THE RELEVANCE OF PROJECT MANAGEMENT BEST PRACTICE AND ITS APPLICATION IN THE UK CONSTRUCTION INDUSTRY

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Abstract

Professional project management associations have produced practice standards that may be used by practitioners, professional services firms and clients. This research was undertaken to explore the relevance of these professional project management practice standards (PPMPS) and their application in the UK construction industry.

There is scant literature available on the PPMPS and therefore a deficiency of understanding about their compilation, scope and use in the UK construction industry. The industry faces many challenges including difficulties in retaining a skilled workforce and a mixed record of delivering public projects on time and within budget.

The use of a cross-sectional single case study research strategy was adopted and primary data was generated from professional services firms and clients using semi-structured interviews. This data was used to triangulate with research undertaken by the Author in 2014. The previous research explored how individual practitioners in the UK construction industry availed themselves of the PPMPS.

This research concludes that the PPMPS provides a de minimis benchmark for project management services and guidance to new entrants in to the profession. However, the limitations of the PPMPS include: they are not easy to access quickly, are not regarded as providing professional services firms with a commercial advantage, are not sufficiently promoted within the construction industry or to its clients, and that tacit knowledge and experience are more important than codified knowledge.

This research includes recommendations to improve project management best practice. Using structuration theory, it is proposed that professional services firms' and clients' In-house standards have the potential to become the de-facto PPMPS. The concepts of the "Semi-detached Professional" and "Bureaucratic project manager" are introduced as interpretations of the findings generated from the practitioners, professional services firms and clients to provide a new understanding of professionalism in project management.

Key Words: professional services firms, clients, professional project management practice standards, In-house standards, structuration theory.

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Declaration

This is to certify that the copy of my thesis, which I have presented for consideration for my postgraduate degree: -

- 1. embodies the results of my own course of study and research;
- 2. has been composed by myself;
- 3. has been seen by my supervisor before presentation; and
- 4. has been granted the appropriate level of ethics approval.

Abbreviations

APM	Association for Project Management
BoK/BoKs	Body/bodies of knowledge
CIOB	Chartered Institute of Building
СоР	Code of Practice for Project Management for Construction and Development
CPD	Continuing professional development
CPMS/CPMSs	Chartered Project Management Surveyor/Surveyors
DBEnv	Doctor in the Built Environment
PII	Professional indemnity insurance
PMI	Project Management Institute
РМО	Project management office
PMPG	Project Management Professional Group
PPMA/PPMAs	Professional project management association/associations
PPMPS	Professional project management practice standards
PSF/PSFs	Professional services firm/firms
RICS	Royal Institution of Chartered Surveyors

Definitions

Black boxing of knowledge means the adherence to codified knowledge in the professional project management practice standards in all circumstances and the refusal to challenge existing theories of, and/or long-held beliefs in project management.

Bureaucratic project manager means an individual who avoids making difficult decisions on a project so they unduly focus on processes that, arguably, bring little tangible value to the project.

Chartered Project Management Surveyor means an individual who is a member of the Royal Institution of Chartered Surveyors' Project Management Professional Group.

Corpus means the Association for Project Management's Body of Knowledge, the Royal Institution of Chartered Surveyors' Project Management Professional Group's Guidance Notes and Information Papers and the Chartered Institute of Building's Code of Practice for Project Management for Construction and Development.

Early-career Professional means an individual who is attempting to achieve chartered or member status of a professional project management association. Alternatively, the individual has achieved chartered or member status of a professional project management association and has less than five years' post-qualification experience.

In-house standards means the procedures and processes that a professional services firm will use when providing project management surveying services. These may comprise, practice standards developed by the professional services firm itself, professional project management practice standards, the Corpus, ISO 21500:2012, quality assurance guidance or any other documents deemed by a professional services firm necessary to provide project management surveying services.

Mid-career Professional means an individual who has achieved chartered or member status of a professional project management association and has between 5-15 years' post-qualification experience.

Practices means "shared routines of behaviour including traditions, norms and procedures for thinking, acting and using 'things', this last in the broadest sense" (Whittington, 2006, p. 619). NB: The Corpus is classified as a practice.

Practitioners means "the strategists who perform this activity [praxis] and carry its practices" (Whittington, 2006, p. 619).

Praxis means "actual activity: what people do in practice" (Whittington, 2006, p. 619).

Preliminary practice-based research means the research that explored the extent that Chartered Project Management Surveyors availed themselves of professional project management practice standards, which was undertaken by the Author between 2012 and 2014.

Professional project management associations means the Project Management Institute, the Association for Project Management, and, the Royal Institution of Chartered Surveyors' Project Management Professional Group.

Professional project management practice standards means documents that provide written guidance or instruction on project management praxis, including its ethical and administrative dimensions, which are approved by the Professional Project Management Associations and the Chartered Institute of Building.

Professional services firm/firms means an organisation/organisations that employs Chartered Project Management Surveyors and or other Chartered Surveyors that provide professional project management surveying services.

Project management surveying means the project management services necessary throughout the life cycle of a capital project that are provided by a Chartered Project Management Surveyor (or a Chartered Surveyor with the appropriate project management qualifications).

Semi-detached Professional means an individual that is a member of a professional project management association but has decided not to fully participate in or support that professional project management association's activities.

Senior Professional means an individual who has achieved chartered or member status of a professional project management association and has more than 15 years' post-qualification experience.

Supercomplexity is defined as "living in an age in which our very frameworks for comprehending the world, for acting in it and for relating to each other are entirely

problematic. We live in a world characterised by contestability, challengeability, uncertainty and unpredictability" (Barnett, 1999, p. 29).

Chapter 1: Introduction

1.0 Introduction to the Thesis

The thesis is situated within the academic discipline of project management. There are various definitions of project management available and it can be defined as "the overall planning, coordination and control of a project from inception to completion" (CIOB, 2014, p. 2). The fifth best-selling international standard produced by the International Standards Organisation is ISO 21500:2012 Guidance on project management (Giotus, 2013). Project management accounts for 25% of national economic activity (Morris, 2016) and it is therefore suggested that it is an important subject that merits scholarly attention. This thesis suggests that there is a gap in the literature and proposes to make a contribution to the discipline of project management with a specific focus on the UK construction industry.

The Author is a practising project manager in the UK construction industry and commenced the Doctor in the Built Environment (DBEnv) course at the University of Salford in 2012 with the aim of completing the programme by September 2017. In 2014, a Preliminary practice-based research was completed (McCann, 2014a), which explored the extent that chartered project management surveyors (CPMSs) availed themselves of professional project management practice standards (PPMPS). This previous research was undertaken in the context of the UK construction industry and provided the opportunity to inform and influence how the DBEnv research would be completed in 2017. Appendix A includes a summary of the Preliminary practice-based research findings.

The aim of this research is to explore the relevance of project management best practice and its application in the UK construction industry. Primary data was gathered from professional services firms (PSFs) and clients in the UK construction industry. This thesis is presented in seven chapters to provide readers with an understanding of this research.

1.1 Introduction to Chapter 1

Chapter 1 introduces background information on the emergence of modern project management and its relevance to the UK construction industry that will assist the reader to understand the context of this research. The justification and value of this research are considered. The aim of this research, the research objectives and questions are confirmed and the final part of this chapter includes an overview of Chapters 2-7.

1.1.1 The Relevance of Project Management to the UK Construction Industry

The construction industry is estimated to contribute approximately 7% of the UK's gross domestic product and was valued at £90bn in 2011 (HM Government, 2013). By 2016, the construction industry was estimated to be valued at £100bn (Farmer, 2016). The UK construction industry is the most established project-based industry (Cheng, Dainty, & Moore, 2005). It is argued that the construction industry has some significant challenges and should improve its performance for its clients. The various problems in the industry are well known: e.g. a difficulty in retaining skilled labour and a mixed record of delivering public sectors projects on time and within budget (House of Commons, 2012). Low productivity, weak and uncertain profit margins, and a predicted decline in the labour market are additional problems facing the industry (Farmer, 2016). Inefficient procurement practices and a highly fragmented industry containing more than 300,000 businesses are highlighted as just some of the reasons for the industry's underperformance (Cabinet Office, 2011).

The UK government is a major client of the construction industry and has produced many reports on its performance. Murray and Langford (2003) observed that from 1944 to 1998, the government had undertaken 11 significant reviews of the construction industry. They concluded that

the industry has become less attractive ... demands on the industry cannot be met ... it cannot attract staff to deliver projects on time (Murray & Langford, 2003, p. 7).

The publication of *The Farmer Review of the UK Construction Labour Model* (Farmer, 2016) is the twelfth significant and latest review of the construction industry. The construction industry has maintained a mixed record of delivering capital projects in the public sector, e.g. more than 70% of projects exceeded their original contract date and budget (National Audit Office, 2001). More than a decade later, only one-third of major projects were delivered on time and within budget (House of Commons, 2012). Poor estimates, changes in project scope and inadequate resources continue to be cited as the main reasons why projects are not delivered successfully (PWC, 2014). Cheng et al. (2005) argued that the project manager's role in the construction industry is a demanding one and it is suggested that this is an accurate opinion when considering the problems facing the construction industry.

The UK government has recognised that project management is a tool for improving the performance of the construction industry and specifically its improved delivery on public sector projects. This is evidenced by its plans to improve governance and internal client skills

in accordance with the remit of then Major Projects Authority (Cabinet Office, 2012, p. 24 & 25). The Chief Executive and Chairman of the Olympic Delivery Authority attributed the successful delivery of the London 2012 Olympic Games to effective project management (APM, 2012b).

Project management as a key tool for successfully delivering projects may become harder to assess in the public sector as the adoption of project management processes does not appear to be undertaken consistently by central government departments. The piecemeal implementation of standards and departments non-compliance with ongoing due diligence checks have been highlighted as problems in delivering projects (Browne, 2013).

There are various aspects to project management, e.g. managing performance, stakeholder engagement, governance, managing risk, sustainable development, knowledge and learning etc. As an example, there are 33 chapters on different topics of project management for practitioners in the *Gower Handbook of Project Management* (Turner, 2016).

This research refers to the knowledge and learning dimensions of project management, specifically the relevance of project management best practice guidance and its application in the UK construction industry. The research focuses on the whole of the UK construction industry to provide a comprehensive understanding of the relevance of project management best practice and its application in the construction industry. It also considers the following matters: the emergence of modern project management, the growth of professional bodies that promote project management best practice, the emergence of project management surveying, the concept of project management best practice and its limitations, and project managers' competencies.

It is proposed that individual practitioners, professional services firms (PSFs), clients and professional bodies play significant roles in the application of project management best practice in the UK construction industry. For the purposes of this research, a PSF is defined as "an organisation that employs Chartered Project Management Surveyors and/or other Chartered Surveyors that provide professional project management surveying services".

1.1.2 The Emergence of Modern Project Management

The term 'modern project management' is used to draw specific attention to project management techniques and tools that were not previously codified or widely known among practitioners. The Association for Project Management (APM) has defined 'project

management' as "the application of processes, methods, knowledge, skills and experience to achieve the project objectives" (APM, 2012a, p. 12).

The Project Management Institute (PMI) has defined a 'project' as "a temporary endeavour to create a unique product, service or result" (PMI, 2008, p. 3).

After World War II, western governments experienced many problems when trying to ensure their economies would grow, e.g. a shortage of materials, a lack of skilled labour, etc. It is generally accepted that the USA was spurred onto rapid increases in public expenditure in science and complex projects after the Soviet Union launched its Sputnik satellite in 1957. Schon (1983, p. 39) asserted that the USA's actions highlighted the shortage of scientists and "set the stage for the triumph of professionalism". Snyder (1987) supported Schon's comments and observed that the late 1950s heralded the emergence of large and complicated projects and used the term 'modern project management' for the recognition of project management techniques.

There is a consensus that 'modern project management' emerged in the 1950s. The Chartered Institute of Building (CIOB) has similarly referred to the expression "modern introduction of project management" (CIOB, 1992). Bredillet (2010, p. 5) concurred with (Crawford & Pollack, 2006) on their observations of modern project management and asserted that "the development of knowledge was led by the users". Crawford and Pollack (2006) argued that the term 'project manager' was introduced by international firms working on capital projects in the 1950s.

Kerzner (2014) proposed that in 2014 project management techniques were being used in almost all industries. The use of projects to deliver corporate objectives has increased at a global level (Bredillet, Tywoniak, & Dwivedula, 2015; Ramazani & Jergeas, 2015). Bredillet (2010, p. 4) argued that "project management makes a significant contribution to value creation globally" and it is envisaged that developments and changes in project management will continue given the volume of expenditure on projects on a global scale. However, concerns have been raised about the concept of "projectification" and its repercussions for society (Lundin, 2016; Lundin, Midler, & Wahlin, 2015; Lundin & Soderholm, 1998).

1.1.3 Growth of Professional Project Management Associations

Project management is a growing profession which is partly evidenced by the expansion of professional project management associations (PPMAs) and the development of project management as an academic subject.

It is proposed that professional project management is the procedures and processes the PPMAS have established and detailed in their BoKs and standards. This codified knowledge can be easily accessed for a modest fee by practitioners. This is distinctive from other forms of project management standards that may be produced by other bodies, e.g. Global Allowance for Project Performance Standards which is not widely known or accessible in the UK construction industry.

For the purposes of this research, the PPMAs that are considered relevant are the PMI, the APM and the Royal Institution of Chartered Surveyors' (RICS) Project Management Professional Group (PMPG). The PMI is the largest of the PPMAs, it was established in 1969 in the USA and has 450,000 members worldwide (PMI, 2017a). The APM was established in 1972 in the UK and has more than 21,150 members (APM, 2016). The RICS introduced the qualification of 'Chartered Project Management Surveyor' in 2001 (McCann, 2013) and there are more than 30,000 CPMSs worldwide (McCann, 2014b).

The APM and PMI aspire to produce project management products, e.g. bodies of knowledge (BoKs) and training programmes, that can be applied pan-sector. The BoKs can be regarded as a form of codified knowledge. Egbu and Robinson (2005, p. 46) argued that the construction industry is a knowledge-intensive sector and that knowledge "is critical for effective action in the economy of the future and can bring critical competitive advantage".

Pinto and Covin (1989) argued for a distinction between different types of projects and the implications these may have for the future development of project management theory. They cautioned against academics suggesting universal solutions for project management research. It is suggested that the RICS and the CIOB have a significant role to play as professional bodies promote project management in the construction sector. The RICS has the opportunity to promote the project management profession within the construction industry with its concept of project management surveying and the introduction of its CPMS qualification. Likewise, the CIOB has published its Code of Practice for Project Management for Construction and Development (CoP).

1.1.4 Project Management Surveying

There is a need to consider the history of project management in other industrial sectors rather than the traditional focus on large, US military projects (Lenfle & Soderlund, 2014). The history of project management surveying in the UK construction industry does not appear to be widely recognised in the literature (McCann, 2014a). It seems that only the contributions of the APM and the PMI to the development of project management have been recognised and scrutinised by academia. Various prominent authors in the project management discipline make no reference to the RICS, its PMPG or the existence of CPMSs (Blomquist, Hällgren, Nilsson, & Söderholm, 2010; Bredillet, 2010; Dalcher, 2014b; Hodgson & Cicmil, 2006a; Morris, 2012; Morris, Crawford, Hodgson, Sheperd, & Thomas, 2006; Muzio, Kirkpatrick, & Kipping, 2011; Winter, Smith, Morris, & Cicmil, 2006). The benefits of having a greater understanding of the history of project management include improving project management theory and practice and learning lessons from past experience (Lenfle & Soderlund, 2014).

It is suggested that 'project management surveying' for the purposes of this research, can be defined as the "project management services necessary throughout the life cycle of a capital project that are provided by a Chartered Project Management Surveyor(or a Chartered Surveyor with the appropriate project management qualifications".

This definition is needed to distinguish it from 'construction project management' which is used by some practitioners to describe the project management services provided by a building contractor organisation (rather than those of a professional services firm) for constructing a capital project.

It is worth noting that project management surveying appears to receive little attention in the construction industry. It is suggested that one reason for this is the prominence and size of the quantity surveying profession. Speirs (2017) argued that the origin of the quantity surveying profession begin in April 1815. It is difficult to directly value the contribution that project management surveying makes to the UK economy because the Office for National Statistics has no formal statistical classification for this activity (L. Prosser, personal communication 1 December 2015).

It is proposed that the gap in the existing literature is addressed by this research. Kozak-Holland and Procter (2014) argued it was important to understand the historical developments

in project management. It is proposed that it is important to have an understanding of the role of CPMSs and their contribution to the project management profession in the UK construction industry.

1.1.5 Concept of Professional Project Management Practice Standards and the Corpus

For the purposes of this research, the concept of PPMPS is introduced. The PPMPS provides "written guidance or instruction on project management praxis, including its ethical and administrative dimensions, which are approved by the Professional Project Management Associations and the Chartered Institute of Building". Whittington (2011, p. 619) defined praxis as

... what people do in practice on a regular basis. The domain of praxis is wide, informal and formal, routine and extraordinary activities.

This research focuses on three key PPMPS that are referred to herein as the 'Corpus'. For the purposes of this research, the definition of the "Corpus" means the APM's BoK, the RICS PMPG's Guidance Notes and Information Papers and the CIOB's CoP. The PMI's BoK was not used by CPMSs in the UK construction industry (McCann, 2014a). However, it should be noted that the research questions posed to CPMS interviewees in 2014 referred to "professional project management practice standards" and this was to allow the interviewees to discuss *additional* guidance they considered to be project management best practice, other than the Corpus. See Figure 1 (Contents of the Corpus and the PPMPS) below.

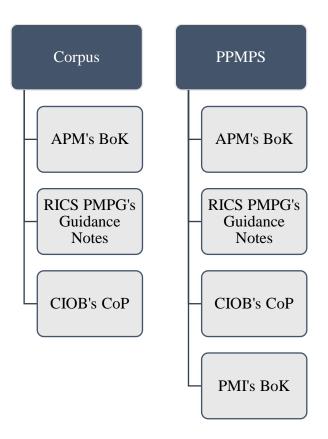


Figure 1: Contents of the Corpus and the PPMPS

Further rationale for the decision to focus on the Corpus is explained in Chapter 3 (Research Methodology).

1.1.5.1 Defining a Practice Standard and Best Practice

It is understandable that there are different views about what defines or constitutes a practice standard or a code of practice which results in potential confusion for users. Berg, Horstman, Plass, and Van Heusden (2000) highlighted a similar issue in their study of standardisation and professionalism of insurance medicine. They listed out different terms, such as 'guidelines', 'standards' and 'protocols', and concluded

although many authors would claim that there are relevant differences between 'guidelines' and 'protocols' for example, the terms are used interchangeably and there is no general agreement on the relevance or clarity of the claimed differences (Berg et al., 2000, p. 787).

It is suggested that there may be some further confusion about the meaning of 'best practice' Godbold (2015) challenged the concept of best practice and argued that it can lead to lazy decision making and use of codified advice without context, and that the aim should be for "good practice". However, Loo (2002, p. 93) and Alias, Ahmad, and Idris (2012, p. 10) surmised from the literature that 'best practice' may "be described as the optimum ways of

performing work to achieve high performance". Despite the existence of a definition for best practice, businesses do not agree on what constitutes best practice or that capturing best practice leads to continuous improvements (Kerzner, 2014). Sanjuan and Froese (2013) would not define what 'best practice' meant in project management and instead proposed that a bench mark for project management standards were those that had been subject to investment and in widespread use, e.g. PMI's BoK. No mention is made in their research of the APM's BoK, the CIOB's CoP and the RICS's Guidance Notes. No formal project management practice standards existed in the 1970s and 1980s for CPMSs in the UK (McCann, 2014a).

It is suggested that PPMAs, PSFs, clients and government use the term 'best practice' as it is an easier way when communicating with the public and clients rather than listing out the specific standards or documents under discussion.

1.1.6 Limitations of the Bodies of Knowledge

The limitations of, and concerns, with the BoKs for project management have been reviewed in different ways for more than a decade (Bredillet, 2010; Cicmil & Hodgson, 2006; Dalcher, 2014b; Hatfield, 2014; Kozak-Holland, 2013; Maylor, 2001; Savelsbergh, Haversmans, & Storm, 2016).

Morris, Crawford, et al. (2006) considered that the BoKs have become de facto standards for practitioners. Crawford and Pollack (2006) supported this view. It is suggested that these opinions are accurate; for example, the PMI promotes its BoK as "the globally recognised standard and guide for the project management profession" (PMI, 2013, p. 1). However, it is suggested that PMI's BoK is not a widely used in the UK construction industry (McCann, 2014a). Another criticism of the BoKs is that they fail to keep up to date with cutting-edge practice (Hatfield, 2014; Maylor, 2001). Bredillet (2010, p. 5) proposed that the development of project management was led by the PMI in the 1980s but contested that the knowledge was flawed as it continued to be "very user-oriented, and did not always adhere to recognised standards of academic rigour".

Hodgson and Cicmil (2006b) considered that the BoKs could lead to "black boxing" of knowledge on project management that would not provide project managers with the appropriate critical thinking skills necessary for complex projects. Morris, Crawford, et al.

(2006) warned academics that they should not rely on the PPMAs to set standards for the education of project managers.

A decade later, the debate continued on the limitations of the BoKs (Savelsbergh et al., 2016). They argued that most project managers' learning occurs on the job and furthermore, that project managers use their own personal standards about what represents good project management practice. Savelsbergh et al. (2016) did not cite additional references to support their claim or identify the competency level of the project manager.

However, there is a gap in the existing literature as this does not make reference to the RICS's Guidance Notes. The limitations of, and concerns, with the BoKs are used as a basis to explore the relevance of project management best practices and its application in the UK construction industry.

1.1.7 Knowledge Management and Project Managers' Competencies

There is recognition that while the BoKs have limitations, they may have a role to play in developing project managers' knowledge and competencies. Kreiner (2002, p. 112) opined that "knowledge is the icon of the new economy". It is argued that the importance of knowledge in maintaining a successful and competitive economy is widely accepted. Construction is a knowledge-based industry and therefore businesses operating within it should have a knowledge management strategy in place (Anumba, Egbu, & Carrillo, 2005). Crawford (2005) proposed that the development of project management competencies has had an impact on both project and corporate outcomes. CPMSs felt that the Corpus was especially relevant to the development of Early-career Professionals (McCann, 2014a). An Early-career Professional is defined as "an individual who is attempting to achieve chartered or member status of a professional project management association". Alternatively, the individual has achieved chartered or member status of a professional project management association and has less than five years' post-qualification experience.

It is argued that the Corpus has a role in educating and informing practitioners and this implicitly provides knowledge to PSFs and clients. The research considers the extent that the Corpus is considered relevant for the development of project managers' competencies.

1.2 Introduction to the Research Requirement

Denscombe (2012) argued that "what is it all about?" is a key question that should be capable of being answered in a research proposal. It is interpreted that there should also be a clear requirement for the research to be undertaken. This section considers the research problem, justification for, and the value of research that explores the relevance of project management best practice and its application in the UK construction industry.

1.2.1 The Research Problem

Ahmed and Opoku (2016) cautioned that when researchers propose that there is a gap in the research it should be factual rather than based on anecdotal experience. Leedy and Ormrod (2014, p. 6) had a less stringent approach and argued that research begins with a problem and includes "an unanswered question in the mind of the researcher".

The Author's experience, professional doctorate and the outcome of the literature review are used to support the claim that a research problem exists regarding the relevance of project management best practice and its application in the UK construction industry.

1.2.1.1 Author's Experience

Drake and Heath (2011) contended that insider research, i.e. an individual undertaking research in their own area of expertise, presupposes some prior knowledge and experience of the research matter under consideration. The Author has worked in the construction industry for more than 25 years. Eraut (1994) recognised the significance of tacit knowledge for professionals. Tacit knowledge is described as

the awareness of knowing how to do something without being able to provide an adequate analytical description of it and, therefore, without being able to translate it into formal, universal and general knowledge (Nicolini, 2012, p. 57).

The Author was the Chairman of the RICS's PMPG from February 2011 to May 2014 and is a practising project manager who maintains an interest in the development of project management practice.

The Author was the Lead Author of the RICS's Development Management Guidance Note (DMGN) to enable CPMSs to understand this aspect of the project management life cycle (RICS, 2009b). There are more than 30,000 CPMSs worldwide (McCann, 2014b). However, the draft DMGN was issued to RICS members but fewer than 100 responded to the

consultation. It may be argued that a low survey response to a survey may be acceptable from a statistician's perspective. However, it is contested that PSFs, clients and practitioners should participate in preparing draft guidance that may impact on their delivery of project management surveying services.

The lack of engagement from members seems to signal some troubling questions: do PSFs, and members of the profession who act as client representatives, consider that practice standards are of no significance or interest? Is the lack of response a result of members not engaging with their professional body? Are the proposed standards simply not required by the members? Do PSFs and clients believe that their own In-house standards are better?

In-house standards are defined for the purpose of this research as "the procedures and processes that a professional services firm will use when providing project management surveying services". They may comprise practice standards developed by the PSF itself, professional project management practice standards, the Corpus, ISO 21500: 2012, quality assurance guidance or any other documents deemed by a professional services firm necessary to provide project management surveying services.

It is not known if other professional bodies have difficulties in obtaining feedback from their members on proposed practice standards. It is argued that unless the PPMAs have an awareness of their practitioners' and PSFs' views on their Corpus/PPMPS, they are potentially committing resources to something without fully understanding the benefits. It is also not clear whether there could be other issues with the Corpus that might have been identified in a more engaged consultation, e.g. is the scope correct and are their key details missing as a result of limited commentary?

It is suggested that there is a problem in practice when the Corpus appears to be overlooked. Section 1.1 (The Relevance of Project Management to the UK Construction Industry) highlighted that the UK construction industry is facing many problems e.g. low productivity, weak and uncertain profit margins, etc. The Author is occasionally commissioned to undertake project monitoring and post-completion reviews on construction projects. This experience has identified incidences where some of the guidance in the Corpus was not adhered to, which had a negative impact on the project. One example is where a practitioner prepared an initial risk register but failed to inform the client of additional risks that later materialised, the project was then not delivered on time and budget. The CIOB's CoP advises

that the risk register should be "reviewed and updated according to circumstances, and stages of the contract" (CIOB, 2014, p. 235).

It is a particular concern that during an economic recession, the practice of submitting subeconomic bids to undertake project management surveying services increases which leads to questioning the extent that the Corpus is adhered to by PSFs. It is suggested that if PSFs and clients recognised the value of the Corpus, some of the foreseeable problems on projects could be minimised. As noted, the UK construction industry has a mixed record for delivering projects on time and budget. Part of the rationale for this research is to understand why and how some PSFs and clients decide whether or not to adhere to the Corpus.

1.2.1.2 Professional Doctorate Research

This research is required to obtain a professional doctorate and is approached from the perspective of a practising project manager. The availability of professional doctorates has increased in the UK (Scott, Brown, Lint, & Thorne, 2004). Lee (2009) advised that professional doctorate students should carefully consider their research topic so that it is deemed worthwhile. Nsibande, Kempton, and Chynoweth (2015) distinguished between a professional doctorate candidate's and an academic's perspective. They argued that a professional doctorate candidate's perspective on research begins with the identification of a practice problem that will ultimately seek a better way to undertake professional services more effectively.

The question of how PSFs and clients in the UK construction industry perceive the relevance of project management best practice and its application in the workplace is an unanswered question for the Author. No formal project management practice standards existed in the 1970s and 1980s for CPMSs.. There is now more information available for PSFs and clients on the management of construction projects. Bryman (2012) proposed that one reason to do social research is where there is a new development in society. It is argued that it is important to explore the relevance of project management best practice and its application in the UK construction industry.

It is suggested that having a better understanding of how the Corpus, or other codified knowledge deemed as best practice, that is used by PSFs and clients can reveal if there are changes that can be made to these documents. This will ultimately improve the delivery of project management services to the benefit of the profession, clients and society.

1.2.1.3 The Literature Review

A literature review allows the researcher to understand what knowledge is available on a subject and provides new perspectives on a research problem (Leedy & Ormrod, 2014). Accordingly, the literature review provides the opportunity to ascertain any gaps in the literature. Chapter 2 (Literature review) sets out the findings from the literature review. Morris, Jamieson, and Shepherd (2006) proposed that the subject area of project management is very wide; however, there appears to be scant literature on the relevance of project management best practice and its application in the UK construction industry. It is unclear why there is scant literature available on this aspect of project management. It is possible that research funding from government focuses on subjects that are currently in vogue, such as building information model which takes precedence over other subjects that may be regarded as esoteric or particularly difficult to research.

As analysed in Section 1.1.6 (Limitations of the bodies of knowledge), there are concerns with certain aspects of the PMI's and APM's BoKs, i.e. failure to keep up to date with practice, that they have become the de facto standards for project managers, that they did not adhere to academic rigour, etc. It is argued that the most significant evaluation of the role of the BoKs was undertaken (Morris, Crawford, et al., 2006). This was more than a decade ago and it is now timely for new research to see if their prediction that the BoKs would become the de facto standards for project managers. It is regarded that the limitations of, and concerns, with the BoKs are not simply research problems but a matter that could have significant repercussions for the project management profession in the UK construction industry. Uff (2017) argued that the construction industry is facing severe problems, e.g. increased overseas competition, high construction costs, shortage of skills, etc.

It is important to explore related themes even if there is no direct reference on a research topic (Denscombe, 2012). This approach led to other key themes being considered, e.g. learning and project learning, the development of competencies for project managers, what constitutes a 'good' project manager, the theory of regulations and the sociology of the project management surveying profession.

1.2.1.4 PMI's Project Management Journal

It is likely that there is no significant literature available in the public domain on the relevance of project management best practice and its application in the UK construction

industry because of the PMI's stance of not publishing any commentary on its BoK or other professional bodies' standards. The PMI's *Project Management Journal* (PMJ) stipulates in its Author's Guidelines that it is

a journal to disseminate and discuss project management research. It is not a platform to discuss the content or quality of PMI standards, credentials or certifications and those of other standards-setting organizations (PMI, 2015b).

The *PMJ* is silent on where such a platform or forum might exist for a discussion on how practitioners, PSFs and clients can evaluate the PMI's BoK and other non-PMI professional project management standards. It is argued that the PMJ's position effectively renders the PMI's BoK and other non-PMI standards, free from public or widespread scrutiny in its premier academic publication. Arguably, the PMI has created the notion of a "doxa" around its BoK and other non-PMI Standards, e.g. the APM's BoK. Bourdieu (1977, p. 170) referred to a "doxa" as a situation or structure where "that which is undiscussed, unnamed ... admitted without argument or scrutiny".

While the PMI may consider it important to protect what it perceives as a marketing product, i.e., its BoK, it is suggested that this standpoint is, in part, concerned with the commercialisation of project management and is an example of "corporate professionalization" rather than the professional virtue of contributing to a learned society. The concept of corporate professionalization (Muzio, Hodgson, Faulconbridge, Beaverstock, & Hall, 2011) is considered in Chapter 2 (Literature Review).

1.2.2. Justification for this Research

As noted in Section 1.2.1.3 (The Literature Review), there remains an important gap in the existing research on the relevance of project management best practice in the UK construction industry. Furthermore, it is suggested that the *PMJ's* position of not publishing commentary on the PMI's BoK or any other project management practice standards means that the gap in literature is likely to continue for the foreseeable future. The *International Journal of Project Management* is published by Elsevier in collaboration with the APM and the International Project Management Association. It is suggested that this peer reviewed journal has not recently included articles that criticise the PPMPS. It is opined that the *International Journal of Project Management* and *PMJ* are regarded by the academic community as the most prestigious peer reviewed journals in the subject of project

management. It is argued that for an author's research to be considered authoritative and recognised internationally, it needs to be published in either of these journals.

It is argued that this research is justified because it captures primary data from PSFs and clients on the relevance of project management best practice in the UK construction industry. It is important to understand the emergence of project management surveying and the RICS's Guidance Notes and Information Papers on project management as part of a new development in the history of project management. The limited profile of project management surveying in the literature raises some concerns that PSFs' and practitioners' contributions to the development of project management profession have been overlooked. Kozak-Holland (2013) argued that the study of project management history can help underpin its development as a discipline. It is argued that it is an omission to overlook CPMSs and their "community of practice" as defined by (Wenger, 1998).

1.2.3 The Need for and Value of this Research

It is suggested that the need for this research is as follows: there is a gap in the existing literature, it is timely for additional research to be carried out on, i.e. the last piece of research on this area was undertaken in the last decade (Morris, Crawford, Hodgson, Sheperd, & Thomas, 2006) and there are significant problems in practice for the UK construction industry. The industry faces several challenges as noted in Section 1.1.1 (The Relevance of Project Management to the UK Construction Industry), and there is scant research that explores the relevance of project management best practice and its application in the UK construction industry.

The value of this research is that it: (1) provides a greater understanding of the relevance of project management best practice and its application in the UK construction industry (2) increases the knowledge and profile of the RICS' Guidance Notes as there is an important and significant gap in the literature (3) considers the relationship between the development of practitioners' competencies and the Corpus (4) assesses the use of the Corpus in comparison with PSFs' In-house standards for project management purposes and (5) this research responds to the debate in academia about the limitations of the BoKs and includes contributions from PSFs and clients that reflect current project management practice. In addition, see Section 1.3.3 (Contribution to knowledge) which sets out new knowledge created by this research.

1.3 The Research Aim, Objectives and Questions

This section provides information on the research aim, objectives and questions and concludes with the proposed contribution to knowledge. It is argued that the relationship between the research aim, objectives and questions is to ensure the research moves from general to specific issues. Denscombe (2012) proposed that the research aim is to provide an indication of the research topic under consideration. This is also regarded as a concise statement for readers to understand the overarching focus of the research. Gray (2014, p. 53) suggested that the research objectives are "clear statements of the intended outcomes, all of which can be measured in some way". The research aim is underpinned by the research objectives, i.e. the objectives provide another layer of granularity to the research aim. The inclusion of the research questions ensures that the research evolves from a general to a specific enquiry. For example, research question number 7: "How do professional project management practice standards contribute to the development of project managers' competences?" is devised to provide primary data that will achieve research objective number 4: To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees. In addition, the primary data generated from the interviews is considered as to whether it provides responses that are considered against the research objectives. Research questions in qualitative research should allow for emergence of secondary finding not envisaged as part of the research (Creswell, 2013; Trafford & Leshem, 2008).Denscombe (2012) proposed that the research aim is to provide readers with an indication of the research topic under consideration. The research aim is to explore the relevance of project management best practice and its application in the UK construction industry. This area of research will consider the knowledge and learning dimensions of project management in the UK Construction industry. The industry faces many challenges as set out in Section 1.1 (The Relevance of Project Management to the UK Construction Industry) and it is suggested that having suitably trained practitioners are essential to the successful delivery of capital projects and for the general public to have confidence in the project management profession. Ultimately, this new knowledge will inform professional project management associations, practitioners, professional services firms and clients and encourage improvements in project management services for the benefit of not just the UK construction industry, but society as a whole.

1.3.1 Research Objectives

The research objectives focus on what the research will do and provide a greater level of detail of the issues under consideration (Denscombe, 2012).

The objectives of the research are set out below and are in the context of the UK construction industry.

- 1. To provide an overview of professional project management practice standards.
- 2. To investigate whether professional services firms and clients consider that the Corpus promotes or adds value to the profession.
- 3. To explore the extent that professional services firms and clients implement and monitor adherence to the Corpus.
- 4. To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees.
- 5. To assess whether professional services firms and clients are changing the use of the Corpus.
- 6. To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence.
- **7.** To present new knowledge that may influence the compilation and scope of future project management best practice.

1.3.2 Research Questions

Trafford and Leshem (2008, p. 42) proposed that "the purpose of the research questions is to clarify exactly what you will address in your research". Miles, Huberman, and Saldana (2014) argued that it was important to make explicit the research questions as this highlighted some of the implicit decisions regarding the choice of sampling. The research objectives refer to the Corpus and the research questions referred to the professional project management practice standards. The questions were posed in this way to allow professional services firms or clients to refer to other non-Corpus project management documents that they regard as best practice.

The research questions are:

1. How do professional services firms and clients think that professional project management practice standards promote or add value to the profession?

- 2. How relevant are the professional project management practice standards to professional services firms and clients for providing a commercial advantage in the market?
- 3. What are the criteria that clients use for selecting professional services firms?
- 4. How relevant are professional project management practice standards to clients for delivering their projects?
- 5. How do professional services firms and clients implement professional project management practice standards in their organisation?
- 6. How do professional services firms and clients monitor the use of the professional project management practice standards in their organisation?
- 7. How do the professional project management practice standards contribute to the development of project managers' competencies in the workplace?
- 8. Do professional services firms' and clients' In-house standards take precedence over professional project management practice standards?
- 9. How do the professional project management practice standards mitigate against the risk of professional negligence?
- 10. What changes would professional services firms and clients make to professional project management practice standards?

1.3.3 Contribution to Knowledge

The contribution to new knowledge provides a greater understanding of the following: (1) the relevance of project management best practice and its application in the UK construction industry as there is a significant gap in the literature, (2) how professional services firms and clients are using the Corpus in praxis, (3) the barriers to using the Corpus and whether the Corpus has an effect on the development of practitioners' competencies, and (4) how the Corpus could be improved to deliver capital projects more effectively and efficiently.

PSFs are using knowledge that is not codified knowledge or published in the PPMPS (Dalcher, 2014a; Maylor, 2001). The conflicting views in the literature on the purpose and use of the PPMPS are explored and the research provides a new perspective on how the Corpus is used in practice including its influence on developing Early-career Professionals.

This thesis has developed recommendations for changes to the compilation of the Corpus, its implementation and the adherence to it. In the long term, this contribution to new knowledge will be to the benefit of the project management profession.

1.4 Summary of Chapter 1

Chapter 1 provided context to the research and explored the subject of project management. The justification for the research is set out and introduces the research objectives and questions. It is proposed that the rationale for exploring the relevance of project management best practice and its application in the UK construction industry is based on three factors: there is an important gap in the literature, it is timely for the research to take place, and the research represents practitioners', PSFs' and clients' views. The chapter concludes with the anticipated contribution to new knowledge. An outline of the remaining chapters is provided below.

1.5 Structure of Thesis and Overview of Chapters 2 – 7

The structure of the thesis comprises seven chapters and is set out below. Figure 2 provides an overview of the components of the thesis.

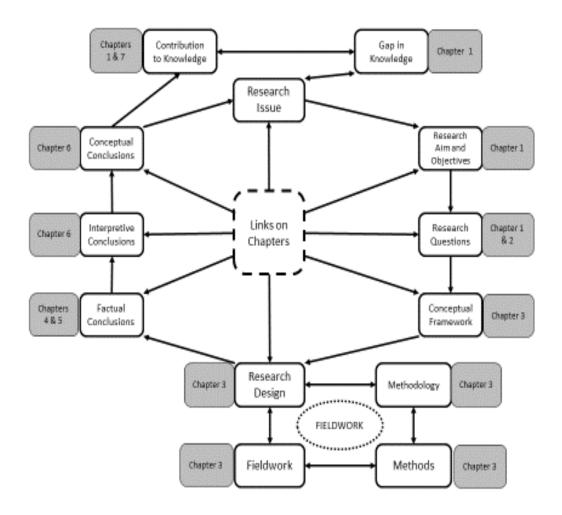


Figure 2: An overview of the thesis excluding Appendices. Adapted from (Trafford & Leshem, 2008).

Chapter 2: Literature Review considers the pertinent knowledge and theory relevant to best practice project management and its application in the UK construction industry. This chapter evaluates the gaps in the existing literature. The theories on workplace learning, development of project managers' competencies, regulations and standards, and the sociology of the project management profession are just some of the themes explored in the literature review.

Chapter 3: Research Methodology outlines the philosophical approach to this research and includes the rationale for using a single-case study strategy. Semi-structured interviews were

used to obtain the primary data. This chapter also introduces the concept of structuration theory.

Chapter 4: Findings from Professional Services Firms details the findings from PSFs and an analysis of the research.

Chapter 5: Findings from Clients details the findings from the clients and an analysis of the research.

Chapter 6: Implications of the Research considers the implications and interpretations of the findings from PSFs and clients. In addition, the findings from the Preliminary practice-based research (McCann, 2014a) is used to triangulate the findings from Chapters 4 and 5.

Chapter 7: Conclusions includes the conclusions and recommendations of this research. This chapter suggests improvements to the Corpus and areas for further research.

References: Contains details of the published material used in the thesis.

Appendix A: Conclusions from Preliminary practice-based research.

Appendix B: Summary of the PMI's Body of Knowledge.

Appendix C: Summary of the APM's Body of Knowledge.

Appendix D: Summary of the RICS' Project Management Professional Group's Guidance Notes and Information Papers.

Appendix E: Analysis of the RICS Project Management Professional Group's Guidance Notes.

Appendix F: Summary of the CIOB's Code of Practice for Project Management for Construction and Development.

Appendix G: Research Project Information Form. This form was sent to inform all interviewees on the scope of the proposed research.

Appendix H: The questions used during the semi-structured interviews (professional services firms).

Appendix I: The questions used during the semi-structured interviews (clients).

Appendix K: Transcript (Professional Services Firm).

1.6 Writing Style

This submission is written in the third person. The literature reviews include internationally known authors and their quotations are kept to the original wording and therefore are not changed to accord with UK spelling e.g. "authorized" as opposed to "authorised".

For clarity, Chapter 4 (Findings from Professional Services Firms) and Chapter 5 (Findings from clients), include all significant comments from the interviewees. This is noted here to avoid duplication of the wording "this represented the significant comments from the interviewees" in this thesis. Some interviewees referred to the Corpus in the plural, e.g. 'I don't think they do promote the profession'.

The intended audience of the DBEnv thesis is academia, PPMAs, practitioners, PSFs and clients in the UK construction industry. The Author is aware that some readers may not wish to read the entire thesis and will only refer to the introduction, research objectives and conclusions. Accordingly, to assist these readers and encourage further interest, Sections 1.3.1 (Research Objectives) and 1.3.2 (Research Questions) and Chapter 7 (Conclusions) are written without the use of abbreviations and acronyms.

Chapter 2: Literature Review

2.0 Introduction

The aim of the literature review is to examine the existing knowledge and theory on project management best practice and its application in the UK construction industry. The purpose of the review is to highlight the work done by others in the project management discipline to date, assess any anomalies surrounding the research and evaluate if there are any gaps in the existing knowledge. Naoum (2013) proffered that a critical literature review will reflect contradicting views on a subject. The literature review demonstrates that this research can fill a gap in the existing literature on project management best practice and it application in the UK construction industry. The literature review may be used differently depending on the research approach (Creswell, 2013) and it is placed at the beginning of this thesis as it has helped to provide a framework for the development of the research questions. Accordingly, the research questions that emerged are included at the end of the various sections of the literature review and are not all in the same sequence as listed out in Section 1.3.2 (Research Questions). See table which sets out the research objectives, research questions and the sections of this thesis that refers to the relevant literature.

Research Objectives	Research Questions	Sections in Thesis
RO. 1. To provide an overview of professional project management practice standards	RQ.1 How do professional services firms and clients think that professional project management practice standards promote or add value to the profession?	2.3 to 2.3.7
RO. 2. To investigate whether professional services firms and clients consider that the Corpus promotes or adds value to the profession.	RQ.2 How relevant are the professional project management practice standards to professional services firms and clients for providing a commercial advantage in the market?	2.4 to 2.4.4
	RQ.3. What are the criteria that clients use for selecting professional services firms?	2.1 to 2.1.5
	RQ.4 How relevant are professional project	2.1 to 2.1.5
	management practice standards to clients for delivering their projects?	2.4 to 2.4.4
RO. 3. To explore the extent that professional services firms and clients implement and monitor adherence to the	RQ. 5. How do professional services firms and clients implement professional project management practice standards in their organisation?	2.5 to 2.5.5
Corpus.	RQ. 6. How do professional services firms and clients monitor the use of the professional project management practice standards in their organisation?	2.5 to 2.5.5

Table 1: Sections in the thesis that relate the literature to the research questions and objectives.

Research Objectives	Research Questions	Sections in Thesis
RO .4. To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees.	RQ. 7. How do the professional project management practice standards contribute to the development of project managers' competencies in the workplace?	2.6 to 2.6.5
RO. 5. To assess whether professional services firms and clients are changing the use of the Corpus.	RQ.8. Do professional services firms' and clients' In-house standards take precedence over professional project management practice standards?	2.7 to 2.7.1
RO. 6. To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence.	RQ.9. How do the professional project management practice standards mitigate against the risk of professional negligence?	2.8 to 2.8.3
RO.7. To present new knowledge that may influence the compilation and scope of future project management best practice.	RQ. 10. What changes would professional services firms and clients make to professional project management practice standards?	2.9 to 2.9.1

While recognising the limitations of scant sources of literature on project management surveying and the relevance of project management best practice and its application in the workplace, some themes emerged from the literature review. These include: the limitations of the BoKs, the sociology of the project management profession, the theory and use of standards, the development and training of reflective practitioners and the codification of professional services.

As outlined in Chapter 1 (Introduction), Section 1.1.5 (Concept of Project Management Practice Standards and the Corpus), the term Corpus was introduced to refer to specific documents, i.e. the APM's BoK, the RICS PMPG's Guidance Notes and Information Papers and the CIOB's CoP. For the purposes of this research, the term PPMPS is defined as "documents that provide written guidance or instruction on project management praxis, including their ethical and administrative dimensions, which are approved by the PPMAs and the CIOB".

Chapter 2 considers the following: the client's roles in the UK construction industry, the scope of the PPMPS, the implementation and monitoring of professional regulations, the development of project managers' competencies, In-house standards and professional negligence. The research questions are included at the end of each Section of Chapter 2. This

chapter will conclude with a summary of the key themes that emerged from the literature review.

2.1 The Client

The potential market for construction works in the UK is significant given the values of commercial and residential property. The value of commercial property in the UK is estimated to be £871bn (Investment Property Forum, 2016) which referred to commercial owner-occupied properties or those used as an investment and not for residential purposes. The value of residential property in the UK is valued at £8tn (Croucher, 2016). The value of the UK property market allows for a wide variety of clients. These figures demonstrate the significant size of the UK construction industry and that the role of the client should not be underestimated.

The client is defined as the person who "initiates the project, employs the design and construction team and finds the resources to make it a reality" (Commission for Architecture and the Built Environment, 2003, p. 186). It is suggested that in the construction industry, the term client is wide ranging in practice. It can vary from a person who commissions a construction project once in a life time, to a local authority that will regularly refurbish its properties as part of their obligations to deliver essential services to local residents, and at an extreme to a property developer whose business is to maximise profits from their projects.

There is no formal classification of property developers (Boyd & Chinyio, 2006). They suggested three types: (1) major property developers who invest in property over the long term, (2) traders who will hope to make a quick profit and dispose of their developments with medium- or short-term financing arrangements, and (3) smaller developers who tend to be family owned and often use their own finance. It is suggested that the client is seen as an entity rather than an individual due to the various stakeholders involved in a project (Boyd & Chinyio, 2006).

Gameson (1992) proposed two classifications of clients: the "secondary experienced" and "primary experienced". The secondary experienced client is described as an organisation that procures construction projects of the same type on a regular basis using in-house professional staff. Accordingly, this type of client should be aware of the pitfalls of procuring a project type that is outside of their core business model. The primary experienced client is described as an organisation that undertakes a variety of projects using an in-house design team. This

type of client should ensure they have the appropriate skill set to manage diverse projects. Another classification of clients is local, national, industry, service, not for profit and private regulated (Boyd & Chinyio, 2006). For the purposes of this research, the clients selected for interviews were primary and secondary experienced type, so that they had detailed prior knowledge of the PPMPSs. It is argued that these types of clients would have become exposed to the Corpus or PPMPS during some point in their contact with PSFs and individual development or project managers.

2.1.1 Clients' Role

Primary experienced clients can use their buying power to influence change in the construction industry (Gameson, 1992). It is suggested that this view is valid as the UK government has requested clients to contribute to improving the performance of the construction industry, e.g. as discussed in Constructing the Team: The Latham Report and "Rethinking construction: The Egan Report. Murray and Langford (2003, pp. 205-208) summarised the findings of clients' roles from reports into the construction industry from 1944 to 1998. They highlighted that clients have an active role to play in the construction industry.

It is notable that all of these reports have referred to clients' roles or responsibilities e.g. the "Faster building for Commerce" report prepared by National Economic Development Office in 1988 noted that projects were delivered more effectively by experienced rather than occasional clients. Also, "Constructing the Team: The Latham Report" in 1994 emphasised the importance of clients, especially those in the public sector, committing to best practice rather than focusing on lower cost. Some criticism has also been made of clients, e.g. "Rethinking construction: The Egan Report" published in 1998 requested commitment from major and public sector clients to implement its recommendations. This request was an implicit criticism of the slowness of the construction industry to reform or respond to new initiatives. "Accelerating change" was published in 2002 (Strategic Forum for Construction, 2002) which challenged the construction industry to achieve the proposals outlined in the "Rethinking construction: The Egan Report". The Accelerating Change report highlighted that public sector procures 40% of construction projects and therefore should be investing taxpayers money in an efficient manner. The Office of Government Commerce produced various guides for the public sector clients in central Government, however they were not mandatory for Local Government or Non-departmental Public Bodies. The OGC's guides are

still available although the organisation was disbanded in 2011. National Endowment for Science (2007) highlighted that the construction industry is an example of "hidden innovation". This is described as innovation that takes place in practice but is not easily measured or obvious and may be incremental, organisational and interactive. This report also highlighted that innovation in the construction sector takes place in developing new working practices, e.g. earlier contractor involvement. The adoption of innovation is largely informed by client's demands, government regulation and available competencies in the sector. However, it is noted that the clients can also act as barriers to innovation (National Endowment for Science, 2007, p. 37). One example of this is that some clients continue to accept bids based on the lowest price with no regard to quality.

However, some clients may be considered as acting irresponsibly and do not commission projects in an ethical or sustainable way. Flyvbjerg, Bruzelius, and Rothengatter (2003) raised concern from an international perspective that "megaprojects" i.e. multi-billion dollar capital projects were driven by certain clients who had been devious in presenting the rationale for the projects that subsequently were delivered late, over budget and with no regard for democratic or environmental concerns. In the UK, some property developers have been criticised for 'land banking', a practice of holding on to plots of land that prevents their development, while there is an acute demand for housing (Ruddick, 2015). Clients can play an important role in the UK construction industry and their influence can be considerable on projects, e.g. the approach to procurement of professional project management services and responding to new advances in technology.

2.1.2 Construction Innovation

It is suggested that some clients play a role in promoting construction innovation (Kulatunga, Kulatunga, Amaratunga, & Haigh, 2011). They summarised innovation as the development of a new idea that will increase efficiency. They also argued that a client's characteristics, e.g. competence and experience influences the success of innovation. Their summary of clients' competencies suggested these are regarded as having a professional background, e.g. an architect or subject matter expertise and being up to date with the key changes in the construction industry, etc. Their article does not refer to any professional practice standards that may underpin or support the development of clients' competencies.

Nam and Tatum (1997) also considered the characteristics that they deemed necessary to drive innovation. They concluded that all innovations depended on individuals and that a high

level of technical competence and authority was required in the construction industry. Pelton (2016) argued that the UK is a world leader in managing difficult and novel projects. He advised that clients must play their role in delivering long-term, major-scale projects and so must adequately manage stakeholders and support their delivery partners. The "Accelerating Change" report called for clients to support the development of the supply chain. An example of client leadership is to provide to consultants and contractors an indication of potential forthcoming projects sometimes known as the "project pipeline". This enables teams to remain together rather that disbanding and therefore should mean in practice, that they have a better understanding of their clients' requirements which should result in an improved performance on delivering the forthcoming projects.

2.1.3 Clients' Project Constraints

One of the key issues for clients in the UK construction industry is that they have to deliver their projects within certain constraints, e.g. health and safety legislation, funding rules and requirements, responding to stakeholders, etc. For example, civil servants must complete a business case that complies with HM Treasury Green Book guidance (Young, 2015) and the Civil Aviation Authority regulates businesses that operate in the aviation industry (Civil Aviation Authority, 2015).

Clients in various sectors of the market e.g. commercial, retail, residential, education and infrastructure, will have their own specific challenges. For example, in the education sector, it is predicted that 3.3 million secondary school places will be required by 2024, which equates to an increase of 20% in the secondary school population (Gardiner, 2016). The concern is that the local authorities will struggle to provide the accommodation that is necessary for the number of places required in time. From 2013 to 2016, the higher education sector is estimated to have generated £2.5bn of construction contracts (Blackman, 2016). He argued that the sector is facing uncertainty due to the negative repercussions of the UK leaving the European Union. Two potential consequences are that research funding provided by the EU will not be available and that overseas students may have more difficulty coming to study in the UK; both if these risks could mean less demand for construction projects. It is suggested that 'Brexit' will provide a period of uncertainty and complexity to most businesses in the UK.

Boyd and Chinyio (2006) argued that clients have a different perception of the building process than the construction industry. They made the distinction between a "client at rest"

and a "client in change". A client at rest is an organisation that it continuing its routine business operations as normal and is not planning a construction project. The decision to procure a capital project is a form of organisation development and change (Boyd & Chinyio, 2006). Whereas, a client in change is an organisation that may face some unknown problems as a result of investing in a capital project. A "rationality gap" arises where the client at rest is not aware of pending threats to their business until they become a client in change. Unknown problems for clients emerge while they are undertaking a capital project and these create uncertainty for such a client, e.g. will a later-than-planned occupation of new premises mean increased rental costs will be due to their existing landlord? It is envisaged that primary and secondary experienced clients should be able to minimise the "rationality gap" on their projects.

It is argued that the typical characteristics of a construction project bring a level of uncertainty to all clients. Bresnen (1990) argued that that one of the characteristics of construction is that it is a unit-based system of production, in which individual projects are custom built to a client's specification. He also noted that a unit-based system of production was the supply mode most common to most types of construction activity. It is suggested that most clients will face the challenge of procuring bespoke buildings as very few buildings can be replicated in their entirety.

2.1.4 Clients' Selection of Professional Services Firms

It is argued that it is important to understand how clients select PSFs for project management services. Further information on the emergence of project management surveying and PSFs is included in Section 2.3 (Promoting the Profession). Lee and Egbu (2008) proposed that the following are key factors for clients when selecting their professional design team (consultants and contractors) on refurbishment projects: experience on similar projects, their financial standing and their technical proficiency.

Lee and Egbu (2008) survey focused on members of professional design teams and was based on 124 questionnaires. Their research showed that more than 50% of professional design teams indicated that personal interaction with other colleagues gave them a better understanding of a client's requirements which would then enable them to bid for other commissions with the same client. The use of personal interaction is not defined but it is interpreted as using tacit and not codified knowledge. The research classified the source of knowledge as "Paper - publications, magazines/catalogues" (Lee & Egbu, 2008, p. 71).

However, there is no mention of reference to the Corpus or In-house standards. More than a third of respondents relied on personal experience to compile client briefs. Their research does not explore how this personal experience was gained and therefore it is not possible to assess whether any of this experience was gained from applying the Corpus. This research will seek to expand on the work of (Lee & Egbu, 2008) and explore if there are any other factors that clients consider when selecting PSFs.

2.1.5 Research Questions 3 and 4

The third research question "What are the criteria clients use for selecting professional services firms?" was posed to generate data on whether clients have an influence on PSFs' use of the Corpus. In addition, the fourth research question "How relevant are the professional project management practice standards to clients for delivering projects?" was posed to interviewees to understand clients' views on the application of the PPMPS in practice.

2.2 Professional Project Management Practice Standards

Chapter 1 (Introduction) Section 1.1.6 (Limitations of the Bodies of Knowledge) noted that there are limitations to the BoKs. The key features of the PPMPS are set out in Sections 2.2.1 (PMI's Body of Knowledge) to 2.2.5 (An Overview of the Corpus). The rationale for selecting the four PPMPS are as follows: the PMI's BoK is the most widely distributed project management guide in the world and the PMI is the largest of the PPMAs; the APM's BoK and the CIOB's CoP are used by some CPMSs in the UK (McCann, 2014a); and CPMSs are obliged to be comply with the RICS's published guidance on project management practice. The following sections provides an overview of the contents of the PPMPS.

2.2.1 PMI's Body of Knowledge

The PMI's BoK does not form part of the Corpus, however, it is subject to the most scrutiny in the literature. The PMI published the fifth edition of its BoK in 2013 and it is accredited by the American National Standards Institute. The sixth edition of its BoK is anticipated to be published in Autumn 2017 (PMI, 2017c). The process of project management is categorised in to five Project Management Process Groups, i.e. Initiating, Planning, Executing, Monitoring and Controlling, and Closing: and 47 Project Management Processes (PMI, 2013, p. 423). The PMI has also produced an extension of its BoK for the management of construction projects (PMI, 2007). See Appendix B (Summary of the PMI's Body of Knowledge).

2.2.2 APM's Body of Knowledge

The APM published the sixth edition of its BoK in 2012. It categorises topics using functional analysis, i.e. Context, People, Delivery and Interfaces, and has 43 Areas of Knowledge (APM, 2012a). See Appendix C (Summary of the APM's Body of Knowledge).

2.2.3 RICS's Guidance Notes and Information Papers

The RICS produces various publications for its members' use in professional practice and these can be classified as: international and national versions of Practice Standards, Practice Statements, Guidance Notes and Information Papers (Aronsohn, 2014). The PMPG has not published any Practice Standards or Practice Statements. There are six Guidance Notes. See Appendix D (Summary of the RICS's PMPG's Guidance Notes and Information Papers). These Guidance Notes are evaluated as there appears to be little analysis of their content in the literature to date. See Appendix E (Analysis of the RICS Project Management Professional Group's Guidance Notes).

The RICS Project Management Faculty (the forerunner to the PMPG) commissioned the following research reports: The management of risk - yours, mine and ours; Legal issues in project management; Project finance initiative and the skills of the project manager; and Learning from other industries. These reports are called 'Practitioners' Commentaries, they are not classified as formal Guidance Notes and do not appear to have been widely promoted by the RICS.

2.2.3.1 Analysis of the Project Management Professional Group's Guidance Notes

There is scant literature available on project management surveying. One reason may be that the RICS's PMPG was formed in 2000 (McCann, 2013) and is therefore relatively new in the RICS and the UK construction industry. Appendix E provides commentary on each of the Guidance Notes published between 2009 and 2016 which were subject to peer review by RICS staff, expert practitioners and academia before final publication. These Guidance Notes can be read as standalone documents. The RICS's PMPG does not have the equivalent of the APM's or PMI's BoK combined guidance for the full lifecycle of a capital project.

The BoKs can be used to certify membership of the PMI and APM (Morris, Jamieson, et al., 2006). Graduate surveyors are expected to be familiar with the RICS's Guidance Notes when

sitting their Assessment of Professional Competence which candidates must pass to use the 'MRICS' designation.

The content of the Guidance Notes focuses on both the hard and soft project management skills required by CPMSs. In the Author's experience, the Guidance Notes were produced in response to perceived gaps in CPMS knowledge in the UK construction market. Some of the recent Guidance Notes e.g. Stakeholder Engagement, refer to other professional bodies in the construction industry but no mention is made of the PMI. For example, different organisations have classified the various stages of a project life cycle and references are made to the APM, the Office of Government Commerce, the British Property Federation, the RIBA, British Standards and the CIOB but not the PMI (RICS, 2012, p. 4). It would appear that the PMI has very little presence in the UK construction industry as their publications are not referenced.

There is a trend in the PMPG's Guidance Notes to recognise the importance of human relationships and their influence on projects and project management services. It is argued that, for example, the Construction Insurance and Development Management Guidance Notes could be regarded as focusing on technical skills, while the latest Guidance Notes on Stakeholder Engagement and Lesson Learned make reference to 'soft skills', e.g. communication, collaborative working and capturing knowledge. It is further suggested that the latter two Guidance Notes are examples of 'phronesis'. Bredillet et al. (2015) described phronesis as the combination of expert skills, experience and wisdom.

2.2.4 CIOB's Code of Practice for Project Management for Construction and Development

The CIOB published the fifth edition of its CoP in 2014. It categorises its subject matter by a construction project life cycle, i.e. Inception; Feasibility; Strategy; Pre-construction; Construction; Testing and commissioning; Completion, handover and operation; and Post-completion review and in-use (CIOB, 2014). See Appendix F (Summary of CIOB's CoP).

2.2.5 An Overview of the Corpus

The first research objective was to compile an overview of the professional project management practice standards. It is necessary to explain the differences between the Corpus and the PPMPS for the purposes of this research.

The observations below on the Corpus are considered under the following categories: industry application, ease of access and legal status.

The APM's BoK applies to all industries, not just construction. The CIOB's CoP is the lengthiest document in the Corpus at 331 pages and references the project management procedures for the life cycle of a capital project. The RICS's Guidance Notes and Information Papers do not necessarily include the full life cycle of a project due to their focus on specific subject areas, e.g. the Development Management Guidance Note does not include details on project handover. Both the CIOB's CoP and RICS's Guidance Notes are aimed at the construction industry.

The APM's BoK and CIOB's CoP are easily accessible to practitioners as their key recommendations on project management are located in a single document. The RICS PMPG's Guidance Notes and Information Papers are not bound into one document and, arguably, this increases the risk that practitioners may not know that new guidance has been released or updated or that guidance exists in particular areas. The three elements of the Corpus can be bought separately by the general public for a fee.

Each element of the Corpus contains a legal disclaimer limiting the APM's, RICS's and CIOB's liability in respect of their contents. The RICS is the only PPMA that notifies its members in every Guidance Note and Information Paper of the potential legal and professional consequences of non-compliance with the contents, e.g. members can be questioned in an RICS disciplinary hearing as to why they did not follow the advice set out in a Guidance Note.

Morris, Crawford, et al. (2006) proposed that the PPMAs could use their BoKs to maintain their position in the project management industry. It is suggested that this view is reasonable as it proposed that the growth of the Corpus is likely to continue for the foreseeable future. In addition, the RICS has been instrumental in establishing the International Property Measurement Standards Coalition. The aim of this Coalition is to have international standards for the property and construction industry (International Property Measurement Standards Coalition, 2017). The concerns with the BoKs are set out below.

2.2.6 Limitations of, and Concerns, with the BoKs

The limitations of, and concerns, with the BoKs in the subject of project management practices have been reviewed in different ways for more than a decade (Bredillet, 2010;

Cicmil & Hodgson, 2006; Dalcher, 2014a; Hatfield, 2014; Maylor, 2001; Morris, Crawford, et al., 2006). The literature available refers to the PMI's and APM's BoKs but does not mention the CIOB's CoP or the RICS's Guidance Notes and Information Papers. See Table 2 below for these limitations and where they are explored in this chapter.

Limitations	Chapter 2		
There is a risk of Black boxing of knowledge (Hodgson & Cicmil, 2006b).	Section 2.6:3 Knowledge and learning.		
The BoKs encourage the codification of knowledge (Hughes & Hughes, 2013).	Sections 2.5.3: Codification of knowledge and project management services.		
The BoKs are very user orientated (Bredillet, 2010) but neglect the political, social, and ethical dimensions of project management (Kozak-Holland, 2013).	Section 2.4.2: Commercial considerations for using the Corpus.		
Practice has moved ahead of the BoKs (Crawford, Morris, Thomas, & Winter, 2006; Dalcher, 2014a; Hatfield, 2014; Maylor, 2001).	Section 2.4.2: Commercial considerations for using the Corpus.		
The BoKs are de facto standards. The impact of regulations (Timmermans, 2010).	Section 2.5: Introduction to implementing and monitoring professional project management practice standards.		
The BoKs are used to control and maintain the PPMA's position in the industry (Morris, Crawford, et al., 2006). The impact of corporate professionalism (Muzio, Hodgson, et al., 2011).	Section: 2.3.2: The emergence and regulation of project management surveying services. Section 2.3.6: Corporate professionalism.		

This section demonstrated that the limitations of the BoKs are multi-faceted, which are explored in other parts of this chapter as set out in Table 2. It is argued that these limitations merit further investigation and this research will explore if they act as potential barriers that prevent PSFs and clients keeping up to date with PPMPS.

2.3 Promoting the Profession

This section considers the PPMAs' rationale for providing the Corpus, the emergence of project management surveying, the concept of project-based organisations, PSFs and the influence of market changes. The concept of corporate professionalism is evaluated and is its importance for this research.

2.3.1 The PPMAs' Rationale for the PPMPS / Corpus

The limitations of, and the concerns, with the BoKs are recognised but, it is suggested that the PPMAs will continue to promote their use while using different strategies to maintain their position in the market for project management professionals. Some of these strategies include: embedding standards into government's legislation, promoting standards internationally and suggesting that practitioners may advance their career or simply have the ability to earn more money as a qualified member of a PPMA.

2.3.1.1 Embedding Standards in Government Legislation

The Program Management Improvement and Accountability Act became law in December 2016 in the USA. This is intended to embed a standard programme management policy in US government departments (Goodwin, 2017). The PMI has welcomed the introduction of this new legislation, i.e. it worked with and lobbied various politicians in the USA to embed it PMI BoK as the program management standards in the Act.

However, the PMI made no mention of any possible negative impact of its implementation or its impact on practitioners' professional autonomy. Smyth and Pryke (2008) suggested that all projects contain uncertainty and, accordingly, that project managers spend a large part of their time managing uncertainties. They further argued that these project-specific uncertainties cannot be readily captured in codified knowledge and that it is critical to manage relationships to deliver projects successfully. This means looking at the project in a wider context and considering key relationships (e.g. stakeholders, contractors, specialist suppliers) and concurrent projects or programmes of works. It is argued that it is a concern that a mandatory reliance on codified knowledge in government departments will encourage the Black boxing of knowledge.

2.3.1.2 International Property Measurement Standards

Saunders (2013) who was an RICS employee at the time his paper was presented, argued that the lack of measurement standards has created inefficiencies when comparing construction projects and had increased risk in investment decision making. He argued that the advantages of adopting international measurement standards include increased client and customer satisfaction and increased market share for those organisations that adopt these international standards. There is no discussion on the potential disadvantages for PSFs or clients of adopting these changes to measurement standards.

The International Property Measurement Standards Coalition launched a public consultation on International Construction Measurement Standards (RICS, 2016a). The aim of these standards is to have an agreed global measurement system so that clients can compare the cost of construction projects on a 'like for like' basis. It is observed that the RICS may regulate its quantity surveyors worldwide on the new standards in the future (Muse, 2016). He does not explain or highlight any challenges that the imposition of the international standards will present for UK-based practitioners. There is no mention of any potential disadvantages of adopting these standards or opposing views as to why these standards may not be suitable or required. For example, UK legislation refers to the term 'Gross Floor Area' but under the new International Property Measurement Standards, this term will become redundant. However, the RICS article (Muse, 2016) is silent on what, if any, work will be done by the UK government or other professional bodies, e.g. the RIBA and the CIOB to adopt the standard's new requirements.

It is argued that the PPMA's perceive that project management knowledge can be codified given the volume and promotion of PPMPS available. Others have raised concerns and advised caution about applying functionalist and universal project management guidelines (Cavanagh, 2012; Dalcher, 2014b; Hodgson & Cicmil, 2006b; Morris, Crawford, et al., 2006). It is argued that the reality is that managing construction project is complex work that can't be reduced to a set of written rules.

The reality in many professional services is that knowledge is often socially constructed, context specific and ambiguous, rather than composed of objective, clearly generalizable rules that can be codified in any way (Morris, 2001, p. 822).

Part of the research will explore if this view of knowledge as a commodity is shared with PSFs and clients.

2.3.1.3 Increased Earnings

The RICS and the APM have suggested one reason for membership of their organisations, i.e. that it will increase practitioners' salaries. An article in the APM's *Project* journal claimed that being a member of the APM will enhance a salary, stating "The survey shows that a full member of the APM earning nearly £10,000 more per year than a non-member - not bad for a membership fee of £158" (Hesse, 2016). It is observed that the findings for this statistic came from a survey where 61% of 4,879 project professionals (APM members who have can use MAPM designation or the title 'Project Professional) responded to this question.

The RICS has highlighted the financial benefits to under graduates of achieving chartered status, e.g. "and when you become chartered, your earnings potentially substantially increase" (RICS, 2014b, p. 7). It is argued that the PPMAs promotion of their PPMPS and other related products is intertwined with maintaining and asserting a claim of belonging to a 'profession'. Susskind and Susskind (2017) proposed that, historically, being a member of a profession was regarded as prestigious for individuals and provided them with job security. However, they predict that in the long term, the professions will disintegrate due to advances in technology including artificial intelligence as some work previously undertaken by professionals will be completed by machines.

2.3.1.4 Looking Good

The term "certification" is used to "demote mastery of these skills [a specified set of skills and experience along with an understanding of a core body of knowledge], experiences and knowledge" (Starkweather & Stevenson, 2011, p. 31). It is suggested that the words 'chartered surveyor' is intended to convey the same impression as the term "certification". There is little evidence to suggest that certified practitioners perform better than those who are non-certified (Blomquist, Farashah, & Thomas, 2017). There were no differences in project success in the IT industry between practitioners who were members of the PMI and those who weren't (Starkweather & Stevenson, 2011). Their research was conducted in the USA and included 32 respondents. Crawford (2005) argued that there was no difference in senior managers' perceptions between the performances of certified and non-certified members.

It is suggested that the above research (Blomquist et al., 2017; Crawford, 2005; Starkweather & Stevenson, 2011) are a challenge to the PPMA's subliminal message that being chartered or certified will mean that only their members can provide project management services and therefore deliver projects in the best way possible. Blomquist et al. (2017, p. 4) commented that the "conflation of certification with competence continues" and that "the underlying message is that this individual [certified practitioner] is more fit to practice than someone who is not certified".

Blomquist et al. (2017) undertook research in 2004 and 2014 that investigated the motivations for 677 practitioners to become certified members of the PMI. They challenged the notion that being a member of the PMI is good for employees and organisations and argued that the phenomenon of "being good" and "looking good" exists. Those practitioners

who want to develop their expertise are described as" being good", those that see it as a symbol for senior management and do not change or improve practice are described as "looking good". Blomquist et al. (2017) concluded that those who aspired to become certified in 2014 were interested in "looking good" as they regarded it as important to have a recognised qualification in the market place. However, the research results suggested that the certification process was deficient and had not kept up to date with the reality of managing projects for those individuals who had become certified project managers in 2004. Blomquist et al. (2017) argued that the process and content of the PMI certification was no longer meeting the needs of expert project managers. For the purposed of this research, 'expert project managers' are equated to Senior Professionals. This research will explore if there are any differences between Early-career Professionals and Senior Professionals on the application of the Corpus.

2.3.2 The Emergence and Regulation of Project Management Surveying Services

It has been argued that the professional body sector can be split in to three types of organisation: professional associations, regulatory bodies and learned societies (Professional Associations Research Network, 2013). The RICS is the professional body that regulates chartered surveyors. It introduced the qualification of "Chartered Project Management Surveyor" and established the Project Management Faculty in 2001, which later became the PMPG (McCann, 2013). Unlike the APM and PMI, the RICS aspires to represent project managers across the UK construction industry. Abbott (1988) noted that some of the characteristics of a professional body include having an organised group of experts with specialist knowledge and sophisticated training, and for there to be qualification requirements to become a member of the group. The RICS is regarded as a self-regulating body in the property and construction industry in the UK. It requires almost all individuals (except Honorary Members) to have attended their accredited training courses and pass the Assessment of Professional Competence to become a member.

2.3.2.1 Professional Regulations

There are some potential pitfalls of self-regulation: professional associations are not publicly accountable to elected politicians, and rules and other procedures, e.g. professional standards may be made in the interest of the association rather the general public (Ogus, 2002). Professional associations play a significant role in self-regulation and

there is a long tradition that the rights of practice, and the rules of conduct, for professional occupations are determined by bodies drawn exclusively or predominately from members of the profession (Ogus, 2002, p. 628).

The ability of professional associations to regulate their own BoKs and set entry-level qualifications is regarded as fundamental to the identity of a profession (Hughes & Hughes, 2013, p. 30). One criticism of the professions is that they can potentially abuse their position because of their specialist knowledge. Abbott (1988, p. 1) argued that some professions are "a monopoly and malfeasance of unequal justice, administered by servants of power". However, there is also a concern that being a 'professional' may give a lay person an unrealistic expectation of what the practitioner can achieve. Loufrani-Fedida and Missonier (2015) cautioned that practitioners should stop looking for the "hero project manager" as they cannot possess all the required competencies. They identified three different levels of competencies that can exist in project-based organisations. These competencies are: individual, collective and organizational.

Crawford et al. (2006, p. 715) also noted a potential risk of the PMI and APM abusing their positions in the market by "maintaining control over the BoK certification processes is central to maintain their [PMI and APM] position in the industry". They made no suggestion as to what checks and balances could be put in place to limit the possibility that the PPMAs could abuse their dominant position, except that academics should not rely on PPMAs for the education of practitioners.

Susskind and Susskind (2017) considered that the future of all professions is under question due to societal changes. This includes moving away from a print-based industrial society in the long term to one that enables computers and robots to undertake services that were previously regarded as professionals' work. They also contended that the previous ideal for most people that the professions were seen as for the benefit of society no longer holds true. An implication of this development is it may result in a society that is becoming more litigious including a willingness to challenge the expertise that professionals claim to possess.

2.3.3 Sociology of Project Management Surveying

Abbott (1988, p. 2) theorised that to study professionalism "it is the history of jurisdictional disputes that is the real, the determining history of the profession", in other words the processes that exclude each others are simultaneously those that define the membership of the professions. It is proposed that it is relevant to consider the sociology of the quantity

surveying profession as part of this research, it has helped to shape the project management surveying profession. Birchall and Harris (1983) noted that in 1977 the RICS's Central London Branch tried to promote project management within the wider RICS. A quantity surveyor's skill set was considered suitable to undertake the project manager's role (Birchall & Newcombe, 1985).

It is suggested that the development of project management surveying was influenced by quantity surveyors. Three significant reports were commissioned by the RICS into the quantity surveying profession. These were: The future role of the chartered quantity surveyor (RICS, 1983), Quantity surveying 2000: The future role of the chartered quantity surveyor (RICS, 1991) and The challenge for change (RICS, 1998). The following themes appear in all of these reports: the potential for increased diversification of services offered, encouragement to keep up to date with developments in IT and the need for quantity surveyors to improve their general management skills. All of the reports identified project management as another source of potential fees for quantity surveyors.

Cartlidge (2011) argued that there were significant reasons for professional quantity surveying businesses to change their work practices, including that the RICS was forced to change its by-laws in 1983 in respect of scale fees. A Merger and Monopolies Commission report deemed that the RICS scale fees for charging for works were anti-competitive and noted that the RICS "did not offer any explanation or purpose of the scales" (Monopolies and Mergers Commission, 1977, p. 49). Cartlidge (2011, p. 2) argued that "the year 1990 was a watershed for the construction industry" citing that some of the reasons for this included: the impact of compulsory competitive tendering, globalisation, increased client dissatisfaction and the 1990 recession. Matzdorf, Price, and Green (1999) concurred with this perspective that from the 1990s the surveying profession had to operate in an increasingly competitive market. Other industry sectors have been challenged on the concept of professionalism. Hyland (1996) highlighted that the education, health and social work sectors were subject to de-professionalism in the early 1990s.

Quantity surveying practices had to change their way of operating from what was perceived as a traditional role of compiling bills of quantities to providing other new services, e.g. project management services, project monitoring, etc. (Cartlidge, 2011). It is suggested that it was in the interest of chartered surveyors to recognise that project management surveying exists as a separate activity as it can generate additional fee income. There has been a growth

in PSFs, e.g. in 2015, the RICS regulated 3,402 project management and 2,428 quantity surveying firms 2015 (H. Shankster, personal communication, 13 July 2015).

2.3.3.1 Professional Service Firms

Professional services firm can be described for the purposes of this research as "organisation/organisations that employs CPMS and or other chartered surveyors that provide project management surveying services". These firms can be of any size but they must be regulated by the RICS. The APM and the PMI do not currently regulate organisations in the UK.

2.3.4 Project-based Organisations

Lundin and Soderholm (1998, p. 16) argued that use of projects by organisations to remain competitive is likely to continue and introduced the term "projectified society". They also suggested that a society organised by projects would face complex problems including the challenge of maintaining a stable knowledge supply, i.e. it would be difficult to have readily available resources as practitioners move from one project to the next with periods of unemployment between contracts. Arguably, the PPMAs can counteract these comments by referring to the volume of PPMPS available which may help maintain a stable knowledge supply.

Bresnen, Goussevskaia, and Swan (2004) argued that the construction industry is a good example of where project-based organisations are found due to its extensive range of activities. The nature of construction encourages project-based working as clients have project-specific requirements, multiple contractual arrangements for project consultants and heterogeneous project teams. Bresnen et al. (2004) highlighted that implementing new management initiatives should be done so with an awareness of the social context and location in which they occur. Their research found that new centrally driven initiatives were harder to implement in regional offices; this was partly due to different cultures and expectations of workers between regional and head offices. It is suggested that PSFs and some clients, e.g. property developers, are project-based organisations and that the research will explore if the use of the Corpus will be partly influenced by the variety of projects available.

2.3.5 Codification of Professional Project Management Practice Standards

The preparation of PPMPS is an accepted function of professional and regulatory bodies. Morris, Crawford, et al. (2006, p. 716) argued that the PMI's and the APM's BoKs have effectively become de facto standards. The Author agrees with this view. The BoKs recommend procedures and practices for project managers and are promulgated by the PPMAs.

Kozak-Holland (2011) argued that project management is not a new skill set and has existed for millennia. Throughout history, construction projects have been completed using the skills that can be attributed to project managers, e.g. co-ordination, communication, leadership, etc. Stewart (1995, p. 180) agreed that project management techniques and art "are literally as old as time".

It is contested that while project management may not be considered a new skill, these ageold skills have rarely been documented for practitioners use. Codification of recommended project management procedures and tools that are made available for public and practitioners' use is a relatively new phenomenon. Bredillet (2007, p. 169) argued that "to develop competencies, an individual needs knowledge". The widespread codified knowledge of project management means that it is easier for PSFs and clients to access the PPMPS and or the Corpus. It is suggested that the codification of knowledge may be seen in parallel with the formal recognition and growth of 'knowledge management'. Quintas (2005) claimed that there was significant academic and organisational interest in the subject of knowledge management in the 1990s, i.e. how personal and organisational knowledge is created, stored and transmitted. The APM issued the first edition of its BoK in 1992 (APM, 2006) which provides an example of Quintas' observation. As noted in section 1.1.5 (Concept of Professional Project Management Practice Standards and the Corpus), the PMI's BoK is not considered as part of the Corpus because the Preliminary practice-based research indicated that it was not used in the UK construction industry. Professionalism can be seen as a monopoly of expertise in the market (Abbott, 1988; Larson, 2013). To develop and secure a market for professional services, these have to be standardised so that they can be seen as pre-eminent by potential users (Larson, 2013). Some of the expertise in the project management market can be considered to be specialist knowledge as set out in the Corpus. Part of this research will contemplate if the Corpus promotes or adds value to the profession

in so far that knowledge of the Corpus can be perceived as specialist knowledge belonging to, or controlled by, the PPMAs.

2.3.6 Corporate Professionalization

Arguably, the PPMAs have to compete with each other and therefore market their products or services to its members, governments and the general public. It is suggested that it is in practitioners' and the public's interest for professional bodies to be well managed and sustainable in the long term. However, in the struggle for professional bodies to remain competitive, it may appear to their fee-paying members that the bodies have mutated into business entities and therefore changed their modus operandi. Muzio, Hodgson, et al. (2011) highlighted that established professions are being undermined by the emergence of relatively new knowledge-based occupations. They introduced the concept of "corporate professionalization". This is based on the following ideas: that the market-place requires cheaper alternatives that translate into greater innovation and flexibility; the manipulation of procurement procedures to reinforce membership of professional bodies; and the increasing influence of corporate organisations on professional bodies' decisions. See Table 3 below.

Table 3: A Comparison between the Traditional and Non-Traditional (i.e., collegial and corporateprofessionalization). Adapted from (Muzio, Hodgson, et al., 2011, p. 457)

Item	Old "Collegial professionalization"	New "Corporate professionalization"
Knowledge-base	Reliance on abstract body of knowledge	Co-production of knowledge with industry, situated knowledge, focus on competencies
Market	Statutory closure via Royal Charter	Market closure via corporate practices (embedding professional membership in tendering and procurement processes)
Legitimacy	Legitimized by public benefit	Legitimized by market value
Composition of association	Individual membership Single-tier membership structure	Individual and organizational membership Multi-level membership structure
Relationship with state	Licensed and regulated by the state	Not licensed/regulated, state acts as (significant) stakeholder/consumer of services
Relationship with clients and employers	Arm's length	Close engagement
Jurisdictions	National	International

One of the potential risks of corporate professionalization for professional bodies is the reduction of entry qualifications to attract more corporate members (Muzio, Hodgson, et al., 2011). The risk is that individual members may feel disenfranchised as there is an emphasis

on corporate members' requirements or the business requirements of the PPMAs, which detracts from individual members' needs. Another risk is that professional bodies' focus on developing new commercial services or products, rather than servicing members' needs (Muzio, Hodgson, et al., 2011). It is suggested that one of the potential unintended outcomes of "corporate professionalization" is an individual's dissatisfaction with their professional body which may lead to them not respecting the standard setters. One of the unintended consequences of not respecting the PPMAs is that practitioners will be less inclined to keep up to date with the Corpus or ignore it. Timmermans (2010, p. 70) raised three overarching concerns about standardisation and standards: "how do we hold standard makers accountable, whose benefit is served by standards, who should set standards?" The research will explore if PSFs consider that the concept of corporate professionalism is relevant to them and if this encourages some disengagement with the PPMAs and, indirectly, the Corpus.

Schmidt (2001) raised the prospect that some professionals may be regarded as timid and do not take a critical look at their own work but adhere to a professional ideology that does not challenge norms. Part of his rationale for this view is that adhering to a rigid system of education does not encourage professionals to challenge the status quo. His views appeared to recognise Bourdieu's concept of "doxa" as explained in Chapter 1 (Introduction). This research will consider if PSFs challenge or question the content of the Corpus.

CPMSs concurred that the Corpus had promoted the project management profession (McCann, 2014a). This literature review highlighted that there may be differences of opinion between PPMAs and the PSFs and clients, between the promotion of the PPMPS and or Corpus and the perception that PPMAs are engaged in corporate professionalization.

2.3.7 Research Question 1

The first research question: "How do professional services firms and clients think professional project management practice standards promote or add value to the profession?" will be posed to interviewees to seek an understanding if they have any views that agree or contradict issues already present in the literature, e.g. corporate professionalization. It also seeks to achieve the second research objective i.e. to investigate whether PSFs and clients consider that the Corpus promotes or adds value to the profession. This question is designed to investigate what the PPMPS and or the Corpus means in day to day practice for the interviewees.

2.4 The Commercial Benefits

2.4.1 Introduction

This section explores whether the Corpus provides commercial benefits to PSFs and clients. For clarity, a commercial benefit means providing a PSF with a competitive or financial advantage in the market-place, e.g. generating professional fee income and / or retaining staff. The commercial benefit to clients is providing them with a faster and cheaper way to deliver their projects.

2.4.2 Commercial Considerations for using the Corpus

The RICS used the strapline "Confidence through professional standards" on membership cards it issued to individual members in 2016. It is assumed that this strapline is referring to the vision that the government, general public and clients can have confidence in the RICS as it is promoting the use of its professional standards. Further reference to "confidence through professional standards" is made, i.e. "the consistent delivery of standards - bringing confidence to the market we serve" and "we believe that standards underpin effective markets" (RICS, 2014a, p. 29). However, this aim of consistently delivery standards may be partially undermined by the long time it takes to produce standards and that the nature of the final product is conservative. In the Author's experience, it took nine months to produce the Development Management Guidance Note.

Maylor (2001, p. 93) proposed that traditional project management approaches including those used in the construction sector, had pertinent flaws, he asserted "that practice had moved ahead of the body of knowledge in many respects". Crawford (2007) partly supported Maylor's view point by opining that BoKs are processed by consensus using codified rather than tacit knowledge, which fundamentally means that PPMPS are of a conventional nature that fails to keep pace with up to date practice and research. Hatfield (2014, p. 16) opined that codified knowledge is not sufficient for complex projects because "simply following the rules isn't enough" and argued that a new approach called "second order" project management was required. He claimed that the key element of second order project management comprises: (1) the systems approach, i.e. understanding the interdependencies involved in projects, (2) experiential learning, i.e. corporate and individual learning that captures lessons learnt on projects, (3) appropriate contracting, i.e. recognising that risk sharing may be inequitable, and

(4) improvisational leadership, i.e. having the ability to pursue the project's aims in the face of adversity or uncertainty (Hatfield, 2014, p. 17 & 18).

There are further criticisms that the BoKs are user-orientated at the expense of academic rigour (Bredillet, 2010) and neglect the political, social and ethical dimensions of project management (Kozak-Holland, 2013). Dalcher (2014a, p. 145) argued that "bodies of knowledge deliver procedures, tools and perspectives which consistently prove insufficient". Besner and Hobbs (2012) undertook persistent observation research that considered how the 108 project management tools and techniques included in the PMI's BoK were used in practice. Their research found that: (1) the more mature organisations with support for the tools used them more, (2) that performance was linked to project definition, i.e. projects that were well defined succeeded, (3) practitioners were likely to use the project management toolset on well-defined projects and (4) that the use of the tools and techniques includes practitioners' tacit knowledge. A limitation of the research is that it did not focus on the understanding of what motivates practitioners to use the PMI's BoK (Besner & Hobbs, 2012).

It is suggested that the Corpus must be of practical use to practitioners, PSFs and clients as they are likely to be the dominant user groups. The APM's BoK and CIOB's CoP and the RICS's Guidance Notes were prepared by working groups that included academic representatives. It is further suggested that the current BoKs and RICS PMPG's Guidance Notes do not overtly neglect the political, social and ethical dimensions of project management. For example, governance, environmental and stakeholder management are just some of the topics covered in the APM's BoK (APM, 2012a) and reference is made in the RICS's Stakeholder Engagement Guidance Note to a wide variety of interests when considering stakeholder engagement (RICS, 2014a).

It is noted that there are conflicting views on the effectiveness of the BoKs. It is suggested that a key issue for PSFs in relation to the Corpus and or the PPMPS is whether the standards provide a commercial advantage in persuading clients that PSFs should be included on tender lists. While the PPMAs promote the profession through the PPMPS, it is suggested there that some clients in the construction industry are only interested in the outcome rather than the use of the Corpus.

The different views on the effectiveness and application of the PPMPS in the UK construction industry between the PPMAs and project management authors (Crawford, 2005; Dalcher, 2014a; Maylor, 2001) will be investigated as part of the research.

2.4.3 Commercial Considerations for Retaining Staff

The Corpus may play an indirect role when retaining staff where PSFs and clients use it for training Early-career Professionals. Training may encourage an Early-career Professional to remain with the same employer for a long period of time, so that they can increase their experience and knowledge of project management. The potential issue of PSFs insisting adherence to the Corpus and its impact on Senior Professionals is discussed in Section 2.5 (Introduction to implementing and monitoring professional project management practice standards). It is suggested that practitioners must have the freedom to make decisions so they can retain their professional autonomy.

2.4.4 Research Questions 2 and 4

Research questions 2 and 4 are, respectively: "How relevant are professional project management practice standards to professional services firms for providing a commercial advantage in the market?" and "How relevant are professional project management practice standards to clients for delivering their projects?" These questions are designed to examine the concern that the Corpus falls behind cutting-edge practice and therefore is of little use or advantage to PSFs or clients; in particular, those who are delivering a type of project management service or project that is not common in the market.

The above research questions are linked to the second research objective as they are intended to provide a deeper insight into the interviewees' answers to the first research question regarding the value of the PPMPS. It can be argued that any business will question whether a particular course of action provides a monetary advantage to them.

2.5 Introduction to Implementing and Monitoring Professional Project Management Practice Standards

Timmermans (2010) asserted that some reasons for the instigation of standards are to selfregulate and to have a long-term plan to become a market leader. He noted that industry and trade had generated a large proportion of standards. Morris, Crawford, et al. (2006) proposed that the BoKs had become de facto standards. It is suggested that their proposal is correct because the PPMAs have produced the PPMPS as a tool to maintain their position in the market. For the purpose of this research, the PPMPS are treated as practice standards and this literature review considered how standards are implemented and monitored. The codification

of knowledge by PSFs and clients will be evaluated in parallel with the implementation of standards.

2.5.1 Implementing Professional Project Management Practice Standards

PSFs registered as "Approved by the RICS" in the construction industry have to operate within certain regulations that are imposed by the UK government and the RICS. The government is a major client of the construction industry and influences the practice of project management in three ways: primary legislation at national and European levels, secondary legislation and commissioning various reports, e.g. *The Latham Report*, to indirectly act as a catalyst to improve the performance of the industry.

Mandatory standards can be classified as performance or specification (Ogus, 2002) and it is argued that some of the RICS's requirements for practitioners and PSFs are classified as mandatory specification standards, e.g. compelling professionals to have professional indemnity insurance (PII).

Hatfield (2014, p. 205) undertook scenario planning and predicted "managers continuing to do what they do regardless of what professional institutes and standard writers say they ought to". This view would appear to be contrary to the PPMAs' preferences but it is not an isolated view. Timmermans (2010, p. 70) highlighted similar issues in relation to standardisation and standards, by asking "how do we hold standard makers accountable, whose benefit is served by standards, who should set standards?" Berg et al. (2000) explored a similar theme in their research by raising some concerns that practice standards may have potential repercussions, including that they:

...engender a 'cookbook' approach, to stifle individual contributions ... remain a direct intrusion in to that professional's jurisdiction, reduce the individual's professional autonomy ... and make the profession's decision-making processes more transparent ... more vulnerable to 'meddling' by outsiders (Berg et al., 2000, p. 766).

The PPMAs and other professional bodies in the construction industry have not remained free from criticism and have been challenged on matters such as ethics, competence/quality of service, collaboration, and the principle that standards should be co-ordinated rather than each institution pursuing its own agenda in isolation (The Edge Commission Report, 2015). This report specifically recommended that resources should be pooled to share knowledge and best practice.

This research will explore how PSFs and clients consider the implementation of the Corpus in their organisations and if there is a sense of dissatisfaction with the PPMAs in their role of standard setters.

2.5.2 Monitoring Professional Project Management Practice Standards

Garcia (2005) highlighted the issue of adopting project management standards and cautioned against the introduction of more unnecessary standards. Her view was that organisations must comply with various standards to remain competitive in the market but cautioned against implementing or monitoring any new standard that conflicted with an existing one or was incompatible with the organisation's culture. Due to the characteristics of project-based learning, careful consideration was required before introducing new organisational practices (Goussevskaia, Scarbrough, Swan, & Bresnen, 2006). Their research focused on the implementation of new project management practices in four UK construction companies. They drew attention to the features of project-based organisations, the transitory nature of projects, the short-term emphasis on performance and decentralised work locations. Goussevskaia et al. (2006) research showed that some new project management practices were not accepted or monitored by some employees and this was partly due to the perceived validity of the new procedures and politics within the organisation. This research will explore how PSFs monitor adherence to Corpus.

2.5.3 Codification of Knowledge and Project Management Services

Connaughton and Meikle (2013) highlighted that if professional knowledge could be standardised and codified so that professional services were easier to market, this would inevitably lead to increased profits for PSFs. Furthermore, the standardisation of services within a PSF would reduce the scope for negligence, which forms part of the corporate risk management process (Connaughton & Meikle, 2013, p. 106). Codification of project management services could also lead to improved communication on project management issues within organisations and help minimise duplication of resources (Clarke, 1999).

As noted in Section 2.3.5 (Codification of Professional Project Management Practice Standards) the codification of project management is, arguably, relevant to the development and maintenance of the profession. However, there are contrasting views and concerns about the codification of knowledge (Cicmil, Hodgson, Lindgren, & Packendorff, 2009; Milosevic

& Patanakul, 2005). See Section 2.7 (In-house Standards) that raises the concerns of Black boxing of knowledge and stifling the creativity of practitioners.

2.5.3.1 Black boxing of knowledge

Hodgson and Cicmil (2006b) highlighted the work of others that criticised the dominance of functionalism and positivism in management. They argued that the problem with this approach is that it is doesn't match reality for practitioners who encounter problems in practice that are fragmented and complex. Their concern is that when the BoKs are drafted, it is on the basis of a narrow view of what project management is meant to be than what it is in reality. (Dalcher, 2014a); Morris et al. (2006) supported this view and noted the limitations of the BoKs. Almost a decade earlier, (Boisot, 1998) observed that when a decision is made to codify knowledge, it should be considered whether this is concrete or abstract knowledge, see section 2.6.1.3 (The Information Space) for further commentary. Codifying abstract or tacit knowledge can be difficult as it can be hard to capture, context specific and therefore of limited use to a wider audience and practitioners may not always articulate or justify their decisions. Hodgson and Cicmil (2006a, p. 48) defined the concept of "black boxing of knowledge" of project management standards including the PMI's BoK as "definitions, techniques and procedures become set in stone, is an effective way of removing the ethical and political questions from the agenda".For the purposes of this research, the "Black boxing of knowledge" is defined as "the adherence to codified knowledge in the PPPMS in all circumstances and the refusal to challenge existing theories of, and/or long-held beliefs in project management". This should not to be confused with the definition of "black box thinking" (Syed, 2016) that encouraged learning learnt from failure, e.g. the crash of United Airlines Flight 173 led to an investigation that resulted in crews learning new assertive techniques, so they could challenge the authority of a captain of the plane under certain conditions.

2.5.4 Projectification and Resistance to Project Management Procedures

Lundin and Soderholm (1998, p. 16) asserted that use of projects by organisations to remain competitive is likely to continue and introduced the term "projectified society". Others have challenged the question of the projectification of society in the long term (Lundin, 2016). He raised significant questions that are not readily answerable including: what are the long-term consequences of projectification on society as a whole and the over-projectification of regular activities? What is the impact on labour supply and how should a post-Project Society

scrutinise projects as the best way to deal with some of society's challenges? Notably, research in to the projectification of university research has an interesting parallel to the partial adoption of standards (Fowler, Lindahl, & Skold, 2015).

Fowler et al. (2015) concluded that some academics had resisted the application of new project management procedures to their research projects. They reported that the academics partially adopted and delegated the new procedures by having an administration team perform the additional project management requirements. However, the projectification of the university research raised concerns about the long-term impact of the new project management procedures. These concerns included that project management is not necessarily a benign influence and it may come to challenge the previously accepted norms and values in universities. For example, the concern that researchers are separated from research assistants and fundamentally that research is not suited to project management procedures if it cannot be adapted to situations where unknowns are an integral part of the process (Fowler et al., 2015). The research will consider if projectification is a concern for PSFs and clients.

2.5.5 Research Questions 5 and 6

Research questions five and six "How do professional services firms and clients implement professional project management practice standards in their organisation?" and "How do professional services firms monitor the use of professional project management practice standards in their organisation?" were posed to interviewees to explore the opinions on implementing and monitoring of regulations and standards. These responses could include: that practitioners, PSFs and clients respect the PPMAs to provide relevant PPMPS and that the codification of project management services could help minimise staff resources.

Both research questions are intended to achieve the third research objective, i.e. to explore the extent that professional services firms and clients implement and monitor adherence to the Corpus.

2.6 Developing Project Managers' Competencies

2.6.1 Introduction

It is suggested that one of the aims of the Corpus is the development of project managers' competencies. Crawford (2012) argued that practice standards were important to allow employers to benchmark performance in the workplace, provide confidence that project

managers are capable and so that practice standards could be mutually recognised and comparable at a global level. It is suggested that the analysis of project managers' competencies leads to consideration of how project managers learn and if they can learn from projects. The barriers to organisational learning are explored. The theories of workplace learning, tacit knowledge and developing reflective practitioners are included (Boud & Garrick, 1999b), (Foos, Schum, & Rothenberg, 2006) and (Crawford et al., 2006) respectively. The issue of knowledge management and tacit knowledge is also considered (Kreiner, 2002). Consideration is given to the concepts of reflective thinking, experiential learning, abstract and concert knowledge.

2.6.1.1 Reflective Thinking, Reflection-on-Action and Experiential Learning

There is a significant volume of literature available on understanding, managing information and measuring knowledge within organisations. This section considers reflective thinking, experiential learning, the Information Space model and, the Socialisation, Externalisation, Combination, Internalisation model.

Reflective thinking can be defined as

Certain sub processes which are involved in every reflective operation...These are (a) a state of perplexity, hesitation, doubt; and (b) an act of search or investigation directed towards bringing to light further facts which serve to corroborate or to nullify the suggested belief, (Dewey, 1933, p. 9).

The function of reflective thinking practice is not just limited to justification of the original problem. This is supported by Schon's theory of reflection and Kolb's theory of experiential learning that is explored below, which expressly stipulates the opportunity for looking at alternative or new ways to solve conundrums.

Schon (1983, p. 69) advocated that reflective practice was important to practitioners to have a theoretical framework that considered their skills in dealing with unusual and complex problems. His theories on Reflection-in-action and Reflection-on-action demonstrated that practitioners used their tacit knowledge, previous experience and knowledge or "know how" gleaned from informal and/or unstructured sources to overcome problems. This is important where practitioners face problems in their practice that are complex and changing.

One interpretation of Schon's Reflection-in-action theory is practitioners undertaking complex tasks readily and easily in everyday practice is similar to Dewey's theory of learning by doing. By comparison, Reflection-on-action is reflection and learning new knowledge that

happens sometime after the phenomena occurred that triggered the reflection. Eraut (1994, p. 142 & 143) criticised Schon's theory of reflection as "principally concerned with developing an epistemology of professional creativity rather than a complete epistemology of everyday professional practice". Other scholars had developed frameworks that arguably have provided a grounded epistemology.

2.6.1.2 Kolb's Experiential Learning Cycle

Kolb (1984, p. 40) devised his theory on the experiential leaning cycle and set out its four key stages; concrete experience, reflective observation, abstract conceptualization and active experimentation. Progression through the four stages can be described as having an experience, reflecting on this, undertaking deeper analysis of the experience and then implementing the new ideas that have been generated.

The different forms of knowledge that are created in each cycle; divergent, assimilative, convergent and accommodative (Kolb, 1984, p. 42). The recognition of the different types of knowledge within the experiential learning cycle reinforces the view that experience alone does not create new knowledge. Kolb (1984, p. 43) also developed in detail the different ways that experience can be segmented and appreciated, e.g. apprehension and intention.

2.6.1.3 The Information Space

The Information Space or "I-Space framework provides to organisations an understanding of how information is expressed, shared, availed of and exploited (Child & Ihrig, 2013). There are three dimensions that are the part of the "I-Space": abstraction, codification and diffusion. Boisot (1998, p. 41) defined codification as "whether an item of knowledge can be written on paper" but in reality is often a complex task as it will mean making choices about what material can be used and discarded in the process. The concepts of abstract and concrete knowledge are important to note as this will have an impact on how successful codification can be. It is suggested that some practitioners' decision making processes are hard to articulate and comprise "abstract knowledge", while some routine project management practices may be easier to codify, concrete knowledge e.g. defining well known terms used in project management.

Codification may help reduce uncertainty, care must be taken to recognise the options/decisions made taken to codify knowledge. Hodgson and Cicmil (2006b) have raised the concern that current BoKs fail to recognise other contextual issues that are important for

project management, e.g. that the technical and rationalist approaches of the BoKs are flawed. A distinction is made between codification, "gives rise to the phenomena" and abstraction gives them [phenomena] structure (Boisot, 1998, p. 48). Using both actions make the data more meaningful and easier to share. Boisot (1998, p. 52) defined diffusion as "the proportion of a given population of data processing agents that can be reached with information operating at different degree of codification and abstraction". The Social Learning Cycle can take place in the I-Space and consist of 6 phases: scanning, problem solving, abstraction, diffusion, absorption and impacting.

2.6.1.4 The Socialisation, Externalisation, Combination, Internalisation model

Nonaka and Takeuchi (1995) studied the performance of Japanese companies in the early 1990s and argued that creating knowledge was a key factor for organisations to remain competitive. They noted that "in a strict sense, knowledge is created only by individuals. An organisation cannot create knowledge without individuals" (Nonaka & Takeuchi, 1995, p. 59). They considered two types of knowledge: tacit and explicit and argued that tacit knowledge is the most difficult to articulate because it is linked to the individual. Tacit knowledge comprises experience, tends to be subjective and context-specific. Eraut (1994) recognised the significance of tacit knowledge for professionals.

Tacit knowledge is considered to provide a competitive advantage to organisations as it is unique and relatively mobile (Pathirage, Amaratunga, & Haigh, 2005). The challenge has been recognised on how to convert individual tacit knowledge to corporate explicit knowledge (Nonaka & Takeuchi, 1995). They proposed a Socialisation, Externalisation, Combination, Internalisation (SECI) model below that considered the four modes of knowledge conversion.

Table 4: Socialisation, Externalisation, Combination and Internalisation model. Adapted from (Nonaka& Takeuchi, 1995, p. 62)

	Tacit knowledge to Explicit knowledge	
Tacit knowledge from	Socialisation	Externalisation
Explicit knowledge	Internalisation	Combination

Both (Boisot, 1998) and (Nonaka & Takeuchi, 1995) recognised that tacit knowledge can become explicit knowledge and vice-versa over time. Pathirage et al. (2005) noted that there is an increased interest in knowledge management within organisations but that the PSFs within the UK construction industry are highly fragmented. Despite the advances in understanding different types of knowledge, they argued that the UK construction industry is falling behind other industries. One of the main reasons for this problem is that most construction knowledge remains with individuals. However, it is argued that not all practitioners aspire to transfer their knowledge, see Section 2.6.4.5 (Practitioners' Learning Responsibilities) for further commentary. It is suggested that one way to improve knowledge management within the Corpus is a greater use of case studies rather than universal knowledge or guidelines which may improve project managers' competencies.

2.6.2 Project Managers' Competencies

Dillion and Taylor (2015) opined that it is accepted that people play a key role in the management of projects and that having properly trained practitioners is crucial. Vukomanović, Young, and Huynink (2016) suggested that the term "competency" had a wide range of meanings in the literature when the concept was introduced in the 1980s. Competency is defined as the "knowledge, skills and behaviours (experience) a person needs to fulfil his or her role" Huemann (cited in Huemann, Turner, & Keegan, p. 121). There are two specific approaches to competency development: the competency model (attribute-based) and the competency standards (performance-based) (Crawford, 2012). She argued that the competency model focuses on the behaviours of the individual and their performance capabilities. However, the disadvantage of the competency model (attribute-based) is that

behavioural competencies are specific to the individual and are therefore difficult to implement uniformly in organisations.

The competency standards (performance model) can be applied uniformly as it provides a baseline for acceptable performance that can be implemented widely. The International Project Management Association published its Individual Competence Baseline book in 2016 with the aims of providing a global standard of competencies for practitioners that may be working on projects, programmes or portfolios (Vukomanović et al., 2016). The Individual Competence Baseline is intended for practitioners to be able to use their competencies to complement technical or 'hard' project management skills.

2.6.2.1 Developing Competencies from Experience

Practitioners must have the necessary skills to deal with technical matters where they are important to the project (Gale, 2005). It is suggested that providing project management services for construction projects requires an understanding of fundamental technical issues. Adham (1992) found from his research of 110 construction project managers in the UK that the best means of increasing knowledge and skills was from practical work experience. Alias et al. (2012) obtained 31 detailed questionnaires from construction project managers in Malaysia and their research, revealed that experience was a key criterion to being recognised as expert project managers.

Edum-Fotwe and McCaffer (2000) researched the development of project managers' competencies in the construction industry and cautioned that over-reliance on developing competencies from experience was inadvisable as it was context-specific and neglected the ability to have a more strategic view required for project management. Their research was based on a survey of 170 practitioners but is silent on the contribution that the BoKs could make to developing project managers' competencies. The following areas of knowledge are required for developing construction project managers: integration, time, costs, procurement, quality, communications, risk and human resources (Edum-Fotwe & McCaffer, 2000, p. 113). In contrast, (Adham, 1992, p. 283) found that the top five highest rated skills by the construction managers were: leadership, planning and scheduling, delegation, chairing meetings and negotiations. The RICS, APM and the PMI provide a competency framework that sets out guidance to assess practitioners' competencies.

Crawford (2005) challenged the assumption that practitioners using project management practice standards i.e. the PMI's BoK and the Australian National Competency Standards for Project Management performed better in the workplace than those that did not. Her research concluded that senior managers did not perceive that there was any increased performance as a result of adhering to PPMPS. She observed that this may be partly due to a professional territorial battle between general and project management, e.g. general managers did not want project managers to encroach on their area of management within the business.

It is suggested that the concept of the "iron triangle" (Atkinson, 1999) is still prevalent among practitioners i.e. their definition of 'project success' focuses on time, cost and project scope at the expense of other factors that may contribute to project success, e.g. stakeholder engagement. Papke-Shields, Besie, and Quan (2010) undertook a survey of 142 respondents as to how they used the project management practices contained in the PMI's BoK. Their results indicated that the project management practices that were most used include those related to cost, scope and time, while HR and procurement practices were used to a lesser degree. They concluded that use of project management practices factors. This assumes a rationalist and technical approach to project management that if procedures are followed then projects will be delivered on time but does not seem to contemplate matters outside the scope of project management procedures that could jeopardise a project. Pollack (2017) argued that the traditional model of project management is not wrong but that in reality this model is rarely used in practice.

Milosevic and Patanakul (2005) also noted that in the computer and software industries, having standardised project management procedures may have contributed to project success as employees spent less time setting up their own procedures. They cautioned that their research did not demonstrate that standardised project management practices led to guaranteed project success and focused on organisational project management rather than individual project management. They noted that organisations tended to use standard procedures up to a point (described as the "inflection point") and then deviate from there. It is suggested that the inflection point appears to be key to safeguarding professional autonomy, because practitioners, PSFs and clients are not bound to use procedures irrespective of the context.

2.6.2.2 The Boomerang Mind-set

The International Labour Organisation commented on the changing nature of work and production. They confirmed that the role of the stereotypical full time employed person was under threat with half of the waged global workforce not working for one single employer (International Labour Organization, 2013). The growth of temporary working is not confined to unskilled labour, some project managers choose to work on a consultancy basis. There are some advantages for employers in engaging practitioners on a temporary basis, e.g. having flexibility in the use of these resources as and when demands rises or falls.

Crawford, French, Lloyd-Walker, and Helm (2017) argued that there was a gap in the existing literature in relation to the development of competencies for temporary workers. Their research was pan-sector and included 30 interviews with 28 organisations across Australia, Europe and North America. Organisations should treat contingent workers as part of their businesses, offer support and training opportunities, and encourage them to feel valued and part of a team were three key findings of their research (Crawford et al., 2017). Therefore, if the contingent worker has developed a good relationship with the organisation, he or she will be prepared to come back to the organisation, hence the term "boomerang mind-set". It is suggested the concept of boomerang mind-set is a relatively new one but is unlikely to be adopted by the construction industry in the short term, given its reputation for adversarial relationships with suppliers and a focus on low profit margins. However, it is suggested that the boomerang mind-set concept is worthy of consideration by PSFs and clients as these contingent workers may bring innovative ideas that could be useful for enhancing the competencies of permanent employees.

2.6.2.3 Practical Wisdom

Interest in project management stems from our modern society "characterised by standardisation, large-scale operations and bureaucracy" argued Cicmil et al. (2009, p. 80). The assessment of competencies is open to challenge and it could be argued that it aims for a minimum standard. "Competency based assessment, in its present form threatens to become the new Fordism of the education system" (Field, 1993, p. 48). This is interpreted as a reference to the provision of mass production with minimal attention to quality and a relatively inexpensive way of assessing competency in education standards. It is suggested that while minimum standards may be seen as an equitable way of gaining membership of the

PPMAs, this may unintentionally encourage some practitioners, especially Early-career Professionals, to feel that this is sufficient knowledge to be competent for complex projects.

Bredillet et al. (2015, p. 264) considered what makes a good project manager and suggested the "Aristotelian" approach, i.e. they act "rightly" or do "good" action in context. They opined that their perspective was based on Aristotle's work that a project manager should have practical wisdom (phronesis) and be aware of ethical judgement (praxis). They highlighted the tensions between the deontological (the means) and the consequentialist (the end) approaches in practice standards and concluded that another theory of standards should include a focus on practitioners sharing examples of good practice, and the development of critical and reflective practice. It is suggested that the RICS's "Lessons Learned" Guidance Note is an example of shared experience within a specific context. See Appendix E (Analysis of the RICS Project Management Professional Group's Guidance Notes).

2.6.3 Knowledge and Learning

2.6.3.1 Knowledge

Davenport and Prusak (1998, p. 5) defined knowledge as

a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in the documents or repositories but also in organizational routines, processes, practice and norms.

Their definition is comprehensive and is reflective of individual and organisational perspectives. Bredillet (2007) observed that organisations are influenced by individual learning. Davenport and Prusak (1998) argued that the increase in organisations' requirements for understanding knowledge is the result of businesses having to deliver more with fewer resources. It is argued that understanding the types of knowledge production is pertinent to considering the application of the Corpus.

The "mode 1" type of knowledge is regarded as a traditional method of knowledge production. Gibbons et al. (2004, p. 2 & 3) described "mode 1" and "mode 2" respectively, as

... hierarchical ... disciplinary ... problems are set and solved in a context governed by the, largely academic, interests of a specific community,

... heterarchical ... transdisciplinary ... is carried out in a context of application.

It is suggested that the recognition of mode 2 knowledge production is a natural progression in response to research problems that require a multidisciplinary contribution and those interested in commissioning knowledge production for their specific application. The Corpus acknowledges contributions from practitioners and academics and it is proffered that as a minimum it represents the mode 2 form of knowledge production.

Scott et al. (2004) identifies two additional modes of knowledge. "Mode 3" is dispositional and trans-disciplinary knowledge and mode 4 is critical knowledge. The features of "mode 3" knowledge are that it is

a non-prescriptive view of the relationships between disciplinary and practice based knowledges ... concerned with the development of the individual through reflection (Scott et al., 2004, p. 48).

Crawford et al. (2006) asserted that project managers should be encouraged to undertake reflection so that they continue to develop the appropriate level of skills and maturity to deal with complex projects. Scott et al. (2004, p. 51 & 53) asserted that the characteristics of "mode 4" knowledge

is understood as critical of the prevailing ethos, implicitly political and change orientated, ... undermine the conventional knowledge discourses ... and the legitimacy of the institutional life.

It is argued that modes 3 and 4 of knowledge production could have had subtle repercussions on the use of the Corpus, i.e. PSFs and clients can adopt a more critical and questioning approach to the knowledge contained in the Corpus. It is suggested that the decision of the Global Alliance for Project Performance Standards to produce its own global project management standards (Global Alliance for Project Performance Standards, 2017) could be seen as a mode 4 knowledge and an implicit criticism of the Corpus. It is suggested that the Global Alliance with its multi-national corporate members may be challenging the PPMAs to produce better project management guidance.

Gale (2005) concluded that the BoKs were a form of codified knowledge. Jackson (1986, cited in Kennedy, 1987, p. 143) argued that codified knowledge for professionals can be seen as "mimetic: independent of its owners, passed from one person to another". It is interpreted that this form of knowledge can be regarded as context-text free and that some of the Corpus can fall into this category i.e. universal guidance. The concerns of (Hodgson & Cicmil, 2006a) about Black boxing of knowledge can be seen in the context of mimetic and codified information, where it can appear that the Corpus (as a form of "mode 2" knowledge) does not

encourage practitioners to challenge long-held beliefs about the provision of project management services.

2.6.3.2 Learning

Schilling and Kluge (2009, p. 238) defined learning as, "a relatively permanent change in knowledge or skill resulting from experience". This definition highlights the dual nature of learning as a process and achieving a result, such as increased knowledge. Schimmel and Muntslag (2009) summarised the concepts of "single loop" and" double loop" learning. The former being seen as a change in strategy or assumption but effectively leaving the underlying theory unchanged. Single loop learning can be construed as relying on repetition and routine (Bredillet, 2007). The double loop form of learning includes changes in action and challenging the existing theory or dogma, and is regarded as being more important for organisational learning (Schimmel & Muntslag, 2009). Bredillet (2007) supported this view and noted that "double loop" learning takes place within a complex context and has a longer-term impact on organisations.

Organisational learning has been studied since the late 1950s and can be defined as "a process of improving organizational actions through better knowledge and understanding", and it takes place "when its actions have been modified as a result of reflection or new knowledge or insight" (Edmondson, 2002, p. 128). While organisational learning has been viewed from various perspectives, it is generally perceived as "the creation, use, transfer and retention of knowledge within organisations" (Bartsch, Ebers, & Maurer, 2012).

Matzdorf et al. (1999) proposed that learning can be seen as informal and formal. They suggested that formal learning is seen as predominately an individual matter that usually takes place at a specific event while informal learning is regarded as on-the-job training without being given due recognition. Eraut (2000) proposed a similar definition of formal and non-formal learning. It is suggested that the terms "training" and "learning" can be used interchangeably.

2.6.3.3 Learning from Projects

It is not clear whether organisations learn from projects (Swan, Scarbrough, & Newell, 2010). They studied six different large organisations that had each existed for more than 30 years and concluded that learning within a project "goes no further than the project itself" (Swan et al., 2010, p. 340). Bartsch et al. (2012) agreed with (Swan et al., 2010) that are many

difficulties associated with organisational learning due to project work often being autonomous, unique and short-lived.

Ayas (1998, p. 90) argued that "professional project management" is "building long term capability for learning and continuous improvement with every project undertaken" which project managers are focussed on short-term performance which is not sufficient for "professional" project management. She proposed that the following mechanisms or tools could be useful for learning from projects: a project audit, a generic work breakdown and a demonstration project. No reference was made to other project learning sources, e.g. the PPMPS or the project management office (PMO), which may be of value to practitioners.

The emergence of the PMO was a relatively new idea that arose in 1998 (Hobbs, Aubry, & Thuillier, 2008). Pemsel and Wiewiora (2013, p. 31) defined the PMO as "a formal layer of control between top management and project management". They proposed that the emergence of the PMO was another response by organisations to remain competitive in a global market. The PMO's function will vary but its role can be regarded

as an organisational unit facilitating coordination of knowledge and other resources between the PBO [project-based organisation] and its projects, and can therefore act as a bridge over organisational and knowledge boundaries (Pemsel & Wiewiora, 2013, p. 32).

It is suggested that some of the reasons for the emergence of the PMO are that it is another way to capture knowledge and changes to workplace learning, and that employers have a vested interest in the long-term development of practitioners. The PMI has promoted and favoured the use of the PMO as an important aspect of knowledge transfer (PMI, 2015a). Boud and Garrick (1999b) asserted that work and learning are no longer separate. Workplace learning is defined as that which is

concerned with immediate and future competencies ... too important to be left to educational institutions and in-house training departments. (Boud & Garrick, 1999a, p. 5)

However, it is argued that while the PMO may be considered as a form of workplace learning, it can also be another potential barrier to learning.

2.6.4 Barriers to Learning

It is suggested that barriers to learning may take various forms, e.g. individual or professional barriers, organisational barriers, the PMO, the tradition of apprenticeships and practitioners

responsibilities. It is relevant to consider these barriers to learning as they may impact on the effectiveness of the Corpus.

2.6.4.1 Individual or Professional Barriers

Matzdorf et al. (1999) undertook research in 281 surveying practices and found several barriers to learning. These included: the perception that learning equals training (which was interpreted by surveyors as having a lack of knowledge), it is another expense; that training is perceived as more of a vocational idea, not a professional one, and therefore some surveyors felt it threatened their own professional identity. One matter to be considered as part of this research is that PSFs may not regard the Corpus as formal learning and therefore it is of lesser importance than other publications, e.g. text books.

2.6.4.2 Organisational Barriers

Mullins and Christy (2010) highlighted the benefits of learning for individuals, organisations and society, and advised that it was in an organisation's best interest to harness their employee's knowledge and expertise. Reasons why adults want to learn include: they must be convinced of the relevance and value of the learning, and can include their previous experience or knowledge to the new subject matter (Mullins & Christy, 2010).

Schimmel and Muntslag (2009) identified that organisational barriers to learning included: poor feedback being given to employees, the pace of change being too quick to learn, a lack of autonomy over the change process and where there is an absence of dialogue. It is proposed that not learning from projects falls into the domain of an organisational barrier. As noted in Section 2.6.3.3 (Learning from Projects), there are significant challenges to ensure that learning occurring within teams is transferred to other parts of the organisation. Bartsch et al. (2012) noted that new knowledge learnt in teams may be regarded as context-specific with no relevance to universal application, or the team members in other parts of the organisation do not have the ability to benefit from it.

2.6.4.3 The Project Management Office

Pemsel and Wiewiora (2013) identified a significant mismatch between practitioners' expectations of the PMO's role and project managers' knowledge-sharing behaviours. They considered that the PMO may have a useful role in disseminating knowledge from projects and incorporating this information in to the long-term development of practitioners and

improving organisational knowledge. Their research concluded that there was a consistent finding that practitioners preferred to seek colleagues' advice rather than read a PMO's guidelines as these were considered laborious. One significant weakness of the PMO is that it focuses on past performance of projects rather than providing guidance to practitioners on how they can mitigate problems on future projects. Their research comprised interviews with 64 practitioners within seven organisations, including one in the construction sector.

Goussevskaia et al. (2006) cautioned that the implementation of new project management procedures must recognise the existing knowledge bases and power relationships within project-based organisations. Their research focused on four cases studies within the construction industry. It is suggested that the imposition of a top-down approach from the PMO may mean that practitioners are resentful of a universal approach to using project management techniques and tools. It is proposed that the success of the PMO will depend on its support from practitioners, otherwise it may become a learning barrier in its own right.

2.6.4.4 The Tradition of Apprenticeships

It is suggested that there may be a natural barrier to learning for some Early-career Professionals due to the apprenticeship or training period between completing undergraduate education and becoming a member of a PPMPA. Nicolini (2012) observed that an apprenticeship is another way for the tradition of practice to remain and highlighted that it assumes a 'master and pupil' relationship. There are benefits to this arrangement, e.g. undergraduates or Early-career Professionals benefits from the wisdom of an experienced practitioner. However, the under-graduate or Early-career Professionals may be engaging in single loop learning and may not have the experience or willingness to challenge existing theories or practice. In these circumstances, it is suggested that the PPMPS create a risk of adopting a text-book, or worse still, a 'tick box' approach of providing project management surveying services. Hodgson and Cicmil (2006a) suggested that the Black boxing of knowledge and project management procedures may be detrimental to the growth of the profession, i.e. removing the ethical and political dimensions of projects, and that certain long-standing concepts of project management theory may become difficult to overturn.

PSFs can vary the level of expertise allocated to projects, e.g. the idea of 'leveraging the fee' so that the PSF makes an increased profit by using inexperienced and/or under-qualified practitioners to provide project management services. Eraut (2007) researched workplace learning by undertaking a longitudinal study that included 38 graduate engineers, 40 newly

qualified nurses and 14 trainee chartered accountants. One of the pertinent findings from his study is the propensity for graduates to refer to their own professional institution's guidelines and/or practice standards. Botham and Vick (1998) highlighted that practitioners possessing knowledge of a specialised subject matter should also be acutely aware of the risk that they do not become so immersed in their subject they are reluctant to explore outside their expertise. It is suggested that PSFs and clients must be wary that their undergraduates and Early-career Professionals are not overly relying on the PPMPS without due regard to the context of the problem in hand.

2.6.4.5 Practitioners' Learning Responsibilities

The concept of the "iron triangle" is relevant to practitioners' learning responsibilities. Previous studies have suggested that this long-standing concept of delivering projects on time and on budget to a specified quality has influenced practitioners' approaches to long-term learning and the transfer of knowledge. Foos et al. (2006, p. 15) concluded that project managers were not interested in the long-term transfer of tacit knowledge as they perceived they are rewarded only for delivering the project's iron triangle requirements also known as the project manager's "execution realm".

The issue is whether project managers can or want to transfer tacit knowledge acquired from undertaking projects. Foos et al. (2006, p. 15) highlighted that "very few managers differentiate between technology transfer and tacit knowledge". Swan et al. (2010) found that constant pressures on time and milestones mean that project managers would make decisions that were acceptable but had little regard to the long-term development of the organisation. They introduced the concept of "experience accumulation" meaning "the reliance on individuals moving from project to project, taking their accumulated experience with them" (Swan et al., 2010, p. 339). Their research found that projects can be seen as barriers to innovation due to the preference for short-term gain over long-term development.

Pemsel and Wiewiora (2013) concluded that the nature of projects as temporary organisations can impede knowledge sharing among practitioners as their focus is on delivering their current project with little time for reflection before the next one. Lientz and Rea (1995) argued that practitioners are not prepared to learn from projects as it would mean hearing criticism so they feigned that they did not have the time to participate in this reflective task. Frame (2007) highlighted another example of this approach and noted that most organisations do not undertake sufficient project completion reviews due to factors that include project

managers focusing on the next project. Bordass and Leaman (2013, p. 1) presented a view that "designers and builders are trained to ... hand over the keys, not to look in to what happens afterwards".

Tacit knowledge is likely to emerge in micro-communities undertaking routine work over time, rather than during project work (Von Krogh, Ichijo, & Nonaka, 2000). They proposed that there is more time for members to get to know each other and their personalities and rituals, etc. and to establish the micro-communities as a stable group rather than being disbanded as soon as a project is finished. Kreiner (2002) argued that while there was substantial material on knowledge management, he contended that it is not an easy task to manage tacit knowledge.

The nature of the construction industry (with its emphasis on competitive tendering, especially in the public sector for design services and works), does not encourage design teams and contractors to remain in teams for sufficient length of time to create long-term and sustainable relationships.

McCann and Kulatunga (2015) proposed that it was important for practitioners to allow specific time for reflection between projects, so they can learn lessons that will be useful for future projects. It is argued that it is the decision of PSFs, clients and practitioners themselves to allow sufficient time and resources to use projects as learning entities in their own right, reflect on how project management services can be improved and transfer this knowledge to others as part of their professional development. The lead author of the RICS's "Lessons Learned" Guidance Note has posed a similar challenge to practitioners (Schofield, 2016). Some of the lessons learnt from projects can be captured in formal documents and this research will explore if practitioners use their own In-house standards to capture this knowledge.

2.6.4.6 Practitioners' Identity

Hodgson and Paton (2016) considered the way in which practitioners rely on their expertise and knowledge from the PPMAs and employers and highlighted two distinct group: "locals" and "cosmopolitans". The locals are described as project managers who see project management as bound together with their workplace experience in a specific industry, focused on in-house training or expertise that is valued by their employer and have a low commitment to a professional body or PPMA. In contrast, the cosmopolitans can be

considered as the opposite, i.e. they have a high commitment to skills that they perceive as transferable in the market-place, tend to be strategically focussed and have a preference for project management qualifications that can be regarded as pan-sector. Employers provide project managers with job security and promotion and, therefore this inherently and overtly supports the local rather than the cosmopolitan type of project manager (Hodgson & Paton, 2016). This research will explore if the phenomenon exists of PSFs or clients encouraging the growth of the "local" project manager.

2.6.5 Research Question 7

The seventh research question of "How do professional project management practice standards contribute to the development of project managers competencies in the workplace?" was posed to interviewees to seek PSFs' and clients' views on whether the PPMPS contribute to learning in their organisations and elicit their approach on the development of their employees' competencies.

The seventh research question is linked to the fourth research objective: to analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees.

2.7 In-house Standards

It is anticipated that PSFs and clients will have their own In-house standards that they expect employees to use. All of the practitioners confirmed the existence of their own In-house standards (McCann, 2014a). Two of the reasons cited for having In-house standards were to capture lessons learnt and have templates that could be used consistently by employees in a large multi-national PSF. In-house standards may incorporate or overlap with business requirements, e.g. BS EN ISO 9001: 2008 Quality management system.

Milosevic and Patanakul (2005) considered the standardisation of project management processes. In their article, an interviewee raised the concern that an individual project manager may not use their own judgement and the interviewee wanted "process experts" not "process slaves" (Milosevic & Patanakul, 2005, p. 189). It is suggested that it is a key requirement for professionals to have the ability to be creative. Beckett (1999, p. 84) observed that

most professionals' work is "hot action" ... where decisions are taken on the run, case by case, and with the nagging doubt that action might be inadequate – superficial, hasty and inappropriate.

The above definition of "hot action" is similar to that of reflective practice, which can be described as

certain sub processes which are involved in every reflective operation... are (a) a state of perplexity, hesitation, doubt; and (b) an act of search or investigation directed towards bringing to light further facts which serve to corroborate or to nullify the suggested belief (Dewey, 1933, p. 9).

The concern regarding the autonomy and creativity of the project manager is shared by others. Cicmil et al. (2009) highlighted that there is a risk of practitioners becoming focused on project management procedures and protocols at the expense of the project. Clarke (1999) cautioned that having standard project management processes risks being prescriptive, i.e. relying on checklists and without regard for cultural or global differences. Hodgson and Cicmil (2006b) questioned whether the Black boxing of project management procedures and knowledge could be detrimental to the growth of the profession and that certain long-standing concepts of project management theory may become difficult to overturn.

2.7.1 Research Question 8

The eight research question of "Do professional services firms' and clients In-house standards take precedence over professional project management practice standards?" was posed to interviewees to explore how PSFs and clients view the role of their In-house standards. In addition, this research question sought to establish if features of PSFs' and clients' In-house standards could be used to improve the Corpus.

The above research question is designed to achieve the fifth research objective: to assess whether professional services firms and clients are changing the use of the Corpus.

2.8 Professional Negligence

2.8.1 Tort of Negligence

Padfield and Barker (1989) noted that the word 'tort' is used to distinguish between civil and criminal wrongs. They confirmed that the tort of negligence is one of the most significant torts in law and that professionals owe a duty of care in their discharge of professional duties. All chartered surveyors must be insured against claims for a breach of professional duties with two exceptions; surveyors working in the public sector and those providing services to

their employer on an in-house basis and not to clients (Williams, 2004). The purpose of PII is to cover claims from third parties for matters that may arise during the conduct of the business. A successful claim made be made against a surveyor even if they were not negligent (RICS, 2009a). Not every error that a practitioner makes may be regarded as negligent on the basis of the concept of 'reasonable skill and care' and the law recognizes that professional judgement is not infallible (Jones, 1998). Practitioners can refer to the PPMPS as to what can be considered 'reasonable' when discharging their professional skill and care.

2.8.2 Influence of Professional Indemnity Insurance Providers

As noted in Section 2.2.5 (An Overview of the Corpus), all RICS's Practice Statements and Guidance Notes advise that practitioners need to be aware of their contents. It is contended that it is difficult for practitioners and PSFs to openly disagree with the imposition of the Corpus as this could construed as undermining the legitimacy of the PPMAs. It is suggested that adhering to the Corpus is, in part, compliance with continuing professional development (CPD) requirements and, arguably, is a way of reducing professional negligence claims. Hughes and Hughes (2013, p. 33) assessed that "ultimately the decision about what a professional can or cannot do is taken by the providers of PII". The influence that PII providers may have on the Corpus will be explored during semi-structured interviews with practitioners. Cobb (2010) noted the influence of case law on project managers between 1996 and 2003 and cautioned against them over-extending their contractual obligations beyond their area of expertise.

2.8.3 Research Question 9

The penultimate research question considers "How do professional project management practice standards mitigate against the risk of professional negligence?" CPMSs believed that the use of PPMPS would mitigate against their risk of professional negligence (McCann, 2014a). An expert interview will be sought with a PII provider to understand if they share the same views as practitioners, PSFs and clients.

The penultimate research objective is to investigate whether PII providers consider that the Corpus mitigates against the risk of professional negligence

2.9 Additional Changes to the Corpus

The final research question explores "What changes would professional services firms and clients make to professional project management practice standards?" This will give the interviewees the opportunity to add their thoughts on the PPMPS in their current form, e.g. their purpose, application, relationship with In-house standards and any measures that could be introduced that may be beneficial to PSFs, clients or society.

Barnett (1999, p. 29) proposed the idea of "supercomplexity" as

living in an age in which our very frameworks for comprehending the world, for acting in it and for relating to each other are entirely problematic. We live in a world characterised by contestability, challengeability, uncertainty and unpredictability.

Susskind and Susskind (2017) supported the above comment on supercomplexity, in so far that they have predicted that the future of all professions will change in the long term. They predicted that most professional work is likely to be superseded by robots and improved IT. It will be worthwhile to explore in this research if this view is shared among PSFs and clients.

The Cabinet Office was concerned that certain legislation may be regarded as Byzantine with the potential consequence of subverting the rule of law if it is not followed. Excessively complex legislation is regarded as that which: generates an unnecessary burden on society or the economy, has a fragmented delivery, its implementation is too problematic; is inaccessible as the language is not easy to understand and contains ambiguous or contradictory provisions, and is disjointed with over lapping and complicated provisions (Cabinet Office, 2013, p. 13). There are potential similarities between these concerns about complex legislation and the implementation and use of the Corpus.

It will be explored if the PSFs and clients have contrasting views on whether the Corpus is necessary and important for professional practice or merely a bureaucratic burden of limited use in a world where supercomplexity exists and the future of the profession is being questioned.

2.9.1 Research Question 10

The final research question of "What changes would professional services firms and clients make to the professional project management practice standards?" is linked to the final research objective: to present new knowledge that may influence the compilation and scope of future project management best practice.

2.10 Structuration Theory

2.10.1 Recognising the Importance of Human Behaviour in Projects

There is a trend developing in project management research to move away from decision rationality i.e. the 'plan and execute model' of project management on projects (Pollack, 2017). Hodgson and Cicmil (2006b) considered the "criticality of projects" as an alternative approach to applying universal principles of project management without regard to its context. Hallgren and Soderholm (2013) observed that research on project management can be classified in to two approaches: the traditional or structural approach that will focus on the development of tools and the processes approach that considers change process and organisational development. They criticised both approaches as they are "based on assumptions of practice and the practice itself is too often taken for granted" (Hallgren & Soderholm, 2013, p. 500). They advocated the consideration of an approach to research known as "projects as practice", which reflects upon people and their actions in delivering project management services.

Floricel et al. (2014, p. 1092) advocated a change in perspective when considering project management phenomena and to focus on what happens in projects and "what practitioners do and say". They suggested the 'practice perspective' that recognises the work and efforts of practitioners and "placed the social, relation and human aspects at the centre of reflections on projects" (Floricel et al., 2014, p. 1093). Structuration theory is one that recognises the role of human agents (also known as actors). The constructivist and interpretivist stance on this research recognises the role of humans and that their behaviour is unpredictable and unique. This stance also considers that there are multiple realities in existence as opposed to one fixed view of reality, e.g. it is proposed that it is legitimate for the PSFs and clients to have different views to those of the PPMAs on the relevance of project management best practice and its application in the UK construction industry.

2.10.2 An Overview of Structuration Theory

Taylor et al. (1996) asserted that functionalism was the main theoretical view from the 1900s to 1950s and that functionalist sociologists, e.g. Emile Durkheim, studied societies as systems. The notion of functionalism is summarised as that if an understanding of a social phenomenon that exists over time is to be understood, it is necessary to understand the contribution it makes to the wider society, i.e. "its function" (Taylor et al., 1996, p. 662).

Fenton (1984, p. 223) commented that one of the key themes of Durkheim's theory is that "the life of the 'individual' is inconceivable outside the context of the participation in a social world which is not simply an aggregation of individuals". A notable criticism of functional sociology is that it ignores the existence of conflict and coercion in society and places too much emphasis on value consensus in societies (Taylor et al., 1996). Fenton (1984) questioned the extent that any social theory from the 19th century can be pertinent to the 20th given the technological and social changes over this period.

Structuration theory provides an alternative form of social analysis that brings the micro and macro views together (Pozzebon & Pinsonneault, 2005). Giddens (1986) theory of structuration is based on key concepts that allows for the consideration of individual (actor) and societal perspective (structure) interactions and how these can impact on the reproduction of social systems. In effect, structuration theory offers a link between the total level of organisational culture, e.g. the Corpus and the individual practitioners, PSFs and clients. Giddens (1984, p. 25) defined "structure/s" as rules and resources or sets of transformation relations, organised as properties of social systems", "system/s" as reproduced relations between actors or collectivities, organised as regular social practices, and "structuration" as conditions governing the continuity or transmutation of structures, and therefore the reproduction of social systems.

The role of an actor is "to be human is a purposive agent" (Giddens, 1986, p. 3) and have reasons for their activities or decisions. However, activities may have unintended consequences and may influence further acts without being acknowledged. The notion of practical consciousness is key to structuration theory (Giddens, 1986, p. 6). The term "agency" refers to actors of being able to undertake alternative options (Giddens, 1986, p. 9) and that the agent/ actor ceases to exist, if they cannot change or influence the status quo.

The "duality of structure" (Giddens, 1986) recognises that agents and structures are a duality and may influence or constrain each other. See table 5 below.

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Structures	Systems	Structuration
Rules and resources, or sets of transformation relations, organized as properties of social systems.	Reproduced relations between actors or collectivities, organized as regular social practices.	e e

Table 5: Duality of Structure. Adapted from (Giddens, 1986, p. 25)

A pertinent concept is that structures and agents are not independent sets of phenomena but represent a duality hence the concept of the "duality of structure". Fundamentally, structure can be both enabling and constraining.

2.10.3 Further Commentary on Structuration Theory

Giddens' structuration theory has its critics. Stones (2005) highlighted that Giddens had spent more than a decade between the mid-1970s to mid-1980s working on his structuration theory but did not later defend it against criticisms. Turner (1986) opined the following criticisms: inaccurate definitions, opaque and confusing concepts and the rejection of positivism. Pozzebon and Pinsonneault (2005, p. 1368) suggested that while Giddens' theory was valuable it "operates at a high level of abstraction, so that ST [structuration theory] has been often seen as a meta-theory". Nicolini (2012, p. 50) summarised some of the opposition to Giddens' theory in that: it corresponded with an interest in postmodernism, Giddens was promoting a society in a utopian manner with no room for dissent or conflict, and(unlike other philosophers at the time) did not spend sufficient time submitting his theory to empirical research.

Stones (2005) took a more sympathetic approach and argued that Giddens' work was important but required further refinement to take in to account these criticisms, .e.g. the quadripartite cycle which would mean the theory would have a meso rather than a macro level approach. The quadripartite cycle comprises

(1) external structures as a condition of action,

(2) internal structures within the agent,

(3) active agency, including a range of aspects involved when agents draw upon internal structures in producing practical action, and

(4) outcomes, as external and internal structures as events (Stones, 2005, p. 9).

Structuration theory is recognised in the discipline of project management, despite its critics.

2.10.4 Structuration Theory and Project Management

As noted in Section 3.10.1 (Recognising the importance of human behaviour in projects), there has been a movement in project management academia to consider various and wideranging theories that may help improve the development of project management as a discipline. Academics have begun to move away from purely focusing on the technical part of project management (e.g. planning, controlling, executing, etc.) to focus on "understanding the specific nature of social relations, structures and processes that occur in projects" (Floricel et al., 2014, p. 1091).

The application of structuration theory is becoming increasingly recognised by some academics in the project management discipline (Fenies, Gautier, & Pariente, 2015; Floricel et al., 2014; Manning, 2008; Soderlund, 2013).

Floricel et al. (2014) considered that the concept of projects as temporary organisations has meant human interactions and other social relations are now considered to be important for the development of project management theory. Fenies et al. (2015) proposed that structuration theory has helped researchers to comprehend how projects are considered part of temporary social systems. Manning (2008) concurred that structuration theory may help academics to comprehend how projects become embedded as temporary organisations by reviewing the recursive interplay of action and structure. All of the above research considers human relationships and their interaction with the structure of social systems.

Project literature has focused on how organisations can influence the makeup of projects, e.g. so that their employees working on temporary projects will refer to certain structural properties or corporate guidelines, "from a structuration perspective organisations 'provide' rules and resources that enable and constrain project organizing activities" (Manning, 2008, p. 32).

It is suggested that for the purposes of this research that structuration theory will help to understand the relevance of project management best practice and its application in the UK construction industry.

2.11 Summary of Chapter

This chapter considered the knowledge and theories available that are relevant to the research aim. It highlighted key themes surrounding PSFs' use of the PPMPS and the Corpus. Some of these themes included: the clients' role in the construction industry, the limitations of the BoKs, the emergence of project management surveying, the concept of corporate professionalism, the theory of regulations and standards, the development of project managers' competencies, barriers to learning, professional negligence and the concept of supercomplexity.

Section 2.1 (The Client) provided the overall context of the role of the client in the construction industry. It is noted that clients have the ability to use their buying power to influence the construction industry.

Sections 2.2.1 (PMI's Body of Knowledge) through 2.2.4 (CIOB's Code of Practice for Project Management for Construction and Development), provided a concise summary of the PMI's BoK and the Corpus. The purpose of this was to assist the reader to understand the differences between the PPMPS and the Corpus. Section 2.2.5 (An Overview of the Corpus) sets out some further comparison between the PPMPS and the Corpus. It is noted that one key difference between the RICS's Guidance Notes and Information Paper and the APM's BoK, the PMI's BoK and the CIOB's CoP is that the RICS guidance is not bound into one document. Section 2.2.6 (Limitations of, and Concerns, with the BoKs) demonstrated that the limitations of the BoKs and the Corpus, are multi-faceted and are explored in the other parts of this chapter. It is proposed that it is important that this research investigates the limitations of the Corpus as experienced by PSFs and clients in the UK construction industry.

It is proposed in Section 2.3.1 (The PPMAs' Rationale for the PPMPS/Corpus) that the PPMAs will always seek to provide and promote their PPMPS. Section 2.3.2 (The Emergence and Regulation of Project Management Surveying Services), considered the tensions between the role of a regulatory body and the potential risk of the professionals abusing their expertise. Section 2.3.3 (Sociology of Project Management Surveying), provided the background to the development of project management surveying which is relevant as some of the interviewees are chartered surveyors who do not have the CPMS designation. It is argued that PSFs are project-based organisations, and consideration is given as to whether this has an impact on the use of the Corpus is reviewed in Section 2.3.3 (Project-based Organisations). Section 2.3.4 (Codification of Professional Project

Management Practice Standards), referred to the importance of codified knowledge in the context of whether the PPMAs are promoting the profession. The penultimate and final Sections, 2.3.5 (Codification of Professional Project Management Practice Standards) and 2.3.6 (Corporate Professionalism) noted the concept of commercial professionalization and the risk that PPMAs are becoming commercially orientated to the potential detriment of individual members.

Section 2.4.2 (Commercial Consideration for using the Corpus) set out conflicting views in the literature on the usefulness of the Corpus.

Section 2.5.1 (Implementing Professional Project Management Practice Standards) provided a contrary view to the advantages of professional bodies regulating the property profession. There are differences of opinion on how relevant the PPMPS are in keeping up to date with practice and that to some extent practitioners will take little heed of their advice. Section 2.5.2 (Monitoring Professional Project Management Practice Standards), highlighted that when introducing standards careful consideration should be given as to whether there are real benefits to an organisation, as more is not necessarily better. In the event that standards are imposed, the implementation process should be monitored closely especially in project-based organisations with remote projects away from the immediate control of the head office.

Section 2.6.2 (Project Managers' Competencies), considered that the PPMPS have a role to play in developing practitioners' competencies and noted the differences between the attribute-based and performance-based competencies. The literature confirmed that those who adhered to practice standards in the workplace did not always achieve project success. Contrasting research showed that projects were seen as a success because practice standards on key criteria were implemented. These findings question, in part, whether adherence to the Corpus is seen as being essential to the development of practitioners by senior management. Section 2.6.3 (Knowledge and Learning), reviewed the different modes of knowledge production and argued that the Corpus is a mimetic form of knowledge.

There is considerable literature on the personal and organisational barriers to learning and sections 2.6.4.4 (The tradition of Apprenticeships), and 2.6.4.5 (Practitioners' Learning Responsibilities), took a critical look at the role of apprenticeships and whether practitioners' can or do want to share their knowledge. The penultimate Section 2.6.4.5 (Practitioners Learning Responsibilities), concluded with a proposal for practitioners to take responsibility for their professional development. It is proposed that some of the barriers to learning may be

implicitly overcome by the creation of In-house standards. The proposal is based on the recognition that professional knowledge is tacit knowledge and it is difficult to transfer to others easily.

Morris, Jamieson, et al. (2006) advised that project management can be considered to be a discipline but not a theory due to its very wide-ranging subject matter. The range of themes in project management demonstrates that the research subject is complex and multi-faceted. It is suggested that the extensive review of literature in this chapter demonstrated that there is an important gap in the existing theory and knowledge on PSFs' and clients' use of Corpus in practice. It is noted that there remains scant literature on project management surveying.

The literature review resulted in the development of 10 research questions to achieve the aim of this research including its seven research objectives. These are designed to elicit new information from PSFs and clients on the relevance of project management best practice and its application in the UK construction industry.

It is suggested that this research will contribute to a subject matter that has limited exposure in the academic discipline of project management. The details of the research methodology are set out in Chapter 3 (Research Methodology).

Chapter 3: Research Methodology

3.0 Introduction and Research Questions

This chapter considers the research questions, the underpinning philosophy of the research, the research methodology, the research strategies and techniques, and the data analysis. The conceptual framework, the credibility of the research and the limitations of the research are discussed at the end of the chapter. The research aim is to explore the relevance of project management best practice and its application in the UK construction industry. The following research questions were compiled to address the research aim and objectives that were set out in Chapter 1 (Introduction).

- 1. How do professional services firms and clients think professional project management practice standards promotes or adds value to the profession?
- 2. How relevant are the professional project management practice standards to professional services firms and clients for providing a commercial advantage in the market?
- 3. What are the criteria that clients use for selecting professional services firms?
- 4. How relevant are professional project management practice standards to clients for delivering their projects?
- 5. How do professional services firms and clients implement professional project management practice standards in their organisation?
- 6. How do professional services firms and clients monitor the use of professional project management practice standards in their organisation?
- 7. How do professional project management practice standards contribute to the development of project managers competencies in the workplace?
- 8. Do professional services firms' and clients' In-house standards take precedence over professional project management practice standards?
- 9. How do professional project management practice standards mitigate against the risk of professional negligence?

10. What changes would professional services firms and clients make to professional project management practice standards

3.01 Preliminary Practice-based Research

As noted in Section 1.0 (Introduction to the thesis), the Preliminary practice-based research was completed in 2014 and explored the extent that chartered project management surveyors availed themselves of professional project management practice standards. The Preliminary practice-based research influenced this research in three ways

- the definition of the Corpus excluded the PMI's BoK as there was no evidence of its use in the UK construction industry
- the CIOB's CoP was deemed as part of the Corpus as it was availed of in the UK construction industry
- the research questions devised as part of the Preliminary practice-based research questions were similar to those for PSFs and Clients. The rationale for having similar questions was based on the experience of the Preliminary practice-based research, e.g. the interviewees understood and responded well to the questions. Also, the use of similar questions would allow triangulation to take place from the data generated by the practitioners, PSFs and clients.

3.1 Science and Underpinning the Philosophy of Knowledge

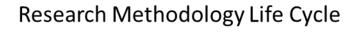
It is argued that this research falls in to the category of social and not natural science. Newby (2015, p. viii) defined social science as being about "ideas, insight, understanding and crucially debate where there are no simple solutions to our collective private troubles". Flyvbjerg (2001) suggested that natural and social sciences have their respective advantages and disadvantages: social sciences do not contribute to explanatory and predictive theory, while natural sciences do not contribute to the reflective analysis of values and interests which is relevant to the development of society. This research considers a subject matter that is complex, it contends with human relationships and behaviour in the UK construction industry and explores the relevance of project management best practice and its application in the UK construction industry.

However, irrespective of the category of science, all research at doctoral level must have academic rigour and contribute to new knowledge (The Quality Assurance Agency for Higher Education, 2011). Ontology, epistemology, axiology and methodology are the key concepts that underpin the philosophy of knowledge (Biddle & Schafft, 2015). These concepts, and how they relate to the research are considered below.

3.1.1 Research Methodology Life Cycle

Smyth and Morris (2007) criticised the lack of clarity of research methodologies in the academic subject of project management. Dawood and Underwood (2010) contested that the "Research Onion" was confusing for novice researchers. Saunders, Lewis, and Thornhill (2012) proposed a research model, i.e. the research onion which shows various aspects of research methodology.

Dawood and Underwood (2010) proposed a research life cycle model that would be easier for a novice researcher to understand. However, their model suggested epistemology for consideration before ontology. This preference conflicts with the advice of others (Bryman, 2012; Grix, 2010; Saunders et al., 2012). Dawood and Underwood (2010) research life cycle model is partially adapted and interpreted for this research with the following differences: ontology is considered before epistemology, axiology is separated from Data Collection Techniques and Procedures and the unit of analysis is explained after Data Collection Techniques and Procedures. See Figure 3 (Research Methodology Life Cycle) below.



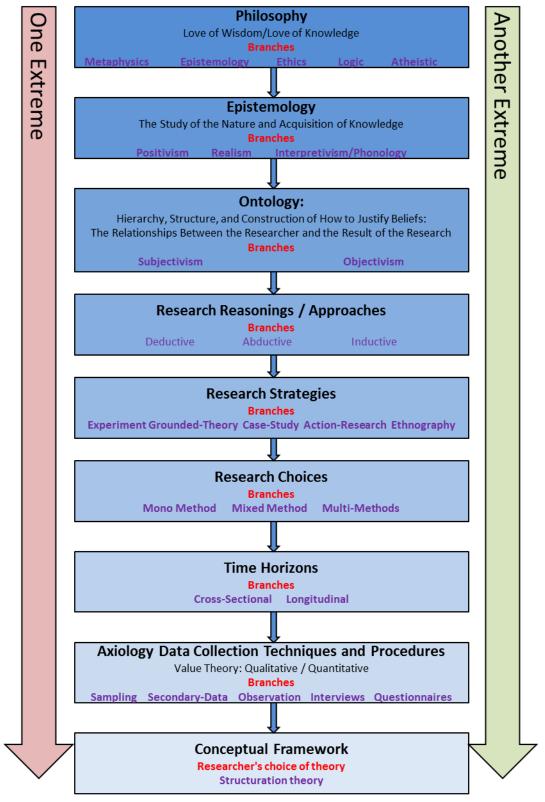


Figure 3: Research methodology life cycle. Adapted and interpreted from (Dawood & Underwood, 2010).

It is proposed that the conceptual framework used to explain the findings of the research is included as a discrete part of the research methodology life cycle. See Section 3.9 (The conceptual framework).

3.1.2 Ontological Positions

Saunders et al. (2012, p. 128) articulated that it was important for researchers "to be aware of the philosophical commitments" in research. It is suggested that this means considering the researcher's ontological position. Grix (2010, p. 59) explained that "ontology is the starting point of all research, after which one's epistemological and methodological positions logically follow". Ontology is defined as "the science of being in general, embracing such issues as the nature of existence and the categorical structure of reality" (Honderich, 1995, p. 556). Bryman (2012, p. 32) defined social ontology as being concerned with the nature of social entities and identified two positions: objectivism and constructivism. Gill and Johnson (2010, p. 201) explained the dilemma between the two positions: the phenomenon that we are interested in exists independently of our knowing, i.e. objectivism. They defined constructivism as what we perceive to be reality is from experience and this allows for the consideration of others views on the phenomenon.

The ontological stance for this research is constructivism because the focus of the research, i.e. the Corpus, is a contrivance considers practitioners' knowledge and experience rather than theoretical experiments. In addition, the constructivist stance is aligned with the conceptual framework of this research.

3.2 Epistemological Positions – Positivism, Interpretivism and Critical Realism

Epistemology is explained as the branch of philosophy "which is concerned with the nature of knowledge, its possibility, scope and general basis" (Honderich, 1995, p. 242). Gill and Johnson (2010, p. 191) explained epistemology as

how do we know what we know, whether or not any claim including our own, made about the phenomena we are interested in is warranted ... what is our theory of truth?

There is a broad spectrum of epistemological positions and the stances of positivism, interpretivism and post-positivism are considered in this section. Grix (2010, p. 81) explained that the term 'positivism' has a broad meaning and tended to be historically associated with the natural sciences but can also be used for social sciences. Bryman (2012, p. 28) highlighted some key principles that are associated with positivism, e.g. that the role of

research is to test theories, the theories generate a hypothesis that can be tested (the principle of deductivism) and the science must be purely objective. Grix (2010) also argued that positivism is concerned with explaining and not understanding, and that the world exists independently of our knowledge. Hunter and Kelly (2008, p. 97) argued that "basic or pure science is the world of the positivist". Smyth and Morris (2007) associated the PMI's BoK with a positivist position, i.e. general explanations and applications for practice. The problem with this generalisation of standards is that it does not refer to non-routine matters that are encountered in practice. Pollack (2017, p. 11) argued for the "need to recognise that linear and stable projects are the rare few, not the standard".

The other contrasting epistemological position is interpretivism. Bryman (2012, p. 27) questioned whether the social world should be subject to the same research methods as natural science. This epistemological position advocates the study of human beings and requires a different approach that recognises the unpredictability and unique nature of humanity. The interpretivist approach also recognises that it is acceptable to inhabit and study the social world and that the recognition that the analysis will not be entirely objective as researchers are inevitably part of the social reality being researched (Grix, 2010, p. 84). See Section 3.12 (Limitations and delimitations of the research) for further details.

There is an alternative epistemological position that can be viewed as bridging the gap between the two dominant paradigms of positivism and interpretivism. This view is referred to as "post-positivism" or "critical realism". Grix (2010, p. 85) argued that the term "critical realism ... appears to be the most influential strand of realism in the human sciences". Smyth and Morris (2007, p. 427) asserted that critical realism "has strength in its ability to engage with causality and complexity in context".

It is suggested that critical realism offers a methodology that will evaluate the phenomena being studied taking into account the context and casual powers. The main features of this epistemological stance should allow the researcher to take the best from both approaches, i.e. not just explain but also understand the phenomena that are being studied.

The Author's epistemological position is interpretivism as it recognises the distinction between human beings and the real world. It is suggested that there may be several factors that will influence PSFs' and clients' views on the Corpus. These may include the nature of their business, their clients'/end users' requirements, the number of employees, etc. Cicmil, Williams, Thomas, and Hodgson (2006) opined that one way to improve project management

in practice was to understand the "actuality of projects" including practitioners' experiences. More than a decade later, others have made the same request to challenge traditional ways of managing projects (Dalcher, 2014a; Pollack, 2017).

The conceptual framework used in this research is based on, and interpreted from, structuration theory. See Section 3.10 (Structuration Theory). Giddens (1984, p. 2) asserted that "the theory of structuration is neither the experience of the individual actor nor the experience of any form of societal totality but social practices ordered across time and space". The interpretative stance adopted for this research is consistent with the philosophical commitment of structuration theory, which recognises the complexity of human behaviours.

3.3 Worldviews

Creswell (2013, p. 6) used the term "worldview" to mean "a basic set of beliefs that guide action" and classified them into four areas: post-positivism, constructivism, transformative and pragmatism. Creswell (2013, p. 8) introduced the phrase "social constructivists" and explained it as those who believe "that individuals seek understanding of the world in which they live and work". This research's worldview is constructivism as PSFs and clients are aware of their professional environment and constraints when providing project management services or delivering projects.

3.4 Axiology

Biddle and Schafft (2015, p. 321) defined axiology as "the nature of ethics and what we value". Kulatunga, Amaratunga, and Haigh (2007) highlighted that research may be considered "value-free" or "value-laden". Researchers should make explicit their axiological views so that they can, if applicable, identify any bias or values that may undermine the validity of their research (Biddle & Schafft, 2015).

It is suggested that this research may not be regarded as value-free from a reader's perspective i.e. it could be construed as having an RICS bias against the other PPMAs. The Author was the Chairman of the RICS's PMPG from 2011-2014 and a Board Member of the RICS's UK Education and Standards Board from 2009-2015 but has ceased these voluntary activities to minimise accusations of a lack of impartiality in the research. The Author is also a member of the APM and PMI. Lincoln and Guba (1985) suggested that it was acceptable for researchers to use their specialist knowledge because the nuances of multiple realities can be appreciated

intuitively by researchers. However, the Author's experiences have provided the impetus for the research and with the literature review, aided the development of the research questions.

It is argued that a professional doctorate candidate may incur the criticism of being an "insider researcher" and that bias could creep in to analysing the findings from the data. It is suggested that this bias can be minimised by the ethical standards that researchers are obliged to comply with, e.g. University of Salford's ethical guidance. It is proposed that professional doctorate candidates will also have to contend with their own professional bodies' guidance on ethics that overlap with research ethics. For example, the APM's Code of Professional Conduct (APM, 2011). This Code requires APM members to adhere to ethical principles, e.g. preserving client confidentiality, health, safety and well-being considerations.

3.5 Research Methodology

Grix (2010, p. 32) opined that "methodology is concerned with the logic of scientific enquiry ... with investigating the potentialities and limitations of particular techniques or procedures". The research reasoning /approaches, research strategies, research choices, time horizons and data collection techniques are considered below based on the interpretation of the Research Life Methodology Cycle (Dawood & Underwood, 2010).

3.5.1 The Research Reasoning/Approaches

Deductive reasoning is associated with testing theories for natural sciences and verifying a theory (Creswell, 2013; Leedy & Ormrod, 2014). Inductive reasoning can be defined as when "people ... observe a sample and then draw conclusions about the population from which the sample has been taken" (Leedy & Ormrod, 2014, p. 19). Abductive reasoning combines inductive reasoning (Dawood & Underwood, 2010). This research used inductive reasoning given that there is scant literature available on the Corpus.

3.5.2 Research Strategies

Dawood and Underwood (2010) considered that there were various research strategies available, e.g. surveys to action research which are considered below.

3.5.2.1 Surveys and Experiments

Blaxter, Hughes, and Tight (2010) identified surveys, experiments, action research and case studies as strategies to obtain data. Surveys are widely used but a criticism is that they can

receive a low response rate or are not completed accurately. Experiments will not be used as it is impossible to control the interviewees' environment and motivations for using the Corpus. Experiments also tend to be associated with a deductive reasoning to research whereas this research will be inductive.

3.5.2.2 Action Research

Bryman (2012, p. 709) defined action research as an "approach in which the action researcher and a client collaborate in the diagnosis of a problem and in the development of a solution based on the diagnosis". Accordingly, action research can be used to change a specific element of best practice but this is not the aim of this research. The purpose of this research is to encourage a depth and breadth of information in an under-researched area rather than focus on just one specific element of best practice for a client. Holloway and Race (1993, p. 260) suggested that the "relationship between theory and practice may be improved by action based research". It is suggested that this strategy is not ideal for this research as practitioners, PSFs and clients may consider it as intrusive and time-consuming.

3.5.2.3 Ethnography and Phenomenology

Ethnography is described as where the researcher considered "the shared patterns of behaviour, language and, actions of an intact cultural group in a natural setting over a prolonged period of time" (Creswell, 2013, p. 14). Ethnography originates from the study of human societies and their development (Saunders, Lewis, & Thornhill, 2006). Phenomenology as a research strategy must accept "that any attempt to understand social reality has to be grounded in people's experience of that social reality" (Gray, 2014, p. 24). He noted that there are some differences between ethnographic research and phenomenology. The former strategy focuses on studying groups and as many participants as possible while a phenomenological strategy would study individuals and have between 5-15 participants (Gray, 2014). Ethnography and phenomenology were not deemed suitable research strategies for this research. It would be very time consuming for a part-time professional doctorate candidate to observe individuals in their workplace on how they implemented the PPMPS on specific capital projects. It is argued that most PSFs and clients would regard this level of observation and analysis as intrusive.

3.5.2.4 Case Study

The benefit of undertaking a case study as a research strategy is "to understand complex social phenomena" (Yin, 2009, p. 4). It is argued that this research explores an intricate matter with scant literature available and is therefore suited to the case study method. Gray (2014, p. 266) advised that "case studies, then, explore subjects and issues where relationships may be ambiguous or uncertain". Many potential and uncontrollable variables affect how PSFs and clients in the UK construction industry avail themselves of the Corpus, e.g. their professional autonomy, their relationship with their clients and their professional bodies, the approach to delivering project management services, etc. Blaxter et al. (2010) asserted that the case study is suitable for small-scale research. Eisenhardt (1989, p. 548) advocated that "building theory from case study is most appropriate in the early stages of research on a topic". It is suggested that the case study approach is the most suitable for this research as there is scant literature available, it is small-scale and self-financed.

3.5.2.4.1 Single Case Study

Yin (2009, p. 46) clarified that there are two types of case study: "single-case design and multiple-case design". A justification for the single case study is that the unit of analysis, i.e. the Corpus is published by the PPMAs, which do not change its content or structure regardless of who uses it. The Corpus is widely available, can be bought by members of the public and has no restrictions on its use. Yin (2009, p. 48) argued that a rationale for a single case study is where it may be regarded as a "revelatory case" or as a "critical case". It is proposed that this single case study strategy is revelatory as it allows the unit of analysis to be explored in detail, which is something that has not been considered before in the construction industry or the project management profession. It is regarded as a "critical case" as the findings will challenge the notion of "doxa" around the PMI's position on the discussion of the BoKs and possibly the authority of the PPMAs. It is proposed that this research is appropriate for a single case study.

Research can be categorised into two levels: "micro" and "macro". Grix (2010, p. 48) explained the "micro level as analysing the individual or actor-centered and macro level as system or structure-centered". The single case study considers the meso and macro views, i.e. PSFs and major construction clients respectively so that patterns and emerging trends can be recognised. The previous research considered the micro-level perspective, i.e. how individual

practitioners availed themselves of PPMPS in the UK construction industry (McCann, 2014a).

3.5.2.4.2 Defending the Case Study Strategy

Section 3.11 (Credibility and Naturalistic Enquiry) refers to the different views of what is credible research. Lee and Lings (2008) suggested that there may be an intermediate position between the interpretivists' and positivists' positions and considered that researcher could consider if their research findings are *justifiable* to its audience. Lee and Lings (2008, p. 212) argued that "conclusions should always be in some way justified in relation to the data and the way it was collected, and analysed or interpreted, whether this be quantitative or qualitative" . This research is exploratory to provide a rich insight in to the relevance of project management best practice and its application into the UK construction industry. Given the small scale of the research, it is argued that it would be difficult to achieve generalisability of its findings. This research uses structuration theory to understand the research findings and defends the case study as a research strategy in more detail. Section 3.10 (Structuration theory) sets out the rationale for using structuration theory as an appropriate theory to understand the research findings, including the concept of the duality of structure. This Section evaluates the case study in more depth.

The main criticisms of a case study strategy are that it can lack rigour and relevance, e.g. the research is deemed esoteric or insignificant and therefore does not count as a contribution to theory. Despite these issues, the use of case study strategy is accepted practice in project management research. Smyth and Morris (2007) reviewed various research methods in the *International Journal of Project Management* in 2005, and the case study method featured significantly.

Gibbert, Ruigrok, and Wicki (2008, p. 1473) acknowledged that researchers have very different views on case study [strategy]. Some researchers may see the case study as an alternative to 'mainstream' or positivist research methods and may be critical of an attempt to emulate the natural science model in data collection and analysis strategies.

Flyvbjerg (2006) advised against placing the case study as a positivist research strategy and supported its application in the field of social science. He challenged the notion of the case study strategy lacking relevance on the grounds that it is better to understand the detail and context-specific outcomes from the research findings. Flyvbjerg (2006, p. 221) argued that

"context-dependent knowledge and experience are at the heart of expert activity" and this level of detailed knowledge is revealed in the findings from the case study.

The concept of expert activity is pertinent to the development of project managers. Flyvbjerg (2006) identified that to be a true expert, it was essential to move away from contextindependent knowledge, which is interpreted as the application of universal rules. Dreyfus and Dreyfus (1986) described the five stages of skills acquisition, i.e. Novice, Advanced Beginner, Competence, Proficient and Expert. The Expert level requires not only the experience of the universal application of rules but the ability to know when to apply their own skills to problematic and complex situations that will not have textbook solutions readily available. Beckett (1999, p. 84) observed that

most professionals' work is 'hot action' where decisions are taken on the run, case by case, and with the nagging doubt that action may be inadequate – superficial, hasty and inappropriate.

Part of this research considers the motivation for practitioners, PSFs and clients, using the Corpus in praxis and in circumstances such as those noted under the description of 'hot action'. Another significant feature of the case study approach is that it minimises the possibility of falsification by its in-depth approach (Flyvbjerg, 2006; Lincoln & Guba, 1985).

3.5.3 Research Choices

The research choices are classified as mono method, mixed method and multi-methods (Dawood & Underwood, 2010). They do not compile their own definitions of the various methods. The mono method is described as "using a single data collection technique and corresponding analysis procedures" (Saunders et al., 2006, p. 145). Mixed model research combines qualitative and quantitative data (Saunders et al., 2006, p. 146). The difference between the mixed and multi-method is that the latter uses more than one data collection technique but it use is restricted to quantitative or qualitative procedures. This research uses the mono method. It is proposed that the use of the mono-method is justified, i.e. generating primary data from interviews is recognised as a suitable way to provide an in-depth and rich insight in to a research subject that is classified as exploratory and could be regarded as being sensitive to the PPMAs.

3.5.3.1 Triangulation

"Triangulation" refers to "using more than one method in research" (Grix, 2010, p. 135). However, triangulation is not directly referred to in the research methodology life cycle (Dawood & Underwood, 2010). It is suggested that using triangulation is another way to enhance the credibility of the research and particularly in a subject area that usually lends itself to a qualitative approach. Bryman (2012) asserted that triangulation can take place within a qualitative study. As part of the single case research strategy, triangulation is used to increase the transferability of this research. See section 3.11.2 (Transferability) that argues how the use of the extant literature provides another source of information to compare the data generated from the interviewees. It is intended to undertake the process of triangulation as part of this thesis, which will evaluate and interpret the findings from practitioners, PSFs and clients on the relevance of project management best practice and its application in the UK construction industry.

This research uses the mono method as the primary data was collected from interviewees. It became apparent in the early stage of interviewing PSFs that the information generated could be regarded as sensitive by the PPMAs. As the research progressed to interviewing clients, it became more difficult to persuade clients to agree to participate in the research. Two potential interviewees informed the Author that they did not want to have anything to do with the RICS and another said they regarded this research as contentious.

Arguably, all three research techniques have limitations so it is important to mitigate against any perceived shortcomings. For further commentary, see Section3.5.4.2. (Defending the case study). This research adopts a qualitative approach that is consistent with its philosophical underpinnings and its conceptual framework and, provides a rich insight into the relevance of project management best practice and its application in the UK construction industry.

The research methodology life cycle considered Time Horizons before quantitative and qualitative techniques and procedures (Dawood & Underwood, 2010). It is contested that it would be difficult to make a research choice on mono, mixed or multi-methods if researchers were not in a position to understand quantitative and qualitative techniques.

3.5.4 Time Horizons

Dawood and Underwood (2010) Research Methodology Life Cycle considered if the research is undertaken over a longitudinal or cross-sectional period of time. Saunders et al. (2006)

argued that the advantage of a longitudinal study is to study change and development of phenomena. This research was cross-sectional as it interviewed PSFs in 2015/2016 and clients in 2016/17. Individual practitioners were interviewed in 2013/14 (McCann, 2014a). It is argued that it was important for this research to obtain the views of different users rather than focus on similar users over a period of time.

3.5.5 Data Collection Techniques and Procedures

The final part of Research Methodology Life Cycle includes Axiology, Data collection techniques and procedures, and Value theory. As noted in Section 3.1.1 (Research methodology life cycle), axiology was considered before the data collection techniques and procedures.

3.5.5.1 Value theory – Quantitative and Qualitative

Value theory includes quantitative and qualitative techniques (Dawood & Underwood, 2010). This is at odds with other academics who include commentary on quantitative and qualitative techniques earlier in the research methodology, e.g. (Gray, 2014; Grix, 2010).

The main research techniques are quantitative and qualitative. The quantitative approach focuses on obtaining factual rather than subjective data and using this to study or establish a relationship and ultimately its findings can relate to theory (Fellows & Liu, 2008, p. 27). This approach tends to be positivist in nature and deductive, i.e. using data to test a theory or hypothesis (Bryman, 2012, p. 36). Project management and construction management has historically adopted a mainly quantitative approach to research (Dainty, 2008; Smyth & Morris, 2007).

The qualitative approach concentrates on obtaining people's opinions to gain an understanding of phenomena (Fellows & Liu, 2008, p. 27). This approach tends to be inductive, .i.e. the data gathered can generate new theory (Bryman, 2012, p. 36). Biddle and Schafft (2015) highlighted that the use of 'mixed' methods in research, i.e. a combination of qualitative and quantitative techniques has been accepted within social sciences since the mid-1990s.

3.5.5.2 Selection of Interviewees - Professional Services Firms

This research is a single case study with 18 interviewees in total and consideration has been given to their selection. Flyvbjerg (2006, p. 230) highlighted the following type of sample:

the stratified sample (a selected sub-group within the population) and information-oriented selection (an extreme or different PSF or client to provide unusual information). The selection of the nine PSFs comprises eight stratified samples and one information-orientated sample. The selected sub-group is a diverse range of PSFs with extensive project management experience that provided the primary data. The justification for choosing the PSFs interviewees included that they represented a diverse range of PSFs and they were all senior managers/directors that have extensive experience across all sectors of the UK construction industry. It is not deemed appropriate to provide a table of their work experience as it could lead to a breach of their anonymity.

Undertaking a single-case study strategy is time consuming but has the advantage of obtaining additional primary data that provides greater insight into the research. Eisenhardt (1989) suggested that 4 to 10 respondents was an appropriate number. All of the PSFs were Senior Professionals. The aim of the selection of the PSFs was to have three micro consultancy firms, three SMEs and three large practices. A micro business is defined as "one which has fewer than 10 employees and a turnover or balance sheet total of less than \in 2 million" (RIBA, 2012, p. 38). The selection of the interviewees was not chosen at random. The Author used her personal contacts in the construction industry to obtain access to the interviewees. Eisenhardt (1989, p. 537) advised that "random selection is neither necessary nor even preferable". She argued that to build theory from case study

the goal of theoretical sampling is to choose cases such as extreme situations and polar types in which the process of interest is transparently observable (Eisenhardt, 1989, p. 537).

The choice of PSF types was considered in the light of RICS's reports that predicted considerable changes in the composition of chartered surveying practices (RICS, 1991, 1998). These reports predicted that micro consultancy firms would be affected by changing trends in different ways of working e.g. greater use of IT, changing clients' needs, etc. and therefore have to merge with existing SMEs to form multi-disciplinary practices or be taken over by larger practices. An SME is defined as "a small or medium size enterprise, i.e. a company that has fewer than 250 employees, and has either an annual turnover not exceeding €40m or an annual balance sheet total not exceeding €27m (RIBA, 2012, p. 39).

Yin (2009, p. 54) advised that each sample "either (a) predicts similar results (*a literal replication*) or (b) predicts contrasting results but for anticipatable reasons (*a theoretical replication*)". One large PSF in the sample could be construed not as "extreme" but different

in some aspects, e.g. one of the company's directors is based overseas in the USA but was familiar with the PMI's BoK.

3.5.5.3 Selection of Interviewees - Clients

The value of new construction contracts was worth £5.8bn in July 2016 and the composition of the project types is set out in Figure 4 (Barbour ABI, 2016a). Residential (32%) and, medical and health (3%) are the largest and smallest project types respectively.

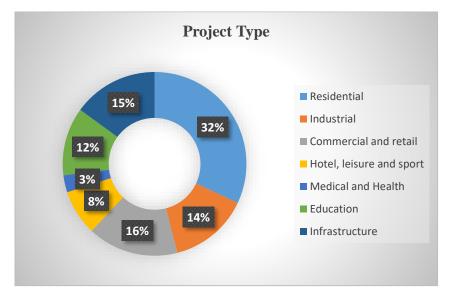


Figure 4 Project type by contract value. Adapted from (Barbour ABI, 2016a).

The project type for the value of projects was marginally different in June 2016 (Barbour ABI, 2016b). The profile of project types can change and are occasionally be influenced by the award of a major project. For example, a contract for a wind farm in Scotland meant that infrastructure increased to 30% in May 2016 and the residential value was 25%, the other sectors for the project type remained largely unchanged (Barbour ABI, 2016c). Figure 4 provides an indication of the variety of different sectors and therefore clients in the construction industry. It was decided to seek a broad range of clients that would be willing to participate in the interviews.

The selection of the nine clients comprises one information-orientated sample and eight stratified samples, and all clients are Senior Professionals. The rationale for choosing these interviewees is because the selected sub-group is a diverse range of clients with extensive experience of delivering projects. The choice of clients was considered on the basis of the composition of the construction market, e.g. commercial and retail, health and medical, education, etc. Despite the Author's best efforts, it was not possible to interview a client from

the residential sector. One client operates in the infrastructure sector and is a member of the Institution of Civil Engineers but not the APM, RICS or CIOB.

The logic of linking the findings from the literature review to the research questions is interpreted as having research questions consistent with the research's ontological and epistemological positions. The criteria used for interpreting the findings are explored in Section 3.8 (Data Analysis).

3.6 Research Techniques - Documents, Questionnaires, Observations and Interviews

Grix (2010, p. 31) opined that "research methods are techniques or procedures used to collect data ... are linked to the research question posed". Blaxter et al. (2010, p. 64) identified four research techniques for collecting data, i.e. documents, questionnaires, observations and interviews.

Documents: The data used in this research was both primary and secondary. The primary data was obtained during the semi-structured interviews and the secondary data from government reports, peer-reviewed journals, the Corpus, professional journals, trade press, etc. Some of the documents used as sources for collecting and evaluating data were trade and professional journals. It is acknowledged these journals may not be regarded as having sufficient academic rigour. However, they do represent the PSFs' and clients' views and current thinking in the UK construction industry.

Questionnaires: These tend to be more suitable for four levels of qualitative analysis, i.e. descriptive and inferential statistics, simple relationships and multivariate analysis (Blaxter et al., 2010, p. 238). It is argued that questionnaires are insufficient to understand the relevance of project management best practice and its application to the UK construction industry. Most postal surveys undertaken in the UK construction industry only have a 20-30% response rate (Lee & Egbu, 2008). It is argued that interviews provide a deeper insight into this research and have a better response rate than questionnaires.

Observations: Ethnographic and phenomenology research strategies would typically use observations as a method to collect data. These are not deemed suitable for this research proposal as it is assumed most PSFs and clients would feel uneasy being observed for long periods and that this is a time-consuming method for a single researcher.

3.6.1 Semi-structured Interviews

The technique for collecting primary data was semi-structured interviews. Saunders et al. (2012, p. 374) opined that there are three main types of interviews: structured, semi-structured and unstructured. The semi-structured interview afforded the interviewees the opportunity to contribute their views to the research and offer an insightful contribution within a framework. Saunders, Lewis, and Thornhill (2006) proposed that semi-structured interviews were suitable for exploratory research and where an interpretivist stance was adopted. This research is deemed as a naturalistic enquiry and exploratory. See Section 3.11 (Credibility and Naturalistic Enquiry) for further commentary. Walsh (2001, p. 16) argued that the "validity of the interview data should never be taken for granted or relied upon and your respondents may give you answers that are not true". This seems to be a harsh assessment as the same limitation could be applied to questionnaires or observations. It is suggested that reassurances to respondents that their data would remain confidential encouraged them to be truthful. (See Appendix G for a copy of the "Research Project Information Form" issued to interviewees).

The interviews were of a detailed and technical nature and therefore it was easier for the Author to identify any potential misunderstanding of construction terms, for example, used during the discussions. Appendices H and I provides details of the questions used in the interviews for PSFs and clients, respectively. All respondents received an upfront copy of the interview questions so they could prepare for the interviews. All PSF and clients interviewees were directors or heads of departments and therefore had the authority to speak about their business practices.

Creswell (2013) noted that qualitative researchers tended to ask open-ended questions so that the interviewee has the opportunity to comment further on the phenomena under discussion. While the interviews for this research were semi-structured, interviewees were given the opportunity to elaborate if they so desired. The interviews lasted for approximately 50 minutes and were carried out face to face. All of the interviews were recorded using a digital recorder, so that the Author could revisit the data to assess the interviewees' comments. To validate the transcripts, all respondents were later asked to confirm that they recognised the transcript as accurate. To maintain anonymity all interviewees were assigned unique references, e.g. PSF1, PSF2, C1, C2, etc.

3.7 Unit of Analysis

The Research Methodology Life Cycle (Dawood & Underwood, 2010) provided a reference for doctoral candidates to follow but is important to define what phenomenon is being studied as part of a thesis. Miles et al. (2014, p. 25) proposed that "the case is in effect your unit of analysis" and that the unit of analysis is "a phenomenon of some sort occurring in a bounded context". The unit of analysis for this research is the Corpus and how this is used by PSFs and clients. The rationale for the unit of analysis for this research is set out below. Inevitably, there are some matters that are excluded from the research.

3.7.1 Research Boundaries - Inside the Research Boundary

This section provides the rationale for defining the unit of analysis and notes the boundaries of the research. Figure 5 defines the boundaries of the research below.

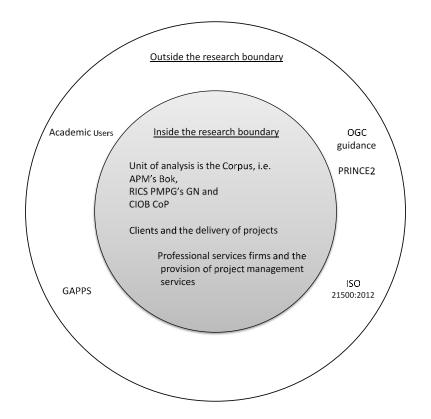


Figure 5: The Research Boundaries

The distinction is made between the following the Corpus and the PPMPS, see Section 3.7.2.1 (Professional project management practice standards and the Corpus).

3.7.2 Outside the Research Boundary

Miles et al. (2014) advised that as part of the conceptual framework it was important to identify any boundaries that are outside the unit of analysis. The rationale for excluding matters outside of this research is set out in Sections 3.7.2.1 to 3.7.2.3 inclusive.

3.7.2.1 Professional Project Management Practice Standards and the Corpus

Chapter 1 (Introduction) refers to the PPMPS and the decision to limit the unit of analysis to the Corpus. The PMI's and APM's BoKs provide guidance on project management. The advice included in the PMI's and APM's BoK can be regarded as universal and without specific context, i.e. it is pan-sector can be regarded as applicable on all types of projects. The definition of the "Corpus" is the APM's BoK, the RICS PMPG's Guidance Notes and Information Papers and the CIOB's CoP. None of the interviewees used the PMI's BoK, referred to GAPPS and rarely used PRINCE (PRojects IN Controlled Environments) (McCann, 2014a). Accordingly, the PMI's BoK, GAPPS and PRINCE are deemed outside the research boundary, except where it is appropriate to use these documents as a reference to the existing literature.

Van Bon and Pieper (2006) stated that PRINCE was designed in 1989 by the Central Computer and Telecommunication Agency. PRINCE2 an updated version of PRINCE was a generic standard for all projects. They noted that the Office of Government Commerce (OGC) holds the copyright for PRINCE. The OGC was a central UK government department with no remit over local government authorities. The OGC produced guidance on procurement and project management. It exerted considerable influence over central Government departments but was closed in 2011. However, it is not deemed a professional body and with PRINCE2 is excluded from the Corpus.

The PPMAs have not directly requested their members to adhere to ISO 21500:2012 and they do not promote it. It is not obligatory for PSFs or clients to comply with ISO 21500:2012 and is excluded from the unit of analysis.

3.7.2.2 Projects versus Project Management

It is argued that PSFs provide professional project management services to clients. Munns and Bjeirmi (1996) asserted that project management is a short-term activity in comparison to a project that has a longer life span. Munns and Bjeirmi (1996, p. 82) argued that "project

management and its techniques are only a subset of the wider context of the project" and therefore has different objectives or required outcomes.

Maylor (2001, p. 96) did not share this view and argued that defining project management as a one-off activity, "infers a degree of novelty that is often misplaced" and that project management has a "much wider range of durations and complexity". Munns and Bjeirmi (1996) view of project management is particularly relevant to the construction industry as capital projects usually have a much longer life span when compared to the period allocated for project management . Their argument is important for this research as they also argued that it is unwise to combine the criteria for measuring successful project management with those of projects.

Munns and Bjeirmi (1996, p. 83) considered the different roles of those involved in a project and suggested that project team interests are focused on project management tools and techniques to deliver the project. It is suggested that this analysis is authentic as the standard forms of contract available for the appointment of project managers' focus on the scope of services associated with project management and are not intertwined with the long-term success of the project. It is suggested that this is different for clients who will have a vested interest in ensuring their project achieves their aims over the long term.

The aim of this research is to explore the relevance of project management best practice and its application in the UK construction industry. Based on the above discussion, the provision of professional project management services is inside the research boundary and the delivery of projects by PSFs is deemed to be outside the research boundary. The delivery of successful projects *by clients* is within the research boundary. However, it is noticed that it becoming more common in trade journals where by PSFs claim "they delivered the project" where in reality the PSF provided the project management services as part of the overall delivery of the project.

3.7.2.3 Project Management Surveyors and Academic Users

All of the PSFs interviewees were chartered surveyors who provided project management surveying services but not all have the CPMS designation. Some of the directors held the designation of Chartered Building Surveyor or Chartered Quantity Surveyor. It is difficult to assess if their previous experience brought a bias towards the provision of project management services, e.g. Quantity Surveyors may focus more on the cost management

aspects of project management services. The scope of investigating any potential bias is outside this research.

Two out of nine client interviewees were members of the APM or the Institute of Civil Engineering. It was decided to exclude academic users from the research as it was assumed they are not directly involved on a daily basis in providing professional project management services to clients.

3.8 Data Analysis

The interview transcripts were initially manually analysed by the Author for codes and their categories. The initial manual use of the codes meant that as a researcher it was quicker to get familiar with data and to consider its meaning. There was at least a month between some interviews and the size of the transcript meant that it was manageable to do manual coding. Saldana (2013, p. 3) defined a code as "a word or a short phrase that symbolically assigns a summative, salient, essence-capturing or evocative attribute for a portion of language used". Eisenhardt (1989, p. 539) assessed that "analysing data is the heart of building theory from case studies, but it is the most difficult and the least codified part of the process".

Bryman (2012, p. 591) highlighted that the development of computer software had assisted qualitative research; this is known as computer-assisted qualitative data analysis software. The transcripts were transferred to the 'NVivo10' software package which was used to sort the data in to codes. The main codes are known as 'parent' and categories are known as 'child' codes. Saldana (2013) identified more than 40 different types of coding that can be used in data analysis.

Content analysis is described "as a useful tool for data analysis as it facilitates arrival at a manageable and meaningful set of data" (Kulatunga et al., 2007, p. 501). The 18 transcripts generated from the PSF and client interviewees comprised 67,068 and 57,325 words, respectively. There are different forms of content analysis and the conceptual/thematic content data analysis method was deemed appropriate for this research, emerging themes could be compared and evaluated. The definition of conceptual/thematic content analysis by (Kulatunga et al., 2007, p. 502) has similar characteristics to that of (Saldana, 2013, p. 175) "themeing the data". It is argued that this would help group the data into manageable parts and relate it to the research objectives which was especially important for a novice researcher. Eisenhardt (1989, p. 536) cautioned that

theory building research is begun as close as possible to the ideal of no theory under consideration ... attempting to approach this ideal is important because pre-ordained perspectives or propositions may bias and limit the findings.

3.8.1. Thematic Analysis

The process undertaken to code the data was inductive. An example of thematic analysis is the following abstract from PSF7's interview. Saldana (2013, p. 175) stated that a theme is "an extended phrase or sentence that identified what a unit of data is about and /or what it means". The theme that is highlighted below is "concerns with the BoKs and Corpus". (Appendix K includes PSF7's interview).

Script

If I was talking to you about the standards that we use here to Concerns with BoKs guide us in the delivery of our projects, it would be a blend of CIOB, British Standards, and, not so much, RICS. So, in a sense, I think we are let down a little bit by the institution that we are most closely aligned with.

And, to be perfectly honest, I think there is an enormous shortfall in the professional standards that are out there that deliver with refurbishment, for example, of existing building stock. Which actually accounts for a very substantial percentage of spend on property and construction.

I've got, in front of me, the RICS guidance this is a 2013 guidance note on appointing a project manager. It's a lovely publication. It does have quite a good number of useful bits of information in here. So, if you were a layperson client, it might be of real benefit. But, how is that layperson client actually going to get hold of this? And, would they turn to the RICS in order to get this document? They *might*, but then they would be blocked by the RICS website which says, "You must be a member in order to download this document." I think that's contradictory in itself. You have a publication which is,

Theme

and Corpus – Mixed use of the Corpus and disappointment with RICS.

Concerns with BoKs and Corpus - Not appropriate for refurbishment works.

Concerns with BoKs and Corpus – Only available to RICS members and not a layperson.

<u>Script</u>

Theme

ostensibly, for someone who is going to appoint a member of the institution to act for them, but you can't get hold of it unless you're a member.

Chapter 2 (Literature review) provided a framework to consider potential emerging themes of the data. Tables 6 and 7 show the parent and child codes generated from the PSF and client interviews. The parent codes are highlighted in black bold font.

Table 6: Parent and Child Codes	- Professional Services Firms' Data
---------------------------------	-------------------------------------

Sociology of the Project Management Profession		
PPMA communication and media		
Identity of the PM		
Function of the PPMA		
Commercialisation and growth of project management		
Roles of Professional Bodies and Regulation		
Voluntary		
Mandatory		
Liability		
Globalisation		
Educating Project Managers and Workplace Learning		
Tacit knowledge		
Mid-to-late career learning		
Life experience		
Early-career learning		
Continuous learning		
Codified knowledge		
Concerns with BoKs and Corpus		
The recession		
RICS Guidance Notes		
PMI's BoK		
Non corpus and in-house standards		
CIOB's CoP		
APM's BoK		

Table 7: Parent and Child Codes - Clients' Data

Sociology of the Project Management Profession – adding value to the project management profession		
Using In-house standards and the RIBA Plan of Work		
Promoting the profession		
Selecting Project Managers		
Project Manager Competencies		
Early-career Professional		
Relevance to delivering Projects		
Negligence		
Monitoring		
In-house standards		
Implementation		
Client benefits		
Changes to the Corpus		
PRINCE		
PPMAs		
Limitations of the Corpus		
Continued professional development		
Availability of the Corpus		

The findings generated from the PSFs and client interviewees are analysed in chapters 4 and 5 (Findings from Professional Services firms) and (Findings from Clients) respectively.

3.9 The Conceptual Framework

Leedy and Ormrod (2014) advised that the research process, i.e. a planned and coherent strategy for collecting, analysing and deciphering data to provide an explanation of a phenomenon under consideration, is cyclical and may present more unanswered questions than originally envisaged by the researcher. Leshem and Trafford (2007, p. 99) defined the conceptual framework as "a bridge between paradigms, which explains the research issue and the practice of investigating that issue". The purpose of considering a conceptual framework is to assist the researcher in deciding what subject matter and theories should be considered in their research and the assumptions behind this decision (Miles et al., 2014).

The conceptual framework for this research is based on, and interpreted from, the theory of structuration. It is argued that this theory provides a valid interconnection with the theoretical perspectives and research strategy pertinent to this research. The conceptual framework is

used to explain and interpret this research. The concept of structuration theory is recognised by project management scholars as a method of understanding complex phenomena (Bresnen et al., 2004; Floricel, Bonneau, Aubry, & Sergi, 2014; Manning, 2008).

3.10.1 Structuration Theory

3.10.1 Conceptual Framework and Structuration Theory

This section considers and interprets the quadripartite nature of structuration theory as it relates to this research. See Figure 6 below.

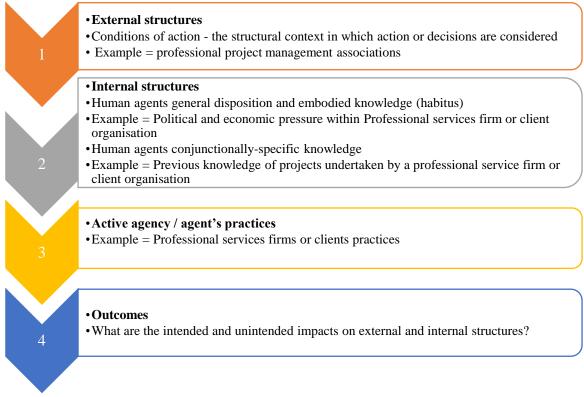


Figure 6: The quadripartite cycle of structuration. Adapted from (Stones, 2005, p. 85).

Sections 3.10.1.1 (External Structures) to 3.10.1.3 (Active Agency/Agent's Practices) explains the interpretation of structuration theory for this research.

3.10.1.1 External Structures

External structures have an existence that is autonomous from the agent (Stones, 2005, p. 84). Fenies et al. (2015) interpreted that for some institutions they will outlive individuals and therefore have practices that are entrenched and may be reluctant to change. For the purpose of this research, it is interpreted these are regarded as the PPMAs which have universal rules and requirements for their members.

3.10.1.2 Internal Structures

Internal structures comprise two concepts. The first is the human agents' general disposition and embodied knowledge. Stones (2005) explained the concept of splitting of the internal structure to deflect criticism of Giddens' structuration theory. Bourdieu (1977) introduced the concept of "doxa" where in certain circumstances or the habitus, the status quo is not challenged or disputed and that things are taken for granted. The concept of habitus is where deeply embedded habits and frequent practice exist. Stones (2005, p. 88) proposed that "habitus itself can be the objective of reflective and reflexive attention". For the purposes of this research, it is interpreted that general knowledge is knowledge that is universal or strategic rather than context specific or detailed.

The second concept of the internal structure is human agents' conjunctionally-specific knowledge. Stones (2005, p. 90) argued that it is necessary to have this concept, which recognises that actors or agents have "knowledge of the specific context of action". So while there may be general guidelines as to how an actor would be expected to undertake a task, they will take in to account the context under consideration. It is noted that when making a decision or deciding a course of action in coming to a decision, the agent, i.e. PSF or client may be influenced by or have an appreciation of the external structures. It is important to highlight that the agent may rely on their knowledge of existing or perceived power bases and/or political relations and when coming to a decision they may reflect on previous experience and have the ability to reflect upon their action (Stones, 2005, p. 92 & 114). This is an important concept as it can help explain the decision project managers within PSFs and clients may take if they decide to deviate from the Corpus or PPMPS.

3.10.1.3 Active Agency/Agent's Practices

Stones (2005) argued that an agent's actions will not always be guided by the external structure or the two kinds of internal structures. Giddens (1984, p. 10) confirmed that "agency refers to doing" and the agent's rationale for undertaking certain actions may depend on their motivation. In particular, "agency refers not to the intentions people have in doing things but to their capability of doing those things in the first place" (Giddens, 1984, p. 9). This highlighted that actors or specific to this research PSFs and clients must have the ability to make choices even if they are not aware of the unintended outcomes. He considered that the motivation was the potential for action whereas reflective monitoring or deliberation was continuous for actors when faced with decision making. Stones (2005, p. 101) argued that the

concept of reflection and deliberation is considered and that "one should be alert to the possibility of creativity, improvisation and innovation within an agent's conduct". It is argued that PSFs and clients will need to be creative so they can quickly adapt to changing consumers' needs and survive in a competitive business environment.

Stones (2005) highlighted that by classifying the internal structures in two separate concepts it allows for a greater understanding of how actors may be influenced. He argued that it allows actors at a general-dispositional level to reflect upon moral, religious, political, economic and professional principles whereas the conjecturally-specific allows for individual considerations, e.g. what does it mean for the individual practitioner's or PSF's chances of success. However, the two concepts of the internal structure are considered equally important as they may help explain why an actor has chosen a course of action. Pozzebon and Pinsonneault (2005, p. 1354) proposed that structuration theory is useful in helping to understand the "organizations, organizing and the organized".

3.11 Credibility and Naturalistic Enquiry

There is a wide perspective from the literature on how researchers demonstrate the credibility of their findings. Amarantunga, Baldry, Sarshar, and Newton (2002, p. 17) stated that "research means different things to different people". The credibility of findings can be considered under the heading of reliability and validity (Saunders et al., 2006).

Lincoln and Guba (1985) argued that naturalistic enquiry, is not and cannot be value free and at best can persuade its readers of its argument. Their stance on the credibility of the research is in contrast to positivists that believe that the research should be capable of producing the same results if repeated and can be generalised. Bryman (2012) cautioned that research adopting a constructivist and interpretivist stance must be careful that it does not try to emulate positivist and scientific principles.

Naturalistic enquiry is considered as adopting an interpretivist stance and using qualitative techniques. Drake and Heath (2011) advised that most professional doctorates candidates do not expect their research to materially alter policy or professional practice. It is not envisaged that this research would be regarded as emancipatory but could be construed in part as feminist approach to research. Morton and Wilkinson (2008, p. 47) confirmed that the characteristics of this research include caring about the subject matter of the research, drawing from personal knowledge experience and "makes visible an aspect of experience that

has been unseen". It is argued that the first two characteristics are inherent in a decision to read for a professional doctorate. It was proposed in Chapter 2 (Literature review) that there is meagre literature on this research and therefore the views of PSFs and clients are 'unseen'. It is argued that data generated by the interviewees is somewhat controversial for the PPMAs and therefore their views could be challenged as a minority group. However, the selection of the PSFs and clients was explained in Section 3.5.5.2 (Selection of Interviewees – Professional Services Firms) and Section 3.5.5.3 – Clients) and it is proposed that these interviewees are an adequate representation of the project management profession in the UK construction industry. It is suggested that interviewees' comments do represent multiple realities on the relevance of project management best practice and its application in the UK construction industry.

This research is deemed as a naturalistic enquiry. For the purposes of this research, naturalistic terms rather than conventional positivist terms are largely used. Gray (2014) summarised the different terms: credibility in lieu of internal validity, transferability in lieu of external validity, dependability in lieu of reliability and confirmability in lieu of objectivity.

3.11.1 The Credibility of Research Findings

It is suggested that the trustworthiness of this research is under pinned in the following ways: credibility, transferability, dependability, confirmability, defending the case study strategy and the use of the structuration theory. The rationale for this is based upon naturalistic enquiry (Lincoln & Guba, 1985).

The following are key concepts to have credibility in research findings: prolonged engagement in the field, testing for misinformation, persistent observation and building trust (Lincoln & Guba, 1985, p. 301). The Author is a practising project manager and has worked in the construction industry for almost 30 years. The tacit knowledge of professionals has been recognised (Eraut, 1994; Schon, 1983). This level of experience enables an individual to have gained valuable and long term experience as a practising project manager, understand specific jargon or abbreviations that may be used in the construction industry, and crucially, to be able to question interviewees if comments made would be a distortion of key facts. It is argued that this in-depth knowledge of the project management practice helped the Author test for misinformation.

The issue of building trust is regarded as an incremental process but it must also include providing assurances to respondents that their confidence will not be betrayed or there is a hidden agenda on behalf of the researcher (Lincoln & Guba, 1985). One of the advantages of a 'practitioner academic' is that they are likely to have access to individuals through their social networks (Saunders et al., 2006). The Author has known some of the interviewees for a long time in a professional capacity. There was a 100% response rate from all the interviewees who agreed to participate in the research. It is argued that the Participant Research Form helped to provide confidence to the interviewees before the interview, so the research matter and scope of the interview is transparent.

In addition, to give them a level of comfort, all of the interviewees could amend the transcript of the discussion and had the ability to withdraw from the research. The same principles applied to interviewees that participated in the Preliminary practice-based investigation. Lincoln and Guba (1985) argued that persistent observation should provide depth to the research by considering the context and observing key facts. They cautioned against the risking of the possibility of "going native" and reaching conclusions. It is suggested that the risk of becoming unduly influenced by PSFs and clients is extremely low as most interviewes took place within a one-hour time frame. In addition, no fees were paid to the interviewees for participating in this research. The issues that may face as insider researcher is discussed in Section 3.4 (Axiology).

Triangulation is considered to be another technique that support trustworthiness to the research. The same research questions (with two additional questions for clients) provided responses from PSFs and clients. This provided an opportunity to compare and contrast the findings including the previous Preliminary practice-based research (McCann, 2014a).

3.11.2 Transferability

A naturalistic enquiry can only "provide the database that makes transferability judgements on the part of potential appliers" and "transferability is in a strict sense, impossible" (Lincoln & Guba, 1985, p. 316). They argued that it was the responsibility of the researcher to provide detailed descriptions so that others can gauge whether the material is transferable. It is proposed that this thesis provides a rich insight into the research by including the PSFs' and client' various and contrasting comments.

The comments from the interviewees are evaluated, where possible, with the existing literature on the relevance of project management best practice and its application in the UK construction industry, e.g. the limitations of the BoKs, development of practitioners' competencies, etc. See Chapter 4 (Findings from Professional Services firms) and Chapter 5 (Findings from Clients). In addition, Chapter 6 (Implications of the Research) also uses the literature to set out the implications and interpretations of this research, e.g. the concept of the Semi-detached Professional is created using existing literature. It is suggested that literature provides transferability by providing other sources of information that can be compared with the findings of this research. There are 280 sources of information in the list of references. See List of References. These references include publications by authors from the USA, Canada, France, Sweden, Denmark, Australia and Malaysia and comprise 41% of the list of references. It is suggested that the large percentage of international authors is not surprising given the worldwide interest in project management. The list of references comprise approximately

- 40% Books
- 23% Peer reviewed journals
- 21% Government reports, industry reports
- 13% PPMA's publications
- 3 % Conference papers
- 1% Thesis

3.11.3 Dependability

Lincoln and Guba (1985) argued that triangulation can be used to argue for dependability but noted that this was previously included in demonstrating the trustworthiness of the research. Their other option for dependability includes appointing a team to examine the process of how the data was compiled, i.e. "the confirmability audit" (Lincoln & Guba, 1985, p. 318). This option was considered as expensive for small-scale and self-funded research.

Professional doctoral candidates have to pass certain progression points to complete their research. It is suggested that this process of assessing the progress of professional doctoral candidates is in effect another form of audit, i.e. an academic audit. Candidates have to demonstrate that their research is a worthy topic, that they understand different research choices, research strategies, and that their work remains worth pursuing to the next stage.

It is also suggested that academic supervisors of doctoral research assist in this academic audit by guiding their doctoral candidates in understanding appropriate research techniques and adhering to the research ethics. In some cases, this process can last for a considerable time, e.g. five years and it is argued that this exposes candidates to prolonged engagement in understanding their responsibilities on processing and interpreting primary data.

3.11.4 Confirmability

Confirmability is described as "addressing the degree to which the steps of the study can be audited, confirmed or replicated" (Gray, 2014, p. 186). Confirmability audit, triangulation and keeping a personal journal are three ways to demonstrate confirmability (Lincoln & Guba, 1985). The option of having a "confirmability audit" was not considered as noted above. The Author did not keep a personal reflective journal for the research period but did attend all the workshops during the DBEnv programme from 2012-2017. The workshops were led by academic staff, and encouraged critical thinking from candidates. In addition, the Preliminary practice-based research (McCann, 2014a) provided the opportunity for reflection and influenced the research questions and the unit of analysis. Triangulation is used to provide evidence of confirmability of the findings. See Chapter 6 (Implications of the research).

3.12 Limitations and Delimitations of this Research

Eisenhardt (1989, p. 545) advised that "tying the emergent theory to existing literature enhances the internal validity, generalizability, and theoretical level of theory building from case study research". It is suggested that one of the limitations of this research is that there is little relevant knowledge and theory in the existing literature on the Corpus. The PPMAs own the intellectual rights to the Corpus and only they can make amendments to the PPMPS. Accordingly, this is a signification inherent limitation of this research as the PPMAs are free to ignore any suggested changes to their products.

Perry (1998) argued that limitations of the research were not within the researcher's control but delimitations were. The delimitations are based on matters that are excluded from the research boundary. See Table 8: Delimitations of the research below.

Items	Included within boundaries of research	Delimitations of the research
Time horizons	Cross sectional	Longitudinal
Unit of analysis	The Corpus comprising the APM's BoK, CIOB's CoP and the RICS PMPG's Guidance Notes	ISO 21500:2012 Project management standard. GAPPS PRINCE2
Location of respondents	England and USA	A global study
Industry	Specific industry, i.e. construction	Pan-sector industries
User Groups	PSFS Clients in the private sector Local and central government	Academics Non-departmental public bodies Construction contractors
Subject matter	Project management services	Projects for PSFs.

Table 8: Delimitations	of the Research
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It is proposed that all research will have limitations and delimitations in some way or another due to timescales, funding, etc.

3.13 Summary of Chapter

The concepts of the philosophy of knowledge are considered in this chapter. The ontological and epistemological positions of this research are constructivism and interpretivism respectively. This research adopts a qualitative approach. The justification for using case study strategy was explained and the single-case study was deemed the most suitable research methodology. The primary data was obtained using semi-structured interviews and thematic content analysis was used to analyse data. The rationale for the unit of the analysis is outlined, including the boundaries of the research. The measures to be taken to demonstrate the credibility of the research findings are set out. The delimitations of the research are discussed and it is noted that they are inherently linked to the boundaries of the case study.

The findings from the data are analysed and considered in Chapter 4 (Findings from Professional Services Firms) and Chapter 5 (Findings from Clients).

Chapter 4: Findings from Professional Services Firms

4.0 Introduction

The aim of this research is to explore the relevance of project management best practice and its application in the UK construction industry. The new knowledge generated will inform practitioners, PSFs and clients and encourage improved project management services for the benefit of not just the UK construction industry, but society as a whole. The previous chapter, Chapter 3 (Research Methodology) detailed the rationale for how the research was approached and this chapter analyses the primary data generated by PSFs in 2015/16. The PSFs interviewees' comments are aligned with each research objective and are analysed separately from the clients' comments. The rationale for this is that the PSF findings can be considered independently from those of clients. Where appropriate, the findings from PSFs are compared with the existing theories (e.g. project management, regulations and knowledge), set out in Chapter 2 (Literature Review).

Perry (1998) advised that it was important for the integrity of research that the findings of the research are kept separate from the implications of the research. Furthermore, the separation of conclusions from the implications can allow researchers to develop their conceptual theory which may adapt existing theories and therefore this can be regarded as a contribution to new knowledge (Trafford & Leshem, 2008). Accordingly, Chapter 6 (Implications of the Research), considers some additional interpretations in related areas that came from the primary data, including PSF's definition of providing project management services in practice and their concerns about sub-economic bids.

For ease of reference, the research objectives are included in the introductions to each section below. As noted in Section 1.6 (Writing Style), the commentary in the findings from PSFs and clients are deemed to include all significant comments.

For clarity and as noted in Section 1.1.5 (Concept of Professional Project Management Practice Standards and the Corpus), PPMPS means the "written guidance or instruction on project management praxis, including its ethical and administrative dimensions, which is approved by the Professional Project Management Associations and the Chartered Institute of Building". The definition of 'Corpus' means the APM's BoK, the RICS's PMPG's Guidance Notes and Information Papers and the CIOB's CoP.

4.1 Research Objective 1 - To provide an Overview of Professional Project Management Practice Standards

The first research objective was to provide an overview of the professional project management practice standards. The unit of analysis for this research is the Corpus as discussed in Chapter 3 (Research Methodology) as it became clear as the research proceeded that PSFs do not use the PMI's BoK. Part of the first research objective was to provide an understanding of the composition of the PPMPS and whether PSFs used any other project management best practice guidance.

4.1.1 Overview of Professional Project Management Practice Standards

Chapter 2 (Literature Review) provided an overview of the PMI's and APM's BoK, the RICS's Guidance Notes and Information Papers and the CIOB's CoP (see Sections 2.2 to 2.2.5). For clarity, there is no direct research question associated with the first research objective as secondary data was used to compile the overview. This decision was also informed by the experience of completing the Preliminary practice-based research in 2014. All practitioners were familiar with the RICS's Guidance Notes and more than 50% of respondents had used either the APM's BoK or the CIOB's CoP (McCann, 2014a). None of the UK-based practitioners had used the PMI's BoK. One interviewee noted that they had incorporated the APM's BoK in to their In-house standards as the majority of their clients asked for it use.

4.1.2 Summary of Findings from Research Objective 1

The data had reached a saturation point, as all of the UK-based PSFs confirmed they did not use the PMI's BoK. One PSF, a non UK-based MNE confirmed its practice had used the PMI's BoK, in response to a client's request. Some clients have the ability to influence the UK construction industry (Gameson, 1992) and this would appear to be an example of this, where a client requested that a PSF uses the PMI's BoK. However, based on the findings of this research, there is some evidence to suggest that clients in the UK construction industry are requesting that PSFs provide project management services in accordance with the Corpus.

4.2 Research Objective 2 – To investigate whether professional services firms consider that the Corpus promotes or adds value to the profession

The research questions "How do professional services firms think the professional project management standards promote the profession?" and "How relevant are the professional project management standards to professional services firms for providing a commercial advantage in the market?" were posed to the interviewees to achieve the second research objective. The first question also gave the interviewees the opportunity to challenge whether or not they considered project management to be a 'profession'. Only one PSF mentioned the PMI's BoK, this interviewee was based in the USA and has knowledge of the Corpus.

4.2.1 The Corpus and the Promotion of the Profession

There was a mixed response to the first research question, two of the nine interviewees felt that they Corpus did not promote the profession. PSF7 said "I will be blunt, I don't think they do promote the profession". Another two interviewees felt the purpose of the Corpus was to help the PSFs maintain a basic standard of professionalism. PSF1 stated "the standards should be there to drive a quality agenda" and PSF3 commented "it [the Corpus] gives us a process to do what we do as project managers".

Two interviewees responded to the first research question and noted that the Corpus was not promoted sufficiently within the industry or to construction clients or understood how it contributed to their businesses. PSF6 noted that "I doubt whether they [the RICS] promote the standards outside of the industry," and PSF2 commented

I don't see standards promoting the profession as such ... I don't see how companies have tied their project management delivery back to a standard and promote it from there.

Another interviewee discussed some of the limitations to the Corpus, "I think they are [the Corpus] are a good benchmark, they are only a guide" advised PSF4.

All of the interviewees were chartered surveyors and some were also members of the CIOB and/or APM. They expressed some form of disenchantment with the RICS, including that its Guidance Notes and Information Papers were not regarded as the premier standard. PSF1 said

we have placed the focus on APM as being our standard, because the majority of our clients now are asking for APM.

PSF4 added

I can't see anything tangible other than the magazine that comes out once a month but now it the magazine is just a load of old tosh really. There has been a gradual disengagement not just with the standards but with everything associated with the RICS.

PSF5 noted that "[the RICS is] all about membership growth ... the RICS isn't very good at communication". PSF6 asked "what do we actually get from the RICS?" and opined that "some of the fees are quite heavy subscriptions". PSF7 stated "we are engaging more with the APM ... it is more closely aligned to what our project managers do, than the RICS". PSF9 commented that

the CIOB ... does what it says on the tin and they are practical hands-on people... unfortunately, this seems to be forgotten about with the RICS.

None of the interviewees challenged the assumption that project management was a profession.

4.2.2 The Corpus providing a Commercial Advantage

The data from the interviewees provided mixed and qualified responses to the question about the relevance of the Corpus for providing a commercial advantage in the market. Two interviewees concluded that there was no commercial advantage to using the Corpus. PSF8 said "I don't believe they [the Corpus] are that relevant at all for a commercial advantage". PSF7 replied "the short answer is not at all". PSF4 qualified their answer by noting that while "1 am not sure they provide a commercial advantage ... it is only to ensure that my PII is cheaper".

PSF6 provided another view that the Corpus had limited use,

I think the word 'advantage' is limited because in reality the practice standards [the Corpus] should be the norm ... an advantage over whom? Because in a sense we are all using standards in one form or another.

PSF1 considered that if implementing the Corpus meant using project management best practice then there could be a commercial advantage for PSFs and stated, "frankly, you would do things faster and cheaper and commercially. *That* would create an advantage".

Two interviewees commented that their responses were based on the different types of clients. PSF9 said that their clients were overseas or lay clients and therefore attached no relevance to the standards and state, "our clients haven't a clue about how business [project

management in the construction industry] is conducted in the UK". PSF3 observed that in their experience "they [clients] don't care about the institutional crutch ... it is about the value of what you deliver on the front line".

Another interviewee felt that use of the Corpus was partly related to the geographical reach of the PPMAs and their influence on PSFs. PSF3 said that "different institutions have different levels of influence". The PMI's head office is the USA and in contrast, the APM's, RICS's and CIOB's head offices are in the UK. Therefore, PSFs in the UK are unlikely to come under pressure from clients in the UK to use the PMI's BOK which could mean additional commercial pressures for their practice.

4.2.3 Summary of Findings from Research Objective 2

The second research objective was to investigate whether PSFs consider that the Corpus promotes the profession. Chapter 2 (Literature Review) suggested some of the following matters may arise and require further investigation: limitations of the Corpus, that the PPMPS may become de-facto standards, the Black-boxing of practitioners' knowledge and the influence of clients in project-based organisations.

The research showed that the Corpus does not sufficiently promote the project management profession and has limitations. The limitations of the PMI's and APM's BoK are recognised in the literature but scrutiny of the RICS PMPG's Guidance Notes appears to be scant. The findings recognise that the RICS's Guidance Notes also have limitations e.g. they are not promoted within the industry and do not provide a commercial advantage to PSFs. The PSFs' views are at odds with the RICS's vision of promoting global standards, where their practice standards are adopted and used extensively by its members.

It is recognised by practitioners that the Corpus provides a basic benchmark for the quality of project management services but, in practice, it is treated as only a guide and not an absolute requirement. This is in contrast to the prediction in the literature, see Section 2.2.6 (Limitations of, and concerns with, the BoKs), which predicted that the PPMPS would become de-facto standards (Morris, Crawford, et al., 2006).

Hodgson and Cicmil (2006b) referred to the concept of Black-boxing of information. It is suggested that this risk is partly reduced as PSFs use their own In-house standards and therefore do not solely rely on PPMAs to provide knowledge of project management. See

Section 4.5.1 (Professional Services Firms' In-house Standards) where the findings reveal that PSFs rely on their In-house standards more than the Corpus.

It was noted in Section 2.3.4 (Project-based Organisations) that this research would consider those PSFs deemed to be project-based organisations and if their use of the PPMPS was influenced by different project types and clients. The research reveals evidence that those PSFs that carry out project management services on the refurbishment of buildings felt that the Corpus was aimed at new buildings rather than their sector. These comments came from SMEs and micro-consultancies and not MNEs. Section 4.5.1 (Professional Services Firms' In-house Standards) referred to practitioners' views that they would like to see the Corpus revised to reflect different project types. The data provided some evidence that clients are influencing PSFs use of the Corpus. See Section 4.8.4 (Differences in perceived Clients' Expectations).

Section 2.3.5 (Codification of Professional Project Management Practice Standards) argued that it was a function of the PPMSAs to compile PPMPS. However, the data revealed that while PSFs recognised it was useful to have a benchmark for the provision of project management services, it was not the specialist knowledge within the Corpus that promoted the profession in its own right. The data indicated that most PSFs i.e. seven of the nine interviewees, believed that the RICS was failing to promote the Corpus sufficiently. Larson (2013) argued that one aspect of professionalism is that the knowledge or services offered must be seen as pre-eminent by possible end-users. It is not clear that PSFs view the Corpus in this way as it does not appear to promote the profession or provide it with a commercial advantage.

The data had reached a saturation point when all of the PSFs confirmed that the Corpus did not provide a direct commercial advantage to their practices. The findings confirm that PSFs challenge and question the content of the Corpus. The risk that PSFs are timid and do not challenge their professional ideology (Schmidt, 2001) is not supported by this research.

4.3 Research Objective 3 - To explore the extent that professional services firms implement and monitor adherence to the Corpus

The research questions "How do PSFs implement professional project management practice standards in their organisation"? and "How do PSFs monitor the use of professional project management practice standards in their organisation" were posed to achieve this objective.

The PSFs did not refer to the PMI's BoK on the above two question and their answers were in response to the Corpus.

4.3.1 Implementing the Corpus

The interviewees provided a rich source of data about how they implemented the Corpus and their own In-house standards. Some methods were tool-based, e.g. using "Agresso" software and others were by direct management, which included using IT systems and work-based portals to track projects as they proceeded, aligning the standard form of construction contracts with the project's needs and using ISO9001: Quality management There was an assertion that not all project requirements could be captured in the practice standards, "you can't lay down paperwork, processes and flow charts for every single eventuality" commented PSF5.

PSF6 enquired "I always questioned when these standards [Corpus] are put together who is actually looking at what the industry requires?" This comment illustrated that there was also some critical thinking about the compilation of the Corpus.

4.3.2 Monitoring the use of the Corpus

Monitoring the use of the Corpus takes various forms: director reviews of projects, client care reviews, annual audits, regular meetings with staff, mentoring and training staff, use of IT tools and adherence to ISO9001. "I try and do a weekly catch up with the guys I manage", advised PSF5. "We use ISO9001 which has guidelines and check lists to follow" commented PSF3.

Monitoring the use of the Corpus was viewed as an opportunity to meet clients for discussion on the quality of project management services. "I do see clients and talk about the quality we are delivering" said PSF7. Interviewees confirmed that as part of the monitoring system, they accepted that they had to rely on staff to be diligent. PSF9 added that "you can't intervene on all projects. You've got to trust members to do their own thing". The data had reached a saturation point in that all PSFs tried to incorporate the Corpus into their In-house standards.

Deviation away from the Corpus was considered acceptable providing that some of the following were in place: the rationale for the decision was explained and approved before implementation, it met a client's requirement, it improved an existing process and that junior members of staff understood the repercussions of their decision. PSF1 noted

so long as there is a rationale for doing it [deviating from the In-house standard], then generally we don't get too hooked up about it.

PSF4 confirmed that when using the Corpus it "doesn't mean everything has to follow it ... we can look at how things can be delivered differently and there will be good reasons".

The data reached a saturation point in that none of the interviewees regarded adherence to the Corpus as mandatory for their professional services.

4.3.3 Summary of Findings from Research Objective 3

The third research objective was to explore the extent that PSFs implemented and monitored adherence to PPMPS. The data revealed that PSFs had a wide range of processes for implementing and monitoring their In-house standards.

The PSFs views on the relevance of the Corpus were in line with those analysed in the literature: (1) Section 2.4.2 (Commercial Considerations for using the Corpus), i.e. the concerns that practice has moved ahead of the PPMPS (Maylor, 2001), (2) that the knowledge contained in the PPMPS was not sufficient to manage complex projects (Hatfield, 2014) and (3) that the BoKs fail to keep pace with the latest developments in project management (Crawford, 2007). The data reveals the prominence of In-house standards. When providing project management services to clients, the data shows that PSFs recognise the complexity and unpredictability of projects, the importance of experience and an individual's tacit knowledge.

There was a recognition that project management services are delivered by people, as opposed to relying on project management processes, and that PSFs have to trust their staff to be professional. These findings are consistent with the literature (Dillion & Taylor, 2015). There is critical thinking on the composition of the Corpus and one interviewee questioned the consultation process regarding new Corpus documents. No PSFs suggested that the Corpus should be abandoned.

4.4 Research Objective 4 - To analyse how professional services firms use the Corpus in the work place when providing training and development for their employees

The research question "How do professional project management practice standards contribute to the development of project managers in the workplace" was used to investigate if the Corpus was perceived as adding benefit to the development of practitioners'

competencies. This question explores if there are differences between Early-career Professionals and Senior Professionals on the application of the Corpus. This analysis also considers if there are barriers to learning from the Corpus. For clarity, none of the interviewees referred to the PMI's BoK during the interviews on Research objective 4.

4.4.1 The Corpus contributing to the Development of Project Managers' Competencies

All of the PSFs recognised that the Corpus has a role to play as a benchmark for project management services and by providing some guidance to project managers. PSF5 commented that "I think having regulated bodies willing to put a framework together is hugely important otherwise there is no point of reference". The primary data reveals the barriers to learning from the Corpus, the differences between Early-career Professionals and Senior Professionals and that experience is regarded as more important than relying on codified knowledge such as the Corpus.

4.4.1.1 Barriers to Learning

One potential barrier to the use of the Corpus was that it was too unwieldy. PSF4 noted that

if there was some way of condensing the standards in to an easy, readable three of four page [document] or a flow chart ... many more people would actually pick them up and use them.

Another barrier to using the Corpus or In-house standards was that they were not easily accessible. PSF6 commented "that it [the Corpus] was sitting on the intranet in a place that nobody knew ... and it wasn't being used". Another barrier was the difficulty in finding the RICS's Guidance Notes and Information Papers on its website. PSF7 commented

on the RICS website, I find it difficult in terms of the project management standards because they don't seem to be in one place. At least with the APM, the Body of Knowledge is in one place.

Unwieldy or cumbersome documents that cannot be easily accessed are significant barriers to using the Corpus.

4.4.1.2 Early-career Professionals and Senior Professionals

PSF3 noted that the Corpus played some role for "junior project managers" in developing their competencies. PSF5 stated "in the main, junior PMs [project managers] will use them [the Corpus] more often". There was an emphasis that adhering to the Corpus had some

benefits but these must be explained explicitly to Early-career Professionals. PSF6 reflected that "if you ask someone to read it [the Corpus] just for the sake of it, they will not do it".

Five interviewees noted that there were some differences between Early-career Professionals' and Senior Professionals' approach to using the Corpus. Senior Professionals used their professional judgment about when to apply all of the Corpus's requirements. PSF1 stated "the experience to know when to take a shortcut and when to take a step back and review, will come from the senior guys".

PSF1 stated "I don't get my standards out anymore, I'd like to think I know enough broadly but it provides that framework and thinking". Agreeing with this view, PSF6 noted "those experienced decisions are probably based on the standards [Corpus] but tend to be more based upon their knowledge and experience".

While it was acknowledged that Senior Professionals would use the Corpus in different ways, PSF9 noted that "adhering to the Corpus makes it less easy for someone to criticise you".

There was a recognition that some Senior Professionals did not keep up to date with the Corpus. PSF9 said "some people would call them dinosaurs ... chartered surveyors who have a mind-set of times gone by". PSF5 gave a similar view that it was like "the old dog and new tricks, they're not keeping up to date with current standards and practices".

There was a concern that the Corpus could encourage Early-career Professionals to be overconfident in their abilities. PSF6 said "they sell themselves up and they're looking for that promotion to a different level earlier ... it is a false sense of knowledge that they have".

PSF8 observed that "as a youngster with rookie experience ... you see weighty documents as being a bit of a drudge". There was a concern that Early-career Professionals would not wish to have knowledge of the Corpus due to its size.

4.4.1.3 Experience and Codified Knowledge

Two interviewees held the view that project management process should be proportionate to the scope of a project. PSF2 stated "I don't think project management is checking boxes" and PSF9 noted

if you are doing a small refurbishment ... you don't want to kill it stone dead with over-adherence to unnecessarily strict standards.

A further two interviewees expressed their concerns regarding the limitations of the Corpus, i.e. that knowledge of the Corpus did not translate into effective practice of project management. PSF5 noted that "I think having knowledge of the APM's standards doesn't make you a very good manager necessarily, it means you know it [APM's BoK]. PSF9 added

doing a master's degree doesn't make you a good project manager ... what it means is that you have got an academic qualification to say that you know the mechanics behind it.

The project management practice standard called PRojects IN Controlled Environments (PRINCE) was not favoured by PSFs. A criticism of PRINCE's methodology was that it was too prescriptive and led to inflexibility when providing project management services. The data had reached a saturation point as all of the PSFs did not regard PRINCE as a widely accepted project management practice standard in the UK construction industry. PSF8 commented

I found that people who are very PRINCE2 orientated, [say that] *this* is the way you do things and therefore I am excellent because I understand this to the nth degree.

PSF7 said "I don't think there is any substitute for experience. Yes we do attempt to capture that knowledge but there are so many things in my head". PSF3 also concluded "there is no substitute for experience". The PSFs regarded experience more important than the Corpus.

4.4.2 Summary of Findings from Research Objective 4

There was limited data to suggest that the Corpus played a significant role in the development of employees' competencies. The data revealed that the Corpus provided a basic benchmark for understanding project management practice that was regarded as useful for employees but that some barriers to learning existed, such as parts of the Corpus was considered cumbersome and not easily accessible, i.e. the RICS PMPG's Guidance Notes and Information Papers. The findings provide evidence that some interviewees would rely on their own tacit knowledge and experience before turning to the Corpus. It is suggested that this is consistent with the literature, i.e. "expert / virtuoso level" (Dreyfus & Dreyfus, 1986) and that Senior Professionals would not usually refer to codified knowledge, especially when they may have to make decisions during what can be described as "hot action" (Beckett, 1999) e.g. making decisions quickly and relying on past experience. It is also proposed that these findings are consistent with the literature, i.e. (Schon, 1983) where practitioners are reflective on knowledge gained from previous experience.

PSFs highlighted a noticeable difference between the Early-career Professionals' and Senior Professionals' use of the Corpus. The data revealed a concern that Senior Professionals' may become complacent and fall behind with up to date practice. There was a possibility that Early-career Professionals were developing a false sense of their own project management expertise because although they could understand the application of the Corpus, they may not have the experience to judge the outcome of implementing the advice. It is argued that these findings in relation to the Early-career Professionals are consistent with the literature (Blomquist et al., 2017) on "looking good", i.e. having attained certification to become attractive to the market place or senior management but lack sufficient experience on managing complex project issues.

It is suggested that the findings that some Senior Professionals have become complacent about the Corpus are in line with the literature that questioned if the current process of certification for Senior Professionals is relevant. Blomquist et al. (2017) argued that the process and content of the PMI certification was no longer meeting the needs of expert project managers.

Section 2.6.4.3 (The Project Management Office) concluded there were some potential problems for practitioners when using a PMO. None of the interviewees referred to having a formal PMO within their organisation.

4.5 Research Objective 5 - To assess whether professional services firms are changing the use of the Corpus

The research question "Do professional services firm's In-house standards take precedence over professional project management practice standards?" was posed to achieve this objective.

PSFs may choose to rely on a variety of documents e.g. ISO9001, In-house business and quality assurance guidance for the delivery of project management services. These documents are referred to as In-house standards.

4.5.1 Professional Services Firms' In-house Standards

The interviewees provided a mixed response to this question in so far that their In-house standards took precedence over the Corpus or that the Corpus was considered complementary to the In-house standards. The four interviewees who responded without hesitation, that their

In-house standards took precedence came from a micro-consultancy, an SME and an MNE. PSF7 confirmed "Yes unquestionably". PSF6 said "the In-house standards will take precedence".

Some PSFs believed that In-house standards could be complementary to the Corpus. PSF1 commented that "we spend time creating a basis of information ... and then select what is applicable for us". PSF7 noted that

we need to be able to demonstrate that we do have a protocol that we will follow so that there is a systematic process to all of our projects.

PSFs created their In-house standards to capture experience and lessons learnt on projects "so [In-house standards] are an amalgamation of all our previous experiences" and "what we think 'good' looks like" commented PSF4. Another interviewee felt that their In-house standards were based on industry norms. PSF3 commented that "the institutional stuff [PPMPS] is drawn from the industry and the industry draws from the professions".

The ability to minimise potential claims for professional negligence was considered a key function of In-house standards. These also played a role in marketing and PSF1 commented that they give "something tangible for clients to look at ... shows you have got processes and procedures".

PSFs used In-house standards when submitting fee bids and as a guide to assist potential clients to understand the professional service to be provided. PSF6 commented

by putting standards in place it reflects what you are contracted to provide and will aid that process, provided that they're [the team is] following procedures and processes.

The findings demonstrate that PSFs use their In-house standards for a variety of uses.

4.5.2 Summary of Findings from Research Objective 5

The fifth research objective was to assess whether PSFs are changing the use of the Corpus. The data revealed that PSFs are relying on their In-house standards as a tool for providing project management services. In-house standards were deemed useful for mitigating against PII claims, to explain that a PSF has project management processes in place and when submitting fee bids to clients. Four interviewees confirmed that their In-house standards were used as a way to capture good practice from previous projects. The ability of some PSFs to

capture good practice in the long term could challenge the research that practitioners are unwilling to share knowledge on projects (Foos et al., 2006; Pemsel & Wiewiora, 2013).

4.6 Research Objective 6 - To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence

A research question on this subject was posed to PSFs to anticipate the possibility that a PII provider would not wish to comment on this question directly. The research question was supplemented by "how do the professional project management practice standards mitigate against the risk of professional negligence?"

4.6.1 The Corpus Mitigating against the Risk of Professional Negligence

The data had reached a saturation point as all of the interviewees revealed that PSFs considered that their In-house standards and the Corpus mitigated against the risk of professional negligence. PSF8 commented that "my organisation has an approach to its [In-house] standards to protect its reputation and its liability for negligence, etc."

PSF9 said "Yes, the standards mitigate against the risk of professional negligence". PSF2 stated

that's what [In-house standards] should be set up to do [mitigate risk] first and foremost. I mean, we talk about professional delivery but the risk to the business has got to be critical.

There was a consensus among the PSFs of the importance of the Corpus for mitigating risk of professional liability.

4.6.2 Summary of Findings from Research Objective 6

It is unsurprising that PSFs hold the view that the Corpus would mitigate against the claim for professional negligence. During the research in 2016, it was not possible to obtain the views of the PII provider or brokers on this matter. The Author was informally told by one broker that the provision of PII insurance was highly complex and they would not comment any further.

4.7 Research Objective 7- To present new knowledge that may influence the compilation and scope of future project management best practice

The final research question "What changes would you make to professional project management practice standards?" was posed to the interviewees to achieve this objective.

4.7.1 Changes to the Corpus

The data had reached a saturation point because all interviewees confirmed they would want changes to the existing Corpus. The following themes emerged: the Corpus should be more accessible and relevant to members, some parts of the Corpus should be available free of charge to the general public, and there should be greater engagement with practitioners when compiling the Corpus.

4.7.1.1 Accessibility and Relevance of the Corpus

The Corpus should be more accessible and relevant to members: PSF4 advised

the biggest constructive criticism is that it [the Corpus] needs to be more relevant. Remember, the dynamics and demographics of our profession are changing. Making the standards more accessible ... especially to people who are new to the profession.

PSF2 challenged the content of the Corpus and said "I would like to see more management science, more behavioural science". This comment relates to having practitioners who are aware of the interpersonal and communication skills required for project management and not just an emphasis on 'hard' technical skills.

PSF6 noted that an improvement "would be to try and simplify [the Corpus] in a way that is more user-friendly". PSF1 commented that "more case studies for example, case studies spring to life". PSF4 advocated "condensing the standards into an easy, readable three or four page [document] or a flow chart".

Two interviewees would have preferred the Corpus included an emphasis on smaller and refurbishment works. PSF7 noted

it [the Corpus] deals with big, shiny, corporate, glass and steel new buildings. I think there is an enormous shortfall in the professional standards for the refurbishment of existing building stock which, accounts for a very substantial percentage of spend on property and construction.

It is clear that PSFs would like the Corpus to be changed so it is seen as more relevant and accessible, specifically for new entrants in to the profession.

4.7.1.2 Availability of the Corpus to the public

Some parts of the Corpus should be available free of charge to the general public. PSF5 commented that when working on a project

you are actively demonstrating competence, promoting the profession and the reason for the profession which is all about standards, regulation and protecting the public. So why wouldn't you go out there and give the public as much information as possible because it is in their interests anyway?

PSF7 supported this view and stated

How is the lay client actually going to get hold of this? You have a publication [*RICS's Guidance Note on Appointing a Project Manager*], which is ostensibly for someone who is going to appoint a member of the institution to act for them, but you can't get hold of it unless you're a member.

There was a suggestion of having separate access to the RICS's website for the general public. "I think there should be a front-end on the website of the RICS" said PSF7.

PSF3 agreed that the Corpus should be free to the public and stated

if you make them available to the public on a free basis, you'll end up with more people interested in the organisation that issues them.

In addition, PSF2 highlighted the potential ethical benefits of free information to society in general

If someone has some decent project management guidelines, she gets a good job ... it is much more about ethics and fortifying public knowledge to improve the quality of project management.

The PSFs' views had reached saturation point that some elements of the Corpus should be free to the public which would appear to be at odds with the PPMAs as they generate income from the sale of their PPMPS.

4.7.1.3 Greater Consultation with Professional Services Firms

There was a need for greater involvement by PSFs with the PPMAs when compiling the Corpus. PSF6 commented

I think we need, as a profession and industry, to get more in tune with the standardsetters and actually be contributing to that. I think it would result in potentially greater respect of the Guidance Notes [as they would be] seen as being contributed to or commented upon.

This comment suggests that there is a lack of engagement between the PPMAs and PSFs.

4.7.2 Summary of Findings from Research Objective 7

The seventh research objective was to present new knowledge that may influence the compilation and scope of future standards for project management. The data had reached a saturation point where all PSFs wanted changes to the Corpus. The key changes were that the Corpus should be more relevant and accessible, made freely available to the general public, include an emphasis on refurbishment projects and have a wider consultation process for new or emerging guidance.

4.8 Secondary Findings from the Data

Carefully planned research can generate data that was not originally envisaged and if it is noteworthy can be considered as "secondary findings" (Trafford & Leshem, 2008, p. 145). There were four other secondary findings that related to the use of the Corpus. These are: defining project management, differences in perceived Early-career Professionals' expectations, ethical concerns about sub-economic bids and differences in perceived clients' expectations.

4.8.1 Practitioners' Views on Project Management Praxis

The data revealed that PSFs recognise the complexity of providing project management services. PSF2 stated "project managements isn't all about standards". PSF4 noted "I think they are [the Corpus] is a good benchmark, they are only a guide and that's exactly what they are, a guide".

The importance of practitioners experience and good communications skills was recognised. PS5 advised "you can't lay down paperwork, processes and flow charts for every single eventuality". PSF7 stated "I don't think there is any substitute for experience. Yes, we do attempt to capture that knowledge but there are so many things in my head". PSF3 commented that "communication is the key to all forms of good project management".

It is suggested that the interviewees' comments accord with the concept of the "making projects critical". Hodgson and Cicmil (2006b) proposed the concept of "making projects critical" which challenged the idea of applying universal rules to project management, i.e. the technical and functionalist approach to project delivery They argued that it was necessary to consider the unpredictability and complexity of managing the delivery of projects in practice.

A similar argument was put forward (Morris, Patel, & Wearne, 2000) where they observed that practitioners use formal and tacit knowledge that has to be cognisant of the social settings / environment in which they operate.

4.8.2 Early-career Professionals' Expectations

There was a concern from PSFs that Early-career Professionals could be using their knowledge of the Corpus to justify an internal promotion without the requisite experience. PSF2 noted

I think society has moved on ... the younger generation expect things instantly. I have just finished a project therefore I am a senior project director. There is an issue of people wanting to move quicker and therefore they are not learning the details. Superficially they know what to do but once you scratch the surface they [Early-career Professionals'] are a bit wishy washy.

PSF7 added that "the unexpected consequences of having all of these standards is that graduates could pick up one of these documents and work through it and then think they know everything".

4.8.3 Ethical Concerns about Sub-economic Bids

There were concerns that when PSFs submitted sub-economic bids, the Corpus was not adhered to and the RICS did not monitor adherence to its standards. PSF6 noted

How much monitoring goes on? I don't think a huge amount. When we had all these mad fee bids ... I think there was a dilution of those ethics that was not picked up on and dealt with in any way. I think it was probably standards getting pushed aside literally for survival purposes.

PSF7 agreed with this and stated

The standards go out of the window. They have to when people are cutting and underbidding. One of the regular complaints of the surveying fraternity is that they are not taken seriously enough ... there is good reason for that. We can't expect anyone to take us seriously, and therefore pay more ... if we don't regulate ourselves to the same degree that other professions do.

It is suggested that concerns about the submission of sub-economic bids have important repercussions, e.g. the quality of project management services maybe sub-standard which is to the detriment of clients and end-users.

4.8.4 Differences in Perceived Clients' Expectations

One interviewee said that adhering to the Corpus was not seen as an essential tool to gaining new clients and their clients did have any preconceived expectations on the use of the Corpus. PSF9 commented

More often than not, our route to that client is almost through recommendations and to some extent those clients have already got some confidence in us. So for us to try and compete because we adhere to some code of practice of professional standard, doesn't in my experience of our practice really figure in the decision making process.

There is evidence of influence by clients on PSFs choice of practice standards. PSF1 confirmed "we have placed the focus on the APM as being [the provider of] our standards, because the majority of our clients now are asking for APM".

It is suggested in Section 2.4.2 (Commercial Considerations for using the Corpus) that some clients within the UK construction industry are heterogeneous, and some may be only interested in the outcome of their projects rather than the processes or details required to deliver project management services. However, the data generated from the PSFs is indicating that a trend that some clients are requesting PSFs to manage their projects using the APM's BoK.

4.9 Summary of Chapter

This chapter analyses the primary data collected over eight months. Eight research questions were compiled to provide primary data that would address the seven research objectives. Nine interviewees from different sized PSFs provided the primary data, one of which was based overseas. These interviewees provided an insight into the relevance of project management best practice and its application in the UK construction industry. This chapter analyses the primary data against each research objective. A summary of the findings are:

- 1. the PMI's BoK is not used in the UK construction industry
- 2. the Corpus is not regarded as providing a commercial advantage to PSFs
- 3. some clients have an influence on PSFs' use of the Corpus
- 4. the Corpus and PSFs' In-house standards are implemented in a variety of ways
- there is no suggestion that the Corpus is treated as mandatory for PSF's employees to use

- the Corpus is regarded as important to the development of Early-career Professionals' competencies but less so for Senior Professionals
- PSFs said that the Corpus has two significant learning barriers (especially the RICS Guidance Notes), i.e. it is unwieldy and inaccessible and should be collated into one document
- 8. PSFs have developed their own In-house standards for the provision of project management services
- 9. experience in project management is perceived as more important than the codified knowledge in the Corpus
- 10. the Corpus is seen as mitigating against the risk of PII claims
- 11. all PSFs would like to see changes made to the Corpus
- 12. the Corpus is regarded as a guide rather than an absolute standard for the provision of project management services
- 13. there is recognition of the complexity of providing project management services
- 14. there is a concern that adhering to the Corpus was not always undertaken by some PSFs when sub-economic bids were submitted for the provision of project management services.

This chapter analyses the findings from the primary data generated by PSFs in 2015/16. Chapter 6 (Implications of the Research) considers the implications and interpretations of the findings from PSFs and clients. The next chapter (Findings from Clients) considers the findings from the primary data generated by clients in 2016 and 17.

Chapter 5: Findings from Clients

5.0 Introduction

This aim of this research is to explore the relevance of project management best practice and its application in the UK construction industry. As noted in Chapter 4 (Findings from Professional Services Firms), the findings from the primary data from clients are analysed and compared with existing theories form the literature e.g. the limitations of the PPMPS, regulations, learning and knowledge, corporate professionalization, etc. from Chapter 2 (Literature Review). This chapter refers to the findings generated from clients and interviewees' comments are aligned against each research objective.

5.1 Research Objective 1 – To provide an overview of professional project management practice standards

The overview and assessment of the PPMPS are provided as part of the literature review, see Section 2.2 (Professional Project Management Practice Standards).

5.2 Research Objective 2 – To investigate whether clients consider that the Corpus promotes or adds value to the profession

The research question of "How do clients think professional project management practice standards add value to the project management profession" was posed to interviewees. Previously, CPMS9 stated "why would you use the practice standards, if it is not compulsory, it doesn't benefit your client, it doesn't save you time or money or make you better?" (McCann, 2014a, p. 43). It is argued that from a commercial perspective clients are not under an obligation to promote the PPMPS and therefore the emphasis of the questioning was on what value these documents brought to the profession. The following questions were asked to gain a deeper insight on this specific matter and explore if the Corpus was seen as a key instrument in delivery: "How relevant are the professional project management practice standards for delivering projects and what are the criteria clients use for selecting professional services firms"?

There was a mixed response from the interviewees as to whether the Corpus added value to the profession or effectively promoted it. Two interviewees agreed that the Corpus saved time and provided confidence when procuring project management services. C2 said that "the Corpus gave confidence when you are selecting project managers to work on any project". C8

provided a similar answer to C2 on this question. Another interviewee said that the Corpus promoted the profession, C6 stated "I think it is recognised that the profession is reliable as a result of it [the Corpus]. C4 replied to the question and stated, hesitantly, "yes, I suppose so".

C1 responded to the question of whether the Corpus promoted the profession and said "I don't see it". C9 agreed and said "I don't think they [the Corpus] do". C5 stated that "I guess they [the Corpus] don't add much value". C7 answered the question at an abstract level that practice standards were important. C3's reply referred that their In-house standards were import but and not did not refer to the Corpus.

All of the interviewees distinguished between the Corpus and their In-house standards. They recognised that their In-house standards provided advantages for their project managers. C3 stated that "I think the benefit for us is consistency and saving time when you are in a project delivery environment".

Other interviewees relied, in part, on their PSF's practice standards and the RIBA Plan of Work to deliver their projects. C1 commented that "external project managers tend to bring their company standards rather than the RICS's or APM's practice guides". C4 said "we focus more on RIBA stages when we are delivering projects. We use that to guide us through the process". C5 agreed with C4's view. Other interviewees noted that they had certain business needs that influenced the use of their In-house standards, including health and safety considerations and stakeholder requirements. C7 advised "there needs to be traceability and you have got to make sure you comply with regulations that are enforced within the UK". C4 stated "we have departments outside of construction and they like to use PRINCE2, so we have bits of it and apply it to projects".

There was agreement that project management is a profession, C2 and C3 confirmed that "project management is a profession". However, there was no overall consensus between the interviewees as to whether the Corpus added value to the project management profession.

5.2.1 Delivering Projects and the Role of the Corpus

There was a mixed response to the question "How relevant are the professional project management practice standards for clients when delivering projects"? C8 aligned their project management procedures to the APM's BoK for delivering projects and believed that this provided confidence to partners and potential bidders on project delivery. C9 said that the

absence of In-house standards would mean that there was "no structure" to project management procedures, and so the Corpus could provide a basis for delivering projects.

Another issue for one interviewee was having the available resources and time to deliver the projects within tight deadlines. C4 stated "you can look through the guidance ... they're all great but only if you are afforded the right resources and the time to develop the brief".

C2 had confirmed their organisation was not mature in its delivery of capital projects because this was not part of their core business. As such, the organisation did not currently have in place detailed project management procedures for the delivery of capital projects but projects were managed by Senior Professionals.

Other interviewees had additional views and questioned if the Corpus was promoted effectively to clients. C1 stated that "we don't see any dissemination of the RICS or APM standards". C5 stated that the Corpus "was not relevant to clients and most of them don't even know they exist". One interviewee questioned the authority of the PPMAs as standard setters, "they're [the Corpus] probably not as relevant as the people that write them would like to think they are" said C2. It is suggested that the views would be regarded as controversial for PPMAs.

5.2.2 Selection of Professional Services Firms

Part of the research explores if the Corpus has an influence on the clients' selection of PSFs. This question was another way of understanding if clients felt the Corpus was important to them or in some way promoted or added value to the project management profession. The research reveals that clients have different approaches when selecting consultants. Clients in local and central government (or who received central government funding to support their projects) were required to follow European public procurement regulations. Other clients that were not bound by these regulations stated some key factors for selecting PSFs or individual consultants, including:

- <u>Experience in another project</u>: C1 stated "if we see somebody that we like and they have moved from company A to company B, then there is a pretty good chance we will invite them to do something".
- <u>Personal relationships</u>: C2 noted a key consideration for them was "could I bear to spend the amount of time I do at work working with this individual".

- <u>Previous involvement in the project</u>: C1 advised that for some projects "we inherit people ... there are incumbent teams that are already doing the process".
- <u>Selected companies:</u> One interviewee advised that their organisation did not go to the open market for PSFs. They selected the companies they liked to do business with and the lowest price was not the main criteria for winning business: C6 said "it's more about experience, people put forward and a wide range of things".
- <u>Complexity of the project:</u> One interviewee gave PSFs that are new to their business the opportunity to work on smaller or less complex projects: C7 stated "to see how competent they are in delivering smaller projects".
- <u>Value and risk of the project:</u> One interviewee noted that the value of and level of risk on their projects influenced their selection of PSFs. C1 noted "we have millions of pounds on the table so you can't really flick stuff to individuals and small companies where there's risk".

It is noted that some clients felt exasperated with the level of service received from PSFs, C7 stated "consultants are renowned for dodging responsibility". And for C7 a key part of their relationship with a PSF was honesty and that they would prefer to work with "those who express honesty without passing the blame". C9 noted that their organisation had brought in temporary project managers to manage capital projects but that some of these individuals would focus on their specific projects irrespective of the long-term consequences to the organisation: C9 stated that in their experience these project managers adapted an isolationist approach that meant "the individual that may come in and says I will deliver this project come what may". The research reveals that clients do select PSFs for a variety of reasons and that lowest tender offer does not mean the bidder will be successful.

5.2.3 RIBA's Plan of Work

The RIBA Plan of Work was highlighted as a key document for some interviewees. This sets out a sequential approach to a construction project's life cycle from strategic definition to an asset's occupation and maintenance. C4 and C5 noted that their In-house Standards were aligned to the RIBA Plan of Work. C4 said "the [RIBA Plan of Work] goes through all the work stages and tells you about the level of governance you need as well". It is suggested that

the RIBA Plan of Work is an example of a well-known standard that is widely used and has traction with the UK construction industry.

5.2.4 Summary of Findings from Research Objective 2

The primary data provides no firm evidence to support a claim that clients unequivocally believe that the Corpus promoted the project management profession. The data revealed that clients with one exception, did not perceive that the Corpus had played a significant part in delivering projects or in selecting PSFs. This finding is likely to be regarded as controversial and unwelcomed by the PPMAs.

The domination of In-house standards over the Corpus is significant. Eight out of 9 interviewees confirmed that their In-house standards took precedence over the Corpus. The remaining interviewee confirmed that their organisation's core business was different to that of the construction industry. It is noted that one interviewee stated their In-house standards were based on the APM's core competencies and that this organisation was a corporate member of the APM. This finding is similar to the PSFs' findings in that it has provided an alternative view that the BoKs would become the de-facto standards (Morris, Crawford, et al., 2006).

The findings on how clients selected PSFs is in contrast to the findings from the literature (Lee & Egbu, 2008) in the following ways:

- the primary data referred to different types of projects, not just refurbishment
- the primary data focuses on the selection of PSFs or individual project managers not a full design team that includes a contractor
- all of the clients had a formal way of selecting their PSFs
- there is an emphasis on personal working relationships between the client and the PSF
- the project's value, risk and complexity. While the term "experience on similar projects" is recognised, it is suggested there is a more subtle nuance here as it is the characteristics of the potential project that will have an influence on the selection of a PSF. For example, while a PSF may have experience on refurbishment projects, if the project risk is perceived as high, this may discount those PSFs who do not have the appropriate level of PII.

5.3 Research Objective 3 – To explore the extent that clients implement and monitor adherence to the Corpus

The following question was asked "How do clients implement and monitor professional project management practice standards in their organisation?" However, the interviewees' responses referred to their In-house standards and not PPMPS or the Corpus. There was one exception as this interviewee was not directly implementing or monitoring the Corpus in their organisation at the time of the interview. This meant that the nature of the interviewees' responses focussed on In-house standards and not the Corpus or the PPMPS.

5.3.1 Implementing Standards

The interviewees noted that their organisations implemented their in-house standards in a variety of ways:

- they form part of the governance procedures to enable projects to proceed
- they form part of wider corporate procedures, e.g. achieving innovation on projects, delivering environmentally sustainable projects
- they are used as a 'gateway' process to demonstrate the progress of projects
- they are used with the RIBA Plan of Work to demonstrate the progress on capital projects
- they are used to provide a framework for delivering projects so that project managers can exercise their professional autonomy as deemed appropriate. C7 advised that "the rigour on how we monitor the professional project management practice standards is really more a question of how competent our consultants are". C2 stated "at the end of day you are employing intelligent and professional people". C4 advised "I think there needs to be a degree of thinking on your feet, each project is different and being able to adapt". C3 noted "what we don't do is go around with a clipboard and ask everybody every Monday 'what have you done last week'?"

Another way of implementing project management standards included changing the job description of employees C8 confirmed their organisation that had recently revised their existing project and programme management procedures e.g. that they had changed their job descriptions to align with the APM's core competencies.

The use of conditions of engagement was another way for clients to ask PSFs if their Inhouse Standards are up to date or are compliant with ISO: 21500:2012. C6 confirmed that

they had a clause in their conditions of engagement that requested PSFs to confirm that they had updated In-house standards.

5.3.2 Monitoring Standards

The data had reached a saturation point and all of the clients were focussed on the outcome of their projects rather than monitoring the Corpus. C2 confirmed "we are mainly concerned, like most clients, with delivery". C3 stated "we monitor [the In-house standards] by the products that come out of all the various projects and programmes".

Some clients also had informal systems of monitoring standards, e.g. their employees could provide comments on their In-house standards. C3 noted that their team members could "give feedback on things that aren't working". Another way of clients monitoring adherence to In-house standards was included in their employees performance appraisal, C6 noted a "[staff performance review] is a very inclusive session with people".

C8 and C9 expressed concerns that related to the Black boxing of knowledge that can happen during implementation and monitoring of In-house standards and these are considered in Section 5.4 (Research Objective 4 - To analyse how clients use the Corpus in the workplace when providing training and development for their employees).

5.3.3 Summary of Findings from Research Objective 3

The data revealed that all of the interviewees' were preoccupied with the delivery of their projects. The primary data provided no evidence that clients were concerned about whether or not the PSFs were directly implementing the Corpus. The findings are based on the interviewees' responses on how they implemented and monitored their In-house standards not the Corpus.

The implementing and monitoring of the In-house standards took place in different ways and it was noted that there were concerns about potential Block boxing of knowledge. It is argued that the findings are supportive of the view that practice moves ahead of the BoKs (Maylor, 2001) and that the BoKs fails to keep up to date with practice (Crawford, 2007).

5.4 Research Objective 4 – To analyse how clients use the Corpus in the workplace when providing training and development for their employees

The question "How do professional project management practice standards contribute to the development of project managers competencies' in the workplace?" was asked in the interviews with clients.

The interviewees' answers referred to the Corpus or their In-house standards not the PPMPS. The implications of this are evaluated in Chapter 6 (Implications of the research). There were mixed views about whether the Corpus contributed to the development of a project manager's competencies. C2 advised

this could be quite controversial but not very much. I think project managers tend to learn things when they have to because not many of us started off working for one client body with a narrow project.

Some interviewees reflected that when they joined the construction industry there was no Corpus. C3 said that "I think when I first started out in my job, they weren't really standards".

C3 agreed that their In-house standards for project managers did help develop project managers' competencies "because they can really easily see what the process is and how it looks ... they know the expectations of their role and what the organisation wants". C1 noted that their organisation had a reputation of having best practice for their developments and stated that their In-house standards are "extremely high and that certainly rubs off on the people that we will work with and use". C7 stated with that the In-house standards "know how will help you to move around the project and implement the standards that best suit that specific need". C8 said that they "wanted project managers that understood the [In-house standards] and delivered them".

There were alternative views that In-house standards had limitations in developing project managers' competencies. One interviewee referred to expertise gained through experience rather than formal learning. C5 stated "I am a believer that competencies will only evolve through doing the job rather than reading from a book". A similar view was the ability for project managers to be able to adapt quickly to unplanned challenges, C8 stated "it is the project manager's ability to make those changes and decisions quickly and that whatever you have wrote down may be a complete waste of time".

Two interviewees expressed concern about the possibility of Black boxing of knowledge. C8 noted that

we have a split between project staff that want to fill in templates and want that to be how to manage a project and project staff that understand it is about problem solving and understanding how you fit tools and techniques to help you to deliver the project.

C9 stated

I actually think [In-house standards] limits the project managers' development. I think they are treated, erroneously, as being prescriptive, and possibly too prescriptive ... it creates process administrators that tick the boxes and follow the process.

The findings show that there is concern among clients about the effectiveness of codified knowledge for the development of project manager competencies.

5.4.1 Differences between Early-career Professionals and Senior Professionals

Some interviewees felt there that were differences between Early-career Professionals and Senior Professionals on the application of In-house standards. C3 stated "I think generally more junior staff will apply the standards", as opposed to a Senior Professional who would say "it doesn't work in this situation, I am going to do something a bit different". C9 stated that "it is about experience ... it is applying and drawing on your own experience as well as drawing on the framework [of In-house standards]". One interviewee did not agree there that was a significant difference between their junior and senior practitioners: C4 said "I tend to find the delivery is very similar".

Others felt that Early-career Professionals rather than Senior Professionals were eager to learn new ideas. C6 said" "I think younger people have a more open mind to change". C4 noted that "the good graduates are just as capable of delivery". C1 stated said "because these [Early-career Professionals] are the ones that are the most influenced, they can get in to bad habits". C1 noted that the significance of the Corpus on Early-career Professionals rather than Senior Professionals and added that this was an important reason for the Corpus to remain free to PPMAs' members.

5.4.2 Summary of Findings from Research Objective 4

The primary data revealed that In-house standards were regarded as contributing to the development of project managers' competences in different ways. These included providing project managers with a structure for understanding the process and procedures to be

followed so the project can be delivered, clarifying their roles as to what is expected of them and influencing others to perform to high standards. The findings confirm that, the In-house standards are being used as a form of organisational learning.

There was also a concern raised by two interviewees that the risk of Black boxing of project managers' knowledge could be detrimental to project delivery. These concerns are raised by others (Cicmil et al., 2006). In addition, concerns were raised that professionals must have their own autonomy, which corresponds to the existing literature (Berg et al., 2000).

There was also a recognition that the development of project managers' competencies were interwoven with tacit knowledge and professional experience. Eraut (2000) recognised different types of tacit knowledge and that this is important for development of professionals' competencies.

There were mixed views on the differences between Early-career Professionals and Senior Professionals. The importance of the experience of Senior Professionals was recognised. The willingness of Early-career Professionals to be open minded to new ways of delivering projects and, being subject to influence by the Corpus was discussed by the interviewees.

5.5 Research Objective 5 – To assess whether clients are changing the use of the Corpus

The interviewees' responses related to the Corpus or their In-house standards. C8 confirmed that their organisation had aligned its In-house standards on the APM's BoK. The remaining interviewees confirmed that the In-house practice standards took preference over the Corpus. C7 said that their industry regulator's standards on health and safety matters would always take precedence over the Corpus. C4 confirmed "I won't necessarily be governed by the standards. I do what I think is best to deliver a project".

Others noted the benefits of having In-house standards as an aid for line management; C8 said "if you are talking to one of your project managers, it is much easier to have that structured discussion about complying with the standards". A similar view was shared by another interviewee that regarded the use of their In-house standards as essential, C6 confirmed that their In-house standards were "part of the risk management process". C3 stated that "it's really important for everybody in the team to understand how our process works and what tools and capability they have got available". Other clients were confident that their In-house standards were thorough and effective, and C7 stated "we have a very good blueprint for delivery".

The key benefit of having the Corpus was that it could be used as a benchmark in the industry for judging the performance of project managers when projects were delivered late, over budget, etc. C5 stated "there has got to be a reference point where projects go wrong".

C2 recognised that their organisation was not mature in delivering construction projects as this activity was not part of their core business. C2 observed in that their 30-year career "nobody really heeded the In-house standards", which was partly explained as "a time pressure to get on with the project". The interviewees made no mention of the CIOB's CoP or the PMI's BoK.

5.5.1 Summary of Findings from Research Objective 5

The findings revealed that clients are changing the use of the Corpus by having their own Inhouse standards as a way of delivering projects. This is a significant finding as the In-house standards are taking precedence over the Corpus. Therefore the relevance of project management best practice for clients and its application in the UK construction industry is difficult to evaluate as part of this research.

The In-house standards were used to provide clarity to project managers on the expectations of what was required to deliver projects and reduce risk on projects. The findings correspond with the literature, i.e. the claim that practioners will continue to do what they do irrespective of what professional institutes advise (Hatfield, 2014).

Schmidt (2001) cautioned that some professionals may become browbeaten and adhere to a professional ideology that does not challenge entrenched ways of thinking. There is no evidence in the findings of this phenomenon.

5.6 Research Objective 6 - To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence

The question "How do professional project management practice standards mitigate against the risk of professional negligence?" was compiled to seek clients' views on whether adherence to the Corpus is regarded as sufficiently adequate to withstand potential claims of negligence.

There was a mixed response as to whether the Corpus mitigated against professional negligence claims. Interviewees from local and central government held a different

perspective on professional negligence from clients in the private sector in so far that there is a convention that civil servants or local authority officers do not sue each other.

One interviewee added their view on the concept of professional negligence. C9 said "negligence is quite a strong word and implies almost not just an ignorance but a maliciousness". C9 added that their In-house standards helped to mitigate against someone acting negligently and said "we have so many checks and balances".

C4 added that "there is a different concept of risk; if you are in-house [client-side project manager], you possibly might lose your job". Another interviewee agreed that their In-house standards, not the Corpus, helped to mitigate against professional negligence. C6 noted "risk mitigation" was very important to their organisation.

It is noted that in litigation the Corpus could provide a benchmark against a claim of professional negligence. C5 said "Courts and lawyers look to what should you have done and those industry standards ... so there always a place for [the Corpus]".

There was an alternative view on the issue of whether the Corpus helped to mitigate against claims of professional negligence. C2 said "probably not as much as the various bodies that publish [the Corpus] think they do". The interviewees showed a difference of opinion on the subject of professional negligence between public and private sector clients.

5.6.1 Summary of Findings from Research Objective 6

The primary research data showed that the issue of whether the Corpus mitigated against professional negligence was not at the forefront of some interviewees' concerns. It is not clear if this is because of the environment in which they are delivering projects, e.g. they are providing project management services in-house or that these clients had limited or no exposure to professional claims for negligence.

Other interviewees regarded their In-house standards as providing some reassurance against a potential claim of professional negligence and that the Corpus was important as it provided an industry benchmark for a project managers' performance or duties. The findings are in line with the claim in the literature, i.e. that the standardisation of services could reduce the scope for professional negligence claims (Connaughton & Meikle, 2013).

5.7 Research Objective 7 - To present new knowledge that may influence the compilation and scope of future project management best practice

The research question "What changes would clients like to make to professional project management practice standards?" was posed to interviewees. This was an opportunity for interviewees to express their views on how the Corpus could be improved or revised. None of the clients referred to the PMI's BoK or the CIOB's CoP.

5.7.1 Changes to the Corpus

The data had reached a saturation point as all the clients would like to make some changes to the Corpus, which are set out below.

5.7.1.1 Availability of the Corpus to Practitioners

The data had reached a saturation point as to whether the Corpus should be free to practitioners. C8 opined "I think if [the Corpus] wasn't free, people wouldn't buy it" and C3 stated "that's why you pay your subscription". All of the interviewees agreed that the Corpus should remain free to members of the PPMAs.

5.7.1.2 Availability of the Corpus to the General Public

The issue of whether the Corpus should be free to the general public received mixed responses. The interviewees who agreed with this point proposed that this would promote project management and the PPMA. C2 stated "Why would I not want to improve my own industry ... sharing around good knowledge that people have taken the time to write". C9 agreed with this and said that "it was one of those things I see as being funded by the members' subscriptions". C5 considered the availability of information on the internet and said "if somebody was really minded to get those documents [the Corpus], whether they were free or not, they would get hold of a copy of them".

However, there were opposing views around protecting perceived professional values of expertise. C1 did not agree that the Corpus should be free to the public and stated "because that just makes everybody an expert and they are not, you wouldn't put 'how to do a brain operation' on the internet". C4 held a similar view in so far they stated "No, I pay £500 a year and you want to get something for the RICS's membership fee. Also, I think you have the intellectual right to that information". The data generated from the interviewees reveals mixed opinions regarding the issue of allowing the public to freely access the Corpus.

5.7.1.3 Consultation and Content

One interviewee questioned the RICS's and APM's approach about how project managers were consulted about future subjects for inclusion in the Corpus. "I think it [the Corpus] can be improved if we actually asked the audience what questions they would like to be answered" stated C2. Another criticism was that the Corpus did not reflect clients' requirements, C6 said that the Corpus "didn't go far enough for an appreciation of what a client is looking for". A specific criticism was that the RICS's PMPG Guidance Notes "were very aligned to the construction [industry] side ... and don't pick up the end-to-end life cycle" stated C8. The interviewees comments demonstrate that they believe there are gaps in the Corpus.

5.7.1.4 Ease of Reading

The issue of how ease of reading of the Corpus was reflected in interviewees' comments. C2 stated that in the Corpus "there is a reliance on having to write narrative whereas you can explain things in a set of slides or process maps". C8 noted that "I think [the APM's BoK] could be structured in a way that would be easier to read". In addition, the RICS Guidance Notes were considered to adopt a high handed approach "there is a certain arrogance frankly in the way they are written" said C6.

C8 regarded the APM's BoK as

an evolving beast in that the APM is getting its head around the 3Ps [project, programme and portfolio] and how that works. I don't think the Body of Knowledge entirely reflects that in terms of standards.

No reference was made to the CIOB's CoP or the PMI's BoK.

5.7.1.5 Non-mandatory Status of the Corpus

There were strong views that the Corpus should not be rigid or mandatory. C7 stated "I agree that the standards act as a guide, this is exactly what they are".

C2 added

I don't think [the Corpus] should be prescriptive. I don't think project management should ever end up in a situation of following what it says on the computer, tick this, tick that, and you have a done a good job.

C7 stated that the PPMAs "need to promote the standards but not impose them".

There was another view where one interviewee questioned why the implementation of Corpus was not monitored; C6 questioned "What is the purpose of the [RICS] in the end if we are not monitoring what we say is 'good'?" In a similar view, C3 questioned how effective the current RICS's CPD arrangements were and observed that CPD

is not actually monitoring how effective you are at your job, so as far as I can see there is no monitoring. The other thing the [RICS does] is have disciplinary panels which seems like the extreme end of monitoring".

While clients are not in favour of the imposition of mandatory Corpus, they are questioning how effective CPD really is.

5.7.2 Summary of Findings from Research Objective 7

The data had reached a saturation point in that all of the interviewees would like some changes made to the content of the Corpus e.g. more focus on the end-to-end project life cycle and adherence to the Corpus should remain optional rather than compulsory for practitioners. There was mixed opinion as to whether the Corpus should be free to the general public.

5.8 Secondary Findings from the Data

The following were emerging themes from the clients and their views on the subject of the project management profession, the RIBA Plan of Work, criticisms of the PPMAs and bureaucratic project management.

5.8.1 Observations on Project Management

While there was no overall consensus between the interviewees as to whether the Corpus promoted the profession, there was agreement that project management is a profession. C2 and C3 confirmed in their views that "project management is a profession". C2 stated "it is a practical profession that is designed to get things done". C3 noted that "I think seeing it [project management] as a separate profession is definitely a great benefit"

There was a recognition of the complexity of providing project management services which is recognised in the literature. C2 stated that process of project management

isn't a production line for cars. All of your ingredients and assumptions are different. There is no textbook answer to this and I can't rely on a standard to help me with that.

C3 stated "it isn't just about training somebody to work on a production line".

In respect of training to become a good project manager, C1 noted that "you need to learn, understand and become an expert ... that takes time, knowledge and experience". C8 stated that in their experience "without doubt, the best project managers are those that do something else first and don't do a project management degree".

The complexity of delivering capital projects highlights the limitations of the Corpus and this is in line with the literature. Maylor (2001) argued that it was not possible for practitioners to rely on codified knowledge where practice has moved ahead.

5.8.2 RIBA Plan of Work

The interviewees referred to another professional standard other than the Corpus. The RIBA Plan of Work is used widely in the construction industry and sets out the various stages of a typical capital project. C5 noted that "they used the RIBA Plan of Work when delivering projects". C4 stated they would "apply RIBA work stages to deliver a project". The RIBA Plan of Work was available since 1964 and before the publication of the Corpus.

5.8.3 Criticisms of Professionals and Professional Project Management Associations

C2 noted "I have spent ages on this project engaging with end-users to make sure the product I deliver is as good as it can be and I don't think the professions do enough of that". C4 agreed with this sentiment and said "I just think things are slightly different being client side". Some practitioners will work directly for clients and are called 'client-side project mangers'.

C5 added

I think unfortunately there is not enough people in the institution [RICS] that contribute to the RICS. The majority in my experience spend all their time getting through exams, get their APC, stick the RICS bit after their name and that's all they ever do.

C7 had a similar observation and stated "professionals look at yourselves in the mirror and consciously ask if you contribute to the profession".

The interviewees had some criticisms of the PPMAs mostly notably the RICS. Five out of the nine interviewees were members of the RICS. C4 noted "I just don't feel engaged as a chartered surveyor. I don't feel valued ...they [RICS] just charge you more money". C7 stated that the institutions in the property industry should "promote the industry and their services".

The issue of CPD and professional development for professionals emerged. C3 stated that "I think 20 hours is a low figure ... it's [CPD] not actually monitoring how effective you are at your job". C4 confirmed "I don't feel the RICS keeps up with your career. These comments provide an indication of disenchantment with the RICS.

5.8.4 Bureaucratic Project Management

The concept of project managers becoming bureaucratic with project management procedures emerged from the findings. C2 stated

I think there are two styles of project managers generally. Then they are the paper pushers. They don't solve problems and tend to be in my experience very procedural based.

C8 noted a similar issue

we have a split between project staff that want to fill in templates and want that to be how to manage a project and project staff that understand it is about problem solving and understanding how you fit tools and techniques to help you to deliver the project.

One of the concerns raised about some project managers was when they used In-house standards as a reason for not delivering project on time or engaging with key stakeholders. C3 noted "I think it can give all the professions a bad reputation". There was a concern that large organisations became too slow in delivering projects due to having extensive project management procedures. C4 referred to another major organisation in their area and said "they are just bound in red tape" and "I would like to keep it simple in terms of some stage gates to sign off". Another interviewee did not approve of PRINCE; "Don't recommend PRINCE2 as the saviour of the project management industry. It's very bureaucratic, it takes such a long time to do every single bit of it" advised C2. PRINCE2 is not considered part of the Corpus.

5.8.5 Commentary on the Secondary Findings from the Data

The findings generated from the data recognise the complexity of project management and the limitations of the Corpus are highlighted. The interviewees considered that project management was a profession. The limitations of the PPMPS are already recognised in the literature (Bredillet, 2007; Cavanagh, 2012; Cicmil et al., 2006; Dalcher, 2014a; Hatfield, 2014; Kozak-Holland, 2011; Morris, Crawford, et al., 2006; Pollack, 2017). This primary data from clients confirms they do not rely directly on the PPMPS or the Corpus to deliver their projects.

The concept of "commercial professionalism" (Muzio, Hodgson, et al., 2011) is present in the findings and some interviewees were dissatisfied with the RICS and its Guidance Notes. The issue of practitioners "looking good" (Blomquist et al., 2017) emerged as clients criticise some professionals for not contributing to the profession or keeping up to date with continued professional development. There is a concern that project managers will adopt a "bureaucratic project management" approach in practice and that this is regarded as a poor tactic for resolving difficult or complex problems associated with a project.

5.9. Summary of Chapter

This chapter analyses the primary data against each research objective from the client's perspective. A summary of the findings are –

- less than 50% of clients believed that the Corpus promoted or added value to the project management profession
- the Corpus played no part in the selection of PSFs
- the PMI's BoK was not used in the UK construction industry
- clients' In-house standards take precedence over the Corpus
- clients' focus is on the delivery of their projects
- In-house standards were implemented and monitored unlike the Corpus
- In-house standards helped project managers develop competences
- In-house standards were used by clients to mitigate the risk of claims for professional negligence
- clients had concerns that In-house standards contributed to the Black boxing of knowledge
- all of the interviewees would like changes to be made to the Corpus
- there was recognition of the complexity of project management and importance of experience
- criticism of some professionals and the PPMAs
- the RIBA Plan of Work was used as a framework to deliver capital projects

• there was concern that some project managers could become overly bureaucratic to the detriment of successful project delivery due to overzealous adherence to In-house standards.

The next chapter considers the implications of these findings and those from the PSFs.

Chapter 6: Implications of the Research

6.0 Introduction

Chapters 4 (Findings from professional services firms) and 5 (Findings from Clients), set out the findings from the primary data. Trafford and Leshem (2008) argued that it is important to set out the interpretive and conceptual conclusions of research. Perry (1998) proposed that it was important to distinguish between factual and interpretive research findings. Accordingly, Chapters 4 and 5 analysed the factual findings generated from the data provided by the PSFs and clients.

It is proposed that there are interpretations of, and implications from, the research findings and this chapter considers these against each research objective. For ease of reference, each research objective is restated in the text.

6.1 Implications of the First Research Objective: To provide an overview of the professional project management practice standards

6.1.1 Professional Services Firms – Implications of Research Objective 1

The findings from PSFs generated two interpretations, the predicted use of the PMI's BoK and clients' influence on professional services firms' use of the Corpus which are discussed below.

6.1.1.1 Project Management Institute's Body of Knowledge

It is argued that excluding the PMI's BoK from the Corpus is justified as none of the UKbased PSFs used it. The only interviewee that did use the PMI's BoK was a PSF based in the USA. It is suggested that one of the implications of this finding is that the PMI's BoK is unlikely to be used in the UK construction industry, unless the PMI can provide compelling reasons for its use, as well as promoting it and providing training for practitioners.

6.1.1.2 Clients' Influence on Professional Services Firms use of the Corpus

One interpretation of the research findings is that there will be an increased trend for the occasional client to directly influence PSFs use of the Corpus on projects. As noted in Section 4.2.1 (The Corpus and the Promotion of the Profession), one interviewee indicated that their clients requested use of the APM's BoK. Given that almost all clients did not believe the Corpus was an effective tool in delivering projects, it is in interpreted that most clients

especially secondary and experienced clients will want the PSFs to use or adapt some of their In-house standards.

It is suggested that clients who have applied the PMI's BoK on their international projects could also request PSFs to deliver projects in accordance with these guidelines and therefore increase its prominence in the UK construction industry. However, this suggestion is made with the caveat that these international must clients consider that the PMI's BoK to be essential for efficient project delivery.

6.1.2 Clients - Implications of Research Objective 1

The findings from clients provided further implications for the research on the topics of the PMI's BoK and the potential undermining of the PPMAs' authority

6.1.2.1 Project Management Institute's Body of Knowledge

It is noted that all interviewees from the client group did not use the PMI's BoK. The implication of this finding is similar to that in Section 6.1.1.1 (Project Management Institute's Body of Knowledge) as it seems that the PMI has little resonance with clients in the UK. Accordingly, the comments in this section refer to the Corpus only. It was observed that one client had based its In-house standards on the APM's BoK. Therefore it would seem logical for this client to ask their PSFs if they are using the APM's BoK.

6.1.2.2 Potential undermining of the Professional Project Management Associations' Authority

One of the findings generated from the primary data is that the Corpus is not regarded as providing PSFs with a commercial advantage or plays a significant part in delivering projects. See Section (4.2.3 Summary of Findings from Research Objective 2) and Section (5.2.4 and Summary of Findings from Research Objective 2). It is suggested that this could be detrimental for the PPMAs in the long term, because it may erode the impression that they are seen as the organisations holding the appropriate project management expertise and knowledge. It is suggested that for any professional body to be genuinely respected, it must be seen to have expert knowledge that is recognised not just by practitioners but the clients in its industry.

It is interpreted that the clients who have In-house standards will continue to invest in the development of these documents and therefore are an inherent challenge to the Corpus, unless

the Corpus covers an area of expertise that they do not have or require for their business needs.

6.1.3 Triangulation of Research Objective 1 – To provide an overview of professional project management practice standards

It is suggested that given the level of agreement between all the UK-based interviewees, i.e., practitioners, PSFs and clients, it is unlikely that the PMI's BoK will become widely used in the UK construction industry. It is also unlikely that PRINCE2 will gain little traction within the construction industry as PSFs and clients regard it as too prescriptive. It is suggested that there is a significant amount of, and arguably overlapping, project management guidance available to the profession.

There is also the question of an individual's professional allegiance to their professional body. For example, CPMS7 confirmed they would regard the RICS's role as being more relevant than the APM's to set standards for the construction industry (McCann, 2014a). PSF3 noted that professional institutions have different levels of influence. Garcia (2005) highlighted that more standards are not necessarily better for business and it is suggested that this is already recognised in practice by practitioners, PSFs and clients.

It is proposed that it is beneficial for the profession that all interviewees recognised that project management is a profession. This finding is consistent with the research literature (Morris, 2016). This recognition can help provide an alternative view to the literature (Muzio, Hodgson, et al., 2011) that there is no codified knowledge or that the role of the project manager is undefined or opaque.

6.1.3.1 Best Practice

Section 1.1.5.1 (Defining a Practice Standard and Best Practice) discusses that there was no firm agreement on what constitutes 'best practice'. However, it is a conundrum as to whether to include In-house standards within the description of 'best practice'. It would be difficult and a lengthy process to assess the quality of In-house standards of PSFs and clients in the UK construction industry. In-house standards would have different biases, e.g. a small PSFs that contracts exclusively with commercial private clients as opposed to a large, international PSF with both public and private sector clients. Unlike the Corpus, these documents are not readily available to all. It is interpreted that PSFs regard their In-house standards as a

commercial asset that provided them with a competitive advantage in the market-place and therefore would be reluctant to share their expertise with others.

However, while In-house standards may not be regarded as 'best practice', for all practitioners, PSFs and clients, on the basis of this research, these documents are very important to the project management profession and clients in the UK construction industry.

6.2. Implications of the Second Research Objective: To investigate whether professional services firms and clients consider that the Corpus promotes or adds value to the profession

6.2.1 Professional Services Firms - Implications of Research Objective 2

It is suggested that the findings from the primary data have implications regarding the concept of corporate professionalization, respecting the standard setters and disengagement with the PPMAs.

6.2.1.1 Corporate Professionalization

It is suggested that the findings from the research regarding corporate professionalization and respecting the standards setters are consistent with the literature review. It is proposed that the concept of corporate professionalization (Muzio, Hodgson, et al., 2011) is apparent from analysing the data and showed that there is a significant level of disengagement between the RICS and its members. It was notable that the level of disengagement was more acute with SMEs and micro-consultancies than MNEs. Perhaps one reason why the RICS is criticised is that is an older institution that the CIOB and the APM.

The concept of corporate professionalization is explained in Section 2.3.6 (Corporate Professionalism), and argued that the PMI and APM may be becoming commercially oriented to the detriment of individual members. It is further interpreted that there is a commercial struggle between relatively new and existing PPMAs; e.g. the PMI opposed the APM in its bid to become a Chartered body (APM, 2014). The PMI's legal action was unsuccessful.

6.2.1.2 Respecting the Standards Setters

The issue of respecting the standards setters (Timmermans, 2010) came to the fore in the findings with the proposition that some PSFs will not adhere to regulations and guidance if

those professional bodies are not seen as being professional or having the requisite expertise in the market-place. Unsatisfied with the RICS, PSFs can use another PPMA as a source of guidance on project management. PSFs that employ CPMSs are not restricted to the RICS for attaining professional qualifications in project management services.

6.2.1.3 Association for Project Management's Project Management Professional

It is suggested that based on the research findings, the level of disengagement between the RICS and those of its members providing project management services is likely to continue to grow, especially when the APM implements its designation for Chartered Project Management Professional. It is argued that the APM's qualification would be high prized in the market-place and potentially in competition with the RICS's CPMS qualification. It is propounded that one consequence of RICS members becoming disengaged with their professional body is that the RICS may only represent a narrow set of views. This could mean that the RICS potentially makes decisions that are not aligned with 'grass roots' members' views and ultimately undermine the professional body itself in the long term.

6.2.2 Clients - Implications of Research Objective 2

Promoting the profession, pragmatic project management and the PPMAs and their influence on clients are interpreted as three matters that have further implications for the project management profession.

6.2.2.1 Promoting the Profession

The primary data from clients provided an overwhelming view that the Corpus did not directly promote the project management profession. The research found that all clients confirmed that their In-house standards took precedence over the Corpus. It is suggested that an implication of this is that it contradicts the prediction that PPMPS would become the "de-facto standards" (Morris, Crawford, et al., 2006).

6.2.2.2 Pragmatic Management

It is argued that it is unclear as to why a client would consider a PPMA's product, e.g. BoKs, if it did not provide a demonstrable advantage for delivering projects that are part of their key business objectives. Fryer (1997) noted and that since the 1980's there has been a large growth of literature on the management theories and introduced the concept of "pragmatic management". This is based on the experience of famous entrepreneurs who have written

practical guidance containing examples of their management styles. He argued that the volume of guidance and critical thinking by these entrepreneurs cannot be easily dismissed. It is argued that with the growth of publications on project management, clients now have easy access to information on alternative ideas on project management. It is interpreted that the PPMAs have to compete with others that provide alternative sources of project management information that is widely available to clients and therefore justify why their PPMPS should be used. The ease of assessing information on the internet may also partly explain why some interviewees thought that the Corpus should be freely available.

6.2.2.3 Professional Project Management Associations and Clients' Influence

While the PPMAs have an obligation to ensure that they promote the profession for the public good, it is questionable how effective their actions really are if their work does not resonate with clients. Clients can have considerable influence over the construction industry (Gameson, 1992; Kulatunga et al., 2011) which has also been recognised by the UK government (Egan, 1998; Latham, 1994). It is noted that the type of client interviewees were Senior Professionals with different backgrounds in the construction industry i.e. civil engineers, chartered surveyors with different designations (e.g. quantity and building surveyors) and mechanical engineers and with significant budgets for expenditure on capital and infrastructure projects.

6.2.3 Triangulation of Research Objective 2 - To investigate whether professional services firms and clients consider that the Corpus promotes or adds value to the profession

The three different groups of interviewees agreed that the Corpus provided a benchmark as to what was a minimum acceptable standard of project management practice and that it provided guidance to Early-career Professionals and new practitioners in the profession. It is suggested that these findings enforce the view that PPMAs maintain the characteristics of a professional body that control entry in to the profession (Connaughton & Meikle, 2013). This could provide PPMAs with a sense of complacency and encourage the existence of a 'Semi-detached Professional' see Section 6.7.4 (The concept of a Semi-detached Professional). The three groups of interviewees agreed that the Corpus is not promoted enough within the industry or to clients and that PSFs did not believe that the Corpus provided them with a commercial advantage. These findings should be a concern for the PPMAs. It is interpreted that this is one of the reasons why In-house standards will continue to take precedence over the Corpus.

6.3 Implications of the Third Research Objective: To explore the extent that professional services firms and clients implement and monitor adherence to the Corpus

6.3.1 Professional Services Firms - Implications of Research Objective 3

The findings from PSFs highlight the implications of the limitations of the Corpus and the requirement to have reflective practitioners.

6.3.1.1 Limitations of the Corpus

It is noted in Section 4.5.1 (Professional services firms' In-house standards), that the data provided evidence of PSFs' extensive use of In-house standards. The limitations of the Corpus from this research are consistent with the literature review (Crawford, 2005; Dalcher, 2014a; Hodgson & Cicmil, 2006b). The research findings suggest that the Corpus isn't regarded as complete guidance on projects and practice has moved ahead of the Corpus. Maylor (2001) argued that BoKs did not keep pace with practice. Crawford (2007) argued that the BoKs were conservative in their content and behind current practice. It is proposed that a fundamental limitation of the Corpus and codified knowledge is that it cannot address every conceivable project management issue. The issue that codified knowledge is not sufficient to manage complex projects has previously been recognised (Hatfield, 2014).

6.3.1.2 Reflective Practitioners

It is suggested that a key implication of recognising the limitations of the Corpus is that PSFs and practitioners should think critically about how to resolve non-standard project management issues that may arise. However, it suggested that the development of reflective practitioners takes time and effort which could be facilitated by CPD. Accordingly, it is suggested that the current allowance of 20 hours for (CPD) for RICS members is increased. In comparison, the CPD requirement for APM members is 35 hours. CIOB members do not have a minimum amount of time stipulated for CPD (CIOB, 2017b).

It is suggested that the PPMAs, in conjunction with tertiary level providers have a long-term role to encourage under-graduates to develop into reflective practitioners. Tennant, Murray, Forster, and Pilcher (2015) raised concerns that the contextualised teaching necessary for construction education is being eroded, due to UK universities facing unprecedented commercial pressure to undertake revenue-generating research projects. Ramazani and Jergeas (2015) argued that the traditional approach to teaching project management needed to

be revisited so that the profession produces creative and reflective practitioners. It is suggested that this is particularly relevant in the long-term as it is likely that projects will continue to be complex in the future.

6.3.2 Clients - Implications of Research Objective 3

It is suggested that some PPMAs may be disappointed that the primary data generated by clients did not refer to the implementation or monitoring of the Corpus. However, it should be noted that while PPMAs may regulate PSFs, they do not have a role in regulating clients. Arguably, there is no obligation for clients to use the Corpus. Each interviewee confirmed their In-house standards took precedence over the Corpus and therefore this is interpreted that senior management does not think there would be any guaranteed improved performance if project managers used the Corpus.

On this interpretation, these findings are consistent with the views in the literature, e.g. that senior management did not perceive that project managers adhering to the PMI's BoK and the Australian National Competency Standards for Project Management were better performers than those who did not (Crawford, 2005). Additional research undertaken in the IT industry revealed that no difference between certified PMI managers and those who were not (Starkweather & Stevenson, 2011). It is argued that the implications of these findings are profound for the PMMAs as it would appear their promotion of the Corpus does not resonate with clients.

6.3.2.1 Limitations of the Corpus

The data generated from clients did not refer to the implementation and monitoring of the Corpus. As noted in Section 6.3.1.1 (Limitations of the Corpus), the shortcomings of the Corpus are apparent and it is argued that the data generated from the clients reinforced the views of the PSFs. It is suggested that the view that managers will continue to do business as normal regardless of requests from the professional bodies and standard writers (Hatfield, 2014) is evident. The implication of this research is that it is critical that the flaws within the Corpus are conveyed by Senior Professionals to Early-career Professionals when starting their career in project management. The concerns regarding the diminishing professional autonomy of practitioners are discussed in the next Section.

6.3.2.2 Project Delivery and Ethical Considerations

All clients mentioned that they were focussed on project delivery. One of the advantages of In-house standards is that they could lead to the simplification and codification of project management procedures. Connaughton and Meikle (2013) argued that the codification of professional services could lead to increased profits for the PSFs. However, it is suggested that a potential danger of having heavily prescriptive In-house standards is that this could lead to a diminishing professional autonomy of practitioners, particularly for Early-career Professionals. It is suggested that Early-career Professionals could by unduly influenced by the Corpus and their desire to become a member of one of the PPMAs.

One of the potential long-term consequences of In-house standards is whether theses could encourage greater corporate thinking that in certain circumstances may be at the expense of professional ethics. Volkswagen (VW) confessed that it had installed software in its vehicles that deliberately misled consumers about the level of emissions from diesel engines and was now in consultation with the USA Department of Justice to pay ϵ 4.3bn in penalties and plead guilty to the associated criminal damages (McGee & Lynch, 2017). Initially, VW tried to blame their fraudulent action as the work of a few rogue engineers but later had to acknowledge their deceitful corporate actions (McGee, 2017a). One employee disobeyed VW's senior management instructions not to speak candidly to USA Department of Justice, and admitted that VW's senior management knew the software installed in the cars was misleading (McGee, 2017b).

It is suggested that practitioners blindly following In-house standards could potentially lead to a neglect of professional ethics, honesty and creativity. It is suggested that In-house standards contain ethical standards should practitioners feel there are potential legal or criminal issues.

6.3.3 Triangulation of Research Objective 3 - To explore the extent that professional services firms and clients implement and monitor adherence to the Corpus

Clients, PSFs and CPMSs agreed on three matters: the importance of experience, that the Corpus was not directly relevant to delivering projects and that there is a risk that Senior Professionals are not keeping up to date with the Corpus.

It is proposed that that all three groups would consider tacit knowledge and experience as being more important that codified knowledge. Project managers have to rely on their

professional experience to make judgments where there are no precedents and it likely that this will continue given the growing complexity of projects. PSF5 summed this up by saying "you can't lay down paperwork, processes and flow charts for every single eventuality".

The Corpus was not deemed to be directly relevant to project delivery. It is suggested that this view is likely to remain as there are more significant factors that impact on project delivery, e.g. the client, the other members of the design team, the contractor, the form of building contract, etc.

All three groups of interviewees agreed that there was a risk that Senior Professionals are not keeping up to the date with the Corpus. It is suggested that this has some potential negative and long-term implications for Senior Professionals and the profession, e.g. the inability to keep up to date with key developments (such as building information modelling and the growth of artificial intelligence), may make them appear stale and ultimately uncompetitive. However, the risk of Senior Professionals not keeping up to date could be mitigated in three ways, firstly, their In-house standards are reviewed and up to date. Secondly, the Corpus is updated on a regular basis, some of the BoKs that are published is regarded as too conservative and out of date, (Crawford, 2007). Thirdly, the minimum requirement for the CPD is increased for all practitioners.

6.4 Implications of the fourth research objective: To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees

6.4.1 Professional Services Firms- Implications of Research Objective 4

The findings from the research indicate that experience and tacit knowledge of professionals are regarded as more important than codified knowledge and provided a further implication for consideration. The differences between Early-career Professionals and Senior Professionals are also considered to be noteworthy for the development of practitioners' competencies.

6.4.1.1 Experience and Tacit Knowledge

In Section 4.4.1 (The Corpus contributing to the Development of Project Managers' Competencies), it is stated that the Corpus was seen as providing a basic guide for delivering project management services. However, PSFs considered that there were barriers to learning

from the Corpus and that having project management experience was more important than codified knowledge.

It is suggested that while the importance of tacit knowledge and experience is recognised, there is a potential downside for the profession in relying on tacit knowledge for the development of competent project managers. Not all experience may be considered worthwhile to practitioners e.g. Early-career Professionals may encounter some ineffective project management practices used by Senior Professionals. Edum-Fotwe and McCaffer (2000) suggested that over-reliance on experience for the development of project managers in the construction industry had meant that some lacked strategic understanding of project delivery.

It is suggested that PPMAs must do more in the long term to convince PSFs and clients of the value of the Corpus, particularly if there is a possibility that some Early-career Professionals receive inadequate training to develop their project management skills.

6.4.1.2 Early-career Professionals and Senior Professionals

It is noted that there was a difference between Early-career Professionals and Senior Professionals perception of the Corpus. It is recommended that the Corpus is marketed and compiled in a way that convinces all readers of its value.

6.4.2 Clients - Implications of Research Objective 4

The key implications of the findings generated from clients concerns the development of Inhouse standards and the concept of projectification.

6.4.2.1 Development of In-house Standards

Clients' responses were related to their In-house standards rather than the Corpus and there was a difference in opinion as to whether these contributed to the development of practitioners' competencies. It is suggested that one of the implications of this research is that In-house standards performs additional functions to providing a framework for the delivery of projects. These include a tool for risk management on projects, HR training and development and sharing knowledge. It is recognised that practitioners can have difficulty in transferring their knowledge into organisational knowledge due to the temporary nature of projects (Foos et al., 2006; Pemsel & Wiewiora, 2013). It is suggested that one way of countering this criticism is that clients capture lessons learnt from previous projects within their In-house

standards. One client commented they had an independent specialist review their In-house standards to ensure they were up to date with developments in legislation.

6.4.2.2 Projectification

It is proposed that one of the negative impacts of "projectification" on society (Lundin & Soderholm, 1998) i.e. the potential to have a temporary and unpredictable labour market for practitioners, may have begun to impact on project delivery and practitioners. One client noted they occasionally used practitioners on short-to medium-term contracts and that some individual's behaviours were focused on delivering their specific project so they could win the next commission even if this was detrimental to the delivery of other projects, damaged colleague relationships and disregarded the organisation's long-term business objectives. It is argued that this client's experience of projectification is in line with the literature. Crawford et al. (2017) argued that organisations should consider how they interact with their temporary or content workers, otherwise some of them become opportunistic and self-interested at the expense of permanent employees.

6.4.3 Triangulation of Research Objective 4 - To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for their employees

Clients and practitioners understood the risk of Black-boxing of knowledge but this phenomenon did not feature in the responses from PSFs. However, all three groups agreed that it was important for professionals to have autonomy when applying In-house standards. It is suggested that the risk of Black-boxing of knowledge will continue as there is more pressure to deliver projects at a quicker pace but at lower costs. It is also interpreted that given the growth of the volume of projects, the risk of "projectification" will continue where interim or temporary project managers are used to deliver projects regardless of the consequences to permanent employees and the wider organisation.

6.5 Implications of the Fifth Research Objective: To assess whether professional services firms and clients are changing the use of the Corpus

6.5.1 Professional Services Firms - Implications of Research Objective 5

The findings reveal that PSFs are changing their use of the Corpus as their In-house standards take precedence when providing project management services. The findings from this

research offer an alternative view that the PMI's and APM's BoKs have not become the defacto standards (Morris, Crawford, et al., 2006) for the project management profession. It is suggested that In-house standards have further implications for organisational learning, a potential two-tier profession, PSFs relationship with the PPMAs and professional autonomy.

6.5.1.1 Dominance of In-house Standards

It is suggested that one of the implications of this research is that PSF's In-house standards is taking precedence over the Corpus. It is proposed that, in practice, PSFs will adapt their knowledge (some of which may have been gleaned from the Corpus) and experience in to their In-house standards. It is suggested that in accordance with the literature, the prediction that practice has moved ahead of the BoKs (Maylor, 2001) is accurate and the Corpus remains conservative in outlook (Crawford, 2007) is authentic.

6.5.1.2 Organisational Learning

It is proposed that PSFs' In-house standards enable them to keep up to date with current practice that can be transferred into organisational learning. The difficulty of learning from projects is recognised (Foos et al., 2006; Pemsel & Wiewiora, 2013; Von Krogh et al., 2000). It is argued that PSF's In-house standards have the potential to fulfil a function of a PMO in so far as keeping employees informed of good ideas or emerging trends in project management practice. Bartsch et al. (2012) argued that new knowledge learnt in project teams is context-specific and not shared at a corporate level. It is proposed that if PSFs continue to develop their In-house standards, this type of context-specific information can be captured and disseminated at an organisational level via In-house standards, which could lead to improved organisational learning.

Section 2.6.4.2 (Organisational Barriers), explained the difficulty of using context-specific project management knowledge for universal application (Bartsch et al., 2012). It is suggested that In-house standards that captures individual experiences and lessons learnt on projects and that can be shared at a corporate level will encourage "double loop" learning as discussed in Section 2.6.3.2 (Learning). The compilation of In-house standards using "double loop" learning may challenge the idea that context-specific knowledge learned in teams has no relevance to other parts of PSFs. Section 2.6.3.1 (Knowledge) considered the different modes of knowledge. It is proposed that In-house standards could be construed as comprising the "mode 2" and "mode 4" form of knowledge. Mode 2 knowledge that could provide

solutions to trans-disciplinary issues (Gibbons et al., 2004). Mode 4 knowledge that is change-orientated (Scott et al., 2004) and inherently challenging to the prevailing ethos of the Corpus. Section 2.3.5 (Codification of Professional Project Management Practice Standards), raises the question of whether the PSFs perceived that PPMAs control the profession by providing specialist knowledge to its members. It is suggested that PSFs do not perceive this scenario as they are building up their own specialist knowledge base by the creating In-house standards.

6.5.1.3 A Potential Two-tier Profession

The rise of PSFs that are regarded as MNEs and their impact on the future of the profession is predicted to represent a challenge to PPMAs when maintaining their relevance to MNEs, SMEs and micro-consultancies (The Edge Commission Report, 2015). An interpretations of this research is, the risk that if some PSFs develop In-house standards that become far superior than the Corpus for delivering projects, a two-tier profession may develop: those PSFs who can dedicate the resources and expertise to creating and improving their In-house standards, and those that cannot afford to do so.

6.5.1.4 Relationships with Professional Project Management Associations

It is acknowledged that PPMAs offer other services that may be seen as attractive to PSFs e.g. liaison with the UK government over policy or legislation which would have an impact on the industry. However, it is argued that in circumstances where some PSFs believe the role of a professional body is to provide expertise on practice, their relationship with PPMAs may deteriorate if they believe their In-house standards are superior to the Corpus or the PPMPS. It is suggested that it would be very difficult for a PSF to openly disagree with the contents of the Corpus. It is interpreted that there is a concept of "doxa" (Bourdieu, 1977) around long established professional institutions and in part this has contributed to the concept of 'corporate professionalization'. A breakdown of the relationship between PSFs and the PPMAs may be hard to detect, but may be seen in the "Semi-detached Professional" phenomenon or tacit disengagement with the PPMAs in the long term.

Section 2.6.4.6 (Practitioners' Identity), highlighted the differences between the "local" and "cosmopolitan" project manager. It is suggested that the dominance of In-house standards is likely to encourage the growth of the "local" project manager which is detrimental to the PPMAs in the long term. Hodgson and Paton (2016) argued that the "local" project manager

does not readily see the rationale to join a professional body. Should PSFs believe that their knowledge and expertise detailed in In-house standards is superior to the Corpus, this could encourage practitioners to question if it is worthwhile becoming a member of a PPMA.

6.5.1.5 Professional Autonomy

Section 2.7 (In-house Standards), noted the concerns in the literature of focussing on standard project management processes as opposed to the project (Clarke, 1999) or stifling the creativity of the project manager (Cicmil et al., 2009). There was no evidence provided in this research that suggested these phenomena existed, which appears to be inconsistent with the literature. However, this may be partly explained because PSFs are creating their own bespoke In-house standards that allow them to have the professional autonomy and creativity to deliver projects.

It is argued that creating and using In-house standards provides the creative freedom to adapt to changing circumstances of projects. All of the PSFs interviewed came from the private sector. It is suggested that the organisations that may traditionally are regarded as bureaucratic, e.g. local authorities or central government departments should also have the freedom to quickly alter their processes to ensure projects can be delivered in a better way.

6.5.2 Clients - Implications of Research Objective 5

The findings generated from the data are consistent with the findings from the PSFs. The interviewees confirmed that their In-house standards took precedence over the Corpus. It is suggested that private sector clients have flexibility with their In-house standards so they can adapt quickly to changes in business requirements and markets. Some public sector clients or those that receive public funding are subject to European public procurement legislation and therefore are obliged to keep to a pre-determined process for tender periods and contract award. Accordingly, their ability to act quickly in some aspects of the procurement timetable is restricted.

6.5.3 Triangulation of Research Objective 5 - To assess whether professional services firms and clients are changing the use of the Corpus

All three groups confirmed their In-house standards take precedence over the Corpus. Given the views expressed by these interviewees and their rationale, it is proposed that this will continue for the foreseeable future. It is suggested that it is pertinent to consider the

implication of the prominence of In-house standards which is considered from the perspective of the sociology of the profession.

6.5.3.1 Competition for the Profession

Abbott (1988, p. 323) in his discussion on the future of the professions raised a fundamental question as to why does society "place expertise in people rather than things or rules". The PPMAs have tried to codify professional knowledge in the Corpus. The creation of "formal knowledge", i.e. knowledge that is alien to the lay person has helped to create the notion and growth of the professions (Freidson, 1988). However, there is strong evidence that has been demonstrated in the literature that codified knowledge in the Corpus has its limitations. Abbott (1988) predicted that the professions would possibly have to compete with "forms of institutionalization" i.e. government organisations or businesses that have their own expertise which would counteract that of the professional associations. While admitting his prediction was tenuous and not supported by empirical data, he argued that organisations like this would "encode professional knowledge in the structure of the organization themselves" (Abbott, 1988, p. 325). It is put forward that In-house standards are encoding and capturing professional knowledge and expertise that is largely independent of the PPMAs. Accordingly, there is an implicit collective challenge from practitioners, PSFs and client to the PPMAs.

It is interpreted that In-house standards are in effect a form of knowledge that could be classified as "mode 4". As noted in Section (2.6.3.1 Knowledge) the characteristics of "mode 4" are that

knowledge is understood as critical of the prevailing ethos, implicitly political and change orientated, ... undermine the conventional knowledge discourses ... and the legitimacy of the institutional life (Scott et al., 2004, p. 51 & 53).

It is suggested on the interpretations of this research that prediction of organisations capturing their own professional knowledge and therefore competing with professional bodies (Abbott, 1988) is taking place in project management in the UK construction industry. It is proposed that In-house standards will continue to take prominence over the Corpus and that PPMAs will need to spend more effort convincing the industry of the tangible benefits of their Corpus and other codified knowledge. It is outside of the scope of this research to evaluate if this development is taking place in other professions e.g. law, accounting.

6.5.3.2 Bypassing the Gate Keepers

Section 6.2.2.2 (Pragmatic Management), referred to the growth of publications other than those from PPMAs that offer project management advice. It is interpreted that this "pragmatic management" advice will continue to capture practitioners' expertise and also be readily accessible online. Therefore, while (Abbott, 1988) raised the questions as to why we place expertise in people and not things and rules, it is suggested that with the growth of artificial intelligence, practitioners' expertise will focus on areas such as computers and software. Susskind and Susskind (2017, p. 106) predicted that the lives of professionals was going to change due to four trends and it is interpreted that one of these trends of creating "bypassed gate keepers" is having an impact on the Corpus. The concept of bypassing the gate keepers is essentially obtaining knowledge from sources that are not regarded as traditional by professionals, e.g. the recipients of professional services and internet companies offering information (such as Wikipedia). It is concluded that publications on "pragmatic management" (Fryer, 1997) will continue to flourish and potentially put the PPMAs in the role of "bypassed gate keepers".

6.6 Implications of the Sixth Research Objective: To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence

6.6.1 Professional Services Firms - Implications of Research Objective 6

This research finding had reached a saturation point as all PSFs believed adherence to the Corpus could mitigate against claims of professional negligence. It suggested that an implication of this research finding is that this may be a reason why PSFs should pay attention to the Corpus.

6.6.2 Clients - Implications of Research Objective 6

The findings from the Clients had also reached a saturation point as they believed that adherence to the Corpus could mitigate against claims of professional negligence. However, there was a reliance on the In-house standards to provide other functions, e.g. project governance and HR management, providing Early-career Professionals with an expectation of their role as project managers.

6.6.3 Triangulation of Research Objective 6 - To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence

The data has reached a saturation point where all groups agreed that the Corpus could mitigate against claims of professional negligence. However, despite the Author's best efforts, no brokers for a PII provider were prepared to have their views reflected in this research. One broker was interviewed but their comments cannot be reflected in this thesis because this person declined to complete the research participant form.

6.7 Implications of the Seventh Research Objective: To present new knowledge that may influence the compilation and scope of future project management best practice

6.7.1 Professional Services - Implications of Research Objective 7

All of the interviewees were assured that their comments would be treated in confidence and anonymised. It is suggested that this provided them with an opportunity to express their views without fear of being criticised by their respective PPMAs. It is suggested that one of the implications of this research is that while the PPMAs promote the benefits of the Corpus, the primary data shows that PSFs and clients agree that some changes are required to it. The new knowledge that is presented by this research provides some recommended changes to the Corpus.

6.7.1.1 Access to the Corpus

The research findings demonstrate that the RICS's Guidance Notes and Information Papers are regarded as unwieldy and inaccessible and received more criticism than the APM's BoK or the CIOB's CoP. It is recommended that the RICS's Guidance Notes and Information Papers are stored or presented in a way that allows PSFs easier and quicker access. One of the implications of this research is that while this view remains, there is a potential risk that members will pay little attention to this guidance or even know it exists.

Section 2.9 (Additional Changes to the Corpus), suggests that there may be some similarities between excessive, complex legislation and the Corpus, e.g. overlapping requirements and content. The Edge Commission Report (2015) recommended that professional bodies including the RIBA, the RICS and the ICE, should combine their resources for providing research and the development of a pan professional body of knowledge. However, given the

concept of "corporate professionalization" (Muzio, Hodgson, et al., 2011) it is suggested that the PPMAs are unlikely to follow the Edge Commission's recommendations.

6.7.1.2 Interlinking the Corpus with Continuing Professional Development

The PPMAs own the PPMPSs and therefore it is recognised that they control the content and distribution of this guidance. It is argued that they do not regularly monitor PSFs' or practitioners' compliance with the Corpus, although the RICS can and do expel members at disciplinary hearings (RICS, 2017). CPD is mandatory for all members of the PPMAs (APM, 2011; PMI, 2017b; RICS, 2013b). However, members are free to choose the content of their CPD and are not obliged to confirm formally they have read the latest versions of the Corpus. It is suggested that one way of improving awareness of the Corpus would be to link it with the award of CPD credits to confirm that members have read the latest editions of the Corpus. For example, RICS CPMSs would not be able to complete their CPD unless they had confirmed they had read the latest Guidance Note or Information Paper produced by the PMPG.

6.7.1.3 Consultation with the Profession

It is recommended that the PPMAs conduct a strategic review on how they compile their PPMPSs and begin a dialogue with all of their members on this issue. There was a request from some PSFs and practitioners that the Corpus should also focus on the refurbishment of buildings. It propounded that if there is no fundamental change in how the Corpus is compiled, (particularly the RICS's Guidance Notes and Information Papers), there is a risk that its benefits will not materialise due to a lack of interest or motivation for its use from PSFs, clients and practitioners.

6.7.1.4 Communication with the Public

It is suggested that should be a debate on the extent that PPMAs would like to share their codified knowledge with the public given that there were mixed views from clients, PSFs and practitioners on this topic. It is recommended that certain parts of the Corpus, e.g. the selection and appointment of consultants are made free to the general public for the benefit of society and to promote the profession.

6.7.2 Clients - Implications of Research Objective 7

The data generated from the clients provided similar views to the PSFs in respect of changes to the Corpus. See section 6.7.3 (Triangulation) below.

6.7.3 Triangulation of Research Objective 7 - To present new knowledge that may influence the compilation and scope of future project management best practice

The findings from the data generated by the clients and PSFs were similar in that they suggested that the Corpus especially the RICS's Guidance Notes and Information Papers should be changed to make them easier to access and less unwieldy, ensure greater consultation on their compilation and be updated more regularly. It is suggested that all three groups are consistent in their request for changes to the Corpus. The use of mainstream methods of project management e.g. the application of BoKs /Corpus has been questioned (Cavanagh, 2012; Dalcher, 2014a; Hodgson & Cicmil, 2006b; Maylor, 2001; Smith, 2007). It is suggested that it is justified to explore what is happening in practice as opposed to what should happen in practice, i.e. it is noteworthy that the clients do not deem that the Corpus is considered an essential tool for delivering projects.

The interpretation of the findings also led to the development of the concept of a "Semidetached Professional" and "the Bureaucratic project manager" which are discussed below.

6.7.4 The Concept of a Semi-detached Professional

It is proposed to introduce the concept of the "Semi-detached Professional" in contrast with an individual that is engaged with the PPMAs and the "local" practitioner (Hodgson & Paton, 2016). One definition of detached is "to separate, unconnected, aloof, free from care" (Schwarz, Davidson, Seaton, & Tebbit, 1988, p. 384). It is suggested that a "Semi-detached Professional" can be defined as "an individual that is a member of professional project managements association but has decided not to fully participate or support that professional project managements association's activities".

The characteristics of a "Semi-detached Professional" include -

 Minimum participation with the professional body by applying the idea of "resistance through consent" (Ashcraft, 2005) e.g. attends the minimum of PPMA's CPD's events. It is argued that this concept is an important feature of the "Semi-detached Professional". Ashcraft (2005) researched changing work practices for American

commercial pilots that were meant to diminish their professional power by passing other duties to the airline crew. However, her research found that the pilots' professional autonomy was not altered by this directive but by appearing to agree with the revised working proposals, (i.e. giving the appearance that it was the pilots choice rather than a mandate) the pilots effectively strengthened and maintained their importance of their role. A comparison can be drawn between the commercial pilots and the "Semi-detached Professional" that can complete their CPD tasks but do not have to participate in any other related activities that would be deemed supportive of their respective PPMA.

- 2. Makes no contribution to the compilation and updating of the Corpus.
- 3. Does not engage publicly in the PPMA's forums or vote for members that seek to play a role in the future of their respective PPMA. For example, only 5,796 RICS members participated in the July 2016 survey that sought the views of the profession (RICS, 2016c) although, the RICS has 118,000 members (RICS, 2016d). This is a low participation rate and represents less than 5% of the membership. Hopkirk (2016) highlighted that only 15% of RIBA members voted in the election of its president in 2016. In her article, the president-elect of RIBA Mr Ben Derbyshire is quoted as saying

the small exercise of opening an email and clicking [it] is regarded by the electorate as being not worth the time and energy because – presumably – they don't think it will make any difference to the RIBA or to them.

Less than 20% of eligible CIOB members voted for their Board of Trustees in 2017 (CIOB, 2017a). 18.2% of APM members voted for its Board in 2016, despite the APM's Company Secretary setting out a rationale for voting (Robinson, 2016). It is proposed that a low voting turnout from practitioners is a sign of a lack of interest in their PPMA.

- 4. Spends little time reading the PPMA's journals or magazines.
- 5. Considers that the PPMA brings minimal commercial value to their business other than the use of the PPMA's membership details after their name or company.
- 6. Believes the work of the PPMA has little relevance to their day to day business.
- Disagrees with the direction of the PPMA but feels powerless to publicly express their views or have any influence over the PPMA.

8. The time frame for a "Semi-detached Professional" may vary for example Senior Professionals approaching retirement age may decide to become active in the PPMA.

It is important to note that these characteristics are not criticisms of the "Semi-detached Professional" or suggest that they are incompetent in any way. There may be various reasons for the existence of a "Semi-detached Professional", e.g. pressure of work or family life, and these individuals do not have the time to devote to be actively involved with their professional body.

6.7.5 The Bureaucratic Project Manager

One of the findings from clients was a concern that the process of project management could be used by practitioners to avoid making difficult decisions on projects so they can hide behind processes that, arguably, bring little tangible value to the project. It is suggested that they can be described as a "Bureaucratic project manager". This prediction is based on the "projectification" of society (Lundin & Soderholm, 1998). Two clients have observed this in action. C2 noted "they are the paper pushers ... they don't solve problems and in my experience tend to be very procedure based" and C8 noted they are "project staff that want to fill in templates and project staff that is about problem solving". It is suggested that the characteristics of a Bureaucratic project manager include:

- 1. adopts a 'tick box' mentality and is unable to distinguish between which parts of the Corpus or In-house standards are relevant to the task in hand
- 1. delaying making critical decisions on the project
- 2. focussing on minor issues at the expense of major issues that are pertinent to the project
- 3. unwilling to challenge and question other project members or stakeholders
- 4. reluctant to make key decisions to solve problems in unusual circumstances that they have not encountered before.

6.7.6 Perspectives on Project Management

The primary data generated from the clients, PSFs and practitioners on the importance of how project managers relate to others had reached saturation point as they all agreed that project managers' 'soft skills', e.g. communication, political and business skills are key to delivering projects. This view resonates with the assertion of (Winter et al., 2006) that it is *people* who

deliver projects and contrasts to the rationalist approach to project management which assumes that it is a linear and straight forward process. It is suggested that in the age of "super complexity" (Barnett, 1999) that project managers' 'soft skills' will remain key to successfully managing projects.

6.7.7 Summary of Triangulated Findings

See Table 9: A comparison of the findings between the Professional service firms, clients and practitioners below.

No	Theme	PSFs	Clients	Practitioners
	Research Objective 1: To provide an overview of the Corpus			
1	Makes no reference to or used the PMI's BoK. *(only 1 PSF based in the USA used the PMI's BoK).	*Triangulation of findings		
2	Recognises that project management is a profession.	Yes (7 out of 9)	Yes	Yes
3	Dismisses PRINCE as an effective project management guide.	Yes	Yes	Not discussed
	Research Objective 2: To investigate wh Corp	nether professional ous promotes the pr		lients consider that the
4	Promotes the profession.	Mixed views	Mixed views	Yes
5	Slow pace of the development of the profession recognised.	Not discussed	Yes	Yes
6	Standards not promoted sufficiently within the industry or to clients.	Triangulation of findings		
7	The Corpus provides a benchmark as to what is acceptable for a standard of project management practice.	Triangulation of findings		
8	The Corpus is provides guidance to Early- career Professionals and new entrants to the profession.	Triangulation of findings		
No	Theme	PSFs	Clients	Practitioners
9	The Corpus did not provide a commercial advantage to the PSFs.	Yes	Not discussed	Not discussed
10	Challenge that APM's BoK would be relevant to RICS members.	Not discussed	Not discussed	Yes
]	Research Objective 3: To explore the extent m	t that professional s onitor the Corpus	services firms and cl	ients implement and
11	Tacit knowledge is more relevant than the Corpus.	Triangulation of findings		
12	Little evidence of implementation except the Corpus is regarded as important for Early-career Professionals.	Triangulation of findings		
13	Limitations of standards – mimetic and context free.		Triangulation of fir	ndings

Table 9: A Comparison of the Findings between the Professional service firms, clients an	d practitioners.
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No	Theme	PSFs	Clients	Practitioners
14	The Corpus was not deemed to be directly relevant for project delivery.	Triangulation of findings		
15	Saves time in the procurement of PSFs.	Not discussed	Yes	Not discussed
16	Provide confidence when selecting PSFs.	Not discussed	Yes	Not discussed
17	There is a risk that Senior Professional are not keeping up to date with the Corpus.		Triangulation of fi	ndings
I	Research Objective 4: To analyse how profe training and	ssional services fir development of pra		he Corpus to provide
18	A risk that Black-boxing of knowledge exists.	No	Yes	Yes
19	Recognising the importance that Professionals to retain creativity and freedom in the workplace.	Triangulation of findings		
Re	esearch Objective 5: To assess whether prof	essional services fi Corpus	rms and clients are	changing the use of the
20	In-house standards takes precedence over the Corpus.	Triangulation of findings		
21	The Corpus provides a defence against claims of professional negligence.	Triangulation of findings		
	Research Objective 6: To consider whether proj	r PII consider that fessional negligenc		es against the risk of
22	Clients' legal advisers expects PSFs to comply with the Corpus.	Yes	Not discussed	Yes
R	desearch Objective 7: To present new knowl project m	ledge that may infl nanagement best pr		on and scope of future
23	Changes and improvements to the Corpus are required.	Triangulation of findings		
24	The Corpus should be free to members.	Triangulation of findings		
25	The Corpus should be free to the general public.	Mixed views		
26	The Corpus should be mandatory.	No	No	Mixed views (2 out of 9 CPMSs proposed the corpus should be mandatory)
27	Changes required in how the Corpus is compiled.	Triangulation of findings		
28	Greater consultation on the content of the Corpus.	Triangulation of findings		
29	Changing the tone of the RICS Practice Standards.	Triangulation of findings		
30	The Corpus should also focus on refurbishment works.	Yes	Not discussed	Not discussed
31	The RICS's Guidance Notes and Information Papers should be improved so that they are easily accessible.	Triangulation of findings		
32	The concept of "projectification" having an impact on project delivery.	Not discussed	Yes	Not discussed
33	In-house standards takes precedence over the Corpus.		Triangulation of fi	ndings

No	Theme	PSFs	Clients	Practitioners
34	BoKs would not become the de-facto project management standards.		Triangulation of fir	ndings
35	The concept of Corporate Professionalization is recognised.		Triangulation of fir	ndings
36	The view that soft skills are key to good project management.		Triangulation of fir	ndings

The above table included 36 themes. For clarity, where the table reads "Yes" that means that all of the interviewees agreed with the theme. Where there was not complete agreement among the interviewees, this is noted, e.g. item 2 "recognises that project management is a profession" it is noted that "Yes (7 out of 9)" agreed.

There is agreement between practitioners, PSFs and clients on 19 themes. In addition to the triangulation of findings, there is agreement on other themes:

- Between the PSFs and clients on three themes. Item 1: Makes no reference to or used the PMI's BoK, item 3: Dismisses PRINCE as an effective project management guide and item 26: The Corpus should be mandatory but not for PSFs and clients.
- Between the PSFs and practitioners on one theme, item 22: Clients' legal advisers expects PSFs to comply with the Corpus.
- Between the clients and practitioners on one theme, item 2: Recognises that project management is a profession.

These findings are further evaluated using structuration theory below.

6.8 Structuration Theory

Trafford and Leshem (2008) referred to the interpretive and conceptual conclusions of research. They argued that these conclusions should provide relevance to other applicable theories. Section 3.9 (The Conceptual Framework), proposes the use of structuration theory to provide a link with the theoretical perspective and to provide a conceptual conclusion for this research. Section 3.10.2 (An overview of Structuration Theory), provides an explanation of the duality of structure where both agents and structure can influence each other. The quadripartite nature of structuration theory relevant to this research is explained in Section 3.10.5 (Conceptual Framework and Structuration Theory).

This section interprets the quadripartite nature of structuration as it relates to the findings from this research. It is argued that PSFs are required to make commercial decisions for their

survival when they provide project management services. Clients are also required to deliver projects within a commercial context whether this is for shareholders or for public sector clients needing to demonstrate value for money.

<u>External Structure for PSFs and Clients</u>: The PPMAs provide the Corpus and they own and control its content. The PPMAs also regard themselves as having responsibility for promoting the profession and their respective PPMPSs.

<u>Internal Structure for PSFs and Clients</u>: General-disposition. It is suggested that PSFs and clients can obtain the Corpus and its contents, which does not change irrespective of who uses the documents. The findings from the research demonstrate that PSFs regard the Corpus as providing a benchmark for the provision of project management services. In respect of internal structures, PSFs' conjunctionally-specific knowledge is proposed as the knowledge and experience that PSFs have gained from providing project management services, which is then used to form their In-house standards.

In respect of internal structures for clients, their conjunctionally-specific knowledge is proposed as the knowledge and experience they have gained from delivering projects that is then used to form their In-house standards. It could be argued that clients cannot be classified as the "organized" as they are not under pressure to have an allegiance to a PPMA. However, for the purposes of this research, clients are considered as the organized because they employ construction and property professionals to deliver their projects. The professionals that were interviewed in the research belonged to either a PPMA or another professional body in the construction industry, e.g. the ICE and so are bound by that professional body's regulations.

<u>Active Agency for PSFs and Clients</u>: It is proposed that in a commercial context, PSFs and clients have to make critical business and professional decisions on how they provide their project management services and deliver projects. Section 2.2.6 (Limitations of, and concerns with, the BoKs), sets out the key concerns in this area. However, it is suggested that PSFs and clients are overcoming some of these limitations, e.g. the Corpus falling behind practice, by continuing to develop their In-house standards and maintaining the professional autonomy of project managers.

It is proposed that a "duality of structure" exists because PSFs and clients can combine the benefits of the Corpus with and the In-house standards. Section 3.10.5.3 (Active Agency/Agent's Practices), referred to the understanding of structuration theory (Pozzebon &

Pinsonneault, 2005) as the "organizations, organizing and the organized". See Figure 7 below, which relates to the context of PPMAs, PSFs and Corpus.

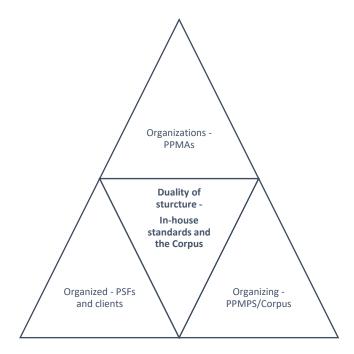


Figure 7: The Organizations, Organizing and the Organized.

It is proposed that to complete the quadripartite cycle of structuration, consideration should be given to potential outcomes. It is proposed that the unintended impacts on external and internal structures are:

- PSFs and clients are defining project management so that it aligns with the notion of "critical projects" (Hodgson & Cicmil, 2006b). Clients and PSFs will adopt procedures and processes as they see appropriate to provide project management services. In effect, the "Organized – PSFs and clients" as shown in the above figure are being less organised or controlled by the PPMAs. See item (3) below for comments on the "organizing".
- PSFs have concerns that Early-career Professionals overly rely on the Corpus which gives them a false sense of confidence without the requisite experience to be discerning about the application of the Corpus. It is noted that some clients also expressed concerns regarding the Black boxing of knowledge.
- 3. The possible tacit disengagement with PPMAs as PSFs and clients' own In-house standards take precedence over the Corpus. It is suggested that there is a duality of structure between the Corpus and In-house standards. The In-house standards take

precedence over the Corpus, so they constrain the influence of the PPMAs on day to day project management activities.

4. The potential emergence of PSFs and clients continuing to invest in their In-house standards that will undermine the Corpus in the long term. See Figure 8 (Quadripartite cycle of structuration – research findings) below.

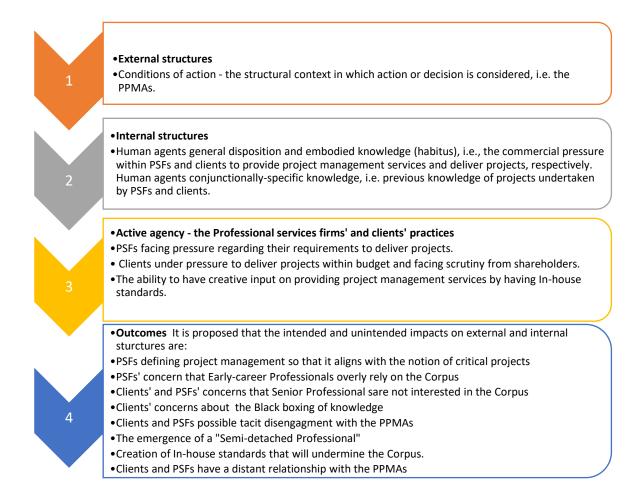


Figure 8: The Quadripartite Cycle of Structuration – Research Findings. Adapted and interpreted from (Stones, 2005, p. 85)

The quadripartite cycle of structuration shows there are eight significant outcomes.

6.9 Author's Reflections

Previously it was noted in Section 3.1 (Science and Underpinning the Philosophy of Knowledge) that this research falls in to the category of social science and in Section 3.11 (Credibility and Naturalistic Enquiry) deemed as naturalistic enquiry. There is a tradition in social science that permits and encourages authors to add their personal reflections on the implications of their research findings. This Section considers the Author's personal views.

We do live in a world of "Supercomplexity" and one of the challenges facing the UK is the impact of Brexit. It is difficult to predict what the impact will be on the construction industry when the UK government leaves the European Union. It is suggested that the impact of the falling pound has increased the costs of some raw materials but this doesn't mean that it will automatically be absorbed by clients if the UK construction industry enters in to a recession.

At the time of writing the final details of the exit deal is not known. The Office for Budget Responsibility has predicted in November 2017, that growth in the UK economy will be reduced which may mean the UK construction industry enters a period of recession. The negative impact of contractors and PSFs submitting sub-economic bids on projects during recessionary times is well known, e.g. leads to an increase in contractual claims and the quality of project management services become sub-standard which then suggest the Corpus is being ignored.

There are various findings that have emerged from the research over a five year period and these are set out in Chapter 7 (Conclusions). It is for readers to decide which they think are the most important to them. The Author concludes that the following themes are important and can be generalised to other professions, e.g. medical, accounting: (1) the limitations of the codified knowledge included in the Corpus (2) the changing nature of knowledge, and (3) the sociology of the project management profession.

The limitations of the codified knowledge are examined in detail in the thesis. It is suggested that this will always be an inherent weakness in any standards, codes of practice, etc. irrespective of any profession. It is simply not feasible to capture professionals' tacit knowledge for every conceivable dilemma that takes place in practice.

The changing nature of knowledge is important as knowledge that once be regarded as the preserve of the professions is now widely available. It is suggested that the PPMPS and other professional bodies are going to have to continue to commit resources to knowledge creation and engage with their members to ensure they can be regarded as holders of expert knowledge.

It is important to understand new developments in the project management profession. The concept of the Semi-detached Professional is relevant to all professional bodies. It is suggested that concept is developed further by others, so its long term repercussions are understood.

6.10 Summary of Chapter

This chapter considers the interpretative and conceptual conclusions of this research and reviewed against each research objective. Some of these conclusions are supportive and consistent with the existing literature. These include:

- the Corpus has limitations
- the concept of "corporate professionalism" exists
- the issue of respecting the standards setters that write the Corpus is coming to the fore as some PSFs and clients have become disillusioned with the RICS but not the APM or CIOB
- the concept of the "Semi-detached Professional" is introduced
- the concept of the "Bureaucratic project manager" is developed.

One of the implications of this research is that it presents views that conflict with the literature relating to the belief that the PPMPS are de facto standards (Morris, Crawford, et al., 2006). The view derived from this research is that the PPMPSs are not de facto standards. This is supported by the data generated from clients, PSFs and CMPSs (McCann, 2014a) and using the concept of structuration theory that considered the "duality of structure" between the Corpus and In-house standards.

It is suggested that this research illustrates the importance of the existence of PSF's and clients' In-house standards and their potential contribution to the development of project management. It is argued that use of In-house standards in the UK construction industry has not been widely investigated but that this is overdue. These standards may, in the long term, become another tool for the provision of project management services, the capture of context-specific knowledge and the development of PSFs' and practitioners' competencies.

It is suggested that the interpretations and implications of this research may not be palatable reading for some PPMAs and accordingly they may not accept or even undermine the findings from this research. The Author was made aware when trying to collect data that some potential interviewees felt that the subject matter was controversial, and was best left unsaid and unchallenged. It is difficult not to conclude that the concept of "doxa" (Bourdieu, 1977) is present when exploring the relevance of project management best practice and its application in the UK construction industry.

CPMS9 raised a fundamental question (McCann, 2014a) regarding best practice guidance, i.e. "why would you use a practice standard, if it is not compulsory, if it doesn't benefit your client, it doesn't save time or money or make you better?" One of the interpretative conclusion from this research is that there is little tangible benefit for clients, PSFs and CPMSs using the Corpus and that In-house standards are more important in practice.

Regrettably, it was not possible to obtain the views of PII providers about the extent that PPMPSs contribute to mitigating claims for professional negligence. Despite this, it is noteworthy that practitioners, PSFs and clients all agree that the Corpus mitigates the risk of professional negligence.

The next and final chapter summarises why this research was undertaken, the findings from the research and aims to convince readers that this thesis represents a contribution to new knowledge.

Chapter 7: Conclusions

7.0 Introduction

The aim of this research was to explore the relevance of project management best practice and its application in the UK construction industry. This research was undertaken from October 2014 to June 2017 and had seven key objectives. Ten research questions were compiled to generate the primary data that would address the research objectives. The most important findings and potential implications for each research objective are considered in this chapter.

Walsham (2006) cautioned that interpretive researchers should be clear on three matters when writing their theses: who the potential readers are, what literature they are contributing to and what is the new knowledge to be added to the literature. As noted in Section 1.6 (Writing style), this Chapter is written without the use of abbreviations and acronyms to encourage academics, project managers, professional services firm, clients in the UK construction industry and the professional project management associations to read the conclusions of this research.

Chapter 1 (Introduction) provided the context of this research and outlined the research problem, aims and objectives. This chapter also referred to previous research on the extent that Chartered Project Management Surveyors availed themselves of professional project management standards (McCann, 2014a).

Chapter 2 (Literature Review) provided an analysis of the existing literature on key themes: the limitations of, and concerns, with bodies of knowledge for project management; whether practice has moved ahead of published guidance for project managers; corporate professionalism; regulations; barriers to learning; and the development of project managers' competencies. It was proposed that there is a scarcity of literature available on the relevance of project management best practice and its application in the UK construction industry.

Chapter 3 (Research Methodology) provided the rationale for the research methodology. The ontological and epistemological positions of constructivism and interpretivism influenced the qualitative approach to the research. The primary data for this research was obtained by conducting semi-structured interviews with nine professional service firms and nine clients. The limitations and delimitations of the research were outlined so that the boundaries and context of this research could be understood by readers.

Chapter 4 (Findings from Professional Services Firms) and Chapter 5 (Findings from Clients), presented the factual findings from the primary data. It was opined that the findings from clients could be regarded as sensitive for the professional project management associations.

Chapter 6 (Implications of the Research) proposed interpretive findings from the primary data analysed in Chapters 4 and 5 and created new concepts in the project management discipline to consider. The research findings were triangulated with related research undertaken from October 2012 to June 2014 (McCann, 2014a).

This chapter provides (1) an overview of the findings from each research objective, (2) the implications of this research, (3) the contribution to new knowledge, (4) the limitations of the research, and (5) recommendations for future research.

7.1. Research Objective 1 - To compile an overview of professional project management practice standards

Compiling an overview of professional project management practice standards was conducted to help readers understand project management best practice. The overview was compiled using secondary data. The primary data revealed that the Project Management Institutes' Body of Knowledge was not widely used in the UK construction industry. The PRojects In Controlled Environments methodology was rarely used and it was considered by professional services firms and clients as too prescriptive and not suitable for the construction industry. The Royal Institution of Chartered Surveyors' Guidance Notes on project management were evaluated as it was apparent there is no critique on these documents in the existing literature.

7.2 Research Objective 2 - To investigate whether professional services firms and clients consider that the Corpus promotes or adds value to the profession

The Corpus was not regarded as explicitly promoting or adding value to the profession. This view was common among professional services firms and clients. Practitioners did believe that the Corpus promoted the project management profession. On the basis of this research, the Corpus provides a basic benchmark for the quality of project management services and it is treated only as a guide to project management. The research shows that professional services firms receive no direct commercial advantage by using the Corpus. The professional services firms believed that the Royal Institution of Chartered Surveyors had failed to

promote its practice standards sufficiently. Only one out of nine clients confirmed that the Corpus played any part in delivering projects or their selection of professional services firms. In-house standards took precedence over the Corpus. None of the professional services firms challenged the assumption that project management was a profession in its own right.

7.3 Research Objective 3 - To explore the extent that professional services firms and clients implement and monitor adherence to the Corpus

Clients, professional services firms, and practitioners agreed on the following: the importance of experience over codified knowledge, that the Corpus was not directly relevant to delivering projects and there was a risk that Senior Professionals (individuals who had achieved chartered or member status of a professional project management association and had more than 15 years' post-qualification experience) are not keeping up to date with the Corpus. Professional services firms confirmed that they implemented and monitored adherence to the use of the Corpus.

Professional services firms recognised the following: the complexity of providing project management services, the importance of their staff's experience over codified knowledge, and that the Corpus was insufficient on its own to deal with all aspects of the managing projects. The latter finding was regarded as being consistent with the existing literature on the limitations of, and concerns with, the bodies of knowledge for project management. Clients did not implement or monitor adherence to the Corpus and therefore their answers referred to In-house standards.

7.4 Research Objective 4 - To analyse how professional services firms and clients use the Corpus in the workplace when providing training and development for employees

The data revealed that professional services firms regarded the Corpus as having a limited role in providing a benchmark for project management services. However, they did not agree that it supported training and development in project managers' competencies. The Corpus was regarded as unwieldy and inaccessible and these issues were considered to be learning barriers. It was noted that professional services firms believed that there are differences in the use of the Corpus between Early-career Professionals (individuals who are attempting to achieve chartered or member status of a professional project management association or those who had achieved chartered or member status of a professional project management association and had less than five years' post-qualification experience) and Senior

Professionals. The clients' responses referred to their In-house standards and not the Corpus. They used In-house standards as a form of organisational learning that, captures lessons learnt and provides project managers with an expectation of their roles.

7.5 Research Objective 5 - To assess whether professional services firms' and clients' are changing the use of the Corpus

The data revealed that professional services firms relied on their In-house standards more than the Corpus for the provision of project management services. Professional services firms used In-house standards for various functions, including submitting client bids, demonstrating project management competencies and capturing lessons learnt on projects. Similar to professional services firms, clients used In-house standards as a form of organisational learning that, provides project managers with an expectation of their roles and to reduce risk on projects.

7.6 Research Objective 6 - To investigate whether professional indemnity insurance providers consider that the Corpus mitigates against the risk of professional negligence

The data generated from practitioners, professional services firms and clients revealed that almost all believed that adherence to the Corpus would reduce the risk of a potential claim under professional indemnity insurance. Two clients in the public and voluntary sectors noted that the concept of professional negligence was viewed differently to those in the private sector. Unfortunately, despite the Author's best efforts, it was not possible to obtain the views of a professional indemnity insurance provider on this matter. One interview was held with a broker but they would not agree, despite assurances of confidentiality and anonymity, for their views to be reflected in the thesis. Their approach on this, is of itself, considered significant and showed the sensitivity of this area.

7.7 Research Objective 7 - To present new knowledge that may influence the compilation and scope of future project management best practice

This research objective focussed on presenting new information about the Corpus that would ultimately create new knowledge for practitioners, professional services firms and clients to help them to improve project delivery and so provide a benefit to society as a whole. The data had reached a saturation point as all practitioners, professional services firms and clients would like changes made to the Corpus. These include making the Corpus more relevant,

more easily accessible and that it should recognise the differences between new build and refurbishment projects. See Table 10 (Recommended changes to the Corpus) below.

In addition to specific changes to the Corpus, professional services firms provided further insights into project management, e.g. the delivery of project management services, subeconomic bids and managing Early-career Professionals. They regarded the delivery of project management services as complex and felt they should have the professional autonomy to use the Corpus as they feel appropriate and, where necessary to change their approach to providing project management services. This approach is complementary to the concept of "making projects critical" (Hodgson & Cicmil, 2006b) where professionals can adapt to context-specific project management issues. Professional services firms had concerns that the Corpus was not adhered to when sub-economic fee bids were prepared. Professional services firms and clients were also concerned about managing Early-career Professionals to avoid undue reliance on the Corpus.

7.8 Implications of the Research

The key implications and interpretations of this research are set out below and are grouped into the following themes: the limitations of the Corpus, the sociology of the project management profession, the theory and use of standards, and the development of practitioners' competencies.

7.8.1 Limitations of the Corpus

- The Project Management Institutes' Body of Knowledge is not used in the UK construction industry.
- It is proposed that professional project management practice standards or the Corpus are not de facto standards (Morris, Crawford, et al., 2006) which contradicts with the literature. Professional services firms' and clients' In-house standards are on the basis of this research, now regarded as the potential de facto standards for the profession.
- It is suggested that a consequence of the prominence of In-house standards is that these may encourage the growth of "local" rather than "cosmopolitan" project managers (Hodgson & Paton, 2016) in the long term. Therefore, it is interpreted that

if there is an increase in the number of "local" project managers, it will encourage them not to engage with the professional project management associations.

- There is a concern in the literature that the use of professional project management practice standards may lead to an emphasis on processes rather than the specific or unusual requirements of the project which may be counter-productive and lead to the Black boxing of knowledge (Hodgson & Cicmil, 2006b). It is suggested that as professional services firms and clients continue to be creative in compiling and using their own In-house standards, the aforementioned concerns on Black boxing are likely to be minimised.
- One implication of the findings is that tertiary level education providers should encourage under-graduates to be reflective of their work by the application of critical thinking. It is important that under-graduates and Early-career Professionals can recognise for themselves the limitations of the Corpus.

7.8.2 The Sociology of the Project Management Profession

- This research shows that there is recognition by practitioners, professional services firm and clients in the UK construction industry that project management is a profession. This is important as it should help the academic discipline of project management to remain relevant and sustainable in the long term. McCann (2014a) argued that the slow development of project management standards for professionals in the UK construction industry was detrimental to the academic discipline of project management.
- The research reveals that clients use In-house standards and not the Corpus. One of the implications of this research is that professional project management associations are not fully understanding and responding to clients' requirements. This situation has wider repercussions because some clients can have a positive influence on the UK construction industry.
- There is evidence of the potential undermining of the professional project management associations' authority as the "gate keepers" of expert knowledge. Clients do not deem the Corpus significant for delivering projects. In the long term, this may lead clients to believe that, the professional project management associations do not offer them expert and relevant knowledge on project management.

- The concept of "corporate professionalism" (Muzio, Hodgson, et al., 2011) exists. Some practitioners and professional services firms felt disenfranchised with the Royal Institution of Chartered Surveyors as they perceive there is a focus on corporate objectives rather than responding to their individual needs.
- It is suggested that there is a level of disengagement between the Royal Institution of Chartered Surveyors and professional services firms and clients may lead to the existence of the "Semi-detached Professional" and encourage the growth of the "local" project manager.
- It is suggested that an interpretive conclusion of this research is that In-house standards will continue to take precedence over the Corpus in practice, which could ultimately lead to a two-tier profession. The larger professional services firms may have more resources than micro-consultancies for compiling and maintaining their In-house standards. This could provide the larger professional services firms with a commercial advantage and place them in a stronger position, than their smaller competitors.

7.8.3 The Theory and Use of Standards

- In-house standards are considered to be a "Mode 4" form of knowledge (Scott et al., 2004). One of the interpretations of this research is that the growth of "Mode 4" knowledge and the availability of publications on "pragmatic management" is likely to implicitly challenge the status of the Corpus and other project management standards.
- It is considered that there is some disengagement between the Royal Institution of Chartered Surveyors and practitioners, professional services firms and clients in the UK construction industry which may lead to them not fully respecting the standard setters (Timmermans, 2010) in the long term. It is suggested that in the long term, it is likely that practitioners and professional services firms will disregard the Corpus if they start to lose confidence in the Royal Institution of Chartered Surveyors, the Association for Project Management and Chartered Institution of Building.
- It is recommended that professional project management associations improve their promotion of the Corpus to all members of the profession, especially clients. See

Table 10 (Recommended Changes to the Corpus) that lists various suggestions for improvements to the Corpus.

7.8.4 The Development of Practitioners' Knowledge

- It is proposed that the prevalence of In-house standards can reduce the Black boxing of knowledge as this will involve practitioners and professional services firms looking at sources of information other than the Corpus to provide project management advice.
- Another interpretation of the prevalence of In-house standards over the Corpus is that there may be a risk of diminishing professionals' autonomy at the expense of ethics, especially that of Early-career Professionals.
- It is suggested that one of the implications of this research is that professional project management associations and tertiary education providers have a role in encouraging practitioners to be reflective, by encouraging critical thinking and analysis, so they continue to recognise new challenges when providing project management services.
- It is suggested that the annual requirement for continuing professional development for chartered surveyors should be increased from 20 hours to a higher figure that is comparable with other professional bodies, e.g. the Association for Project Management requires its members to have completed 35 hours. It is suggested that the CIOB reviews its policy on continuing professional development for its members. There is evidence in the existing literature that project managers do not take sufficient time to learn from previous mistakes and perhaps the additional commitment to continuing professional time would help to reverse this phenomenon.
- One of the interpretations of the research is that the requirement to engage in continuing professional development could help reduce the growth of the Semidetached Professional. However, for chartered surveyors the quality and content of continuing professional development should be reviewed and monitored so that this includes a commitment to be up to date with the Royal Institution of Chartered Surveyors' Guidance Notes, Information Papers, etc.
- The findings indicate that some Senior Professionals do not keep up to date with the latest developments in project management and, ultimately, could be regarded as being falling behind with best practice and the latest innovations. While recognising that practice has moved ahead of the Corpus (Cavanagh, 2012; Dalcher, 2014a; Maylor, 2001), the implication is that the experience and knowledge of Senior

Professionals are not transferred to other practitioners or professional services firms with the consequences that valuable expertise and knowledge on successful project delivery is lost.

- On the basis of this research, practitioners, professional services firms and clients agree that experience of project management is perceived as more important than the codified knowledge in the Corpus. It is suggested that one of the implications of this is the recognition of tacit knowledge and that project managers must continue to maintain their own professional autonomy to make judgements, rather than simply follow processes and procedures set out in the Corpus or In-house standards.
- One of the interpretations of this research is the growth of "projectification" with the use of temporary workers. Situations have arisen where interim or subcontracted project managers are engaged on a short-term basis to deliver projects. The projects have been delivered in a manner that does not consider the consequences to permanent employees and the wider organisation.

The following recommendations for changes to the Corpus are based on the findings and the interpretations of the research are included on Table 10 (Recommended Changes to the Corpus).

7.8.5 Recommended Changes to the Corpus

It is suggested that the PPMAs will continue to compile and publish the Corpus. See Table 10: Recommended changes to the Corpus, which includes 14 changes to the Corpus below.

No.	Recommended Changes
1.	Ensure that the Corpus is easily located on line and reduce the learning barrier for the profession.
2.	Change the presentation of the Corpus so that it can be captured in an easy- to- read format, e.g. similar to the format of Royal Institute of British Architect's Plan of Work. For example, provide 'drop down' online menus containing detailed sections that members can access as required.
3.	Review and amend the current Corpus on a regular basis to reflect changes in industry practice, legislation and advances in new technology.
4.	Review the content of the Corpus, so that it refers to all project types, e.g. the refurbishment of buildings rather than emphasising new build.
5.	Review members' requirements of the Corpus, so that, if required, it refers to industry concerns.

 Table 10: Recommended Changes to the Corpus

No.	Recommended Changes
6.	Increase the dialogue between clients, professional services firms and practitioners on new or emerging subjects for inclusion with the Corpus.
7.	Professional project management associations should review how they compile the Corpus.
8.	Professional project management associations should discuss with professional services firms, clients, academics and other representatives from the UK construction industry how to improve the uptake of the Corpus in practice.
9.	Professional project management associations should undertake a review of a reward system for members that contribute to the Corpus.
10.	Ensure there is a minimum number of members with relevant expertise that provide commentary on proposed new Corpus documents.
11.	Careful consideration should be given to compiling the Corpus so that it appeals to all levels of practitioners, e.g. Early-career Professional and Senior Professionals.
12.	Professional project management associations should review examples of sub-economic bids and undertake research into the effects of non-compliance with the Corpus on the provision of project management services.
13.	Professional project management associations should arrange a long-term targeted promotion campaign for the Corpus to the government, practitioners, professional services firms and clients within the UK construction industry.
14.	Professional project management associations should arrange a long-term targeted promotion campaign for the Corpus aimed at the general public and other social media outlets.
15.	Professional project management associations should debate with their members the issue of allowing free access to the Corpus for the general public.

As previously noted, professional project management associations own the professional project management practice standards/ Corpus and therefore these are suggestions that only they can implement.

7.9 Contribution to New Knowledge

Section 1.3.3 (Contribution to Knowledge) proposed that this research would contribute new knowledge to the academic discipline of project management and specifically provide a greater understanding of: (1) the relevance of project management best practice and its application in the UK construction industry as there is a significant gap in the literature, (2) how professional services firms and clients are using the Corpus in praxis, (3) the barriers to using the Corpus and whether the Corpus has an effect on the development of practitioners' competencies and (4) how the Corpus could be changed and improved deliver capital projects more effectively and efficiently. It is proposed that some aspects of this new knowledge are transferrable to other professional, i.e. the barriers to using codified knowledge, structuration

theory was used to argue that there is a duality of structure between the In-house standards and the Corpus.

7.9.1 Introducing Project Management Surveying

This research introduced the concept of project management surveying and provided an analysis of the Royal Institution of Chartered Surveyors' Guidance Notes on project management. This work will help academics and practitioners to have a historical record of the development of the project management surveying profession, which should assist in the development of its status within the UK construction industry.

7.9.2 Professional Services Firms and Clients using the Corpus

The research has showed a mixed picture of how practitioners and clients are using the Corpus. The Corpus is regarded as only a guide for Early-career Professionals and the research reveals that In-house standards take precedence over the Corpus. In addition, clients do not implement or monitor the Corpus when delivering projects.

7.9.3 Barriers to using the Corpus

There are barriers to using the Corpus. It is regarded as unwieldy and does not contribute to the development of project managers' competencies. This research contributes to the school of "critical thinking on projects" (Hodgson & Cicmil, 2006b) on the limitation of the Corpus and reflects the views of practitioners, professional services firms and clients in the UK construction industry.

7.9.4 Improving the Corpus

All practitioners, professional services firms and clients agreed they would like various changes to be made to the Corpus. See Table 10 (Recommended changes to the Corpus).

7.9.5 Interpretation and Conceptualisation of Findings

In addition, it is argued that, as a result of undertaking this research, new knowledge has been created through the interpretation and conceptualisation of the findings. Specifically, the introduction of the concepts of the Semi-detached Professional and the Bureaucratic project manager advance the knowledge within the project management discipline. This research extends the existing literature (Morris, Crawford, et al., 2006) by providing an alternative view to the prediction that the Project Management Institute's and the Association of Project

Management's Bodies of Knowledge would become de facto standards for practitioners. This research also agrees with the prediction that organisations can compete with the professions by commodifying and structuring their own expertise (Abbott, 1988).

7.9.5.1 The Semi-detached Professional

This research introduced the concept of the Semi-detached Professional. The characteristics of the Semi-detached Professional are set out in Section 6.7.4 (The Concept of a Semi-detached Professional). It is suggested that this type of practitioner has minimal interaction with the professional project management associations.

7.9.5.2 The Bureaucratic Project Manager

This research also introduced the concept of the Bureaucratic project manager. Section 6.7.5 (The Bureaucratic Project Manager) explained this concept in more detail as a practitioner who becomes unduly focussed on the process of project management rather than the delivery of the project.

7.9.5.3 In-house Standards

This research provided a contrasting view to the existing literature (Morris, Crawford, et al., 2006) which proposed that the professional project management practice standards have become de facto project management standards. From the findings generated from this research, this has not happened in practice in the UK construction industry. Using structuration theory to develop the conceptual findings generated from the primary data, it is proposed that the professional services firms' and clients' In-house standards that have the potential to become the de facto project management practice standards.

7.9.5.4 Professions versus the Organisations

This research contributes to the literature that predicted the possibility that organisations could structure their expertise to challenge the power of the professions (Abbott, 1988). It is argued that the prominence of In-house standards over the Corpus is an implicit challenge to the professional project management associations from practitioners, professional services firms and clients in the UK construction industry. This research also contributes to other literature that predicted that the professions will be under threat in part as they are circumvented as the "gate keepers" of expert knowledge (Susskind & Susskind, 2017). The dominance of In-house standards over the Corpus suggests that the challenge to professional

project management associations has already begun in practice in the UK construction industry.

7.10 Limitations of the Research

There are inherent limitations of small-scale and self-funded research. However, these findings provide a greater understanding of how the Association for Project Management's Body of Knowledge, the Royal Institution of Chartered Surveyors' Guidance Notes on project management and the Chartered Institute of Building's Code of Practice for Project Management for Construction and Development are used or perhaps more critically, not used in practice. Almost, all doctoral theses suggest ideas for future research. However, it is suggested that future research on the relevance of project management best practice and its application in the construction industry may have a limited value, given that the Corpus is under the control of professional project management associations that may disregard the findings of this research. It is suggested that the findings from this research challenge the professional project management associations on two key issues. Firstly, that they are the premier source of information on project management best practice and secondly, this information including the Corpus is superior to that produced by practitioners, professional services and clients.

Professional project management associations own the intellectual property rights to their professional project practice management standards and it is in their remit to work with their members, professional services firms and clients in the industry (and perhaps other professional bodies) to improve the existing codified knowledge on project management.

The omissions from the research include considering academics' views on the Corpus and whether it has any influence on under-graduates. It is regrettable that it was not possible to obtain the views of the insurance brokers of professional indemnity insurance on the Corpus. Despite this anomaly, the research finding reveals that professional services firms, clients and practitioners believed that adherence to the Corpus does mitigate against the risk of professional negligence.

7.11 Recommendations for Future Research

With the benefit of hindsight over the last five years, it is perhaps understandable why there is scant research on the application of project management best practice in the UK construction industry. Researchers may ask the question "Why bother?" to research an area

such as the Corpus if ultimately it is not in their remit to make changes to it and that the research could be ignored. However, from a practising project manager's perspective, it is important that the application of professional project management standards in an industry that is beset with many challenges is understood, even if the findings are regarded as sensitive or as a challenge to the power of professional project management associations.

It is argued that In-house standards may become de facto project management best practice standards for the UK construction industry. It is argued that this a potentially new phenomenon and it is recommended that it should be subject to further research.

It is suggested that the potential growth of the Semi-detached Professionals should be considered for the sociology of the professions that could be expanded into other professions, e.g. law, accounting and medicine.

The limitations of codified knowledge and its impact on under-graduates undertaking project management studies should also be considered for further research.

While recognising that this research is commercially sensitive, it would be worthwhile to investigate the views of the providers of professional indemnity insurance on the use of the Corpus.

7.12 Concluding Remarks

While recognising the limitations of this research, it is suggested it has responded to the challenges identified in Section 1.2.1 (The Research Problem). This research provides a contribution to the subject matter of chartered project management surveying where there is scant literature available, and also into the motivations for the use of the Corpus viewed from the perspective of practitioners, professional services firms and clients in the UK construction industry.

In addition, this research contributes to project management knowledge by including recommendations for changes and improvements to the Corpus. These recommendations are in response to practitioners', professional services firms' and clients' views that the current Corpus is unwieldy, inaccessible and under-used for the development of practitioners' competencies. The concepts of the Semi-detached Professional and the Bureaucratic project manager are introduced as interpretations of this research.

Finally, it is suggested that this research has contributed new knowledge and provided greater understanding and insight for academia, practitioners, professional services firms, clients and professional project management associations on the relevance of project management best practice and its application in the UK construction industry.

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Appendix A - Chapter 6: Conclusions from Preliminary Practice-based Research

The final chapter from the Preliminary practice-based research (McCann, 2014a) is included in Appendix A. For clarity, the letters 'App' are used at the beginning of each heading, so that it is clear to readers that they are not reading the main text of the thesis.

Chapter 6: Conclusions

App 6.0 An Overview of the Preliminary Practice-based Research

This aim of this Preliminary practice-based research was to explore the extent that chartered project management surveyors avail themselves of professional project management practice standards. Chapter 1 (Introduction) provide the context of this research and outlined the research aim and objectives. Chapter 2 (Introduction to Project Management Surveying) introduced new concepts and definitions so as to assist in its understanding. There was little knowledge available on chartered project management surveyors themselves or how they used professional project management practice standards.

Some literature and theory was available regarding the Project Management Institute's and the Association for Project Management's Bodies of Knowledge as revealed in Chapter 3 (Literature Review). Wide ranging themes emerged from the Literature Review including: concerns regarding the Bodies of Knowledge, the role of professional bodies, regulation, educating project managers and tacit knowledge.

Pertinent philosophical considerations were discussed in Chapter 4 (Research Methodology). The ontological and epistemological positions of constructivism and interpretivism influenced the qualitative approach to the research. Semi-structured interviews were undertaken with nine practitioners.

App 6.1 New Project Management Knowledge

Chapter 5 (Findings and Analysis) presented the findings from the primary data assessing this against existing theories in alignment with the five research objectives. The main finding of this research is that the chartered project management surveyors do avail themselves of professional project management practice standards but in variable ways. The analysis has shown that practitioners consider these standards important in relation to the promotion of the project management surveying profession and the training of younger practitioners to achieve

chartered status. The research objectives and a summary of the findings are considered in paragraphs 6.1.1 to 6.1.5.

App 6.1.1 The emergence of project management surveying in the construction industry

Professional project management practice standards did not exist in the 1970s and 1980s and the slow pace of their development has been detrimental to project management profession and as an academic discipline. The research suggests that the recognition of project management surveying by the RICS was effective from 2001. Despite the initial slow pace of development, the overwhelming respondents' views are that project management surveying is now a recognised profession.

App 6.1. To evaluate the professional project managements associations' Corpus

Practitioners perceived the leading objectives of the Corpus were to ensure that project managers provided a good level of professional service that ultimately promoted their profession. The primary data revealed that the tacit knowledge and experience of a project manager was considered more important than knowledge of the Corpus. The primary data indicated that the Corpus was deemed to have more weaknesses than strengths. Most of the respondents' comments were related to Royal Institution of Chartered Surveyors' Guidance Notes. The professional project management associations are not considered to promote their standards sufficiently.

App 6.1.3 To investigate how project managers use the Corpus in the work place

The analysis indicated that CPMSs did refer to the Corpus in the workplace and none of the respondents used the Project Management Institute's Body of Knowledge. The primary data suggested that the Corpus contributes indirectly to workplace learning for graduate surveyors. Tacit knowledge and experience gained in the work place was judged to be more important than the professional project management practice standards. The importance of "soft skills" was recognised and that it is people not processes that successfully deliver projects. The ability to gain new knowledge from others was considered important for practitioners.

App 6.1.4 To explore if project managers are changing the use of the Corpus

The primary data indicated that practitioners' in-house standards do take priority over the use of the Corpus. It is suggested that there are inherent limitations in using the Corpus. The form of knowledge included in the Corpus is regarded as mimetic and context free. Accordingly,

this facilitates the adaption of the Corpus in such ways as practitioners deem appropriate to their circumstances.

App 6.1.5 To present new knowledge that may influence the Phase 2 of the research

This research has introduced some new concepts and definitions that will be incorporated into the Phase 2 of the doctoral research. These include project management surveying and professional project management practice standards. Additional definitions were devised to assist readers and to have consistency of terms e.g. professional project management associations, the Corpus, the early career professional.

The definition of the Corpus, with the benefit of hindsight should have included the Chartered Institute of Building's Code of Practice. The majority of the respondents had used this document. The process of undertaking this current research has prompted further reflection on the next phase, as to matters such as the willingness of respondents to participate in semi-structured interviews. The next step will be to prepare the research aim and objectives to explore how professional services firms and clients use professional project management practice standards.

App 6.2 Recommendations

Besner and Hobbs (2012) asserted that exploratory research tends to lead to further questions. It is suggested that this research has one significant long-term implication for the professional project management associations in that these should be cognisant of the limitations of their standards for practitioners. These associations are well placed to consider undertaking further research on the compilation, structure and promotion of their professional project management practice standards. It is recommended that this additional research could focus on consulting with a large number of practitioners and obtaining the research data over a longer period of time.

This research also shows the importance for project management practices and senior practitioners to continue to provide structured training programmes so that young practitioners can develop into mature professionals, which could ultimately lead to improved project management practice.

It is recommended that there is merit in exploring the issue of variations between junior and senior practitioners' use of the professional project management practice standards.

App 6.3 Conclusions

Drake and Heath (2011) advised that most professional doctorates candidates do not expect their research to materially alter policy or professional practice. Their words of caution have provided a sense of realism to the Author and an appreciation of inherent limitations of small-scale and self-funded research.

Whilst recognising the aforementioned perspective, it is hoped that this preliminary practicebased research has contributed new knowledge and provided greater understanding and insight to academia and practitioners, on how chartered project management surveyors availed themselves of professional project management practice standards.

List of references from Chapter 6

Besner, C., & Hobbs, B. (2012). *Conceptualization of project management*. Pennsylvania: Project Management Institute.

Drake, P., & Heath, L. (2011). Practitioner research at doctoral level. Abingdon: Routledge.

Appendix B – Summary of the contents of the PMI's Body of Knowledge.

Mapping of the project management processes to the five Project Management Process Groups and 13 Knowledge Areas. The Process Groups and Knowledge Areas highlighted in **blue text** are unique to the construction project management areas as defined by the PMI.

Process groups Knowledge area	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and controlling Process Group	Closing Process Group
4. Project integration management	4.1 Develop project charter 4.2 Develop preliminary project scope statement	4.3 Develop project management plan	4.4 Direct and manage project execution	4.5 Monitor and control project work 4.6 Integrated change control	4.7 Close project
5. Project scope management		5.1 Scope planning 5.2 Scope definition 5.3 Create WBS		5.4 Scope verification 5.5 Scope change control	
6. Project time management		 6.1 Activity definition 6.2 Activity sequencing 6.3 Activity resource estimating 6.4 Activity duration estimating 6.5 Schedule development 6.7 Activity weights definitions 6.8 Progress curves development 		6.6 Schedule control 6.9 Progress monitoring	
7. Project cost		7.1 Cost estimating		7.3 Cost control	
management 8. Project quality		7.2 Cost budgeting 8.1 Quality planning	8.2 Perform quality	8.3 Perform quality	
management		on Quanty praining	assurance	control	
9. Project human resource management		9.1 Human resource planning	9.2 Acquire projectteam9.3 Develop projectteam	9.4 Manage project team	9.5 Close project team
10. Project communications management		10.1 Communications planning	10.2 Information distribution	10.3 Performance reporting 10.4 Manage stakeholders	
11. Project management risk		11.1 Risk management planning 11.2 Risk identification 11.3 Qualitative risk analysis 11.4 Quantitative risk analysis 11.5 Risk response planning		11.6 Risk monitoring and control	
12. Project procurement management		12.1 Plan purchases and acquisitions 12.2 Plan contracting	12.3 Request seller responses 12.4 Select sellers	12.5 Contract administration	12.6 Contract closure
13. Project safety		13.1 Safety planning	13.2 Perform	13.3 Perform	
management 14. Project environmental management		14.1 Environmental planning	safety assurance 14.2 Perform environmental assurance	safety control 14.3 Perform environmental control	
15. Project financial management		15.1 Financial planning		15.2 Perform financial control	15.3 Perform financial administration and records
16. Project claim management		16.1 Claim identification 16.2 Claim quantification		16.3 Claim prevention	16.4 Claim resolution

Source: Construction Extension to the PMI Body of Knowledge, 3rd Edition page 21.

Section	Main area	Торіс	Sub-to	pic
1	Context	1.1 Governance	1.1.1	Project management
			1.1.2	Programme management
			1.1.3	Portfolio management
			1.1.4	Infrastructure
			1.1.5	Knowledge management
			1.1.6	Life cycle
			1.1.7	Success factors and maturity
			1.1.8	Sponsorship
		1.2 Setting	1.2.1	Environment
		6	1.2.2	Operations management
			1.2.3	Strategic management
2	People	Interpersonal skills	2.1.1	Communications
		I I I I I I I I I I I I I I I I I I I	2.1.2	Conflict management
			2.1.3	Delegation
			2.1.4	Influencing
			2.1.5	Leadership
			2.1.6	Negotiation
			2.1.7	Teamwork
		Professionalism	2.2.1	Communities of practice
			2.2.2	Competence
			2.2.3	Ethics frameworks
			2.2.4	Learning and development
3	Delivery	3.1 Integrative management	3.1.1	Business case
5	Denvery	3.1 Integrative management	3.1.2	Control
			3.1.3	Information management
			3.1.4	Organisation
			3.1.5	Planning
			3.1.6	Stakeholder management
		3.2 Scope management	3.2.1	Benefits management
		3.2 Scope management	3.2.2	Change control
			3.2.3	Configuration management
			3.2.4	Change management
			3.2.5	Requirements management
			3.2.6	Solutions development
		3.3 Schedule management	3.3.1	Resource scheduling
			3.3.2	Time scheduling
	1	3.4 Financial and cost	3.4.1	Budgeting and cost control
		management	3.4.2	Funding
			3.4.3	Investment appraisal
		3.5 Risk management	3.5.1	Risk content
			3.5.2	Risk techniques
	1	3.6 Quality management	3.6.1	P3 assurance
			3.6.2	Reviews
		3.7 Resource management	3.7.1	Contract
		5.7 Resource management	3.7.1	Mobilisation
			3.7.2	Procurement
			3.7.4	Provider selection and management
4	Interfaces	4.1 Accounting	5.7.7	The filler belocition and management
r	monuevo	4.2 Health and safety		
		4.2 Health and safety 4.3 Human resource		
		4.5 Human resource management		
		4.4 Law		
		4.4 Law 4.5 Security		
		4.5 Security 4.6 Sustainability		
		vledge 6 th Edition pp yvii)	1	

Source: APM's Body of Knowledge, 6th Edition, pp v –vii)

Appendix D – Summary of the RICS Project Management Professional Group's Guidance Notes and Information Papers

Guidance Note	Date	Topics
Lessons Learned	2016	Project failure or success
		Causes of project failure
		Why are project lessons are not learnt
		Practical solutions
Stakeholder Engagement	2014	Emerging stakeholder terminology
		Key principles and related case studies
		Developing stakeholder management capabilities
		Framework of good practice
Construction Insurance	2009	Obligations of principal parties
		Professional indemnity insurance
		Directors insurance
		Construction risk insurance
		Existing buildings insurance
		Latent defect insurance
Development Management	2009	Phases of the development process,
		Development appraisal
		Planning
		Development finance
		Procurement
Managing the Design Delivery	2012	Design management
		Roles and responsibilities
		Design team management
		Information exchange
Appointing a Project Manager	2013	Project management,
		Role and responsibilities of a project manager,
		Terms and conditions of appointment
Information Paper		
Managing communications	2013	General information on communications

Source: Adapted from www.ricg.org/uk/

Appendix E - Analysis of the RICS Project Management Professional Group's Guidance Notes

The following Guidance Notes (GN) are reviewed: Lessons Learned, Stakeholder Engagement, Appointing a Project Manager, Managing the Design Delivery, Development Management and Construction Insurance. None of the GNs make reference to the PMI or the PMI's BoK and this maybe one explanation as why it is not used in the UK construction industry.

Lessons Learned

This GN was published in 2016 and comprised 23 pages (RICS, 2016b). The aim of the document is to encourage CPMSs to learn lessons from previous projects and to capture this knowledge (Schofield, 2016). Its contents included:

- Acknowledgements
- RICS professional guidance
- Introduction
- Project failure or success
- The causes of project failure
- Why are project lessons not learnt?
- Practical solutions
- Summary
- Bibliography and further information
- Appendices.

Similar to the Stakeholder Engagement GN, this document received input from international representatives, academia and practitioners. It explicitly recognised the importance of project managers' soft skills and recognises that it is people not processes who deliver projects (RICS, 2016b, p. 17). Case studies are provided to bring context to the subject matter.

Stakeholder Engagement

This GN was produced jointly by the RICS and the APM and it was published in 2014 and comprised 28 pages. Its sets out the guidance on how to effectively engage with stakeholders. Its contents included:

• Acknowledgements

- RICS professional guidance
- Executive summary
- Introduction
- Emerging stakeholder terminology
- Key principles and related cases studies
- Developing stakeholder management capabilities
- Framework of good practice
- Appendices (Including the results of a survey and a list of RICS and APM resources).

It is observed that the Executive summary highlighted that this document is also for experienced project managers not just for Early-career professionals. This GN recognised the importance of project managers' 'soft' skills. This GN does not suggest the application of universal rules for practitioners, i.e. it highlighted that there are different approaches to and meanings of stakeholder engagement. The key principles of project management "are not meant to act a manual ... but are designed to embody best practice, harnessing feedback for the surveys and workshops" (RICS, 2014a, p. 9).

This paper was produced by academics and practitioners. The research was undertaken using workshops and surveys and responses were received from 90 project managers (RICS, 2014a, p. 22). It is suggested that the inclusion of 10 case studies challenges the comments, e.g. that the guidance is universal and not contextual (Hodgson & Cicmil, 2006b).

Appointing a Project Manager

This GN was published in 2013 and comprised 24 pages (RICS, 2013a). This document provided advice on the commissioning of project management services and outlined the role of a project manager. Similar to the other RICS GNs, it made no reference to the PMI. Its contents included:

- Acknowledgements
- RICS Guidance Notes
- Glossary
- Introduction
- Roles and responsibilities
- Appointing a project manager

- Other issues
- Appendices
- References.

Managing the Design Delivery

Managing the Design Delivery was published in 2012 and comprised 32 pages (RICS, 2012). This GN provides guidance for project managers on how to manage the design delivery during various stage of a project life cycle. Its contents included:

- Acknowledgements
- Foreword
- RICS Guidance Notes
- Introduction (This section describes the design delivery manager (DDM)
- Documentation DDM should be aware of various documents
- Roles and responsibilities
- Design team management
- Hard skills and actions of management
- Soft skills and art of design team management
- Information exchange
- Procurement
- Summary and conclusions
- References.

Similar to the Stakeholder Engagement GN, this document included examples to provide context to the issues under consideration and recognises the importance of project managers' soft skills (RICS, 2012, p. 19 & 20). This document does not prescribe a defined course of action for practitioners. For example, the procurement section stated the different types of procurement routes and practitioners are asked to be well informed on this subject so they can make that choice of procurement route for themselves.

Development Management

This GN was published in 2009 and comprised 44 pages (RICS, 2009b). This GN detailed the main phases of the development management process. Its contents included:

• Acknowledgements

- RICS Guidance Notes
- Introduction (this section provides an overview of development management)
- Phases of the development management process
- Development Appraisal
- Planning
- Development finance
- Procurement
- Appendices
- References.

This GN is aimed primarily at CPMSs it can also be of interest to others such as clients. This Unlike some of the other GNs, it does not include example or case studies. Similar to the Construction Insurance GN, the document focuses on 'hard' project management knowledge e.g. development finance and planning regulations.

Construction Insurance

This GN was published in 2009 and comprised 66 pages (RICS, 2009a). It is the largest GN produced to date by the RICS's PMPG. This GN provided a detailed explanation of various types of construction insurance including insurances personal to members' e.g. professional indemnity insurance. Its contents included:

- Acknowledgements
- RICS Guidance Notes
- Introduction
- Insurance personal to members
- Construction risk insurances
- Further guidance on construction insurances issues
- Latent defects insurances.

Similar to the Development Management GN, this document contained references to statutes that may become superseded. There is a risk for practitioners relying on obsolete information. The nature of this GN is technical and focuses on 'hard' project management knowledge. While case studies did not feature in this GN, some minor examples were included to provide context to the subject matter.

Observations

Six GNs were published between 2009 and 2016. All of these documents were subject to peer review by RICS's staff, expert practitioners and academia before final publication. They can be read as standalone documents. The RICS PMPG doesn't have the equivalent of the APM's or PMI's BoK. The BoKs can be used to certify entry into the profession (Morris, Jamieson, et al., 2006). Graduate surveyors sitting their assessment of professional competency would be expected to be familiar with the RICS's GNs.

Their content focuses on both the 'hard' and 'soft' project management skills and competencies required to be a CPMS. In the Author's experience, the GNs were produced in response to a perceived gap in knowledge in the market for CPMS. Some of the recent Guidance Notes referred to other professional bodies in the construction industry but no mention is made of the PMI. For example, different organisations classify the various stages of a project life cycle and references were made to the APM, the Office of Government Commerce, the British Property Federation, the RIBA Plan of Work, and the CIOB but not the PMI (RICS, 2012, p. 4).

There is a trend in the PMPG's GNs that recognised the importance of human relationships and their influence on projects and project management services. It is argued that, for example the Construction Insurance and Development Management GNs could be regarded as focusing on technical skills, while the latest GNs on Stakeholder Engagement and Lessons Learned consider 'soft skills', e.g. communication, collaborative working and capturing knowledge. It is suggested that some of these document should be reviewed by the RICS to ensure that they remain up to date with current legislation.

The Author, in the role of Chairman and Board Member of the PMPG, has contributed in some way to all of these documents.

	Section	Main Area	Sub-topic
	Introduction	Project management	
		Definitions	
		Characteristics of construction projects	
		Characteristics of construction project management	
		Adding value	
		Scope of project management	
		Project lifecycle	
Chapter 1	Inception	Stage checklist	
		Stage process and outcomes	
		The client	Client obligations and responsibilities
			Client project objectives
			Client engagement: Internal team
		Project manager	Project manager's objectives
			Project manager's duties
			Project manager's appointment
		Project mandate	
		Environmental mandate	
		BIM mandate	BN 1.01 Leadership in project management
			BN 1.02 Typical terms of engagement: Project manager
			BN 1.03 Typical project mandate outline
			BN 1.04 Project handbook
			BN 1.05 Government Soft Landings
Chapter 2	Feasibility	Stage checklist	
		Stage process and outcomes	
		Client's objectives	
		Outline project brief	
		Feasibility studies	
		Energy in a building environment	
		Lifecycle costing and sustainability	
		Sustainability in the built environment	
		Towards sustainable development	Responsible sustainable development
		Site selection and acquisition	Achieving sustainable development
		Project brief	
		Design brief	
		Funding and investment appraisal	

Appendix F - Summary of the CIOB's Code of Practice for Project Management for Construction and Development

		Development planning and control	
		Stakeholder identification	
		Business case	
		Approval to proceed	
		BIM brief	BN 2.01 Key sustainability issues
			BN 2.02 Environmental sustainability assessment methods
			BN 2.03 Guidance on environmental impac assessment
			BN 2.04 Site investigation
			BN 2.05 Business case development
Chapter 3	Strategy	Stage checklist	
		Stage process and outcomes	
		Client's objectives	
		Project governance	
		Strategy outline and development	
		Project organisation and control	
		Project team structure	
		Selecting the project team	
		Project management procedures and systems	
		Information and communication technology	
		Project planning	
	1	Cost planning and controls	
		Cost control Design management process (managing the design	
		delivery)	
		Risk identification and management	
		Environmental management and controls	Environmental statements Contractor's environmental management
			systems
		Stakeholder management	
		Quality management	
		Commissioning strategy	
		Selection and appointment of project team consultants	
		Collaborative arrangements	
		Framework arrangements	
		Private public partnership/private finance initiative (PPP/PFI)	
		Procurement strategy	Traditional
			Design and build
			Management contracting
			Construction management
			··· · · ·
			Hybrid procurement approaches
			Hybrid procurement approaches Innovative form of procurement
		Characteristics of procurement options	
		Procuring the supply chain	
		Procuring the supply chain Responsible sourcing	
		Procuring the supply chain Responsible sourcing Tender procedure	
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives	
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement	
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document	
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations	Innovative form of procurement
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		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement
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		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement Innovative form of procurement Checklist for the PEP Essential contents Approval to PEP BN 3.01 Health and safety in construction including CDM guidance BN 3.02 Guidance on value management BN 3.03 Project risk assessment BN 3.04 Information and communication technology
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement Innovative form of procurement Checklist for the PEP Essential contents Approval to PEP BN 3.01 Health and safety in construction including CDM guidance BN 3.02 Guidance on value management BN 3.03 Project risk assessment BN 3.04 Information and communication technology BN 3.05 Building information modelling BN 3.06 Project planning
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement
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		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement Innovative form of procurement Innovative form of procurement Innovative form of procurement Innovative for the PEP Essential contents Approval to PEP BN 3.01 Health and safety in construction including CDM guidance BN 3.02 Guidance on value management BN 3.03 Project risk assessment BN 3.04 Information and communication technology BN 3.05 Building information modelling BN 3.06 Project planning BN 3.07 Characteristics of different procurement options BN 3.08 Framework agreements BN 3.09 Procedure for the selection and appointment of consultants
		Procuring the supply chain Responsible sourcing Tender procedure Procurement under EU directives e-Procurement Employer's requirement document Facility management strategy/considerations Project execution plan	Innovative form of procurement Innovative form of procurement Checklist for the PEP Essential contents Approval to PEP BN 3.01 Health and safety in construction including CDM guidance BN 3.02 Guidance on value management BN 3.03 Project risk assessment BN 3.04 Information and communication technology BN 3.05 Building information modelling BN 3.06 Project planning BN 3.07 Characteristics of different procurement options BN 3.08 Framework agreements BN 3.09 Procedure for the selection and

			DN 2 12 Project covernonce
			BN 3.12 Project governance
			BN 3.13 Change management BN 3.14 Strategic collaborative working
			BN 3.15 PPP/PFI arrangements
			BN 3.16 Guidance on e-procurement
			BN 3.17 Design management process
Chapter	Pre-	Stage checklist	
	construction	č	
		Stage process and outcomes	
		Design process	
		Managing the design delivery	
		Project coordination and progress meetings	
		Design team meetings	
		Managing design team activities	
		Statutory consents	
		Planning approval	Planning consultants
			Legislation
			Timing
			Negotiations Presentations
			Refusal
			Appeal
			Enforcement powers
		Other statutory consents	
		Building Regulations	
		Disability Discrimination Act (DDA)	
		Impact of utilities on project planning/scheduling	
		Technical design and production information	
		Value management	
		Contract award	
		Pre-start meeting	
		Agenda items at pre-start meeting	Introduction
			Contract
			Contractors' matters
			Resident engineer/clerk of works' matters
			Consultants' matters
			Quantity surveyor's matters
			Communications and procedures
		Contractual arrangements	
		Establish site	
		Control and monitoring systems	
		Contractor's working schedule	
		Value engineering (related to construction methods) Management of the supply chain	
		Risk management	
		Payments	
		Benchmarking	
		Change and variation control	
		Dispute resolution	
		BIM strategy	BN 4.01 Regular report to client BN 4.02 Dispute resolution methods
			BN 4.02 Dispute resolution methods BN 4.03 Implications of Housing Grants,
			Construction and Regeneration Act 1996, Amended 2011
			BN 4.04 Typical meetings and their
Chapter	Construction	Stage checklist	objectives
5		Stage process and outcomes	
		Project team duties and responsibilities	Client
			Project manager
			Design team
			Quantity surveyor

	1		
			Contractor
			Construction manager
			Management contractor
			Subcontractors and suppliers
			Other parties
		Performance monitoring	Other parties
		Health, safety and welfare systems	
		Environmental statements	
		Contractor's environmental management systems	
		Compliance with site waste management plan regulations 2008	
		Monitoring of the works	
		Reporting	
		Public liaison and profile	
		Quality management systems	
		Commissioning and production of operation and maintenance manuals	Commissioning
			Operation and maintenance manuals
		BIM strategy	BN 5.01 Performance management plan
Chapter 6	Testing and commissioni ng	Stage checklist	
		Stage processes and outcomes	
		Project manager's duties and responsibilities	
		Commissioning generally	
		Procurement of commissioning services	Smaller projects
			Larger projects
		Role of the commissioning contractor The testing and commissioning process and its	
		programming	
		Differences between testing and commissioning	Testing
			Commissioning
			Performance testing
		Main tasks to be undertaken	Pre-construction Construction and post-construction
		Seasonal commissioning	Construction and post-construction
		Commissioning documentation	O&M manual (building owner's manual)
			As-built documentation
			Health and safety fife
			Occupier's handbook
		BIM strategy	BN 6.01 Contents of the health and safety file
			BN 6.02 Contents of building owner's manual
			BN 6.03 Contents of occupier's handbook
Chapter 7	Completion, handover and operation	Stage checklist	
		Stage process and outcomes Planning arid scheduling handover	
		Procedures	
		Client commissioning and occupation	
		Operational commissioning	Main tasks
		Client occupation Structure for implementation	
		Scope and objectives	
		Methodology	
		Organisation and control	
		Soft landings	
		BIM strategy	BN 7.01 Client commissioning checklist
			BN 7 .02 Introduction to facilities
			management
			BN 7.03 Engineering services

			commissioning checklist
			BN 7 .04 Engineering services
			commissioning documents
			BN 7.05 Handover checklists
			BN 7.06 Practical completion checklist
Chapter 8	Post- completion review and in use	Stage checklist	
		Stage process and outcomes	
		Post-occupancy evaluation	
		Project audit	
		Cost and time study	
		Human resources aspects	
		Performance study	
		Project feedback	
		Close-out report	
		Benefits realisation	
		Occupation/in-use strategy	
		Client's BIM strategy	
		BN 8.01 Post-occupancy evaluation process chart	

Appendix G - Research Project Information Form



College of Science & Technology

College Ethical Approval Panel for Post Graduate Research

Project Research Information Sheet

Title of Project: Professional Project Management Practice Standards.

Background

My name is Anne McCann and I am reading for a Doctor in the Built Environment (DBEnv) at University of Salford. I am a Fellow of the Royal Institution of Chartered Surveyors and a Member of the Association for Project Management. You are invited to read the Project Research Information Sheet. Thanking you in anticipation.

Aim and objectives of project

My research will explore the extent that professional services firms and construction clients avail themselves of professional project management practice standards. The research objectives include the following:

- To investigate whether clients consider that professional project management practice standards promote the profession.
- To explore the extent that clients regard the use of professional project management practice standards as a factor in selecting clients.
- To assess the extent that clients implement and monitor adherence to professional project management practice standards in their own or consultants organisations.
- To analyse how and clients use professional project management practice standards in the workplace when providing training and development for their employees or consultants.
- To consider whether professional services firms and clients are changing the use of professional project management practice standards.

Timetable

It is anticipated that the interviews will take place from August to October 2016. Completion of this phase of the research is scheduled for June 2017.

Participation in the Research: Respondents will initially be invited to complete the Research Participants Consent Form which complies with University of Salford's research ethical requirements. The next step in the process would be to attend an interview to discuss respondents' views and experience of using project management practice standards. The interview is expected to be one hour's duration. All individuals that have contributed to the research project will be invited to attend a short presentation on the findings of the research in autumn 2017

Contact Details

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Supervisor: Dr Udayangani Kulatunga, School of the Built Environment, Maxwell Building, University of Salford, Salford M5 4W. Email <u>u.kulatunga@salford.ac.uk</u> Tel +44 (0) 161 295 6943

Appendix H - Research questions (professional services firms)



College of Science & Technology

College Ethical Approval Panel for Post Graduate Research

Title of Project: Professional Project Management Practice Standards.

Guidelines: The questions set out below are intended to provide data which will explore the extent that professional services firms and construction clients avail themselves of professional project management practice standards. The interview is expected to last approximately an hour. All interviews will be recorded and please refer to Research Participant Consent Form for further information regarding research ethics.

Questions:

1	How do you think professional project management practice standards promote the
	profession?
2	How relevant are professional project management practice standards to professional
	services firms for providing a commercial advantage in the market?
3	How do you implement professional project management practice standards in your
	organisation?
4	How do you monitor the use of professional project management practice standards in
	your organisation?
5	How do professional project management practice standards contribute to the
	development of project managers in the workplace?
6	Do professional services firm's in-house / corporate standards take precedence over
	professional project management practice standards?
7	How do professional project management practice standards mitigate against the risk
	of professional negligence?
8	What changes would you make to professional project management practice standards?

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Appendix I - Research interview questions (clients)



College of Science & Technology

College Ethical Approval Panel for Post Graduate Research

Title of Project: Professional Project Management Practice Standards.

Guidelines: The questions set out below are intended to provide data which will explore the extent that construction clients avail themselves of professional project management practice standards. The interview is expected to last approximately an hour. All interviews will be recorded and please refer to Research Participant Consent Form for further information regarding research ethics.

Questions:

1	How do clients think professional project management practice standards add value to
	the project management profession?
2	How relevant are professional project management practice standards to clients for
	delivering projects?
3	How do you implement professional project management practice standards in your
	organisation?
4	How do you monitor the use of professional project management practice standards in
	your organisation?
5	How do professional project management practice standards contribute to the
	development of project managers competencies' in the workplace?
6	Do client's in-house / corporate standards take precedence over professional project
	management practice standards?
7	How do professional project management practice standards mitigate against the risk
	of professional negligence?
8	What changes would you make to professional project management practice standards?

Contact Details

Researcher: Anne McCann. **Email:** <u>a.b.mccann@edu.salford.ac.uk</u> **Tel** +44 (0) 7725 830 904.

Supervisor: Dr Udayangani Kulatunga, School of the Built Environment, Maxwell Building, University of Salford, Salford M5 4W. **Email** <u>u.kulatunga@salford.ac.uk</u> **Tel** +44 (0) 161 295 6943.

Appendix K - Transcript (Professional Services Firm)

KEY:

I: = Interviewer (Interviewer in bold)

R: = Respondent

- XXXX Words deleted to provide anonymity
- RQ = Research question

I Good morning.

R: Good morning.

I: RQ 1. I'll start with the first question. How do you think professional project management standards promote the profession?

R: Very good question to start. I'll be blunt. I don't think they do promote the profession.

I: Okay.

- R: I think that they are... and this is talking purely from my personal experience in our area of business.
- R: Where, we are chartered surveyors, we are building surveyors, project managers and quantity surveyors, cost consultants. And, I don't think that RICS I'm talking specifically about RICS professional standards promote the profession, certainly not sufficiently. If I was talking to you about the standards that we use here to guide us in the delivery of our projects, it would be a blend of CIOB, British Standards, and, not so much, RICS. So, in a sense, I think we are let down a little bit by the institution that we are most closely aligned with.

It's slightly difficult for us because we're not what you would describe... we're not a Mace or a large multi-disciplined corporate. We're not an EC Harris or an Acom or anything like that.

I: Yes.

R: Most of our work tends to be in the existing built environment area, rather than new build. That said, we *do* do a lot of new build projects.

I: Right.

- R: Probably 80% of our project management commissions are on refurbishment of existing buildings. And, to be perfectly honest, I think there is an enormous shortfall in the professional standards that are out there that deliver with refurbishment, for example, of existing building stock. Which actually accounts for a very substantial percentage of spend on property and construction, it's on the existing building stuff.
- I: I'm going to come back to that comment. Can I ask you... in my work, I've defined professional project management standards? I started to use four. One was the APM's body of knowledge, the second was the Project Management Institute's body of knowledge, the CIOB's code of practice and the RICS guidance notes, specifically for PM, although I know that's a limited scope. Do you use the PMI's body of knowledge, the Project Management Institute's?

R: No, we don't, not at all.

I: Is that a deliberate decision?

- R: I wouldn't say it's a deliberate decision. I suspect our starting point would be RICS because we're chartered surveyors.
- R: It's not deliberately intended to exclude any other body, but that would be where we would turn, if we were looking for professional guidance for practice standards. We are also APM members. I'm a MAPM.

I: Right, okay.

R: I aspire to XXXXXX of the APM, but I've got a little bit of work to do for that.

I: Right.

R: We do turn to them for guidance, but I have to admit it's not... you wouldn't have, on our project manager's desks, a copy of the APM paperwork. They're not all members of APM.

I: Okay.

R: But, we are engaging with APM more because I think, from what I have seen, they are probably slightly more closely aligned to what our project managers do, perhaps, than RICS are.

I: Right, because the APM are obviously pan-sector.

- R: Exactly.
- I: Whereas, the RICS is very construction orientated for obvious reasons.
- R: Yes.
- I: So, the PMI doesn't really feature in its standards.
- R: Not for us, no.
- I: The APM is starting to become more prominent?
- R: I think it's becoming more prominent because I think it has been becoming more recognised as a body.

I: Yes. I think that's true.

- R: Yes. That's a whole separate conversation.
- I: RQ 2 I think, just moving on to question two, and I think you've partly answered this. How relevant are the standards, do you think, for providing a *commercial* advantage in the market?
- R: The short answer is not very at all.

I: Right.

R: Not relevant in providing a commercial advantage. I've got, in front of me, the RICS guidance this is a 2013 guidance note on appointing a project manager.

- R: It's a lovely publication. It does have quite a good number of useful bits of information in here. So, if you were a layperson client, it might be of real benefit.
- I: Yes.
- R: But, how is that layperson client actually going to get hold of this? And, would they turn to the RICS in order to get this document? They *might*, but then they would be blocked by the RICS website which says, "You must be a member in order to download this document." I think that's contradictory in itself. You have a publication which is, ostensibly, for someone who is going to appoint a member of the institution to act for them, but you can't get hold of it unless you're a member.
- I: Okay. There is a question I'll come to later on is what changes would you make to the standards? And, I guess, maybe when I'm leading is should one of those changes is: well, actually, shouldn't our guidance notes be free to public?
- R: To my mind. And, again, I'm talking about RICS again, so forgive me if I'm not talking about the wider field.

I: No, that's helpful to be saying which.

R: I think there should be a frontend on the website of RICS that's very much public facing, and which all of the likes of this publication, 'Appointing a Project Manager', fantastically useful guidance, should be available to non-members to download a PDF copy.

And, further than that, yes, I do believe RICS should be actively promoting the services that its members provide. Not just in project management, but in every other sector in surveying.

- I: Okay.
- R: Significantly more than they do, in order to provide a competitive advantage, commercial advantage, for its members.
- I: Have you had any clients ask you to see... have you had any clients to say, "Tell me about the standards you've used?"
- R: In all honesty, no.
- I: Okay.
- R: Because, the vast majority of our clients are seasoned property and construction professionals. They're not going to go to Google to find a project manager.
- R: Many of them, if you're talking about institutional investors and PropCos, but particularly the institutions, generally speaking, they will have their own set of guidelines, their own set of rules, even their own terms of engagement for appointing a project manager.
- I: Yes.
- R: Their own guidance for... well, not guidance, rules for delivery of a project. "These are the steps that you must follow."
- I: Yes.

R: So, generally speaking, no, I can't remember the last time a client said to me, "If I was going to appoint you as a project manager, tell me how you would deliver the project." It's much more likely that they would say, "*This* is how you *will* deliver our project. If you want to act for us, sign up to these." In which case, we would need to check through what we've been asked to do and have our PI insurers run the rule over it. And, then we'd need to make a determination on whether we want to act.

I: Could I just delve into that? Part of my research is I will speak to clients, so it's a triangulation process as part of the research.

- R: I think that's really relevant, really relevant.
- I: It will be individuals, professional services firms which I'm at, and then the clients.
- R: Yes, so people who buy project management services.
- I: Yes. And, repeat clients?
- R: Yes.
- I: As a practice, do you see, when you get the clients... we hone the client's standards, for want of a better expression. Do you see what the premises of their standards is based on? Because, it's not...? I won't say any more.
- R: I think it's largely influenced by lawyers, sadly.
- I: Right.
- R: I think that certainly in the different documents that we work with, with different clients, I see some commonality, suggesting that they've picked bits from different sources. And, it might be APM, it might be RICS, it might be a British Standard, for example.
- I: Yes.
- R: Or, it might be a blend of those things. What I know happens in practice is that you get individuals that move form firm to firm and tend to take good pieces of practice and standards with them.

And, you know, shoe-horn them into current documentations. But, invariably, what happens is that they then land on the lawyer's desk – this is in my experience – and the lawyer converts it into a legal document with which they bind their project managers.

I: Yes. It's different motives, isn't it?

R: Completely. It's much more focused. Well, it's much *less* focused on the practical delivery of a project than it is on tying people in knots, without wishing to sound too crude. But, that's certainly my experience.

I: Okay.

- R: I hope that makes sense.
- I: RQ 3. It does, it does. I'm just going to move on to the next question. So, you do use *some* practice standards?
- R: We do.

I: And, how do you implement them?

R: Okay. I can answer that question quite readily. What I've just described our clients having done. We've done the same ourselves. We have taken the bits of these different sources that we think are most useful and most relevant and most helpful.

And, we have our own... I hate the idea of a tick list or a checklist, but there are some times when they are really, really useful.

I: Yes, a good aide memoir

R: We talked earlier about the unexpected consequences of having all of these standards. And, that a graduate could pick up one of these documents and work through it and then think that they know everything, but they need to have something.

I: Yes, a base.

R: A starting point, exactly.

I: Yes, yes.

R: So, we have generated our own appointment documents, so a schedule of project management services. And, we would take the basic document and tailor it on a project by project basis.

I: Okay.

- R: There will be some services that we won't provide, and some that we might add in that are bespoke to that particular instruction.
- I: See, I would call them and there is another question which is later down the line *your* bespoke, corporate, in-house... they're *your* in-house standards.
- R: They *are* our in-house standards.
- I: Yes.
- R: That's exactly right, that's precisely what they are. They are also a quality assurance checklist, so they are required by our ISO 9001 accreditation. We need to be able demonstrate that we *do* have a protocol that we follow so that there is a systematic process to all of our projects.

They are also required by our PI insurers, who require evidence that we aren't just rocking up at a construction site and, you know, scribbling on some drawings, telling a contractor how to build a building, and then going away. And, we *have to* have a benchmark, and the benchmark is not one standard document, it's our own, but it is bespoke for each project.

I mentioned CIOB...

I: The code of practice, yes.

- R: The code of practice. It's the fifth edition, isn't it now?
- I: Yes.
- R: I think, which a couple of years ago was. Again, there are some great bits in that. How much of that is relevant to what I do day-to-day, probably about 10%.

I: Right.

R: It deals with big, shiny, corporate, glass and steel new buildings. It doesn't tend to lend itself, I don't think, to be being applied to the project management of a £5m refurbishment of a Victorian property on Bishopsgate, for example.

I: Right. So, you think, the CIOB, it just contains what we would call, in academic speak, 'universal principles'?

- R: Universal principles, that are relevant to *new* projects and *big* projects where you have a project sponsor. The project sponsor idea runs all the way through the CIOB document.
- I: Yes.
- R: We work on projects where there is a client interface. And, depending on whether they are a development manager or they are an asset manager... and a lot of them are asset managers and they will come to me and say, "We need to bring this building up to a standard where we can let it for the maximum possible rent. And, I don't want you to spend too much on it, but I want you to make it look fantastic. Here's £5m, give me a call in a year." So, that's one extreme.

The other extreme is we do get asset managers and fund managers who are very handson in the process, themselves, and will work very closely with us and with the design team on the implementation all the way through to the end of the job, including a tenant fitting it out and occupying it. But, neither of those that I've just described are, to me, project sponsors in the CIOB sense.

- I: In CIOB terminology.
- R: Exactly.
- I: RQ 4 Okay. I think the next question, one thing is implementation, but it's how do you monitor your use of standards?
- R: By making very regular reference to our... having just said to you I hate the idea of checklists, that's how we monitor them.

I: Yes. Okay.

R: So, we do have regular audits. And, what we tend to do, depending on the type and the scale and the duration of the project, we always have a second director assigned to each project. Every project has a project director.

I: Okay.

R: It might not be the director that is doing the day-to-day, hands-on implementation, but they would certainly have a very good handle on what's going on.

They would certainly attend monthly progress meetings, client meetings, and so on. So, it's horses for courses, in terms of the people we assign to projects, but each project also has *another* director assigned to it who is charged with overseeing the application of our standards.

- I: So, it's almost like a governance issue.
- R: It is. It's exactly what it is. It's probably more quality assurance.
- I: Okay.

R: What's really important to us is our ISO 9001 quality assurance accreditation. Why is it important? To me, these are the sorts of things that *do* give us a commercial advantage.

I: Okay.

- R: It depends on the field that you're working in.
- I: Yes.
- R: If it is public sector, and you're doing a PQQ document, you *have to* be able to say that you're ISO 9001 accredited. You *have to* be able to say that you've got professional indemnity insurance of £20m or whatever it might be.

How do we, as a practice, go about getting them? Well, we approach an insurance broker who tells me that the underwriters want to see evidence that you have good governance in place, and that you are monitoring, and that you *do* do what you say you're going to do. So, we have to demonstrate.

When our PI renewal comes up, we will typically have three or four projects examined forensically by the broker, who then can tell the underwriter, "Yes, these guys have actually got good procedures in place and they do what they say."

I: Okay.

R: So, we do take it seriously.

I: What would you do if somebody deviated from your standards?

- R: Well, we actually have to, from time to time, when our clients require it.
- I: Okay.
- R: Again, contradicting myself. I don't think it's a linear process. I don't think any project management instruction is ever a linear process, where you have a start point and an end point and then you have boxes that you tick as you go along. One of the facets of a good project manager is being light on your feet, being open to identify occasions when you do need to go off-piste a little bit.

I: Right.

R: How we control that is that's when the directors that are involved with the project will always need to get involved. If there is ever a need to deviate from the standards... and I think it would naïve to assume that you would *ever*, on any one single project, just go in a straight line. There is *always* something that comes up that requires some deviation.

I: Yes, there is research. It was in 1999 by Matzdorf, who said that, "Practice needs to adapt to changing needs and therefore you can't stick rigidly."

R: You can't. No, I agree entirely. I think we do have clients that require us... so where they have their own checklists.

I: Yes.

R: And, we need to be able to say to them, "Yes, we have done that, that, and that." We have to work with them to find a way to explain why what we did goes off their preferred route.

I: Yes.

- R: But, then we have to find a way of explaining why it does actually meet their criteria at the end, otherwise you haven't delivered what you said you were going to deliver.
- I: RQ 5. The next question is how do the standards contribute to the development of the project managers in the workplace? Now, you might want to split that. You might want to think, "Well, I think the RICS does this, but I think our in-house does that."
- R: Yes.

I: I suppose what I'm getting at is that, their training, does it make them better project managers? And, 'better' is a very emotive term.

R: This is quite a tricky question in that we don't... I wouldn't say that we use our practice standards to contribute to training or to development *directly*.

I: Right.

R: I think it's one of those... it's an indirect by-product. Who do we pick as project managers when we recruit? We have recruited XXXXXX, and we have recruited cost consultants, and we have recruited pure project managers. My own opinion, and this is very much my own opinion, is that you need to have a basic – or more than a basic, a good – grounding in property and construction before you can become a project manager that really, truly adds value.

So, I can tell you that we've *never* recruited someone who has just graduated with a project management degree and said, "You are now a project manager."

- I: Yes.
- R: We tend to go for fairly seasoned building surveyors and cost consultants, quantity surveyors, who have morphed into project management.
- I: Yes.
- R: Not all of them do.
- I: No.
- R: XXXXXXXXX and we have got lots of surveyors that just focus on professional services like technical due diligence XXXXXXXX. But, those that demonstrate that they have a flair for project management; we tend to move them into dealing with bigger projects. And, they might start doing contract administration.
- I: Yes.
- R: Very different from project management, but quite a lot of our clients confuse project management and contract administration, very often. And, they think that they want a project manager, but what they've actually described is a contract administrator, and we tend to have to educate them.

But, anyway, getting back to the point; so let's assume that we have got someone who is a chartered surveyor, and we do only ever recruit chartered surveyors. We haven't gone for anyone that's just MCIOB.

I: Okay.

R: I'm not saying that we wouldn't, but –

I: Your current practice is that you don't.

R: Our current... well, it's actually not practice, as such. It's not written.

I: No, no. I know, I didn't mean in the sense of practice, operation modi.

R: It is quite simply that, in our experience, chartered surveyors make the best project managers.

And, we have got a number of people who are dual members of both institutions, which is perfectly fine. And, interestingly, they say that they get better support for their project management operations from CIOB than RICS. But, again, that's another conversation.

- I: Well, no, not –
- R: CPD is easier to obtain and is more relevant.
- I: Not necessarily, because one of the issues that comes out of this research is that it's almost that they're not speaking its name in conversation. But, there are, coming through the research, a lot of people who are very disillusioned with the professional body, the RICS.
- R: Yes.
- I: And, there is a term, and there is research on this, and they call it 'the commercialisation of the profession'. It's a paper. It was actually written about the PMI, where they say that it's producing standards, sometimes, for the *sake* of standards. And, that's one of the issues, and the others comment I've had is, "All I get is a magazine for my fees."
- R: I can *completely* understand why someone would say that, completely.
- I: Okay.
- R: XXXXXX I think, with RICS, and I wouldn't say I'm a disillusioned XXXXXXX, but I am still a chartered surveyor. I am actually immensely proud of that, but I can completely understand why people are becoming disillusioned by it.

So, having just said that we tend only to recruit chartered surveyors, it's not policy. And, I think if a suitably capable and qualified CIOB member came to interview tomorrow – and we do actually have a vacancy for a project manager at the moment – they would not be excluded at all. It's not about surveying snobbery.

- R: And, I agree completely with that statement. I do think that the commercialisation of the institution is a huge problem, and I know of a number of disillusioned chartered surveyors.
- I: Okay. Just one question related to the development of project managers, some times I've come across where the comment is that, "The standards have been used as a form of knowledge management. They're part of the knowledge management process in the company." We'll move away from the RICS standards. Do you think that your in-house standards form part of your management process?
- R: Yes.

I: Right.

R: Yes, definitely they do. Having said earlier, about two minutes ago, that we don't really use them directly as part of our training of project managers, I think it happens indirectly.

I: It's an implicit thing?

R: It is, exactly.

I: Right, okay.

R: We think that we have developed a series of checklists and systems that enable us to properly and professionally deliver the sort of projects that we work on.

So, we would expect every member of staff that works on project management in this firm to follow them and to use them. So, indirectly, yes, we are steering their development, because we are saying, "When you are here at XXXXXX this is how you *will* deliver a project."

- I: So, that's your way. I think if I can put it this way, because one of the things about being professionals is that we have a lot of tacit knowledge in our heads.
- R: Yes.
- I: And, perhaps your in-house standards, they reflect the experiences over the years that have been captured by various people?
- R: Yes, because they are constantly evolving.

I: And, being updated.

- R: And, we have to do that.
- I: Right.
- R: Market expectations change.
- I: Yes.
- R: The most recent change that we've made is relative to the changes in the CDM regulations, for example. But, that doesn't necessarily directly affect the project manager, but it does affect our checklist.

And, the way that we ensure that our client properly deals with CDM regulations. That's just one example. There is always something, isn't there?

- I: Yes.
- R: There are always changes to legislation that just... they might have a very slight effect on the way we deliver a project. The analogy I always use to our guys here is that it's rather like an aeroplane; it doesn't go straight from A to B. It's constantly going slightly off course and then is being nudged back the other way.

As long as you do get to the runway at the end, that's the thing that matters.

I: Do you think that the tacit knowledge in the practice over the years, that is being captured in your in-house standards?

R: Not all of it.

I: No. Well, you can't capture everything. Otherwise, we wouldn't be professionals.

- R: I think it's... having said earlier that we tend to go for people that have got some track record in the delivery of projects, that is because I don't think there is any substitute for experience. Yes, we do attempt to capture that knowledge, but it's... there are so many things in my head. I'm working on a really difficult, dirty project at the moment.
- I: Yes.
- R: Which is involving... it's almost a facade retention project. We're moving a core and putting new lifts in and new services, and it's in a very, very busy part of central London with XX different neighbours.

I: It sounds messy, complicated.

- R: It's got a bit of everything that you could possibly. I don't think there is any textbook that could teach you, really, how to go and deliver that project, from a project management point of view. And, there is no checklist, and there is no guidance that could take you from the start to the finish, unless you'd actually lived those sorts of experiences previously. How I actually could ever pull all of that into... and distil it into a set of guidelines or standards, I have no idea.
- I: The best you could do would be a case study.
- R: Yes.
- I: And, then that... there is only so much...
- R: You still wouldn't capture everything, would you?
- I: Capture everything, no.

RQ 6. I think the next question, six, I have a feeling that you've partly answered this. But, the question is do your in-house standards take precedence over the professional project management standards?

- R: Yes. Unquestionably, yes.
- I: Unquestionably?
- R: Yes.

I: RQ 7. And, I think you've also answered this as well. I have worded it: how do professional project management standards mitigate against the risk of professional negligence?

- R: Well, they do, yes, absolutely. And, in our case, it might not be any off the shelf standard publication. It's our own adapted guidance and schedules of services. But, we do mitigate against the risk of professional negligence. The question there always is: what would the project manager on the Clapham omnibus have done in this situation?
- I: Yes.
- R: And, if you have got some metrics which you can benchmark against, the first thing is did you anticipate it? Could you have anticipated it? And, what did you do about it?

Any time that there is any potential negligence claim, as long as we do follow guidance provided by our institutions, it's not going to keep you out of jail but at least you can demonstrate you have done what the surveyor, or the project manager on the Clapham omnibus, would have done. It isn't, in itself, a defence, but it certainly is, to my mind, a huge tick in the box if you were defending a professional negligence claim.

So, our standards, which, as I say, are an amalgam of various different standards... and, interestingly, what we have done is, I mentioned earlier that we have some clients where they won't even entertain the document that we'll put across the table because they have their own requirements and their own standards.

- I: Yes.
- R: Over the years, we've taken what we like out of those documents and put them into ours. Where we've felt that they were beneficial to our business, and certainly where we've felt that they were drafted by a lawyer with litigation in [laughter] mind and negligence in mind. I can't think of any particular examples off the top of my head.
- I: Yes.
- R: But, I might look at a clause or two and say, "I really like that. That is good practice. We'll put that into our document."
- I: RQ8 I think this is the final question, and this one you might want to... we can split it up and you might want to just have a bit of thought. This is: what changes would you make to the professional project management practice standards? And, I think you could have that as the CIOB, the APM, I don't think we're talking about the PMI. I think it could be the CIOB, the APM, and the RICS. So, I don't know if you want to take them and in any order.
- R: Yes, well, I think we'll deal with the three of them separately. I think the CIOB has got an excellent publication. But, as I said earlier, is it not relevant to refurbishment and ...

You know, we don't just do refurbishment, we do quite a bit of new build, but I think it's very, very focused on a particular type of project, and I don't think it's very userfriendly as a consequence of that. So, yes, we have a copy on our desks, but I would only ever refer to it when I think I need to, rather than it being the bible that I think I probably should be going to each time.

I: Okay.

- R: So, I think a little bit of recognition from CIOB that there are other types of project, and other types of project manager out there.
- I: Yes.
- R: With APM, I think that they have to recognise that, because they are multi-disciplinary,

I: Pan-sector?

- R: It is very difficult for them to have a set of bespoke project management guidelines or standards for every possible eventuality. Where would it end?
- I: Yes.
- R: It couldn't. To my mind, they do what they can do, given how broad their church is.

I: What do you think is better about the APM than the CIOB's standards, if you *can* answer that question?

- R: I think they are easier to follow.
- I: Right.
- R: Much more straight-forward.
- I: Yes.
- R: The CIOB stuff is... we have been involved in projects where the CIOB stuff has been very relevant, and all of it very useful and we have actually almost followed it from start to finish. It has been used almost as the bible for the project.

But, in twenty years that this practice has been going, I can think of three instances where that was the dominant guidance.

The APM stuff, I find it's more accessible and tends to be more succinct. And, therefore more user-friendly, and therefore more likely to be used.

- I: Yes.
- R: And, then turning to my own institution, RICS.

As I said at the very beginning of the conversation, it's very closed. I don't think it's customer-friendly at all. To have a document which is called 'Appointing a Project Manager' and then not make it available to the people that want to appoint a project manager is a little bit strange.

Again, where would you start with RICS project management professional guidance notes? You couldn't have one that was just called 'Project Management' because it's so broad.

I: Okay.

R: But, could you –

I: Have a suite?

- R: Have a suite of them in the same way that the QSs have now got their NRMs. Well, for just about everything that QSs do, there was an enormous project that they started about three or four years ago.
- I: Yes.
- R: The, sort of, rainbow standards, it falls under that. I think the 'Black Book', they call it?
- I: Yes.
- R: Which is 50 guidance notes on pretty much every facet of a cost consultant or quantity surveyor's work. And, they're still working on it because it's so big.
- I: Yes.
- R: But, at least they did it, and they started it, and they've made massive progress. And, I think their members, the cost consultants, are much better served.
- I: Yes.

R: It's, kind of, never-ending, because you might produce some guidance and then legislation changes that influences that guidance, and you either have to produce an addendum or a new guidance note.

But, isn't that what the institution should be doing for its members? I, personally, think it is. I think that.

I: Yes, the common thread that I get back is they're not updated enough?

- R: Yes.
- I: And, they're *not* user-friendly?
- R: No, I would agree.
- I: The other comment is that it's very hard to find things on the internet, on the RICS website.
- R: Yes, agreed, they're not accessible.
- I: Can I ask you something? There are two sides to this. There is one that the profession is devaluing itself by giving information, relatively, for free. And, then there's another argument, so we're giving our knowledge for free. But, do you think that the standards should continue to be free to members? And, I guess, probably the other question is the general public.
- R: I think that there are some documents and some standards that I think should be exclusively available to members.
- I: Right.
- R: But, I do think that there is an awful lot more that should be available to the general public. And, I would make those documents more user-friendly for the general public.

Actually, you know, change the emphasis completely. "This is for a practitioner, but this one is for the layperson". You might have someone who falls between the two, so you might have someone who is engaging a project manager, for example, who does have a degree of knowledge and understanding of what they're doing. They might not be a chartered surveyor, they might not be a chartered construction or property professional of any description, but they might have a good understanding of what it is they are doing.

- I: Yes.
- R: It's difficult to please everyone, I guess, but there are certain documents that *absolutely* should be out there for the general public, or for non-members, more specifically. But, I think you need to make them a little bit more user-friendly.
- I: Okay. I've got one question which you might want to reflect on. What is your impression of how adherence to the standards is perceived by professional bodies? Because, to the best of my knowledge, nobody from the RICS walks in and actually checks are companies are they adhering to the standards?
- R: I would agree entirely. There is no checking. I think there is an assumption that when you take the oath, so to speak, and you pay your subs, that you *will* follow the RICS rules for members and rules for firms.

I: Yes.

- R: I don't think that there is necessarily... well, certainly, RICS at the moment doesn't have the resources to have police men and women out there checking what it is that their members are doing.
- I: The reason I'm trying this is that there is... going back to the theory of standards. It's all very well in having standards and laws, but if nobody enforces them?
- R: No, they're not enforced at all, are they?
- I: I mean, we've seen suicidal bids on projects -
- R: Yes.
- I: And I'm just looking at, well, why are these bids so low? Are people adhering to standards?
- R: No, the standards go out of the window. They have to when people are cutting and cutting and underbidding.
- I: Yes.
- R: How can you possibly deliver a project for...? I'm not going to give any specific examples.

But, we lose work regularly when we've gone in with a proper and fair price for the proper job.

And, we find that we're being undercut by 50/60/70% of our fee. We have an upset client who says, "You're taking the micky out of me with your fee." And, we say, "Actually, no, the other guys are with theirs, because they can't possibly deliver what it is that we understand that you want."

It's very difficult to enforce, I think. It's impractical almost, to enforce. At the moment, the only reference to the standards, if you have a professional negligence claim, will be: if you find yourself in court, what did you do?

- I: Yes.
- R: And, then you actually look back and say, "Well, we did this, this, and this."

I: Yes. And, that's by default, and that's not very proactive.

- R: It's not proactive at all.
- I: It's not proactive of our profession.
- R: No, it's not.
- I: If you think you've got the CQC, from the medical profession, carrying out various spot-checks. I didn't know if that was a potential model for professional bodies to consider. But, of course, the backlash of that would be, "Well, you're treating us like children"?
- R: Yes. I don't have the answer to that because I think that some people do need to be treated like children.
- I: Okay.

- R: That's possibly a little bit unfair. But, yes, it does work in the medical profession. One of the regular complaints of the surveying fraternity is that they're not taken seriously enough, they're not considered in the same light as the medical profession, or accountants, or lawyers.
- I: Yes.
- R: Well, there is a good reason for that. There are a number of good reasons for that, but I don't think we can expect anyone to take us anymore seriously, and therefore pay more which is, ultimately, what people's grievance is if we don't regulate ourselves to the same degree that those other professions do.
- I: Could I explore that? We are coming to the end. And, if there is any piece of commentary that you would like flagged out in the research... is that something you would wish to discuss more? I think it is recognised that surveyors are not in the same league anymore as lawyers.
- R: No.

I: Or, the legal profession.

R: No, and we're falling further behind. Again, I could talk to you for another hour on this particular subject. But, the question you raised two minutes ago about unrealistic fee bids going in.

I: Yes.

R: Lawyers would *never* do that. The legal profession, as I understand it, no lawyer... if the benchmark rate is... and I'm not talking about a cartel.

I: No, no, definitely.

- R: I'm talking about common sense.
- I: Yes.
- R: If lawyers are charging £300 an hour, and they are invited to pitch for some work, they're going to go in at £300 an hour. They're not going to look at it and say, "Oh, to win this, we need to go in at £100."

I: Right.

R: A surveying practice would do that. And, the problem is that there are firms out there who might be short of work at any point in time, they might have mouths to feed, so they take the view that they require turnover.

They might think, and this is a bit of a sweeping statement, but rather like contractors going in with zero-profit bids, who then work the subcontractors and work the design team in order to generate a profit on a job, I think the same happens in surveying. That there are practices, who can go in at cost or below in the expectation that they will work the instruction to their advantage and be able to extract further fees for additional work, or where perhaps the scope wasn't clear enough. And, I think that's happening all the time. And, it *does* happen in construction, we know that.

- I: Yes.
- R: It's naïve to think that it's not happening in surveying as well.

- I: Right. Okay. Thank you very much for that. Thank you.
- R: That's okay.

[End of Recording]