Cash flow from operations in order to turnaround the business because it had a very weak cash balance and debt account. The same tactics was applied in 2006, where change in operating working capital in 2006 was positive, at 8.37% of turnover.

Despite the decrease in turnover, CF7 was able to muster a improve X3 (profitability) in 2009. The company also improved solvency (X4) by decreasing its total liabilities and thereby increasing its net worth.

Between 2012 and 2013, change in working capital was negative, at -3.38% percent of turnover, which meant that its current assets were increasing by more than its current

liabilities. CF7 construction was waiting a lot for payments but was paying its supply-chain fairly timely, as the trade debtors' account was considerably bigger than the trade creditors account.

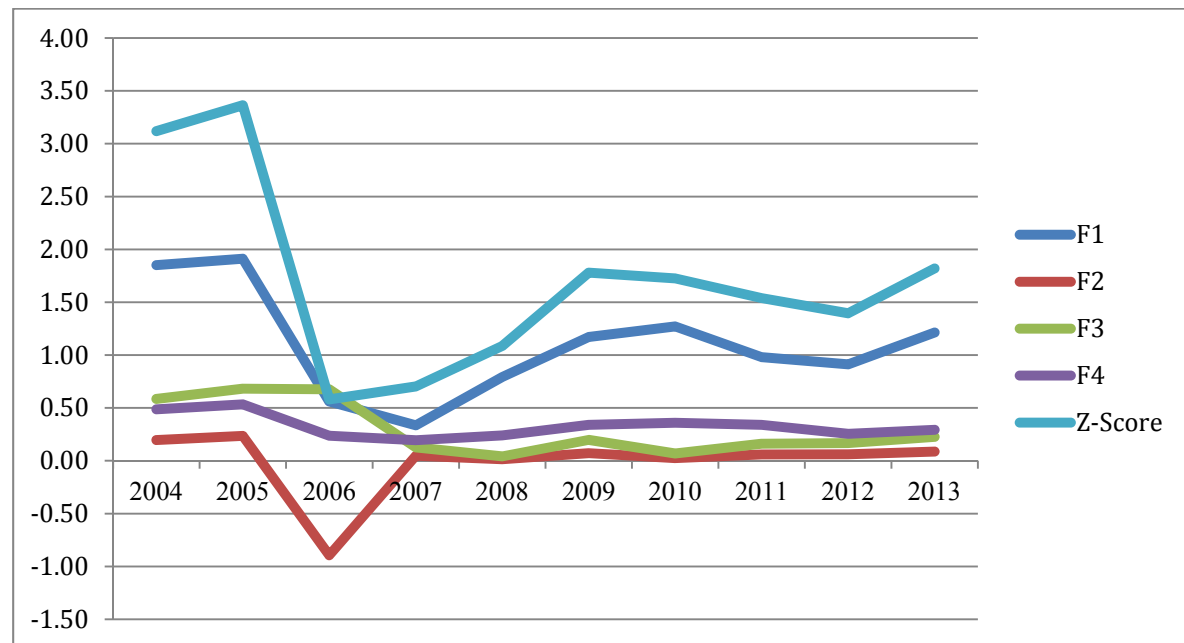


Figure 36: Components of Z-score as applied to CF7 Construction

Again, Figure 36 shows that the Z-score is heavily influenced by F1 (X1 component). Therefore, working capital improvements was mainly responsible for the improved Z-score of CF7 construction.

CI8 Construction

CBI8 construction is 55 years old Construction Company that operates in the West Midlands and specializes in complete package new-build commercial projects and refurbishments. The business is family owned, currently employs between 0-50 employees and reports a forecasted annual turnover of about £14m.

Due to tighter condition of the market and over-reliance on sector – local authority work, CBI8 construction had some difficult years but not as extreme as the other turnaround firms since CBI8's Z-score only came close to the red zone but did not cross-over.

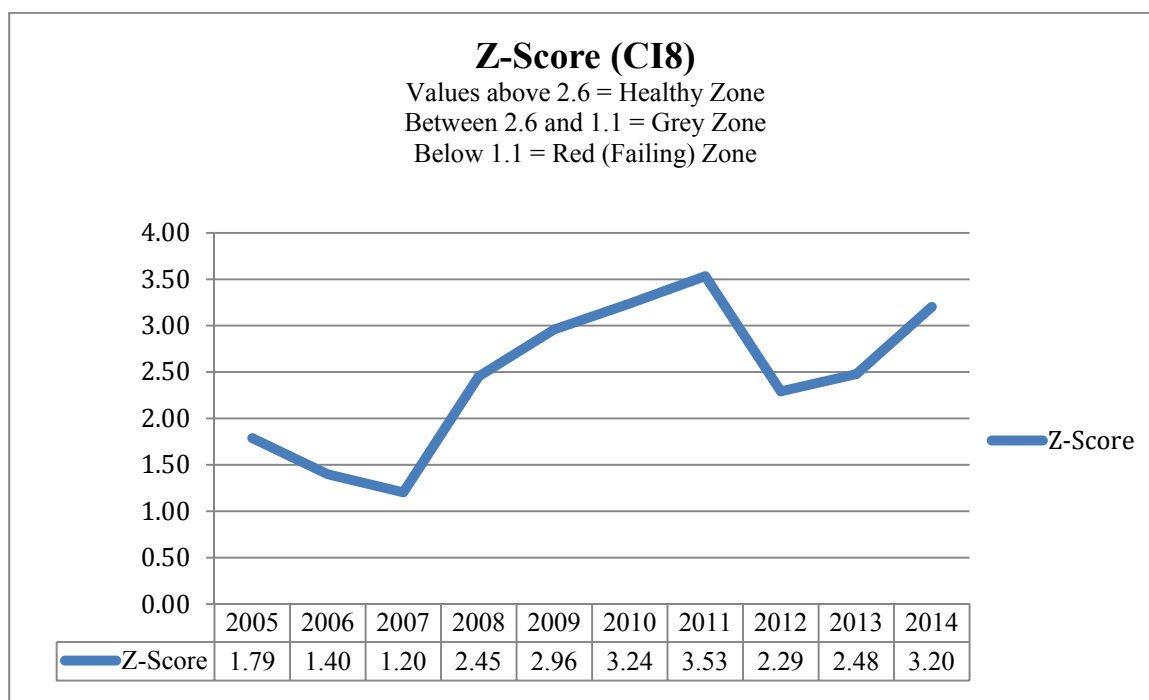


Figure 37: Z-score profile of CI8 construction

Figure 37 shows that it was in 2007 that the Z-score of CI8 construction, dropped towards, the ‘Red Zone’, with a 1.20 Z-score index. However, from that point on, CI8 has registered strong Z-score numbers ending 2014 in the ‘Healthy Zone’ with a Z-score of 3.20. Now lets look at the financial recovery of the company.

Table 21: CI8 construction’s Z-score variables: A comparison of turnaround and Decline years

		<i>Turnaround</i>		<i>Decline</i>
	2014	2008	2007	2006
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	13,848,674	8,970,071	-	-
Current assets	3,671,766	3,931,857	2,434,625	1,851,924
Total Assets	3,833,418	4,425,824	2,964,125	2,298,887
Current liabilities	2,373,655	2,460,566	2,051,530	1,505,718
Total Liabilities	2,649,025	3,517,283	2,051,530	1,505,718
Net Worth	1,164,893	908,541	912,595	793,169
Working Capital	1,298,111	1,471,291	383,095	346,206
Retained Earnings	80,530	-4,054	-101,064	-101,064
EBIT	257,173	3,772	0	0
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Gearing	23	118.2	0	0

Current ratio	155	160	119	123	
Liquidity/Acid test	89	97	117	123	
% Of Cash/CL	40.7	18.9	50.8	35.2	
% Of Debt/CL	7.7	12	0	0	
	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2008	0.203	0.033	0.001	-0.187	1.251
2007	-0.021	0.010	0.000	-0.082	-0.194

Table 21 above shows the following about CI8's performance in 2008

X1 – Working capital increased by £1,088,196; change in working capital was **negative**, and 21.9% turnover.

X2 – Retained earnings is negative but increased by £97,010

X3 – Profit was made

X4 – Net worth decreased by £4,054

From Table 21 decline in the financial variables EBIT (X3) and retained earnings (X2), caused the company's decline. However, the company has consistently maintained a healthy working capital, which is the primary reason for its recovery. More so, the company has always maintained a healthy cash balance with very little or no borrowing at all. Therefore, increasing net liquid assets in relation to its total capitalization (X1) got CI8's into the healthy zone.

With regards to cash flow, CI8 had a negative change in working capital both in 2007 and 2008, which meant that the firm's current assets were increasing by more than its current liabilities. This meant CI8 was investing in growth. It also showed that the firm had a lot of cash tied in the hands of clients but was paying its subcontractors quickly.

Between 2013 and 2014, change in working capital was positive, indicating an increase in operating cash flow, and 3.76% as a percentage of turnover. Now with percentage of debt/current liabilities at 7.7%, it means that 96.3% of current liabilities is in deferred income and account payables (trade creditors). This means that CI8 is generating more cash for its growth and is consistent with its negative working capital requirement.

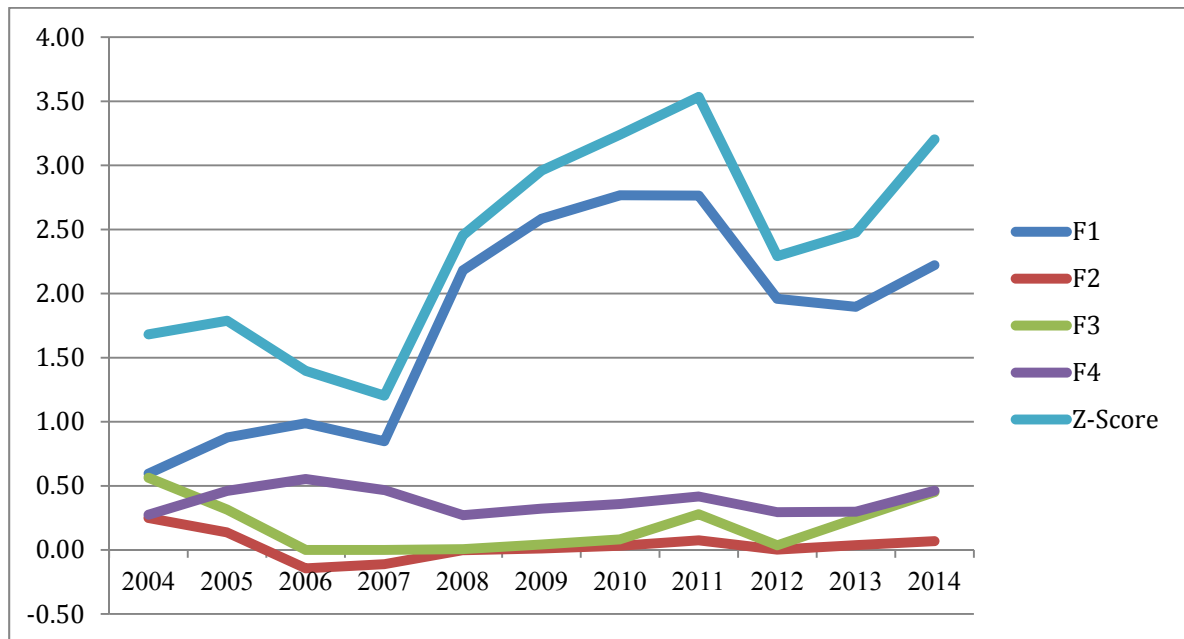


Figure 38: Components of Z-score as applied to CI8 Construction

Figure 38 shows that the Z-score score is heavily influenced by F1, showing that fluctuations in X1 determine the Z-score. Therefore as working capital relative to total capitalization improves, the Z-score also improves.

TW9 Construction

This company has been in business for almost a hundred years specialized in the delivery of traditional construction projects, design and build projects, the commercial and property development and residential developments. It employs between 0-50 employees. Its average annual turnover is around £10m.

As a result of tighter competition in the market when the recession hit, TW9 construction experienced a decline in performance but not to the level of falling into the red zone – although close.

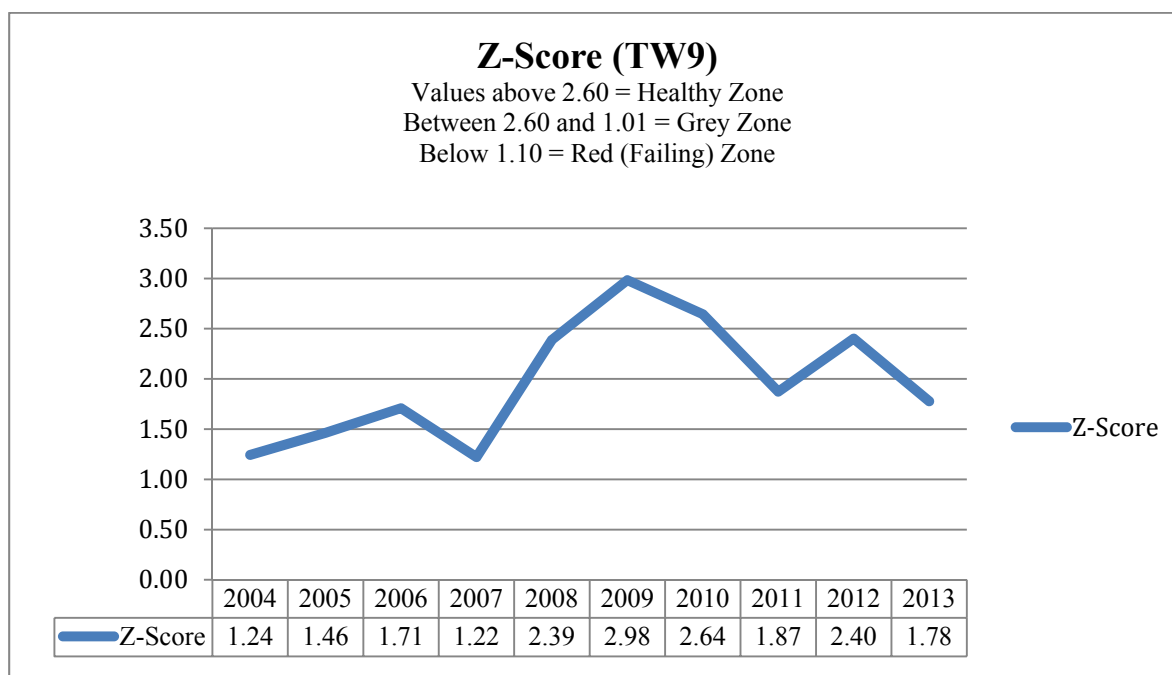


Figure 39: Z-score profile of TW9 Construction

Like CI8 construction, TW9's lowest Z-score year was in 2007, with a Z-score index of 1.22 as evident in Figure 39. However, the Z-score shut back up again in 2008, with a Z-score of 2.39, and continued to rise over the next couple of years. In 2013, TW9 registered a Z-score of 1.78, which shows a drop in company health but still in a good place.

Table 22: TW9 construction's Z-score variables: A comparison of turnaround and Decline years

		<i>Turnaround</i>		<i>Decline</i>
	2013	2008	2007	2006
<i>Financial variables</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>	<i>£m</i>
Turnover	8,272,427	20,905,380	27,602,983	24,276,222
Current assets	11,917,250	14,494,710	15,536,151	14,056,397
Total Assets	11,944,894	14,702,051	15,867,931	14,267,663
Current liabilities	8,731,373	11,358,454	13,329,048	11,876,300
Total Liabilities	8,731,373	11,358,454	13,329,048	11,876,300
Net Worth	3,213,521	3,343,597	2,538,883	2,391,363
Working Capital	3,185,877	3,136,256	2,207,103	2,180,097
Retained Earnings	-415,253	804,714	147,520	563,240
EBIT	-436,025	1,125,502	197,123	818,543
<i>Miscellaneous financials</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Gearing	34.5	5.6	12.4	0
Current ratio	136	128	117	118

Liquidity/Acid test	136	128	117	114	
% Of Cash/CL	0.20	9.4	0.88	10	
% Of Debt/CL	60.2	40.9	41.2	49	
	$\Delta X1$	$\Delta X2$	$\Delta X3$	$\Delta X4$	ΔZ -Score
2008	0.074	0.045	0.063	0.104	1.167
2007	-0.014	-0.030	-0.043	-0.011	-0.488

Table 22 above shows the following about TW9's performance in 2008 (turnaround year)
X1 – Working capital increased by £929,153; change in working capital was positive, and 6% Turnover.

X2 – Retained earnings increased by £657,194

X3 – A profit increased by £928,379

X4 – Net worth increased by £804,714

Turnover decreased by 23%

In 2008, all the four Z-score variables (X1, X2, X3, and X4) were improved upon by TW9 construction and therefore the Z-score improved. The company's liquidity was good (for a construction company) and the gearing level was very low, and within the recommended range for construction (Clough et al, 2005).

Change in operating working capital in 2007 was negative at -2.64% of turnover, indicating a minimal impact on cash flow. Here, current assets were increasing by more current liabilities. This did not affect cash flow as TW9 construction injects some cash to keep the company stable. We can see the % of cash and debt to current liabilities decreased in 2007. Between 2007 and 2008, the company augmented cash flow with short-term debt and by selling off some assets. According to the Accountant, the company sold various assets: land banks and things like that to raise cash to support the business. There was also an element of private borrowing as the banks were not willing to give support. Therefore, the company had a positive change in working capital in 2008. This is consistent with the contractors' negative working capital requirement because now, TW9 is able to generate cash as it grows. Furthermore, between 2012 and 2013, change in working capital was positive, at 6.7% of turnover.

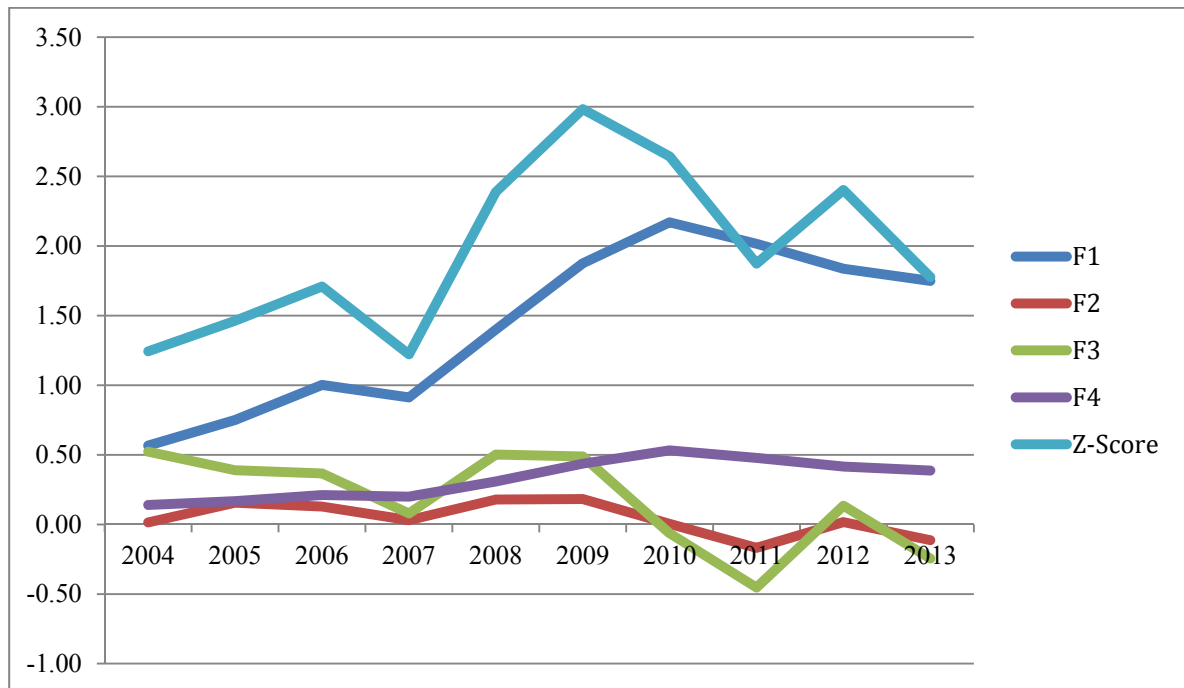


Figure 40: Components of Z-score as applied to TW9 Construction

Figure 40 shows that the Z-score is heavily influenced by changes F1 (X1 component). Therefore, changes in working capital results in changes in the company's Z-score.

Appendix 2

An obvious question on the minds of owners and managers of a small and medium sized construction may be ‘what is the equivalent of my Z-score value to credit rating?’ or ‘where am I on the credit rating scale?’ or ‘am I eligible for credit?’ These are important questions since a company in recovery is looking to improve its financial standing and hence would have borrowing as an obvious option. Altman (2000) has categorized the Z-score according to their equivalent credit rating in the figure below.

LINKING Z-SCORE WITH CREDIT RATING

Z-score	Equivalent Credit Rating
8.15	AAA
7.60	AA+
7.30	AA
7.00	AA-
6.85	A+
6.65	A
6.40	A-
6.25	BBB+
5.85	BBB
5.65	BBB-
5.25	BB+
4.95	BB
4.75	BB-
4.50	B+
4.15	B
3.75	B-
3.20	CCC+
2.50	CCC
1.75	CCC-
0	D

Adapted from Altman (2000)

Looking at the Z-score of the sample construction companies, It can be seen that most lie between D (Default) and CCC+/- . From time to time, you get the occasional B+/- rating. It may be argued that it is because construction has small margins and that is the reason why construction under performs in the capital market. However, although, profitability (EBIT) is a factor to company health and sustainability, it has very little effect on the Z-score (financial health) of a company as we have shown. It is the lack of cash that kills, not profitability. Instead, liquidity is the prime effect of the Z-score, which emphasizes a healthy and positive Working Capital to Total Asset ratio (WC/TA), or any liquidity ratio for that matter. Most of the respondents have attested to the fact that lenders are wary of lending to construction companies because it is a high-risk industry. However, companies must not be discouraged from looking for investors and lenders as some have a fetish for companies with high risks as they can charge more – high risk, high rewards.

The mantra in construction ‘cash is king’ clearly confirms this research findings on the X1 (F1) being the most influential ratio on the Z-score of a construction company. It is evident that Z-score mirrors F1 (X1). That is, when F1 increases, the Z-score increases, and when it decreases, Z-score also decreases. It is also evident from our findings that most of the companies that made a recovery whether into the Grey Zone or into the Healthy Zone, showed increasing Z-scores proportionate to their increasing Liquidity ratio (Working Capital to Total Asset ratio). Therefore, a company looking to make a recovery must strive to increase its Working Capital to Total Asset ratio.

Standard & Poor's (S&P's) Credit rating and Definitions

AAA - Extremely strong capacity to meet its financial commitments. AAA is the highest issuer credit rating by Standard & Poor's.

AA - Very strong capacity to meet its financial commitments. It differs from the highest rated obligors only in small degrees.

A - Strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.

BBB - Adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

The above credit ratings are known as 'investment-grade debt'. As a rule of thumb, investors managing portfolios where the risk should be relatively low, and security of income and capital is more important, will restrict themselves to bonds rated AAA and AA, with perhaps a few single A investments. Consider also a bond's credit history. Has the rating improved or declined over time? Bonds subject to a potential re-rating will be on 'credit watch'.

Below BBB - Bonds rated below BBB are known as 'non-investment grade', 'high yield' or, less charitably, as 'junk' bonds. These bonds are of a more speculative nature, and imply a certain degree of risk. In view of this, the incremental yield available on the instrument must be adequate to compensate the investor for this risk. Standard & Poor's gives the following definitions for non-investment grade debt.

BB - Less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.

B - More vulnerable than the obligors rated BB, but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.

CCC - Currently vulnerable, and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.

CC - Currently highly vulnerable.

C - May be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation are being continued. C ratings will also be

assigned to a preferred stock issue in arrears on dividends or sinking fund payments, but that is currently paying.

NR - This indicates that no rating has been requested, that there is insufficient information on which to base a rating

Plus (+) or minus (-) The ratings from AA to CCC may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

Appendix 3

INTERVIEW QUESTIONS

Introduction

1. Could you briefly give an overview of your relationship to the company – years involved and primary responsibilities held?

Key factors in turnaround (Strategy)

2. What contributed to or caused the downward shift in performance during the years?
3. What do you see as the top five factors to a recovery process in your line of work?
4. Did the company make a conscious decision to initiate a major change or recovery?
5. What was the process by which the company made key decisions and developed key strategies during the recovery era (recovery plan)?

Financial stability

With regards to:

What is the make up of your Total Assets?

6. *Liquidity*

- i. How did you increase working capital?

Options:

- *Debt repayment (plan, negotiating debt contracts)*
- *Increase current assets from loans and other borrowings with a maturity of more than one year*
- *Converting non-current assets into current assets*
- *Increase current assets from new equity contributions*
- *Putting profit back into the bus (Retained earnings)*

7. *Profitability*

- i. How did you improve profitability? (*Strategies*)

8. *Leverage*

- i. How did you reduce company debt?
- ii. How did you select the type of leverage to adopt?

9. *Solvency*

- i. How did you increase your ability to meet your long-term debt (Solvency)?

Type of debt (long term debt preferred)

Reducing debt (liabilities)

Negotiations with lenders

10. *Activity*

How did you select the type of projects to invest in? (*Selection criteria*)

How did you win more work? (*Strategies and marketing*)

Did you have to reduce margins or tender below cost just to survive?

Did you adopt partnering when tendering for work?

Did you perceive clients attitude change towards lowest price instead of best value?

What contract type did your company use before the recession and which contract type do you use more since the recession, the NEC or the JCT?

Leadership in the turnaround

11. How did you select the person(s) to spearhead the turnaround?

12. What was the role, if any, of outside consultants and advisors in making the key decisions?

Stakeholder management

13. How did the company get commitment and alignment with its decisions?

- Employees (*leadership style, motivation, incentives, succession*)
- Banks
- Subcontractors and Suppliers
- Clients

Can you cite a specific example of how this took place?

14. If you could do it again, what will you do differently?

15. What did you try during the recovery that didn't work?

16. We will be comparing successfully recovered companies to failed recovery companies in the construction industry. What was different about the recovered companies that enabled them to make the recovery? Other companies could have done what you did; what did you have that they didn't?

Can you think of one particularly powerful example from your experience or observation that, to you exemplify the essence of the recovery?

17. How does your company define success?

18. Are there any questions we didn't ask, but should have?

Who else would you strongly recommend that we interview?

- *Inside management during and after the recovery.*
- *External board members or other key outside people.*

19. Where are you now going forward?

Appendix 4



SCHOOL OF THE BUILT ENVIRONMENT
UNIVERSITY OF SALFORD
SALFORD
M5 4WT

Kanadi Jagafa
School of the Built
Environment
Maxwell Building,
University of Salford
k.a.i.jagafa@edu.salford.ac.uk
Tel: 07551568335

Company: BT1 Construction

Dear

INVITATION TO PARTICIPATE IN DOCTORAL (PhD) RESEARCH

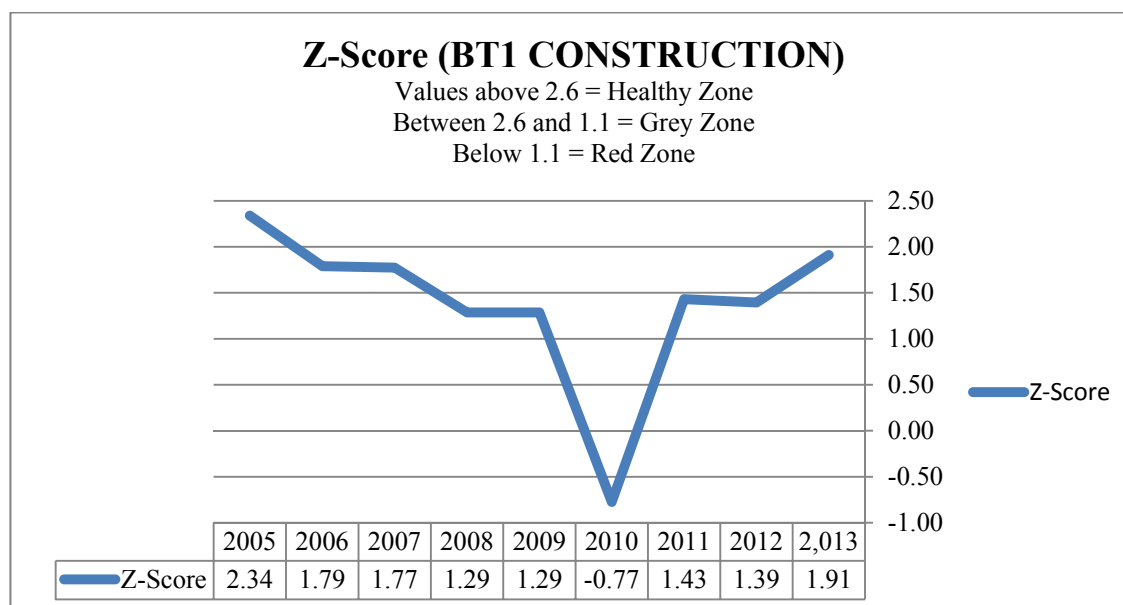
Research Title: A Model for Construction Business Recovery

I am a PhD student at the School of the Built Environment, University of Salford, where I am researching on business recovery strategies used by construction companies in the UK to get through the recent economic downturn.

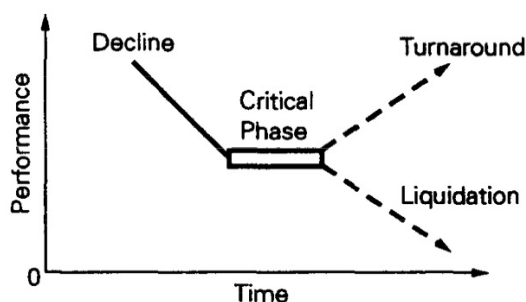
The research will be comparing successful turnaround companies to unsuccessful turnaround companies in the industry so as to identify strategies that work and those that can be improved upon.

Using the Altman's Z-score ($Z = 6.56(X1) + 3.26(X2) + 6.72(X3) + 1.05(X4)$), a bankruptcy prediction model, and your financial information, provided by company check, we were able to calculate your company's financial health over the past few years. The chart line shows a continuous decline in company health from a Z-score of 2.34 (Grey

Zone) in 2005, to a Z-score of -0.77 (Red Zone) in 2010. However, there was a continuous rise in the Z-score from 2011 onwards.



Your company Z-score profile is a typical profile of most successful turnaround companies. First, the ‘decline stage’ where the problem becomes apparent; then the ‘critical phase’ where plans are drawn to turnaround performance; and lastly; the result is a successful turnaround.



PRACTICAL APPLICATION OF FINDINGS FROM THE RESEARCH

Your company is one of the companies on our list that has shown improvements coming through the recession. Our interest is to understand what happens at the “critical stage” – the strategic and operating decisions made, the actions taken, how they were taken and why; so that lessons could be learned and hopefully good practices could be duplicated in the future. The research will provide the participating company with the opportunity to compare their present strategic business position with other competing companies in the industry and therefore, improve good practice and avoid future decline. Hence, summative findings from the research will be made available to the participating companies.

CONFIDENTIALITY

All information provided by participation companies will be treated with complete confidentiality. The identity of the companies and individuals will be concealed.

Should you choose to participate, this would be in form of an audio-recorded interview. Your participation in the interview is entirely voluntary and you may discontinue the interview at any point during the session, or decide not to answer any questions with which you are uncomfortable. In case you discontinue the interview, answers you have given until that stage will be disposed and you will not be considered as a respondent. You may also stop at any time to ask any questions you may have. The interviews will last around 60 minutes. The recordings will be de-identified and encrypted immediately and will only be accessible to the principal researcher, i.e. me – Kanadi Jagafa, and my supervisor, Dr. Gerard Wood.

For further clarification or information about this research, please do not hesitate to contact me (details above) or Dr. Gerard Wood (my supervisor) on 0161 295 4277 or G.D.Wood@salford.ac.uk.

I shall be most pleased if you could confirm your participation in this research within two weeks through the above contact email address. Your response of receipt of this letter will be most

Yours Sincerely

(PhD Candidate)

Appendix 5

Sample Validation Document

Hi,

I don't know if you remember me. We had a telephone interview a few months back. I am a PhD student at the University of Salford, Manchester. I am researching on Framework for Construction Business Recovery. I have finalised my findings and I wanted you to look at it and give me your feedback. Feel free to move things around, include or remove from the framework and the tables. Please find the document attached.

I look forward to hearing from you.

Warm regards.

Kanadi Jagafa

(PhD Researcher)

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Strategies for Construction Business Recovery

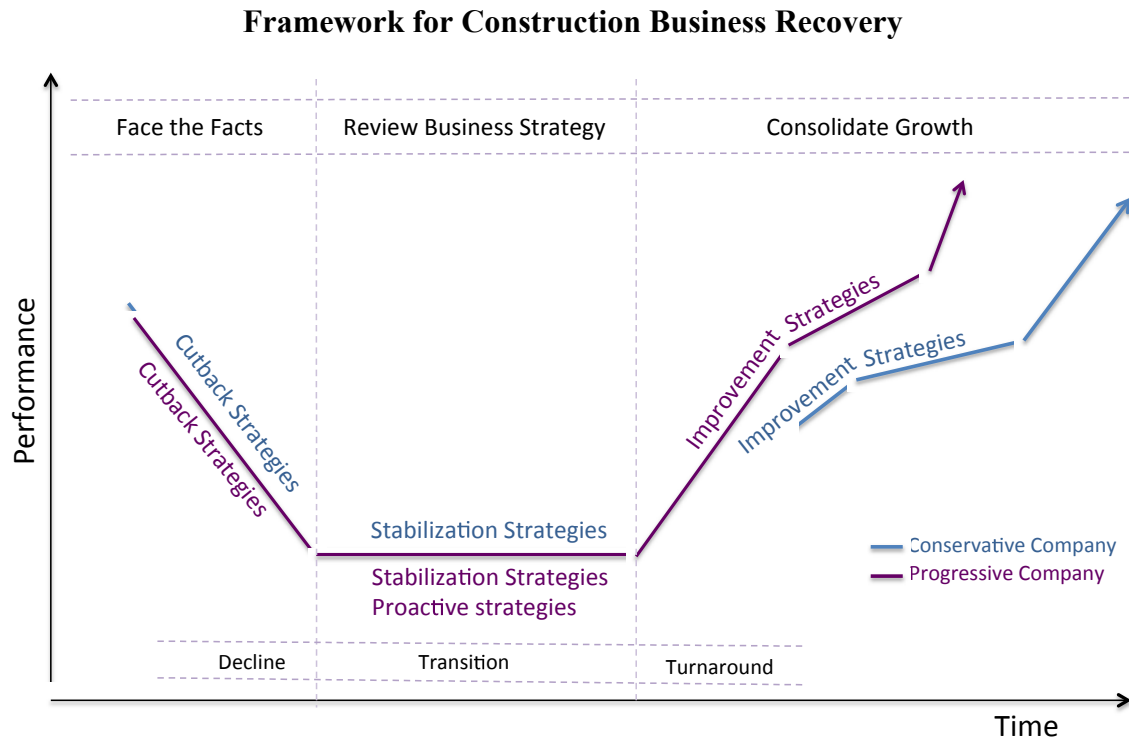
The findings of this research revealed that in times of difficulty or recession, two distinct types of construction companies emerge – the Conservative Company and the Progressive Company. As such, it was also revealed that there are two distinct business turnaround approaches in construction – the Conservative and Progressive Approach.

Conservative Turnaround Approach

These contractors are more focused on efficiency. They are also called ‘Defenders’ (Miles and Snow, 2003). They are mainly concerned with preservation. When faced with tough times like the recent recession, conservative companies make use of a mixture of cutback and management turnaround strategies to focus more on improving the efficiency of their existing operations and then wait for the storm to pass before growing slowly again – more like hibernation. Basically, the strategy is; shrink the business down to a manageable size, tender for much smaller jobs with bigger margins on more holistic type of building projects, and do as many as practicable through out the year. The conservative company has a slow but steady growth. See Table A for more detail.

Progressive Turnaround Approach

On the other hand, progressive contractors, though efficient, use growth and restructuring strategies to take advantage of the market – taking up new and experienced employees that other companies could not afford to keep, tendering for much bigger jobs and buying other companies. They also make use of innovative strategies e.g. technology, to continuously seek and exploit new market opportunities; hiring the best skilled force, and expanding market share through mergers and acquisitions. Coming out of the recession, the progressive contractor recovers faster than the conservative contractor because of its early preparedness to take advantage of growing opportunities in the market. But they have to have some cash prior to the recession. However, if things don’t go according to plan, it can be dangerous for the company’s survival since its risks and exposure is now greater. See Table B for more detail.



- **Cutback strategies** involve exploring every avenue of keeping cash in and stop cash going out.
- **Stabilization Strategies** involve strategies to strengthen the company in its new form, hence the emphasis on efficiency
- **Proactive strategies** involve a blend of growth and restructuring strategies
- **Improvement strategies** involve exploring avenue of consolidating the recovery and making sure the company builds in the growing momentum

Table A: Conservative Turnaround Approach

Cutback Strategies	Stabilization Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Reduce overheads - Cut cost – value engineering - Strict management of cash - Daily cash flow review and weekly cash flow forecast - Increase working capital (this could take different dimensions) - Reduce gearing - Novate contracts across to other competent contractors - Shrink company to manageable size 	<ul style="list-style-type: none"> - Remain true to the company's core business strategy but innovate to make services and products better - Re-negotiate debt repayment - Get support of stakeholders – getting paid quickly by clients, asking subcontractors for additional time to make payment, asking suppliers for extended line of credit, ask for discounts, or search for alternative cheaper supplies, and asking staff to give their best in the jobs that they do 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don't fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other sectors of the industry

<ul style="list-style-type: none"> - Bid for smaller jobs (more competition) 	<ul style="list-style-type: none"> - Identify alternative use of assets and redirect to income generating ventures - Adopt competitive tendering for supply-chain - Emphasize efficiency to avoid repeat work - Luck 	
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Table B: Progressive Turnaround Approach

Cutback Strategies	Stabilization Strategies	Proactive Strategies	Improvement Strategies
<ul style="list-style-type: none"> - Reduce overheads - Cut cost – value engineering - Strict management of cash - Daily cash flow review and weekly cash flow forecast - Increase working capital (this could take different dimensions) - Reduce gearing - Maintain the market presence. In other words, keep the market share and use pay cuts to augment cash flow 	<ul style="list-style-type: none"> - Remain true to the company's core business strategy but innovate to make services and products better - Review Economic Engine - Re-negotiate debt repayment - Get support of stakeholders – getting paid quickly by clients, asking subcontractors for additional time to make payment, asking suppliers for extended line of credit, and asking staff to give their best in the jobs that they do - Identify alternative use of assets and redirect to income generating ventures - Adopt competitive tendering for supply-chain - Emphasize efficiency to avoid repeat work - Luck 	<ul style="list-style-type: none"> - Management change - Hire experienced and skilled people to reinforce and drive the turnaround - Use of technology: BIM and tendering, CRM software - Bid for bigger jobs (less completion) - Merger and acquisition 	<ul style="list-style-type: none"> - Change systems, structures, and policies that don't fit with the turnaround - Hire, promote, and develop employees to consolidate the turnaround - Diversify and expand portfolio into other sectors of the industry

It is imperative to understand that our analysis showed that approaches turnaround companies adopt, are neither exclusively conservative or progressive, rather companies tend to lean more toward one approach than the other.

