

**TOWARDS A TOOL TO GAUGE THE SUCCESS
LEVELS OF HOUSING-LED URBAN
REGENERATION SCHEMES**

KEVIN ALAN MARTIN DEAN

TOWARDS A TOOL TO GAUGE THE SUCCESS LEVELS OF
HOUSING-LED URBAN REGENERATION SCHEMES

Kevin Alan Martin Dean

School of the Built Environment, University of Salford, Manchester, UK

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- Dean, K., Trillo, C. and Bichard, E. (2017). 'Assessing the Value of Housing Schemes through Sustainable Return on Investment: A Path towards Sustainability-Led Evaluations?', *Sustainability*, 9(12), p.2264. Available at: <http://dx.doi.org/10.3390/su9122264>. (Accessed: 01/03/2018).
- Dean, K., Trillo, C. and Bichard, E. (2017). 'Housing and Urban Regeneration: Honing an Existing Assessment Method through the Design Science Methodology', in Pathirage, C, Kulatunga, U, Ji, Y, Gameson, RN, Udejaja, CE, Trillo, C, Takhravanchi, M and Allali, B, (Eds) *13th International Postgraduate Research Conference 2017*, Salford: University of Salford, UK, 14th-15th September, 2017.
- Dean, K. and Trillo, C. (2017). 'Assessing sustainability in housing-led urban regeneration: Insights from a housing association in Northern England', in *AMPS, Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally*, London: London South Bank University, 9th-10th February, 2017.

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ABSTRACT

Despite there having been many evaluation methods utilised within the field of housing-led urban regeneration schemes, there remains a gap in the knowledge base; namely that no tool exists to quantitatively measure socio-environmental impacts for housing-led urban regeneration schemes either holistically, or at a per stakeholder level. In addition, there is no available tool to ensure continued economic sustainability through potential contributions from benefitting stakeholders, thus completing the full triple bottom line. The ‘SuHousingImpact’ artefact within this thesis carries this out.

The research is underpinned by a pragmatic philosophy, mixed method and inductive approach and uses two sub case studies – an environmental-led programme and a high rise scheme, both developed as part of City West Housing Trust’s stock in Salford, United Kingdom.

The ‘SuHousingImpact’ artefact was created through Design Science Methodology in combination with the Case Study approach. It brings together Social Return on Investment, Sustainable Return on Investment, compensation criteria, stakeholder analysis, temporal displacement and the fragmentation of public expenditure, and is a cutting edge, practical and real world tool useful for both academics and housing sector staff alike.

CHAPTER ONE: INTRODUCTION TO THE THESIS

1.1. Introduction

The New 2016 UN Urban Agenda reaffirms the concept that sustainable cities require both environmental and social sustainability. With the introduction of the United Nations' Sustainable Development Goal 11 – that of making cities inclusive, safe, resilient and sustainable, a target of sufficient and affordable housing has been set (<https://sustainabledevelopment.un.org/sdg11>).

Despite housing's central role and importance in ensuring sustainability (Hills, 2007), and despite the importance of both the environmental and social pillars of the triple bottom line in ensuring sustainable development (Elkington et al., 2007), current evaluative methods that support decision making on social housing interventions still fail in capturing all of the socio-environmental spillovers of the UN's SDG 11.

This thesis contributes to addressing this issue by providing decision makers with a new evaluative tool, namely 'SuHousingImpact', building on and taking forward the Sustainable Return on Investment (SuROI) approach (Bichard, 2015), and allowing the successful capturing of such socio-environmental spillovers in housing-led regeneration schemes.

The thesis covers the subject domains of urban regeneration with a focus on housing-led regeneration, together with sustainable development and evaluation. In addition to this, already existing methods of the evaluation of housing-led urban regeneration schemes are critiqued.

The approach of Sustainable Return on Investment (SuROI) (Bichard, 2015) was introduced as an extension of the Social Return on Investment methodology (SROI), which has been used within the context of the built environment previously (Aspden et al., 2012; Bichard, 2015; Bridgeman et al., 2015; Bridgeman et al., 2016; Watson et al., 2016; Watson and Whitley, 2016).

The research in this thesis links in with the concept of *social innovation*. Social innovation is a domain which is becoming “increasingly evident in policy [and] scientific and public debates” (Howaldt et al., 2014) and is considered as being “increasingly influential in both scholarship and policy” (Moulaert et al., 2013) with a growing consensus emerging amongst practitioners that “widespread social innovation is required to cope with the significant challenges that societies are facing [both] now and in the future” (Howaldt et al., 2014). The concept has been referred to as “a new combination of social practices in certain areas of action or social contexts with the goal of better satisfying or answering social needs and problems than is possible on the basis of existing practices” (Ibid, 2014). Specifically, this involves ideas which have been subsequently turned into practical approaches (Evers, Ewert and Brandsen, 2014).

Social innovation can also be understood and defined as a ‘process’, a ‘practice’ or as ‘methods’ or ‘regulations’. It has been referred to “as a process of collective creation in which the members of a certain collective unit learn, invent and lay out new rules for the social game of collaboration and of conflict or, in a word, a new social practice, and in this process they acquire the necessary cognitive, rational and

organisational skills” (Crozier and Friedberg, 1993). Social innovations can be said to involve “new practices (concepts, policy instruments, new forms of cooperation and organisation), methods, processes and regulations that are developed and/or adopted by citizens, customers, politicians etc. in order to meet social demands and to resolve societal challenges in a better way than existing practices” (Howaldt et al., 2014) or, which additionally, involve “new ways to achieve objectives (...), which change the direction of social change, solve problems better than earlier practices, and are therefore worthy to be imitated and institutionalised” (Zapf, 1989).

Social innovation approaches have been said to be important for finding solutions to interconnected challenges of global and sustainable development (Babu and Pinstруп-Andersen, 2009) whilst the significance of artefacts and technologies has been said to be central to innovation studies (Howaldt et al., 2014).

Such innovation is carried out in this thesis through the methodology used to create the novel ‘SuHousingImpact’ tool, which is that of Design Science Methodology. This outlines a step by step process map to follow, used in the development of real world tools or ‘artefacts’ which can then be subsequently tested and refined as part of the process followed, the end result being an artefact that can be used in the real world and which solves the problem set out at the start of the Design Science process.

The ‘SuHousingImpact’ tool is then tested and developed through a single case study methodology by using two real historical sub-case studies from City West Housing Trust’s stock in West Salford, UK, through two extant housing-led regeneration

schemes belonging to City West Housing Trust – a not for profit housing association; those schemes being an environmental-led scheme and a high rise scheme, with results showing that the environmental and social spillovers are largely disregarded because of a gap in the evaluation methods and that room for significant improvements exists. This proves the importance of the ‘SuHousingImpact’ tool, which allows the unveiling of hidden social and environmental benefits from housing-led urban regeneration schemes and therefore supports a better alignment of current practices to the pursuing of the SDG11.

1.2. Background and context

1.2.1. Economic climate and consequences for housing associations

Housing associations are currently operating under severe financial constraints, which make the decision making process extremely demanding, since every choice needs to be thoroughly assessed in terms of benefits. This situation has become particularly harsh in recent times, while in the past less scarcity of resources allowed more flexibility in choices. Before the economic crash of 2008, housing associations could rely on significant bank financing to fund their development. Banks and other lenders historically provided housing associations with loans in favourable terms. Until the advent of the credit crunch, banks priced loans to housing associations at 20 to 30 basis points above the London inter bank lending rate (House of Commons, Communities and Local Government Committee, 2009). However, once the credit crunch came about, not only did banks charge more for new loans, but they also sought to rewrite the already existing housing association loans they had outstanding.

Housing associations seeking additional financing found that banks demanded rates as high as 300 basis points above LIBOR (London Interbank Offered Rate), often more than 10 times higher than their previous rates. A number of lenders refused altogether to lend to housing associations (Hilditch, 2009; House of Commons, Communities and Local Government Committee, 2009). Banks sharply increased the cost of credit for housing associations, whilst demand for for-sale homes and shared-ownership housing plummeted, reducing revenue for housing associations (Dowler, 2009). More recently as part of the housing white paper, the UK Government has announced that rent decreases (explained further below) are to remain in place until 2020 and that there remains a focus on Right to Buy (UK Government, 2017).

Housing associations had increasingly been building housing for sale in the open market to generate additional revenue to help fund the development of social housing. The crisis left housing associations with thousands of unsold housing units, whilst additionally reducing the market value of the associations' housing stock and land holdings. Additionally, housing associations' ability to generate funds to support the development of social housing was curtailed, whilst the crisis also reduced the amount of housing acquired from private developers through Section 106 agreements. A reduced revenue subsidy for housing, notably via housing benefit, has contributed to the financial difficulties that housing associations currently face. In addition, a reduction of welfare support will impact on the ability of tenants to pay their rent, whilst the cutting of rent paid by tenants by 1% for at least the next couple of years has added to the challenges faced. To cap it all off, the right to buy scheme can force associations to sell at huge discounts. Added to this, falling wages and a lack of employment add to the issues, whilst social housing is likely to be in even greater

demand (Chevin, 2013), putting even more pressure on housing associations. Consequently, housing associations have had to be more economically aware. Poor decision making can have major consequences. It is therefore important to make sure that investment is used efficiently and that the amounts of money which are available, are not wasted.

Because the economic climate is now more demanding, it is important that the evaluation of housing-led urban regeneration schemes is of a high standard, and that the conclusions coming about from a particular evaluation, are accurate. To this end, it is additionally important that all benefits arising from a particular scheme are taken into consideration, and that as much information as possible on scheme impacts is available for strategic decision makers. However, authors have noted an absence of frameworks used to assess impacts in terms of sustainable development on the built environment (Thomson et al., 2009) or certainly a limited number of such frameworks (DETR, 1998; OECD, 2000) and the absence of appropriate frameworks has often been considered as playing a part in the inability to deliver the desired objectives of urban regeneration schemes (Kazmierczak et al., 2009) which can have negative repercussions, especially when taking into consideration the aforementioned current economic climate, when money is not always readily available and mistakes are potentially costly. Along these lines, Tyler et al., (2013:171) pose the question as to why, despite the resources that many countries commit to urban regeneration, there has been “so little evidence available on the aggregate value of regeneration benefits?”

1.2.2. Economic climate, its effect on housing associations, the resulting problem and potential solution

A housing association's core role is the providing of housing for those who are in greatest need. This has typically been underpinned in previous years by high levels of capital subsidy from Government (Malpass, 2005), with the majority of revenue being funded indirectly through Housing Benefit (Steele, 2012).

In recent times, there has been a change from local councils, to now housing associations developing most rental housing, initially receiving substantial government funding to do so (Schwarz, 2011). Nowadays there involves a greater reliance on private actors, market mechanisms and commercial capital, with the shift being described as a "migration from the public sector towards the private market" (Blessing, 2015:198).

However, despite this new commercial direction, things have become more difficult for housing associations in recent years since the economic crash of 2008. In fact, according to Evans et al., (2016), the financial crisis "affected the housing sector the hardest".

Specific areas have consequently contributed to the necessity to change the way housing associations do business, resulting in a more commercial approach being taken.

Firstly, a reduced revenue subsidy for housing, notably via housing benefit, has contributed to the financial difficulties that housing associations currently face.

In addition, a reduction of welfare support will impact on the ability of tenants to pay their rent. Added to this, falling wages and a lack of employment add to the issues, whilst social housing is likely to be in even greater demand (Chevin, 2013), putting even more pressure on housing associations.

The change to welfare support is another driver for change. In late 2010 the Government began a radical overhaul of almost all aspects of welfare support. Central to these reforms was the government's aim of reducing the nation's benefits bill, particularly in relation to housing benefit. Because housing benefit is no longer paid straight to housing associations via direct debit, this can affect their rental income. The so called 'bedroom tax' also affects the receipt of housing benefits, cutting benefits where homes are 'under occupying' and, as referred to, most recently the cutting of rent paid by tenants by 1% for at least the next couple of years has added to the challenges faced, whilst the right to buy scheme can force associations to sell at huge discounts.

Bearing the economic effects of the credit crunch in mind, housing associations have tended to react by attempting to plug monetary gaps via a drive to be more commercial. Chevin (2013:7) writes that many housing associations were looking at accomplishing "greater value for money and better asset management", together with looking into the possibility of additional income streams. Housing associations will ultimately have to explore new funding mechanisms and adopt more diverse business models to avoid becoming marginalised as government funding becomes increasingly constrained (Places for People, 2017).

Indeed, there have been reports of more diversified activities providing up to £3.5 Billion of housing turnover (Social Housing, 2016) and additionally a sharp rise in housing association turnover from commercial activity has been highlighted (Inside Housing, 2014).

Other ways forward in the future to supplement housing associations' income include diversifying, widening and strengthening services provided, including potential partnerships with National Health Service (NHS) Trusts and GPs to provide outreach health care, working with local authorities to re-design local care services around the home to maximise independence and well-being for people who need care, providing specialist support services to vulnerable people with multiple or complex needs, delivering Government programmes for supporting people without jobs into work, investing in schools, helping improve educational achievement, employment prospects and life chances, rehabilitation and resettlement of offenders and helping to reduce reoffending and subsequently easing pressures on prisons. An emphasis will be on a private business that generates profits to utilise for social good – a “Profit for Purpose” business (NHF, 2014).

The new stance that housing associations have taken commercially, highlight some areas to be mindful of. For example, the relationship between the housing association and their tenants could be compromised if value for money on rent levels and arrears is sought; there is a concern amongst some observers that community activities and the sector's historically social ethos are increasingly taking a back seat, and there is a fear that housing associations will be indistinguishable from private sector companies

or that as associations seek greater efficiencies, their investment and involvement in community activities will be reduced (Chevin, 2013).

Housing associations are therefore typically finding it more difficult than in previous times by virtue of the lack of public money available. Consequently, housing associations have had to be more economically aware. Poor decision making can have major consequences. It is therefore important to make sure that investment is used efficiently and that the amounts of money which are available, are not wasted.

1.2.3. Background to evaluation within urban regeneration

Although the evaluation of regeneration schemes has been referred to, in the seminal work of Professor Peter Roberts and Sir Hugh Sykes, as a “vital task”, there does not appear to be an agreed consensus on how this should be carried out (Roberts and Sykes, 2000). Indeed, Bowey (1997) adds that although there is a need for monitoring and evaluation of regeneration initiatives, there has been “scant regard” paid to this aspect.

In addition it would seem that any evaluations carried out have not had any real effect on wider progress within the field of urban regeneration. Carley and Kirk (1998) state that the need for urban regeneration hasn’t been reduced, even after thirty years of policy initiatives.

Various authors and scholars have, over the years, published their varying methods, models, frameworks and metrics on how they feel measurement and evaluation should be carried out. Authors have highlighted important aspects of an urban regeneration development, for example, Jeffrey and Pounder (2000) highlight the importance of physical or aesthetic redevelopment; economic redevelopment is highlighted by such authors as McGregor and McConnachie (1995) and Colantonio and Dixon (2010) refer to social impact, but what other aspects exist as part of a successful, or unsuccessful programme? As Tyler et al., (2013) state, “it is an obvious question to ask why there is so little evidence available on the aggregate value of regeneration benefits in the light of the resources that many countries commit to them”.

Further to this notion of evidence, Brandon and Lombardi (2011) assert that sustainability appraisal frameworks used in the built environment must address economic, environmental and social impacts to ensure continued sustainable development after regeneration. However there have been found to be gaps in sustainability frameworks in practice (Clapham, 2014) and it has been argued that many frameworks sacrifice social and economic factors at the expense of the environmental (Carter and Fortune, 2007) with some assessment methods being described as either too diverse from other methods (Russell et al., 2000), inadequate (Smith, 2006), lacking (Madlener et al., 2003) or even concerning (Diamond et al., 2006).

Within the housing sector, the Homes and Communities Agency has demanded “robust assessments” of assets (HCA, 2012) and in addition, it has been cited that schemes’ value to society need to be clear in today’s challenging economic

environment (Tyler et al., 2013). Although the need to take into account both quantitative and, more qualitative or intangible impacts (Church and Young, 2001; Lee and Chan, 2008) has been cited (CLG, 2009; McQuaid et al., 2006), impact measurement has remained “under theorised” (Ebrahim and Rangan, 2010).

To this end, whilst there is no as yet accepted methodology of going about evaluation in urban regeneration (Bell and Morse, 2003), an alternative of traditional forms of evaluation would potentially be to quantify or monetise the value of impacts normally categorised as being intangible; something previously considered difficult to carry out using conventional techniques (Vardakoulias, 2013). Such an alternative has however thus far had very little critique within existing literature (Bichard, 2015; Watson and Whitley, 2016).

1.2.4. Deficiencies of existing tools

Before moving on to the introduction of an evaluation approach which is able to quantify or monetise the value of socio-environmental impacts, it is wise to make explicit the deficiencies of existing evaluation tools, before looking at how these deficiencies can then be overcome.

The first deficiency of existing tools appears to be that they do not incorporate or assess hidden social and environmental benefits being created by a housing-led urban regeneration scheme. The second deficiency of existing tools appears to be that they do not take into account the arena of potential wider stakeholders. This can potentially

be used to offload some of the budgetary costs currently being attributed to a housing association in times of economic hardship.

Financial sustainability is a big part of urban regeneration, especially when the financial position of housing associations is not as healthy as it used to be. By analysing the budgetary costs of a housing association, it could be possible to potentially identify further stakeholders capable of turning a cost into a profit. This aspect can be linked into the first deficiency of existing tools by using the quantification and monetisation of intangible costs that could then be subsequently put onto the shoulders of potential future stakeholders. Such stakeholders could be brought in through agreements. This will be introduced as part of the main objective to this thesis, that of creating a tool which can do precisely this.

1.3. Sustainable Return on Investment (SuROI)

Moving back onto tools and approaches which look to quantify socio-environmental impact by monetisation, Social Return on Investment (SROI) has been used as the primary mechanism for evidencing organisational impact in this way, being endorsed by both the Cabinet Office and the Scottish Government (Watson and Whitley, 2016), whilst Bridgman et al., (2016) and Watson and Whitley (2016) have remarked on the potential usefulness of the SROI methodology within the field of the built environment. SROI has been taken further by Bichard (2015), creating ‘Sustainable Return on Investment’ (SuROI) after being refined, proving that monetary evaluation can indeed be implemented to evaluate the sustainable performance of projects within the built environment.

The current decision making processes on investment in housing are often undertaken without having a full understanding of all the benefits related to such an investment, leading to an underestimation of the overall value of the investment itself. Part of the issue would appear to be related to the lack of a robust evaluation methodology which uses an evidence-based and quantitative approach to gauge the hidden benefits of a scheme. Sustainable Return on Investment (SuROI) can be useful in uncovering such hidden benefits in the specific case of the social housing sector. The existing SuROI methodology has been developed up to the stage of providing stakeholders with a robust and evidence-based overall assessment of the value of an investment as a whole. This thesis then subsequently discusses the specific application of SuROI to the housing sector and additionally suggests the potential applicability of SuROI in mapping benefits and costs across the stakeholders' community, allowing decision makers in the housing sector to negotiate a potential financial contribution from positively impacted beneficiaries on the basis of evidenced benefits. This is then again further developed and refined, by using the mapped benefits and costs exhibited to each individual stakeholder to create a prospective pay back period, and indeed for the scheme as a whole. This refinement of SuROI, creating a novel tool, can be particularly useful in today's tough economic climate and with the above highlighted issues regarding existing evaluation methods.

In terms of a background to the SuROI approach, Sustainable Return on Investment is the method by which the assessment of hidden social and environmental benefits can be carried out. It incorporates such frameworks as Social Return on Investment

(SROI) or Ecosystem Services Analysis (ESA) into its framework. According to Nicholls et al., (2012:8), “things which get bought and sold take on greater significance”. Sustainable Return on Investment takes this mantra on board (Bichard, 2015) and places a numerical value on the social and environmental components of the triple bottom line; aspects which are normally difficult to compare against more easily measured economic impacts (Conejos, Langston and Smith, 2013).

Recent guidance from the Royal Institution of Chartered Surveyors (RICS) (2014) recognises the need to include a wider range of factors that can influence the value of built environment projects than has previously been undertaken and asserts that sustainability considerations are now considered as being important when undertaking valuations (Bichard, 2015). The Social Value Act (2012) additionally requires that economic, environmental and social benefits are taken into consideration as part of any procurement processes, showing that the focus on sustainability is perhaps starting to change and become more important at national level also.

SuROI aims to allow the environmental and social value of a project, programme or policy in the built environment to be made explicit through evidence, and be added to capital costs to give an overall sustainable value (Bichard, 2015).

SROI compares the prospective *social benefits* of a particular scheme against its costs and ESA takes the *costs and benefits of the environment* into consideration. ESA covers both the natural and built environment, including architectural aspects within its definition (DEFRA, 2007).

It is important that the hidden social and environmental benefits of a housing-led urban regeneration scheme are taken into consideration upon carrying out an evaluation, for the following reasons:

- To present a basic knowledge of what a scheme can offer in terms of social and environmental impact
- To ensure that financial decisions are being made with the maximum amount of information being available on social and environmental benefits
- Housing-led urban regeneration schemes being evaluated as ‘successful’ schemes might not be ‘successful’ and vice versa, which would lead to incorrect decision making in terms of future targeted investment, and potential wasting of money as a consequence
- Social and environmental benefits “of central concern to individuals and communities” (Vardakoulias, 2013) are potentially not being highlighted and measured correctly, which may be having a direct impact on residents’ quality of life.

1.4. Design Science Methodology

The ‘SuHousingImpact’ tool created within this study is to be developed by using the Design Science Methodology, used within the case study approach. Research carried out under the paradigm of the traditional sciences, such as the natural and social sciences, focus on explaining, describing, exploring or predicting phenomena and their relationships with each other (van Aken, 2004; March and Smith, 1995). This translates into the assessment of things that exist. However the traditional sciences

have limitations when the goal of a piece of research is to study the design, construction or creation of a new *artefact* i.e. something that currently does not exist (Simon, 1996), or to conduct research based on problem solving. March and Smith (1995) emphasised the importance of a science that is able to support the construction and evaluation of new 'artefacts'. It is in these circumstances that the usage of Design Science Research (DSR) is recommended as a new epistemological paradigm for conducting research (van Aken, 2004; March and Smith, 1995; Simon, 1996).

Design Science Research (DSR) is the scientific study and creation of artefacts as they are developed and used by people with the goal of solving practical problems of general interest (Johannesson and Perjons, 2012) which subsequently make a contribution to the theory of the discipline in which it is applied (Lukka, 2003). By using the DSR methodology, it is possible to design and create a new tool or artefact, for usage in a real world, practical environment and context, to solve a given problem within such a real world and practical context.

1.5. Housing Association budgets

By way of research intelligence fuelling the research tool being created via the Design Science Methodology, an important finding during the research process additionally contributes to the refinement of the SuROI method.

Because of the researcher's privileged position in being an employee of City West Housing Trust, based in West Salford, UK, information has been able to be gathered

which shows the internal and external factors affecting City West Housing Trust's budgets:

The internal factors influencing the budgets include:

- The internal policy of delivering a 'Salford standard' of investment during investment schemes carried out (a standard higher than that of the minimum guidelines set out by the decent homes standard)
- The housing trust's offer document, which gave customers on transfer a list of promises that had to be delivered, including the delivering of regeneration on a vast scale, by the year 2010 (2 years after transfer)
- The need to make a statement of intent by the housing trust upon stock transfer through the most visual way possible
- The outlay in terms of quality of product = lasts longer = less maintenance = more money available to build housing in the future
- And in another way, the quality of product installed in the stock = lasts longer = more people want to buy houses through RTB = less rent but less management costs = more money available = more building
- The new group structure of the housing association plays a part (City West is now under the 'ForViva' group)
- Resources have to be allocated to the most appropriate stock. This is based on need and current stock condition, age and structural integrity. £43m has recently been spent on the high rise programme and £235m in terms of total physical regeneration

- The level of complaints from key customers and customer groups influence where money goes
- The age of customers dictates what kind of schemes to go ahead i.e. many extra care schemes have recently been built

The external factors influencing the budget include:

- Government legislation – i.e. the decent homes standard
- The ability of City West to borrow money or not as the case may be
- Market prices of products used in regeneration
- Whether there is a housing boom or no housing boom - this affects prices. If contractors are busy, prices go up
- Stock market health
- Social housing rents which have fallen by 1%, for at least a further two year period, which could see rental income fall, which means less money to spend on regenerating and building
- Benefit cap for tenants lowered – the amount a family can receive has been reduced, meaning that any loss of income from the reduced benefit cap could lead to fewer tenants paying rent and more arrears
- Housing benefit abolished for under 21s entirely from April 2017

Although exact figures cannot be published due to ethical reasons, from a preliminary analysis of the budgets at City West Housing Trust, it is clear that the amount of money available to spend on investment in stock and community activities and

initiatives has decreased, from an initial high on the company's initiation in 2008, when the housing stock had to have a great deal of investment to make sure that it adhered to the decent homes standard, decreasing gradually within the last three financial years. The company has just had to undertake several internal restructures in order to maximise efficiency in terms of cost savings, resulting in many job losses and redundancies. The only areas of the business which continue to be funded heavily are the high rise schemes which include the various tower blocks in Eccles, and funding for the newly formed development team, which oversees the building of new homes and extra care schemes. This is due to such developments being visual landmarks and statements, important positive adverts for the company in otherwise bleak economic times, and due to the recent necessity for further fire safety works to be carried out after the Grenfell Tower tragedy in London. In addition, the profitability for the company in terms of building and development means that this area is a priority for the company.

In addition to the budgets of City West Housing Trust decreasing in the recent past, it can be seen from the figure below, that local government expenditure in terms of housing and local amenities has generally increased in the United Kingdom within the period 2012-13 to 2016-17 (Figure 1.1):

£ million

| | Housing and community amenities | | | | | of which: current | | | | | of which: capital | | | | |
|---------------------------------------|---------------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| | National Statistics | | | | | National Statistics | | | | | National Statistics | | | | |
| | 2012-13 outturn | 2013-14 outturn | 2014-15 outturn | 2015-16 outturn | 2016-17 outturn | 2012-13 outturn | 2013-14 outturn | 2014-15 outturn | 2015-16 outturn | 2016-17 outturn | 2012-13 outturn | 2013-14 outturn | 2014-15 outturn | 2015-16 outturn | 2016-17 outturn |
| North East | 487 | 501 | 533 | 511 | 484 | 143 | 120 | 119 | 113 | 116 | 343 | 382 | 414 | 398 | 367 |
| North West | 870 | 615 | 787 | 697 | 790 | 312 | 282 | 274 | 238 | 250 | 558 | 334 | 513 | 459 | 540 |
| Yorkshire and The Humber | 646 | 618 | 681 | 718 | 753 | 240 | 234 | 222 | 204 | 208 | 406 | 385 | 458 | 514 | 546 |
| East Midlands | 464 | 562 | 616 | 584 | 601 | 206 | 207 | 204 | 180 | 181 | 258 | 356 | 412 | 403 | 420 |
| West Midlands | 634 | 677 | 746 | 428 | 811 | 227 | 242 | 227 | 206 | 212 | 406 | 436 | 519 | 222 | 598 |
| East | 446 | 522 | 600 | 639 | 678 | 244 | 243 | 241 | 239 | 244 | 202 | 278 | 399 | 400 | 434 |
| London | 2,331 | 2,240 | 1,951 | 1,842 | 1,793 | 522 | 510 | 516 | 482 | 488 | 1,810 | 1,730 | 1,435 | 1,360 | 1,305 |
| South East | 707 | 700 | 870 | 850 | 868 | 410 | 389 | 400 | 384 | 398 | 297 | 311 | 470 | 466 | 469 |
| South West | 424 | 485 | 526 | 530 | 430 | 235 | 249 | 230 | 217 | 219 | 189 | 236 | 296 | 313 | 211 |
| England | 7,010 | 6,921 | 7,310 | 6,799 | 7,206 | 2,540 | 2,474 | 2,433 | 2,263 | 2,316 | 4,470 | 4,447 | 4,877 | 4,536 | 4,890 |
| Scotland | 1,523 | 1,544 | 1,568 | 1,580 | 1,767 | 86 | 136 | 143 | 173 | 220 | 1,437 | 1,407 | 1,424 | 1,407 | 1,547 |
| Wales | 638 | 616 | 612 | 702 | 715 | 146 | 140 | 134 | 169 | 169 | 492 | 476 | 477 | 533 | 545 |
| Northern Ireland | 824 | 781 | 794 | 716 | 766 | 449 | 400 | 367 | 372 | 396 | 375 | 381 | 427 | 344 | 370 |
| UK identifiable expenditure | 9,995 | 9,862 | 10,283 | 9,797 | 10,454 | 3,221 | 3,150 | 3,077 | 2,977 | 3,101 | 6,774 | 6,711 | 7,206 | 6,820 | 7,353 |
| Outside the UK | - | 0 | 0 | 0 | - | - | 0 | 0 | 0 | - | - | - | - | - | - |
| Total identifiable expenditure | 9,995 | 9,862 | 10,283 | 9,797 | 10,454 | 3,221 | 3,150 | 3,077 | 2,977 | 3,101 | 6,774 | 6,711 | 7,206 | 6,820 | 7,353 |
| Non-identifiable expenditure | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Expenditure on Services | 9,995 | 9,862 | 10,283 | 9,797 | 10,454 | 3,221 | 3,150 | 3,077 | 2,977 | 3,101 | 6,774 | 6,711 | 7,206 | 6,820 | 7,353 |

Figure 1.1: Local government expenditure in the UK on housing and community amenities 2012-13 – 2016-17 (ONS, 2017)

In this thesis, not only is City West Housing Trust used as a case study (Yin, 2003), but, real world day to day problems within the company have been used to fuel the refinement of SuROI.

Bearing in mind the evaluation problems which have been encountered in urban regeneration and bearing in mind that it is becoming more difficult for housing associations financially than in previous years, housing associations have to make sure that they spend their money wisely. They have to ensure that they are still able to spend money on their housing stock in terms of regeneration and maintenance and the decisions taken in terms of where investment is directed have to be well made. Any wasting of money through poor decision making can have a huge impact on the business and because of housing's importance, this can have massive consequences on wider society.

One solution put forward to arrest the problems outlined would be to look into the housing association budget to find out how to ensure financial sustainability. By analysing costs, it could be possible to offset housing association budgetary costs onto potential and wider future stakeholders and subsequently be capable of turning a cost into a profit. By doing this, the economic problems prevalent at the moment and being felt by many housing associations may be minimised, thus increasing the chances of future financial sustainability.

One way to do this would be to refine the existing SuROI methodology to not only reflect the impact ratio of a whole scheme, but to show the varying stakeholder ratios in terms of which stakeholder gains or loses.

In addition, by doing this, it would be possible to yet further refine the SuROI methodology and implement pay back periods per stakeholder, and additionally per scheme.

1.6. Theoretical and conceptual framework of the artefact

At this point within the chapter it is prudent to cover the knowledge base from which the artefact created within the research has arisen and to which this thesis will contribute. Four areas will be looked at: compensation criteria, stakeholder analysis, temporal displacement and the fragmentation of public expenditure.

1.6.1. Compensation criteria

According to Baujard (2013), welfare economics is the economic study of the definition and measure of social welfare and offers a theoretical framework used in public economics to help collective decision making, to design public policies and to make social evaluations.

A theoretical perspective contained within the welfare economics literature, and especially within the domain of compensation criteria includes the Kaldor-Hicks compensation criterion (covered further within Section 4.7).

The Kaldor-Hicks compensation criterion originates from the work of Nicholas Kaldor (1939) and John Hicks (1939) and states that if those gaining within a social welfare situation could theoretically compensate those harmed and yet still remain better off, then this is a desirable situation. Any compensation potentially paid is a theoretical possibility rather than a factual certainty and indeed, no actual compensation is required for Kaldor-Hicks efficiency (Coleman, 1980; Farrow, 1997; Nurmi and Ahtiainen, 2018).

In this thesis, the SuHousingImpact artefact developed as one of the main objectives of the research process takes on the Kaldor-Hicks compensation criterion and furthers it through the following means:

1. According to Posner and Adler (1999), the Kaldor-Hicks criterion “does not use a numeraire” (a numeraire being an item or commodity acting as a measure of value [OED, 2017]), whereas the way that the Kaldor-Hicks criterion is used within the SuHousingImpact artefact within this research is that the monetised and quantified amounts of socio-environmental impact are used as a numeraire.
2. Although the redistribution mechanism cited within the original criteria is hypothetical and costless, the SuHousingImpact artefact is attempting to use the theoretical criteria practically, potentially leading to real monies being paid by potential and actually involved stakeholders as compensation to promote and further an economic sustainability.
3. The redistribution cited within the original criteria, now able to be both real and potentially paid by real money, can have an inter-temporal realm to it in that the redistribution of monies can come about at different points in time, through the various pay back periods on offer through the novel ‘stage 6’ of the artefact at the centre of this research.
4. It has been suggested by Posner and Adler (1999) that the Kaldor-Hicks criterion is biased in favour of people who are wealthier (in money or goods) and that it “neglects distributional effects and moral sentiments” (Zerbe, 1991) . The SuHousingImpact artefact is biased the other way, in favour of those who are not wealthier, in terms of the costings involved within a particular regeneration scheme. The whole being of the artefact is to not only find out which stakeholders

win, but also to find out which stakeholders lose out, and to use the tool to focus on this strategically.

5. According to Revesz and Stavins (2004), the Kaldor-Hicks criterion is a holistic test of whether total social benefits exceed total social costs, whereas within the artefact, there is not only a holistic focus, but an individual stakeholder focus too.

1.6.2. Stakeholder analysis

Within the domain of stakeholder analysis, there are many theories within the pertinent literature that link to the research. The first is that of stakeholder theory.

The stakeholder theory proposed by Edward Freeman (Freeman, 1984) holds that an organisation's stakeholders include anyone affected by that organisation and its workings and has been cited by Wijnberg (2000) as arising "from the rejection of the idea that the corporation should single handedly strive to maximise the benefits of a single stakeholder, the shareholders". This view is furthered by Milton Friedman, the principal proponent of this stance, who asserts that in capitalism, the only stakeholders a company should care about are its shareholders.

The fundamentally novel component of the artefact in this research is its stakeholder oriented basis. This forms the per stakeholder impact values and enables the various and respective pay back period analyses to be able to exist. Clarkson (1995) argues for the evaluation of corporate social performance through stakeholder satisfaction,

which links into this research, whilst Mitchell, Agle and Woods (1997) propose the identification of stakeholders through dimensions of power, legitimacy and urgency, whereas in this research, such identification is carried out through the varying separate socio-environmental impact valuations on offer.

This socio-environmental impact aligns well with Freeman (1994) who suggests that any inequalities pertaining to related stakeholders would only be justified if the level of the least well off stakeholder is raised. The artefact within this research can help fulfil this criteria through the quantification of respective stakeholder benefits through a common unit of measurement, that of monetary valuation, subsequently being used to rectify such inequalities.

The artefact of the research additionally aligns with other relevant theories. Evan and Freeman (1993) assert that an organisation should act as a vehicle for the coordination of stakeholder interests. They cite two stakeholder management principles which can guide the research:

- 1) Principle of Corporate Legitimacy
- 2) Stakeholder Fiduciary Principle

The Principle of Corporate Legitimacy states that an organisation should be managed for the benefit of its stakeholders. This is exactly what the SuHousingImpact artefact seeks to achieve. Through the measurement of socio-environmental benefits using the

artefact, it can be clearly seen if an urban regeneration scheme in question does not provide enough benefit for its stakeholders. Through the tool's facility as a decision making or management tool, a decision can then be made as to whether such a scheme is worth carrying out, or if so, in what way, and through which method of targeting.

The Stakeholder Fiduciary Principle states that organisations must act in the interests of stakeholders to ensure the survival of that organisation. Again, the artefact within this thesis can show just how far such an interest has been acted out, by using the per stakeholder socio-environmental valuations. For example, if a particular stakeholder (let us take 'housing association tenants' for example) is not benefitting from a scheme, this can impact on them (for example they spend so much money paying for X that they cannot pay their rent), which then impacts on the organisation in question (the housing association).

Lastly, the artefact found within this research relates in part to three other theories:

- Rawls' Theory of Justice

John Rawls (1971) assumes that the idea of good social outcomes must be related to good distributive justice, based on a 'social contract' where individuals surrender some of their freedoms and submit to the authority of a community's ruler, in exchange for protection of their remaining rights. Rawls recognises that people are self interested, but that they also recognise that their needs may be more effectively met by cooperation rather than non-cooperation.

This accurately reflects the artefact within this research. However, the SuHousingImpact artefact takes this notion further and acts slightly differently.

Instead of focussing on the distribution of social and economic inequalities being rearranged to the greatest benefit of the least advantaged; the thinking behind the SuHousingImpact artefact, is to focus on positive social and environmental inequalities being 'rearranged' through compensatory financial contributions to the benefit of the organisation providing those positive benefits, thus keeping the economic equilibrium, and future economic sustainability in check.

- Stakeholder Fairness (Phillips)

Phillips (1997;2003) cites the importance of individuals or groups of individuals interacting for mutual benefit and fairness. This involves the engagement in voluntary activities that require a mutual contribution and a restriction of liberty. Phillips cites that corporations should attempt to redistribute the benefits of activities as equitably as possible among stakeholders. The SuHousingImpact artefact works the other way round and involves the redistribution of benefits by way of an amount of compensation from benefitting stakeholders, towards the facilitating organisation, such as a housing association.

- Communitarian Theory (Etzioni)

Etzioni (1996;1998) cited the theory that all stakeholders involved in a corporation belong to and are indeed members of one community. This is despite the divergent interests and needs of each separate stakeholder group. He describes how all involved stakeholders are potential investors in a company and how a company may even be thought of as their property.

This can be linked to the workings of the artefact in that if related stakeholders to a particular regeneration scheme do not have this attitude, and see themselves as sole beneficiaries without any needed input or linkage to the source of the positive benefits coming their way, this would lead to a lack of participation, which could lead to a lack of financial contributions towards the host organisation. If this happens, the tap providing such benefits could be ‘turned off’ in the future, simply because of the lack of a community approach, the like of which is described originally by Etzioni. This would then negatively affect the community in question.

1.6.3. Temporal displacement

The theories within the literature relating to the issue of temporal displacement are also relevant and related to the artefact at the centre of this research.

Durand (1974) has drawn parallels between Kenneth E Boulding's (1936) time spread (which measures the average time interval elapsing between sets of capital outlays and returns), the payback period (with the payback period noted as the time required for cash inflows from an investment to recover an initial investment) and the concept of duration.

In addition, Boardman et al., (1982) draw theoretical parallels between the concept of duration and the payback period. The authors cite that payback can be used as a proxy for duration. This is important regarding the application of duration to the concept of capital budgeting and links into the usage of the SuHousingImpact artefact as a strategic management tool. If returns from a capital investment were to take too long to be returned, then it would be unwise to invest, and vice versa.

In line with this, Awomelwe and Ogundele (2008) link the payback method to 'pecking order theory'. Pecking order theory relates to an organisation's hierarchy of sources of finance, with a preference of using internal financing firstly, over external financing secondly (Donaldson, 1961). They add that an organisation is more likely to embark on an investment that will bring back the cost of an outlay and so managers use methods to create immediate liquidity for a company. Therefore any investment that generates immediate cash flow is preferential. The payback period is a method of detecting this form of preferred investment option. The payback period ideology within the SuHousingImpact artefact works in the same way. It can show, with an evidence-based proof, to positively impacted stakeholders potentially making financial contributions, when the earliest moment in time will be, for the cost of an outlay to be returned to them, but within this research, the return is in the form of

monetised socio-environmental spillovers. Additionally, the usage of the artefact from a strategic angle by using the involved calculations to gauge the socio-environmental effect a particular scheme might offer would make an investment in such a scheme more economically efficient. This would mean that it would not be necessary to tap into the external funding sources described within the ‘pecking order theory’.

Lastly, any financial contributions from stakeholders, through usage of the artefact, can act as the external funding referred to within the ‘pecking order theory’.

1.6.4. Fragmentation of public expenditure

The artefact in this thesis also relates to the theoretical underpinning of the fragmentation of public expenditure. The approach of New Public Management is at the foundation of this fragmentation. New Public Management was introduced as a reaction to Keynesianism, which had “shown its limits in responding to stagflation (a combination of low growth, high inflation and long term unemployment)” (Dalingwater, 1997) and was “founded on themes of disaggregation, competition and incentivisation” (Dunleavy et al., 2005).

Within the artefact, a fragmentation of the previous overall impact produced under SuROI is split into different per stakeholder ratios, reflecting different stakeholders’ separate impacts and budgets. Stoker (2006:46) noted that New Public Management seeks to “dismantle the bureaucratic pillar of the Weberian Model of traditional public administration” through fragmentation and disaggregation.

The theories underlying the domain of New Public Management also include public choice theory, principal agent theory and competition theory (Kaboolian, 1998; O' Flynn, 2005).

Public choice theory has been integral in underpinning key features of New Public Management including separation and fragmentation (Boyne et al., 2003) and involves the self serving and self focussed choices that the public typically take in terms of political and bureaucratic choices. This self focussed choice mechanism exists not only in public choice theory, and the playing out of public choice theory, but also within New Public Management itself, where each stakeholder is only typically concerned with what they themselves get out of a particular situation, with the stakeholder in question not being necessarily focussed on the overall social or environmental good. This is reflected in the per stakeholder values explicit within the artefact and enables stakeholder focussed evaluation, management and governance.

Similarly, principal agent theory describes the relationship between principals and agents (an example is corporate management [agent] and shareholders [principals]) and the issues that arise when their interests inevitably diverge (Walsh, 1995). This leads to human behaviour focussing on assumptions of self-interest, opportunism and goal divergence (Althaus, 1997). This theory can again be linked to the way the SuHousingImpact artefact within this research is usable in terms of being able to split up the previous 'overall' and 'holistic' impact provided by SuROI into the separate per stakeholder impact ratios and subsequent payback period calculations, reflecting the aforementioned assumptions of self-interest, opportunism and goal divergence.

Competition theory (highlighted by Hood [1991] with regard to New Public Management) states that each separate stakeholder is often in competition with other stakeholders for what they can each get for themselves out of each separate economic situation. This again ties in with the above polycentric nature of the artefact within this research.

Moving onto another theory outlining polycentricism, Gruening (2004) highlights this theoretical aspect, and indeed practical aspect of the artefact, from the “separation of provision and production” as part of the Ostroms’ model of a ‘polycentric administrative system’. This can be described by Ostrom (1961) and Ostrom (1991) as having:

- 1) Many autonomous units formally independent of one another
- 2) Choosing to act in ways that take account of others
- 3) Through processes of cooperation, competition, conflict and conflict resolution

This theory again accurately reflects the fragmentation of values reflected within the novel ‘stage 6’ of the SuHousingImpact artefact.

1.7. Problem statement

The resulting problem statement that this thesis thereby attempts to solve is the current lack, within the literature, of a tool which, being based on the SuROI

methodology, is able to not only calculate the social and environmental impacts for a housing-led urban regeneration scheme, but one which can perform the same calculative process for each individual stakeholder pertaining to a scheme, and in addition, the fact that no tool exists, that can actively calculate the potential pay back period for each stakeholder, and indeed for the scheme in question. This is the focus of the study.

1.8. Objectives of the research

Consequently, the objectives of the research are as follows:

- (1) To discuss the methods which evaluate the success of housing schemes in regeneration areas and to produce a tool which provides an effective way of assessing different aspects of housing-led urban regeneration schemes,
- (2) To carry out a gap analysis between a more historical evaluation method and the method on which the new tool is based, to clarify the need for such a tool,
- (3) To develop the tool through a single case study methodology by using two real historical sub-case studies from City West Housing Trust's stock in West Salford, UK and,
- (4) To verify the tool through a focus group and open ended interviews with experts in the field.

1.9. Research contributions to knowledge

The novel contributions of this research include:

- The usage of the SuROI approach within housing-led urban regeneration schemes
- Stakeholder mapping, which currently remains at a qualitative level, can be carried out quantitatively, in light of the concept of New Public Management
- A refinement of the already existing SuROI approach by using Design Science Methodology to create a new ‘SuHousingImpact’ tool
- The refinement of SuROI by using Design Science Methodology in creating the new ‘SuHousingImpact’ tool which is able to calculate the social and environmental impacts for each individually involved stakeholder within a scheme
- The refinement of SuROI by using Design Science Methodology and creating the new ‘SuHousingImpact’ tool which is able to determine pay back periods for both each individual stakeholder involved in a scheme, and also for the scheme as a whole

1.10. Structure of the thesis

The structure of the thesis is as follows:

- Chapter One: Introduction to the Thesis
 - Chapter One provides an overview of the research, including the current economic climate affecting housing associations; evaluation methods used thus far within the field of housing-led urban regeneration; the chapter introduces the Sustainable Return on Investment (SuROI) approach on which the thesis is heavily based; it then progresses to cover the way that a refined version of SuROI, named ‘SuHousingImpact’, could be beneficial for academics and housing associations alike
 - The chapter discusses the theoretical and conceptual framework of the artefact
 - The chapter discusses the research need and subsequent objectives of the investigation
 - The chapter lists the contributions to knowledge within the thesis
 - The chapter discusses the organisation of the thesis

- Chapter Two: Sustainable Development and Urban Regeneration
 - The chapter covers urban regeneration, its history in a UK context, together with its definitions, before making explicit the importance of housing in regeneration, including making explicit housing and its links to health, the physical, social and economic environment
 - The chapter discusses sustainable development, its history, the notions of ‘strong’ and ‘weak’ sustainability, definitions and models of sustainable development, ‘capitals’ of sustainable development and sustainable development and its links with urban regeneration

Chapter Three: Evaluation of Social and Environmental Impact

- The third chapter provides an overview of evaluation, a brief history of evaluation as a concept, a background to evaluation in urban regeneration, a critical review of current assessment methodology, including the EGRUP Guidance, City Challenge, the Single Regeneration Budget, New Deal for Communities, Urban Development Corporations, the Hemphill Framework, the Sustainable Urban Renewal Project Assessment Model and the guidance within the UK Government’s ‘Green’ and ‘Red’ books

- The concept and subject domain of Developmental Evaluation is additionally covered – this being a form of evaluation useful for the creation of a real world tool being developed for real world usage, together with detail on more traditional approaches to evaluation
- Chapter Four: Sustainable Return on Investment
 - Chapter Four provides an overview of the Sustainable Return on Investment (SuROI) approach to evaluation within the built environment including the different stages involved in the process
 - The chapter additionally covers the Social Return on Investment (SROI) approach, including its principles and guidelines, together with its advantages and disadvantages
- Chapter Five: Research Methodology
 - This chapter includes a definition of research methodology, the research philosophy of the thesis, an overview of the concepts of epistemology, ontology and axiology, and the research approach
 - The notion of the case study, the approach utilised within this thesis, is covered, together with common misinterpretations of the concept
 - The rationale for the selection of case study research is made explicit
 - The real world approach of Design Science Methodology is outlined and its advantages in this research context over more traditional

approaches is covered, together with the justification for using Design Science Methodology as part of the Case Study approach

- The guidelines and stages of DSR are covered including the explication of the problem, the outlining of the artefact and defining of the requirements, the design and development of the artefact, the demonstration of the artefact and the evaluation of the artefact

- Chapter Six: The Artefact - 'SuHousingImpact' Tool
 - The 'SuHousingImpact' tool (the artefact) is explained, with reference to its various stages. Guidance is also provided on indicator and proxy information available for usage within the tool

- Chapter Seven: Evaluation, Validation and Testing of the Artefact
 - The tool is evaluated, validated and tested by being used on two different historical regeneration schemes belonging to City West Housing Trust; that of an environmental-led programme and a high rise scheme. Results from the usage of the tool are produced

- Chapter Eight: Discussion and Conclusions
 - Results from the case study schemes are discussed, analysed and contrasted and conclusions formed

1.11. Summary

In this chapter, an introduction to the thesis was provided. The background and context to the study was covered. This included the current economic climate and its consequences for housing associations, together with the deficiencies of existing tools used to evaluate housing-led urban regeneration schemes. An introduction was provided to the ‘Sustainable Return on Investment’ approach (SuROI) (Bichard, 2015) and on Design Science Methodology and its use in the development of a real world tool, such as the ‘SuHousingImpact’ tool being developed within this study.

In addition, involved issues with budgets at play within City West Housing Trust, based in West Salford, UK were looked into and subsequently helped form intelligence to drive the way SuROI needs development in order to be of greater benefit to academia and housing associations alike. The theoretical and conceptual framework of the artefact was discussed, before the problem statement of the research was made explicit, as were the objectives for the PhD and the novel contributions to knowledge.

Finally the structure of the thesis was outlined.

CHAPTER TWO: SUSTAINABLE DEVELOPMENT AND URBAN REGENERATION

2.1. Introduction

This chapter demystifies the subject domains of sustainable development and urban regeneration and additionally covers the history and definitions of urban regeneration. It then proceeds to look at the links between housing and urban regeneration, housing and health, as well as housing and its relationship with each part of the triple bottom line (Elkington et al., 2007). The economic climate and its effect on housing associations is looked into in more depth, as are the corresponding problems and potential solutions. The importance of housing policies and the negative impact the new economic climate could determine is considered within the broader framework of the Sustainable Development Goals. At this point, purpose, history and definitions of sustainable development are made clear, together with definitions of ‘weak’ versus ‘strong’ sustainability, models of sustainable development, ‘capitals’, the recent UN Habitat III conference and its shift towards sustainable cities, and finally, sustainable development and its links with urban regeneration.

2.2. History of sustainable development

It could be argued that the history of sustainable development goes back further than many commentators enlighten on.

Some historical foundations of sustainable development have been traced back to Plato in the 5th century (Du Pisani, 2006) or even the eighteenth, nineteenth and early

twentieth centuries (Holland, 2003; Lumley and Armstrong, 2004; Pepper, 1996), whilst others assert that it was specifically in 1798 that sustainable development was truly born, through the publishing of the works of Thomas Robert Malthus (1766-1834) and his *Essay on the Principle of Population*, which argued that there would come a time when food production would not be able to keep pace with the growth of population.

However, some authors write that it is possible to trace the roots of sustainable development back to the more recent time of the 1950s and 1960s, when developed nations were becoming increasingly aware that the environment was being affected by rapid industrialisation (Hall and Ashford, 2012; Ashford and Hall, 2011) or alternatively, only as far back as 1969 (Adams, 2006), or indeed the early and mid 1980s (Clark and Munn, 1986; IUCN/UNEP/WWF/FAO/UNESCO, 1980; World Commission on Environment and Development, 1987), or even specifically in 1987 (Mebratu, 1998). Du Pisani (2006) adds that the terms ‘sustainability’ and ‘sustainable’ appeared for the first time in the Oxford English Dictionary during the second half of the 20th century.

In the late 1960s, there were worries about environmental problems, rapid industrialisation and whether natural resources could meet the requirements of a growing population. Relevant publications citing these arguments include *The Tragedy of the Commons* (Hardin, 1968) and *The Population Bomb* (Ehrlich, 1968).

Subsequently, and along the same lines, in 1972, the Club of Rome and their book entitled *The Limits to Growth* described the effects and issues relating to non-renewable resource depletion and the urgent need for sustainability.

In the same year, the UN Conference on the Human Environment was held in Stockholm, Sweden. This conference identified the need for all nation states to

establish an environmental policy at national level and brought the importance of the environment for sustaining life to the world's attention (Caldwell and Weiland, 1996). The conference is credited as being a catalyst for the large scale of literature subsequently being published regarding the world's consciousness about the natural environment (Dernbach, 1998; Emmelin, 1972; Strong, 1972). Indeed, according to Atkinson (2008), the early debate on sustainable development mainly centred on environmental protection.

In 1983, the UN General Assembly created the World Commission on Environment and Development (WCED) (later known as the 'Brundtland Commission', named after its Chair, Gro Harlem Brundtland, the then Prime Minister of Norway) and in 1987, the WCED published the Brundtland Report, entitled *Our Common Future* (WCED, 1987) and within the report, seminally defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987:43). It is this definition that is often referred to as the gospel definition of sustainable development.

The UN Conference on the Environment and Development (UNCED), held in Rio de Janeiro, Brazil, during the summer of 1992 then took the concept of sustainable development further by formulating the Agenda 21 'Policy plan for environment and sustainable development in the 21st century' which extended the ongoing debate beyond simply environmental issues, which had been the case up until that point in time (Ang and Wilkinson, 2008; Du Plessis, 2005; Atkinson, 2008) by reinforcing the integration of the 'three pillars of sustainable development'; namely economic development, social equity and environmental protection (Brandon and Lombardi, 2011; Carter and Rogers, 2008; Elkington et al., 2007).

Subsequently, in September 2000, at the Millennium Summit held in New York, world leaders agreed on the 'Millennium Development Goals'. These eight goals sought to demonstrate that "the livelihoods and well-being of the world's poor are now conceptualised in terms of access to opportunity and absence of insecurity and vulnerability" (Adger and Winkles, 2007:194).

In June 2012, the UN Conference on Sustainable Development (known as Rio+20) was held in Rio de Janeiro, Brazil, 20 years after the first Rio Conference. The primary purpose of the conference was to reinvigorate the promotion of sustainable development within the international community. It has widely been argued that the concept of sustainable development has evolved from a consideration of only environmental factors, through then to economic and also social considerations (Maliene et al., 2008). Hawkins and Shaw (2004) further that the ultimate goal of sustainable development is to ensure convergence among the three pillars of sustainability, or as it is alternatively and often termed, the triple bottom line (Elkington et al., 2007).

The Rio+20 conference report, entitled *The Future We Want* highlighted the 'green economy' as being one of the important tools available for achieving sustainable development (UN, 2012a:9). The 'green economy' was referred to within the UNEP Green Economy Report of 2011, as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient, and socially inclusive" (UNEP, 2011).

In the context of the present day, the concept of sustainable development has been recently re-contextualised by the United Nations Conference on Housing and Sustainable Urban Development (Habitat III), held in October 2016 in Quito, Ecuador, through the adoption of the 'New Urban Agenda', defined as "a shared

vision for a better and more sustainable future – one in which all people have equal rights and access to the benefits and opportunities that cities can offer, and in which the international community reconsiders the urban systems and physical form of our urban spaces to achieve this” (UN, 2017).

The concept of sustainably developing urban areas is related to social issues, including poverty, health, and housing. The General Assembly of the United Nations asserted in the resolution ‘Transforming our world: the 2030 Agenda for Sustainable Development’, which was adopted on the 25th September 2015, that there would be 17 Sustainable Development Goals (SDGs), including, Goal 11— “Make cities inclusive, safe, resilient and sustainable” (Dean, Trillo and Bichard, 2017a). This goal is closely linked to the main domain of this thesis, setting as its primary target the provision of sufficient affordable housing. In addition, in the context of the UK, the Royal Institute of British Architects’ (RIBA) Manifesto of 2017 continues the focus on the concept of sustainable development but at the same time, changes course from the past by “introducing a requirement to consider social return” in the quest for sustainable development, thereby “following the same approach as the Social Value Act” (RIBA, 2017). It is from this stance that this thesis finds further development.

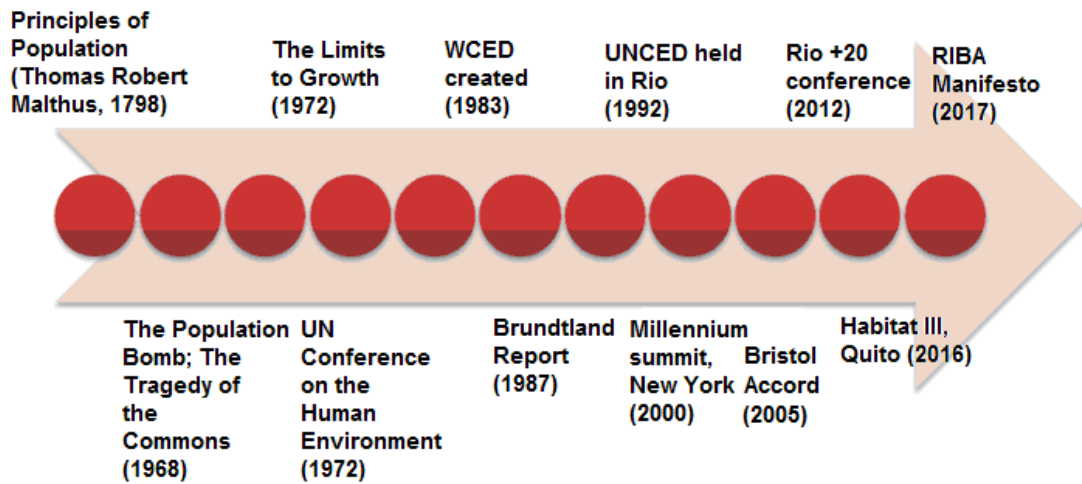


Figure 2.1: Timeline of publications related to Sustainable Development (Author's elaboration)

2.3. Definitions and models of sustainable development

There is little by way of a consistent definition of sustainable development within the literature. Indeed, the term has been said to have a complex range of ideas and meanings (Adams, 2006). Parkin (2000) for example, found more than two hundred definitions of sustainable development and according to Holmberg (1994), by 1994 there were more than 80 different definitions of the term. Roberts (2003) has cited that there has been both a historical misinterpretation of the term as being principally concerned with environmental issues with an additional tendency “for economic issues to dominate social and environmental concerns”.

The most common definition of sustainable development, as already touched upon, is the one conceived at the World Commission on Environment and Development (WCED, 1987): “Development that meets the needs of the present without

compromising the ability of future generations to meet their own needs”. This highlights the triple bottom line (Elkington et al., 2007), together with the concept of needs and the importance of a longer term perspective, and the recognising of potential trade-offs between meeting current needs and ensuring that resources are available to meet future needs and implies a form of socio-economic development, increasing human well-being or quality of life for today’s generations but not leading to a decline in future well-being (Ekins et al., 2008). Parkin (2000) echoes this capacity for continuance and asserts that “sustainable development is the process whereby over time, we achieve sustainability”. The notion of the triple bottom line, or components of it, are involved in other definitions within the literature. Elkington et al., (2007) refer to sustainable development as containing all three aspects of the triple bottom line. This is sometimes referred to as the ‘triangle’ of ‘People, Planet, and Profit’ (the three Ps) (European Commission, 2002) or ‘People, Planet and Prosperity’ (Pope et al., 2004). Roberts and Benneworth (2002) reaffirm the notion of the triple bottom line in citing that “sustainable development balances economic, social and environmental development to maximise living standards for most people over time”.

The social and economic systems are referenced within Pearce, Makandia and Barbier (1989) and Pearce (1993), whilst economic and environmental aspects are referred to in HMSO (1994) and IUCN/UNEP/WWF (1991) refers to the social and the environmental.

In the UK Government’s *A Better Quality of Life*, (DETR, 1999), the UK Government furthers the holistic stance, when asserting that sustainable development “means meeting four objectives at the same time, in the UK and the world as a whole: social

progress which recognises the needs of everyone, effective protection of the environment, prudent use of natural resources and maintenance of high and stable levels of economic growth and employment”.

Ekins et al., (2008) developed what they termed the ‘four capital model of sustainable development’.

This can be seen in Figure 2.2 below:

| | |
|--|--|
| <p>Manufactured capital</p> <p>Manufactured (or human-made) capital is what is traditionally considered as capital: produced assets that are used to produce other goods and services. Some examples are machines, tools, buildings and infrastructure.</p> | <p>Natural capital</p> <p>In addition to traditional natural resources, such as timber, water, and energy and mineral reserves, natural capital includes natural assets that are not easily valued monetarily, such as biodiversity, endangered species and the ecosystems that perform ecological services (e.g. air and water filtration). Natural capital can be considered as the components of nature that can be linked directly or indirectly with human welfare.</p> |
| <p>Human capital</p> <p>Human capital generally refers to the health, well-being and productive potential of individual people. Types of human capital include mental and physical health, education, motivation and work skills. These elements not only contribute to a happy, healthy society, but also improve the opportunities for economic development through a productive workforce.</p> | <p>Social capital</p> <p>Social capital, like human capital, is related to human well-being, but on a societal rather than individual level. It consists of the social networks that support an efficient, cohesive society, and facilitates social and intellectual interactions among its members. Social capital refers to those stocks of social trust, norms and networks that people can draw upon to solve common problems and create social cohesion. Examples of social capital include neighbourhood associations, civic organisations and co-operatives. The political and legal structures that promote</p> |

| | |
|--|---|
| | political stability, democracy, government efficiency and social justice (all of which are good for productivity as well as being desirable in themselves) are also part of social capital. |
|--|---|

Figure 2.2: Four types of Capital, taken from Ekins et al., (2008)

Originally described by Paul Ekins in 1992 the ‘four capital model’ was developed by economists at The World Bank and then furthered by the UK sustainable development charity ‘Forum for the Future’, where the fifth capital, that of ‘financial capital’ was added.

The ‘five capitals model’ provides a basis for understanding sustainability in terms of the economic concept of wealth creation or ‘capital’ (Forum for the Future, 2017) and can be seen in Figure 2.3 below:

| The Five Capitals |
|---|
| <p>1 Natural capital (also referred to as environmental or ecological capital) represents the stock of environmentally provided assets and falls into two categories.</p> <p>(a) Resources, some of which are renewable (trees, vegetation, fish, water), some non-renewable (fossil fuels, minerals). In some places ostensibly renewable resources (such as fertile soil) have become non-renewable (desert).</p> <p>(b) Services, such as climate regulation or the powerful waste processing cycles.</p> |
| <p>2 Human capital consists of the health, knowledge, skills, motivation and spiritual ease of people. All the things that enable people to feel good about themselves, each other, and to participate in society and contribute productively towards its well-being (wealth). Recently recognised as providing a high return on investment, especially in developing societies (where investment in human resources is viewed as possibly the most essential ingredient of development strategies) but also in the highly industrialised world.</p> |

3 Social capital is all the different cooperative systems and organisational frameworks people use to live and work together, such as families, communities, governments, businesses, schools, trade unions, voluntary groups. Although they involve different types of relationships and organisations they are all structures or institutions that add value to human capital. Again, the importance of social capital has only recently been recognised, unfortunately however, there are increasingly visible negative effects when it is eroded.

4 Manufactured capital comprises all of the human fabricated 'infrastructure' that is already in existence: the tools, machines, roads, buildings in which we live and work, and so on. It does not include the goods and services that are produced, and in some cases manufactured capital may be viewed as a source of materials (e.g. building waste used as aggregate for road building or repair).

5 Financial capital has, strictly speaking, no intrinsic value; whether in shares, bonds or banknotes, its value is purely representative of natural, human, social or manufactured capital. Financial capital is nevertheless very important, as it reflects the productive power of the other types of capital, and enables them to be owned or traded.

Figure 2.3: The Five Capitals (Taken from Parkin, 2000)

There are additionally pictorial diagrams of the conceptual make up of sustainable development, including the typical 'Venn Diagram' and the 'Russian Doll Model'.

According to the Venn Diagram, the interaction between the three triple bottom line components of sustainable development are shown, with sustainable development being achieved where the three dimensions overlap in the diagram:

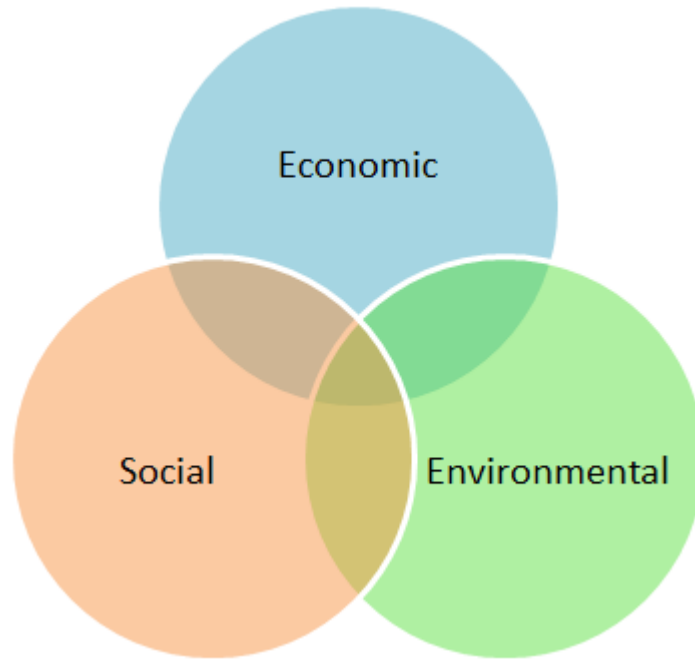


Figure 2.4: The Venn diagram of Sustainable Development (Adams, 2006)

Alternatively, a more altogether efficient way of presenting sustainable development is through the 'Russian Doll Model' (O'Riordan et al., 2001). This model depicts the fact that economic activity should lean towards social progress and should be achieved within environmental limits:

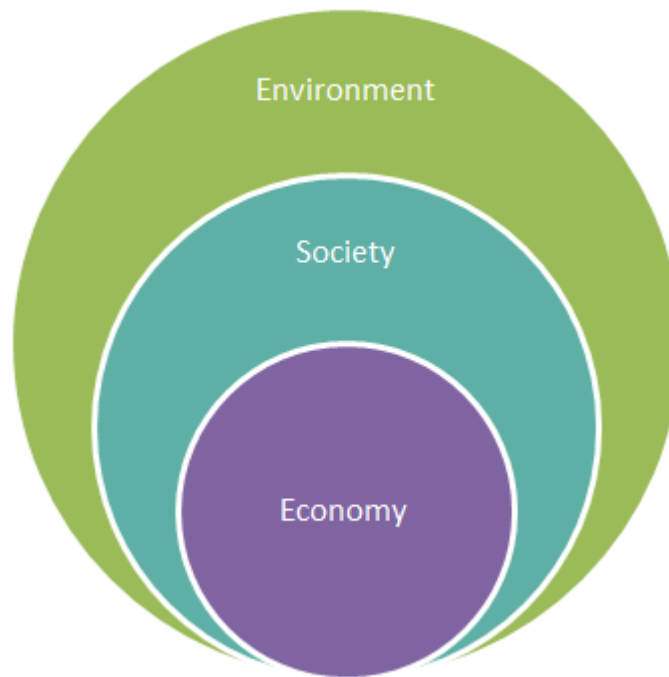


Figure 2.5: The 'Russian Doll Model' of Sustainable Development (O' Riordan et al., 2001)

2.4. 'Strong' and 'weak' sustainability and different evaluative perspectives

There is reference within the literature to two models of sustainability; those of 'strong' sustainability, and of 'weak' sustainability.

Strong sustainability takes the view that there is imperfect knowledge about the overall contribution of environmental capital and that the environment has not been correctly assigned value (Ehrlich and Ehrlich, 1992), with the consequence that environmental capital should be protected, as some environmental capital may be 'non-substitutable' (Turner, 1993). A strong sustainability position holds that fundamental services provided by nature and elements of natural capital are critical because of their unique contribution to human well-being (Ekins et al., 2003). Most

ecologists and environmentalists are proponents of the strong sustainability stance (Stoddart, 2011).

However, a weak sustainability stance assumes that natural and manufactured capital are both substitutable and that there are essentially no differences between the kinds of well-being they generate (Ekins et al., 2003; Neumayer, 2003; Neumayer, 2012). As Solow (1993) explains, within this model of understanding, the only thing that would matter is the total value of the aggregated stock of capital (Ibid, 1993) and the view would be held that the total stock of capital assets would be perfectly substitutable for one another. As Neumayer (2003:1) explains, “it [therefore] does not matter whether the current generation uses up non renewable resources or dumps Carbon Dioxide in the atmosphere, as long as enough machineries, roads and ports are built in compensation”. According to this view, substitution can take place between natural and man-made capital (Pearce and Atkinson, 1992).

The basic distinction between ‘weak’ and ‘strong’ sustainability has important implications as to whether environmental systems and resources should be kept intact by themselves or, whether contrary to this, the environment would be allowed to decline as long as the overall value of society’s economic capital is kept intact and of course they also have important implications on the conceptual framework underpinned in the socio-environmental balance of costs and mitigation measures.

Further to this distinction, and in relation to the implications on evaluative models derived from different views on sustainability, it may be worth mentioning how the current coexistence of multiple paradigms on ecology has an influence on the philosophical stance underpinned in the evaluative process. According to the

supporters of a vision of ecology referred to as *deep ecology* (Naess, 1973), the attribution of a monetary value to something which should have an intrinsic existence value would clash with the rationale to preserve it – regardless of its cost - for future generations, in line with the principle of intergenerational justice. With respect to this position, this research assumes that the act of monetising the value of environmental and social costs and benefits is not an ontological declaration and does not imply assimilating non market goods to market goods. This is merely instrumental to enable the raising of consensus (and financial support) across as many stakeholders as possible regarding the need for wider interventions relating to a crucial pillar of the SDGs, which is, the allowing of each person the dignity of a decent home, by unveiling the larger and long term impacts on respective budgets.

2.5. Sustainable development and its links with urban regeneration

With sustainable development incorporating the notion of the triple bottom line (Drakakis Smith, 1995; Brandon and Lombardi, 2011; Carter and Rogers, 2008; Carter and Fortune, 2007; Hawkins and Shaw, 2004; Rodriguez et al., 2002), it could be argued that the two concepts of urban regeneration and sustainable development share the same fundamental characteristics, and can thereby be linked as a consequence. This link is highlighted within the literature. Jones and Evans (2008) refer to the concept of sustainability as being “central” to regeneration policy in the UK. Couch and Dennemann (2000) state that the strategic aims of urban regeneration are “amenable” to those of sustainable development in a key way and additionally argue that all urban regeneration contributes to sustainable development, through the recycling of derelict land and buildings, reducing demand for peripheral development

and facilitating the development of more compact cities, whilst Boyko et al., (2012) write about the “key role” urban regeneration plays in sustainable development. Zheng, Shen and Wang (2014:1) add that “as sustainable development corresponds to urban renewal in terms of social, economic and environmental sustainability, it has been recognised that urban renewal and sustainability should be combined together”. Pitt et al., (2009) assert that anyone associated with creating the built environment has a key role to play in delivering and ensuring the sustainability of communities.

The DETR (2000) and ODPM (2003; 2005) add that sustainability is at the core of UK regeneration strategies; the UK being one of the first developed nations to produce a national strategy on the sustainable development and regeneration concept, taking the lead to implement many sustainable development and regeneration principles and many of the Agenda 21 action plan, (the action plan derived from the United Nations Conference on Environment and Development in 1992), in theoretical and practical terms (DEFRA, 2011).

It has been stated that a poorly planned and designed sustainable regeneration project can form the basis of social conflict (Yau and Chan, 2008), whilst many policy systems and strategies have been developed over the years in order that sustainable development and regeneration are realised (Lam et al., 2011; Van Bueren and De Jong, 2007). The notion of sustainability has been actively and widely promoted within sustainable regeneration projects, but apparently with limited sustainability benefits for the intended beneficiaries (Van Bueren and De Jong, 2007).

In addition, the built environment is known to represent the physical structure and the vehicle for sustainable development (Brandon and Lombardi, 2011) whilst built environment professionals have been urged to recognise the importance of sustainable development as an integral aspect of built environment practices (Bennett and

Crudginton, 2003). It is also argued that any regeneration project that fails to evaluate each of the established sustainability pillars will not achieve its sustainable development and regeneration objectives (Winston, 2009; CLG, 2008).

2.6. The Pact of Amsterdam and United Nations (UN) Habitat III Conference

Sustainable development now plays a key role in material produced by and communication from the United Nations (UN) and has recently been brought to international attention by the Pact of Amsterdam (2016) and the UN's Habitat III conference, held in Quito, Ecuador, from the 17th to the 20th of October, 2016.

The Pact of Amsterdam was adopted during the Dutch Presidency of the Council of the European Union on the 30th May 2016 and established the Urban Agenda for the EU (EUKN, 2017). The Pact document itself contains “objectives, thematic priorities, actions and operational frameworks” and a model of cooperation between urban policy stakeholders. It also aims to strengthen the urban dimension in European Union policies (Olejnik, 2017).

The Pact highlights 12 thematic priorities which can be used to improve the efficiency and effectiveness of EU policies in urban areas, in addition to realising the “full potential and contribution of urban areas towards achieving the objectives of the European Union and its Member States” (EUKN, 2017). The Urban Agenda for the

European Union “aims to establish a more integrated and coordinated approach to EU policies and legislation that affect urban areas” (Ibid, 2017):

The twelve priorities of the Urban Agenda for the European Union are:

1. Inclusion of migrants and refugees;
2. Air quality;
3. Urban poverty;
4. Housing;
5. Circular economy;
6. Jobs and skills in the local economy;
7. Climate adaptation (including green infrastructure solutions);
8. Energy transition;
9. Sustainable use of land and Nature-Based solutions;
10. Urban mobility;
11. Digital transition;
12. Innovative and responsible public procurement

(Taken from Olejnik, 2017)

In addition to the twelve thematic priorities above, which include housing, eleven further supplementary issues are cited, which include urban regeneration.

The Pact also explicitly refers to the United Nations 2030 Agenda for Sustainable Development and in particular Goal 11, which calls upon Member States to “make

cities inclusive, safe, resilient and sustainable” (Dean, Trillo and Bichard, 2017a; EUKN, 2017).

The creation of and need for the UN Habitat resulted as a consequence of three phenomena recognised by media, scholars and practical experience alike. These three factors were; rapid urbanisation worldwide, globalisation affecting economies worldwide and that of environmental awareness (Angell, 2012; Dobbs et al., 2011; Satterthwaite, 2007; U.N. Habitat, 2016). After Habitat I, held in Vancouver, Canada in 1976 and Habitat II held in Istanbul, Turkey, in 1996, came Habitat III in Quito, Ecuador, in 2016. Habitat III’s focus, contrary to the focus within previous UN conferences, was a realignment from a focus on human settlements, to now one of a focus on cities under the proviso that cities can be prosperous if a sustainable focus is placed upon them. As Birch (2016) states; “cities are engines of prosperity if they are socially and economically inclusive and environmentally sound”.

The concept of sustainable development has been recently re-contextualised by the UN Conference on Housing and Sustainable Urban Development thanks to the adoption of the ‘New Urban Agenda’. The concept of sustainably developing urban areas can be seen to be related to central social issues, including poverty, health and housing. Previously, the General Assembly of the United Nations had asserted in the resolution ‘Transforming our world: the 2030 Agenda for Sustainable Development’, which was adopted on the 25th September 2015, that among the 17 Sustainable Development Goals (SDGs), Goal 11—“Make cities inclusive, safe, resilient and sustainable”—sets as its primary target the provision of sufficient affordable housing.

Goal 11, which not only has strong links to all other SDGs but additionally “underpins them” (UN Habitat, 2017) can be seen in more detail within Figure 2.6 below:

| |
|--|
| Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable |
| 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums |
| 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons |
| 11.3 By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries |
| 11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage |
| 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations |
| 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management |
| 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities |
| 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning |
| 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels |
| 11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilising local materials |

Figure 2.6: UN Habitat III SDG 11 (taken from UK Parliament, 2016)

Habitat III's objectives sought to secure political commitment for sustainable urban development and offered a unique opportunity for discourse over the planning and management of cities, towns and villages which, if carried out correctly, could lead to sustainable development being realised (Evans et al., 2016). Habitat III also reported that not only did many countries throughout the world have some way to go in attaining the goal of being sustainable cities, but, that there were opportunities being presented by urbanisation, which if used correctly, could promote sustainable development (McGill, 2017; Mycoo, 2017). It can also be observed that because SDG 11 refers to culture and context, it can be linked in with the concept of 'spatial' sustainable development, referred to by Roberts (2002) who asserts that sustainable development objectives should be "interpreted in relation to the characteristics that are encountered in a particular place".

The UN asserts that regeneration activities will be given a priority as part of the process, that local governments and relevant stakeholders will be supported and that there will be an implementation of sustainable urban development programmes, with housing and people's needs being at the centre of the strategy (UN, 2016). In addition, with the demand by the UN for an increased funding of local governments (SDSN, 2016), which has been estimated at \$1 Billion per annum (SDSN, 2015), innovative approaches to financing urbanisation and subsequent sustainable urban development are being supported (SDSN, 2016).

However, it has been cited that despite the recent shift involved in Habitat III from settlements to cities, and the renewed focus on “achieving sustainable development in its three dimensions - economic, social and environmental – in an integrated manner” (McGranahan et al., 2016) this new shift remains dependent on old methodological tools and frameworks (Kaika, 2017) and there appear to be limits in data available to monitor SDG performance (Satterthwaite, 2016).

In addition, the need to generate “evidence-based” and “practical guidance” for the implementation of the New Urban Agenda has been highlighted, together with the importance of innovation in creating solutions (UN, 2016), the need for greater disaggregation of data (Caprotti et al., 2017) and the usage of alternative measuring approaches, including potential citizen-generated data (Cornforth and Higgins, 2015), increased stakeholder engagement (Graute, 2016) with every locality tailoring to their unique context (Roberts, 2002), “respecting the inputs of the full range of local stakeholders” and using stakeholder mapping (SDSN, 2016), the involvement of communities in non conventional forms of data collection and reporting and development of appropriate portals or online web sites and systems (UN Habitat, 2016). This improves on previous UN evaluation approaches. For example, triple bottom line aspects were not integrated into the previous Millennium Development Goals (UN, 2013) whilst their monitoring and review did not begin until five years after the goals were adopted with data sources and MDG monitoring being of poor quality (Flood, 1997). All the visions outlined above tie in well with the goal of this study, and the artefact being created within this thesis.

In addition, the contribution that the application of SuROI to the housing sector can bring to the achievement of SDG Goal 11 mainly relies on quantifying the hidden

benefits of housing interventions on stakeholders. As stated by the UN, (<https://www.un.org/sustainabledevelopment/cities>): “common urban challenges include (. . .) lack of funds to provide basic services, a shortage of adequate housing, [and] declining infrastructure”. A thorough understanding of the mutual interconnections provided by good quality housing and its related impacts may influence the willingness to fill some of the current gaps in resources for housing provision. SuROI is therefore suitable not only as a decision-making support tool, but also potentially as a means for facilitating better governance (Dean, Trillo and Bichard, 2017a).

2.7. Urban regeneration

The amount of persons living in urban areas is considered to be increasing. The European Environmental Agency (2006) refers to 75% of the population as living in urban areas and predicts that by 2020 this number will increase to 80%. The United Nations (2012) predicts that the land conversion to urban areas will triple by 2030 and adds that 21st century global urban trends have “taken human civilisation into unknown territory” with half the world’s population living in urban areas for the first time in history, stating that by 2030, the world urban population is expected to be some 5 billion people, whilst the level of urbanisation will rise from what was 52% in 2011 to 67% in 2050 (UN, 2012b). The UN Habitat (2011) adds that the majority of the world’s population is now living in urban areas whilst it has also been claimed that almost three quarters of the world’s population will live in urban areas by 2050 (Evans et al., 2016).

In Western countries, in order to accommodate the shifts referred to above, development through urban regeneration schemes typically takes place (Rydin et al., 2012).

Urban regeneration can consequently be considered as an important activity and this importance has been highlighted in the literature. It has been referred to as one of the most fundamental aspects of social intervention that a government can implicate itself in (Diamond et al., 2006). In the United Kingdom context, it has been stated that without regeneration, the most deprived communities in the United Kingdom would have little chance of economic recovery (The Work Foundation, 2012) and additionally, its long term impacts within society are highlighted (Yau and Chan, 2008). Tallon (2009) and Roullet and Lefebvre (2013) note the rise of urban regeneration, citing that there has been a shift towards the idea of urban regeneration gradually taking place for about four decades.

Urban regeneration has been referred to as an activity that attempts to address urban problems via economic, social and environmental improvements in a particular area (Roberts and Sykes, 2000). The reference to the triple bottom line of economic, social and environmental aspects is commonplace within the literature. Authors such as Roberts and Sykes (2000), Ercan (2011), Brown (2006), Lombardi et al., (2011), Scottish Government (2011), Smith (2006a), Brandon and Lombardi (2011) and Ha (2007) all refer to the concept of the triple bottom line as being integral to urban regeneration.

The current stance differs from the historical one. Historically, it is claimed that urban regeneration was carried out with only physical notions in mind (Atkinson and Moon, 1994; Couch, Sykes and Boerstinghaus, 2011) or alternatively that there was a focus on economic and environmental aspects only (Colantonio and Dixon, 2009), thus omitting the social component. Additionally, the aim appeared to have previously been one of involving the achievement of quantity rather than quality, especially after the destruction caused as a result of the Second World War (Preimus et al., 1999).

2.7.1. Definitions of urban regeneration

There are many views and opinions within the literature on what exactly constitutes the definition of ‘urban regeneration’. If we firstly look at the dictionary definition of the two words *urban* and *regeneration*, the definitions appear as follows:

Urban *adjective*

In, relating to, or characteristic of a town or city

Regeneration *noun*

The action or process of regenerating or being regenerated

From “re-generare” - to create again

Regenerate *noun*

Bring new and more vigorous life to (an area etc.); to revive, especially in economic terms

(OED, 2017)

Thus, ‘urban’ means “relating to towns or cities” (Tallon, 2009). According to the OED (2017), the term ‘regeneration’ is used when any revival of an area is being undertaken, whilst Turok (2005) uses the term to describe the reinvigorating of areas,

Williams (2002; 2007) mentions the term 'reborn' and Clements (2005) adds to this with the term 'renewal'.

This 'renewal' can mean of the physical environment, including the aesthetics of an area, the economic environment or the social environment. Indeed, Tallon (2009) states that regeneration "has come to be associated with any development that is taking place in (UK) towns or cities".

Roberts and Sykes (2000) define the term 'urban regeneration' as "a comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental conditions of an area that has been subject to change".

However, Turok (2005) disputes, stating that regeneration is rarely classed as being comprehensive. Further, Gibson and Kocabas (2001) state that urban regeneration is a holistic, comprehensive and integrated approach that should embrace the three key features of economy, equity and environment. The economy and the environment contributing to part of the UK Government's definition of the term. In the 2011 Governmental publication *Regeneration to enable growth*, it is defined as "the broad process of reversing physical, economic and social decline in an area where market forces will not do this without intervention" (DCLG, 2011). This can be differentiated from Jones and Evans' view that regeneration is considered as being "the large scale process of adapting the existing built environment with varying degrees of direction from the state" (Jones and Evans, 2008). Jones and Evans (2008) also state that regeneration is a type of intervention particularly well suited to deindustrialised cities that are attempting to join the new and changing economy, thus requiring public investment to change their physical infrastructure to adapt to this changing economy.

The Audit Commission asserts that the general aim of regeneration is “to enable communities that have suffered from economic, social and environmental decline to ‘work’ again” (Audit Commission, 2003). However, Williams (2002) highlights only one factor, citing that the single issue is never poverty, racism or social inclusion, but the environment.

Clements (2005) states that at its simplest level, urban regeneration implies the renewal of lost *vitality*, and again refers to the triple bottom line, adding... “whether physical, social or economic (or some combination thereof)” whilst alternatively, Williams suggests the term *reborn* (Williams, 2007).

Turok (2005) cites that three typical features of urban regeneration involve the changing of the “nature of a place” as well as the processes and persons involved in this change, and that there are often “multiple objectives and activities” that go beyond what a central government would readily accept as being in their jurisdiction and that partnership working is a necessity of any process.

He also states that there are other benefits of urban regeneration which include three basic concepts revolving around:

- a) Improving the lives, skills and aspirations of the persons living in an area
- b) The attempt to reinvigorate an area in terms of business performance which would in turn make an area more economically prosperous and
- c) To make an area more “generally appealing” in order to facilitate a) and b).

This definition again honing in on the potentially holistic nature of urban regeneration.

According to Roberts and Sykes (2000), there are certain fundamental principles involved in any form of urban regeneration that should:

- Be based on a detailed analysis of the condition of an urban area
- Be aimed at simultaneous adaptation of the physical fabric, social structures, economic base and environmental condition of an urban area
- Attempt to achieve this simultaneous adaptation through the generation and implementation of a comprehensive, integrated and balanced strategy
- Ensure that the strategy and implementation are developed in accordance with aims of sustainable development
- Set clear operational objectives which where possible should be quantified
- Make the best possible use of existing resources including natural, economic and human resources “including land and existing features of the built environment”
- Seek to ensure the maximum amount of consensus through consultation and communication with all stakeholders with a legitimate interest in the regeneration of the area in question
- Measure the progress of strategy devised against the agreed and specified objectives and should monitor “the changing nature and influence of the internal and external forces which act upon urban areas”
- Recognise the need for continual revision of programmes of implementation as changes occur

- Recognise that different elements of a strategy may unravel at different speeds thus requiring the redirection of resources or the provision of different resources where necessary.

The authors add that the theory and practice of urban regeneration together shares commonalities;

- It is typically an interventionist activity
- It is typically an activity that straddles the public, private and voluntary and community sectors
- It is typically an activity that is likely to experience considerable changes in its institutional structures over time in response to changing economic, social, environmental and political circumstances
- It is typically a means of mobilising collective effort and providing the basis for the negotiation of appropriate solutions
- It is typically a means of determining policies and actions designed to improve the condition of urban areas and developing institutional structures necessary to support the preparation of specific proposals.

In addition to the above guidance, the Department for Communities and Local Government (2008) adds that urban regeneration should aim to:

- Secure long term change, by tackling barriers to growth and reducing worklessness

- Improve places and make them more attractive to residents and the investment community so that new and existing businesses can prosper
- Foster ambition and unlock potential in the most deprived areas by breaking out of the cycles of poverty in an area
- Enable everyone in society to be empowered to participate in decision making and to take advantage of the economic opportunities that regeneration brings
- Deliver sustainable development, which contributes to people’s satisfaction with where they live as well as wider government goals, and to
- Open up opportunities to create more equal communities.

As can be seen from the literature, there are a wide variety of definitions and opinions on what exactly constitutes the term ‘urban regeneration’. A variety of these definitions and opinions can be seen listed within the table below:

| Author | Definitions include |
|----------------------------|---|
| Academic literature | |
| Roberts and Sykes (2000) | A comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental conditions of an area that has been subject to change |
| Gibson and Kocabas (2001) | Is a holistic, comprehensive and integrated approach which should embrace three key features of economy, equity and environment |
| Williams (2002; 2007) | The single issue is never poverty, racism or social inclusion. Its the environment; Regeneration is about areas being reborn |

| | |
|------------------------|---|
| Clements (2005) | At its simplest level, it implies the renewal of lost vitality, whether physical, social or economic (or some combination thereof) |
| Turok (2005) | <p>Rarely classed as being comprehensive;</p> <p>Involves changing the nature of a place, multiple objectives and activities that go beyond what central government would accept as being within their jurisdiction;</p> <p>Partnership working is a necessity of any process;</p> <p>Improves lives, skills and aspirations of persons living in an area;</p> <p>Attempts to reinvigorate an area in terms of business performance;</p> <p>Makes an area more economically prosperous;</p> <p>Makes an area more generally appealing</p> |
| Brown (2006) | Urban regeneration is concerted social, economic and physical action to help people in neighbourhoods experiencing multiple deprivation reverse decline and create sustainable communities |
| Jones and Evans (2008) | <p>The large scale process of adapting the existing built environment with varying degrees of direction from the state;</p> <p>Regeneration is a type of intervention particularly well suited to deindustrialised cities that are attempting to join the new and changing economy thus requiring public investment to change their physical infrastructure to adapt to the changing economy</p> |
| Tallon (2009) | <p>Relating to towns or cities;</p> <p>Associated with any development that is taking place in towns or cities</p> |
| Ercan (2011) | A comprehensive integration of vision and action aimed at resolving the multi-faceted problems of deprived urban areas to improve their economic, physical, social, and environmental conditions |

| | |
|---|---|
| Oxford English Dictionary (2017) | In, relating to, or characteristic of a town or city; The revival of an area |
| Non academic literature | |
| LGA (2000) | The transformation of a place—residential, commercial or open space—that has displayed the symptoms of physical, social and/or economic decline breathing new life and vitality into an ailing community, industry and area [bringing] sustainable, long term improvements to local quality of life, including economic, social and environmental needs |
| ODPM (2001) | Not simply about bricks and mortar. It’s about the physical, social and economic well-being of an area; it’s about the quality of life in our neighbourhoods. In relation to the physical, this is as much about the quality of public realm as it is about the buildings themselves |
| Audit Commission National Study (2003) | The aim of regeneration in general is to enable communities that have suffered from economic, social and environmental decline to ‘work’ again |
| International Federation of Arts Councils and Culture Agencies (2006) | The renewal, revival, revitalisation or transformation of a place or community. It is a response to decline, or degeneration. Regeneration is both a process and an outcome |
| Scottish Government (2011) | The holistic process of reversing the economic, physical and social decline of places where market forces won’t suffice |
| UK Government (2011) | The broad process of reversing physical, economic and social decline in an area where market forces will not do this without intervention |

Table 2.1: Definitions of urban regeneration from the literature (Author’s elaboration)

The definitions presented within Table 2.1 share some common traits but also possess many differences and so don’t link together perfectly. Tallon (2009) and the Oxford English Dictionary (2017) both share the view that regeneration relates to towns or cities whereas Brown (2006) refers to neighbourhoods, the Scottish Government

(2011) refers to places, the International Federation of Arts Councils and Culture Agencies (2006), ODPM (2001) and LGA (2000) refer to areas or places, whilst Ercan (2011) refers to urban areas. Along these lines, Jones and Evans (2008) mention that industrialised cities are particularly well suited to regeneration. Tallon (2009) refers to regeneration as a ‘development’, whereas the UK Government (2011), Scottish Government (2011) and Jones and Evans (2008) refer to a ‘process’ and the LGA (2000) refer to a ‘transformation’. Roberts and Sykes (2000) and Brown (2006) describe urban regeneration as an ‘action’ whilst Ercan (2011) and Roberts and Sykes (2000) comment on a ‘vision’, whilst Gibson and Kocabas (2001) refer to an ‘approach’. Roberts and Sykes (2000), Brown (2006), Scottish Government (2011), Ercan (2011), ODPM (2001) and LGA (2000) refer to triple bottom line factors whilst Turok (2005) mentions the economic and social aspects and infers an improvement to the physical and environmental. Clements (2005) writes something very similar, mentioning that the necessary improvements needed involve physical, social or economic aspects. Gibson and Kocabas (2001) differ from this in that they state that the economy, equity and the environment are the three key features involved in regeneration, with Williams (2002; 2007) stating that the environment is the key feature involved. The UK Government (2011) refers to the necessary reversal of the three features of physical, economic and social decline and the Audit Commission National Study (2003) echoes this, by adding that it is economic, social and environmental decline that creates the need for urban regeneration. Jones and Evans (2008) mention a need for deindustrialised cities to change their physical infrastructure.

Jones and Evans (2008) go on to describe the process as one of adaptation, whereas Turok (2005) mentions the “changing of the nature” of a place. Lastly, Turok (2005)

and Gibson and Kocabas (2001) both agree that the process is a holistic one, with Turok (2005) mentioning the multiple objectives involved in the process.

Roberts and Sykes (2000) and Gibson and Kocabas (2001) disagree with Turok (2005) in terms of whether urban regeneration is comprehensive or not, with the former authors stating that it is and the latter stating that it isn't.

2.7.2. History of urban regeneration in the United Kingdom

Urban regeneration in the United Kingdom (UK) has evolved over time. The 1950s were preoccupied with post war reconstruction and were seen as a period of dramatic suburban growth in new UK council housing estates. Relocation of industry resulted in severe decline of inner city areas (Tsenkova, 2003) whilst towns and cities were based primarily on master plans and suburban growth, and at that time, received only minimal intervention from the private sector (Roberts and Sykes, 2000).

The 1960s continued with much of what was utilised in the 1950s, with the 1950s theme continuing (Tsenkova, 2003). The State planning system was considered as incapable and inefficient (Barnekov et al., 1989) but despite this, urban regeneration was still typically public sector driven and was concerned primarily with the large-scale development of inner city slum areas (Couch, 1990).

The 1970s focused on in situ renewal and neighbourhood schemes, together with suburban development. There was also a "shift in emphasis" regarding the physical or "bricks and mortar" approach to regeneration (Tsenkova, 2003). Harding and Garside (1995) state that in the late 1970s there was a focus on the "economic regeneration of

selected areas” such as large scale infrastructure redevelopment, fuelled by increased private sector involvement - such as can be seen with the London Docklands. Indeed, Thornley (1993) adds that the advent of the UK Conservative Government in 1979 brought the private sector to the fore within the field of urban regeneration.

Barnekov et al., (1989), add that urban policy within this decade focussed on four main areas:

- Rising urban poverty, housing needs, low income earners and unemployment
- Long term unemployment and increasing job loss in inner city areas
- Concentrations of racial minorities in major urban centres
- The causes of decline - as opposed to the symptoms

In the 1980s, major schemes of development and redevelopment, flagship projects and out of town projects were conceived. The “Regeneration Blueprint” of the era was the 1977 White Paper *Policy for the Inner Cities* (Department of the Environment, 1977) which concluded that it was the decline of economic establishments that was responsible for the deterioration of the inner city (Deakin and Edwards, 1993). There was a realisation that urban regeneration could not be carried out to the levels needed, without the notion of partnerships and partnership working (Tsenkova, 2003).

The 1980s also hailed the arrival of two broad initiatives which “accelerated the process of urban regeneration” and provided the vehicles to create such partnerships (Ibid, 2003):

- Urban Development Corporations (UDCs)

The remit of UDCs was to bring buildings and land back into effective use, to develop industry and to create an attractive environment for people to work and live in (Berry

et al., 1993). UDCs were brought about to strategically combat previous public sector driven policies and were classed as “enablers”. By this, it is meant that they were not “bound by local authority plans” (Brownill, 1990; Berry et al., 1993) and that certain powers were held by UDCs regarding such aspects as the granting of planning permission and/or compulsory purchase orders (Ibid, 1993). UDCs also had the power to grant financial aid and were responsible for any infrastructure within a designated area (Tsenkova, 2003).

- Enterprise Zones

Enterprise Zones were designated areas free from planning regulations. The zones were designed to promote aesthetic creativity (Berry et al., 1993). Enterprise Zones were also able to claim economic incentives and financial allowances (Lawless, 1989).

The view of the time, a view that had changed from previous decades, was that regeneration was best carried out by the private sector and that local authorities would be “relegated to a minor role” (Deakin and Edwards, 1993).

In the 1990s, a more sustainable, partnership based and integrated approach was adopted with emphasis on the role of communities (Roberts and Sykes, 2000). Imrie and Raco (2003) disagree with this, stating that in the 1980s and 1990s, the approach to regeneration was largely property-led. The holistic approach emphasised in the Urban Task Force report, produced by the Department of the Environment, Transport and the Regions in 1999 (Urban Task Force, 1999), stressed that urban regeneration should be founded on strong democratic local leadership, public participation and the use of public finance to attract increased private investment. Local and National Government, private industry and local communities began working together in a

more comprehensive approach to regeneration, through social, economic, and environmental policies (Tsenkova, 2003).

In the present time, urban regeneration attempts to impact upon such aspects as the economy, employment, economic competitiveness, social exclusion, community issues, vacant or deteriorated sites in cities, land and property requirements, environmental quality and sustainable development (Turok, 2005; Keles, 2003; Roberts and Sykes, 2000).

2.8. Housing-led urban regeneration

The field of urban regeneration incorporates many different domains, including those such as retail-led regeneration and property-led regeneration (Tallon, 2009).

The field of housing-led regeneration was chosen as the focus of the study. This is the area within which the researcher works in full time employment, with City West Housing Trust, based in West Salford, UK. The researcher therefore has first hand and direct knowledge of the field and access to primary data and experts within the organisation and additionally within related organisations.

Access to housing is a human right (Universal Declaration of Human Rights, 1948) which has a multidimensional impact on human life (UN, 2016). Because housing has been referred to as possessing “social, environmental and economic dimensions which are all closely interrelated”, it is cited as being “much more than providing people with a place to live” (UN, 2016).

Housing can be said to play a ‘pivotal role’ in the regeneration processes being carried out in urban areas (Ha, 2007:118) and can also be classed as a driving force of regeneration schemes (Haran et al., 2011) or as being vitally important (ODPM, 2003).

Housing has been referred to as being one of the most important public policies affecting urban development and consequently has significant potential to contribute to sustainable development (Priemus and ten Heuvelhof, 2005; Tosics, 2004).

It is often seen as an indicator for growth and sustainable development of an area (Winston, 2009) and is considered to be at the centre of sustainable regeneration policy (Maliene and Malys, 2009). Because it plays such a pivotal role in the overall regeneration processes in urban areas (Ha, 2007), it is especially important to evaluate.

Bailey (2010) described the housing sector as a symbol that represents the entire scope of urban development and regeneration process, which should be considered as the “heartbeat” of the regeneration concept that is able to not only drive local regeneration but which can also provide substantial benefits in terms of creating sustainable local communities (Smith, 2006).

Housing is additionally important on a day to day level for many people. Hornberg and Pauli (2011:276) write that with the average time spent indoors every day, especially at home, being up to 90% in industrialised nations, this shows the importance of housing for well being and quality of life, as well as a home and retreat

which “affords protection and safety from the outside world and room for personal growth”. Paddison (2012) adds that housing and neighbourhood quality have profound implications for the quality of life enjoyed, or endured by residents and Hills (2007:xii) writes that housing is vital to the economy, environment, every individual and family “for whom a home represents so much more than just a place to live”.

Moving onto housing as a regeneration vehicle, it is considered that housing associations, as a major vehicle of delivering urban regeneration, are at the forefront of contemporary regeneration activity in neighbourhoods (CLES, 2015), whilst MacLennon (2007:7) states that good housing outcomes facilitate neighbourhood renewal, poverty reduction and wider economic progress and adds that “housing is central to the quality of life in our communities, to fulfilling people’s aspirations, to the economy and to the environment”. Maliene and Malys (2009:426) additionally add that “housing is a key issue to consider in delivering healthy and attractive communities”.

2.8.1. Housing and health

Housing quality is an important determinant of health (McGraw, 2007). Indeed, not only is poor housing “associated with poor health”, but the links between housing and health “suggest that housing improvement may well be justified on health grounds alone” (Thomson et al., 2013:4).

Indeed, Jacobs et al., (2010) cite that for more than a century, society has recognised that improved housing generally leads to improved health, with sufficient evidence now showing that specific housing interventions can improve health outcomes.

The link between housing and health has been made explicit by the Public Health Green Paper (Department of Health, 1998) where it was formally acknowledged that housing was a key health determinant and aspect of inequality. Recent research shows that poor housing in the UK costs the NHS £1.4 Billion a year (House of Lords, 2015).

Stewart (2005:526) writes that there is a “wide recognition that decent housing can help maintain and promote health, whilst poor housing has a negative health impact”. Additionally, Thomson and Thomas (2015:205) report that a number of “persistent links” have been reported between poor housing and poor health. Such links include immediate issues, such as the provision of an affordable level of thermal comfort which can improve health and prevent adverse effects of cold (Thompson and Thomas, 2015), or the likes of poor domestic conditions, cold and damp/ fuel poverty, emotional health or depression or overcrowding which can lead to disease, or improvements to affordable warmth, ventilation and exposure to damp (Basham et al., 2004; Caldwell et al., 2001).

In addition, it has been claimed that education can suffer due to a lack of space for children to work within an abode, whilst noise pollution, pest infestation, local crime and anti social behaviour are all areas noted (Stewart, 2005).

Somerville et al., (2000) further this by explaining the possible longer term effects of good quality housing; that improved respiratory health following housing improvements can lead to reduced absences of children from school, which can have educational benefits further down the line, whilst Egan et al., (2013) cite further longer term worries when stating that an exposure to poor housing can increase the risk of mortality beyond what might be predicted from individual level socio economic factors.

Additionally, it is increasingly being recognised that the wider housing environment location represents access to employment, training, facilities, decent food and social cohesion (Stewart and Rhoden, 2006).

In addition to the effect of housing on physical health, Johnson (2013:32) adds that housing has a “significant impact on mental health”. The growing body of evidence concerned with emotional/mental ill health attributable to poor housing suggests that the experience can lead to delayed communication, disruption to education and can contribute to behavioural and mental health problems (Ballinger, 2002; Bogard et al., 1999) whilst the positive effects of housing improvement on mental health have been “consistently reported” (Thomson, Morrison and Petticrew, 2007:211).

The general well being of an individual is also affected by housing. Bond et al., (2012:1) write that it is not only the quality and aesthetics of housing which are associated with well being, but feelings of respect, status and progress “derived from how places are created, serviced and talked about by those who live there”. The

authors add that even a person's position in society in terms of "relative position and advancement, self esteem and self efficacy" (Ibid, 2012: 11) are affected.

The Chartered Institute of Housing (2013) additionally reports that housing is a key part of the physical, social and economic fabric.

2.8.2. Housing and the physical environment

The majority of new and existing housing in the UK has significant environmental impacts (WWF, 2003; Environmental Audit Committee, 2005) including approximately 27% of Carbon Dioxide emissions in the UK and has implications for climate change as well as significant impacts on timber and water consumption (WWF, 2003; Entec, 2004).

In terms of the environment, there are around 24 million homes in the UK today. It has been calculated that 80% of these will still be standing in 2050. New housing adds at most 1% to the existing housing stock, whilst the other 99% produce 27% of total UK carbon emissions, use half of all public water and generate 8% of total waste (Power, 2008). Because housing has such wide impacts, it is important that it is taken into serious consideration as part of the overall subject area of urban regeneration.

Housing can improve the environment (Bhatti, 1999). A good example of this is the evidence on the positive impacts of housing programmes on both housing and neighbourhood quality, with improvement of the housing stock usually being accompanied by regeneration of the surrounding physical infrastructure and public

spaces (Kleinhans, 2012). However there have been persistent concerns raised over the quality of some of the housing in the UK (Maddedu, 2013). This could be related to the fact that the UK has one of the oldest housing stocks in Europe. Indeed, at current replacement rates, 85% of the housing stock that will be in use in the 2020s is already standing (Whitehead, 2004).

Various aspects of housing can have significant negative impacts on the environment, including “location, construction, design, maintenance, management, use and demolition” (Winston, 2010:319), whilst housing also has environmental importance as homes consume resources and generate waste and emissions (Carter, 2012).

Additionally, construction consumes a considerable amount of other valuable environmental resources such as wood, minerals, energy and water (Huby, 1998).

Not only does the construction of housing use resources such as energy and water, but the use of housing consumes energy and water as well as the production of waste. In addition, the demolition of housing involves the production of high quantities of waste, some of which can potentially be toxic (Edwards and Turrent, 2000).

2.8.3. Housing and the social environment

Good housing can influence people’s quality of life, together with their life expectancy and the social opportunities available to them (Audit Commission, 2009). Indeed it has been stated explicitly that “sustainable housing has a key role in the quality of human life” (UN, 2015).

Housing can also convey a sense of pride, status, the foundation of family life, a hub for social networking with family and friends, the “frontline in the social support

system” and the development of personal and cultural identity (Carter, 2012:68). Housing also provides a personal space for the individual, and in particular, “the place with which the occupant identifies a basic urban existence”. It also provides a space for privacy and family life (Maliene and Malys, 2009).

There are many things that human beings would find difficult to do without good quality housing, such as find and keep a job, learn, maintain health, to vote, to claim benefits and to initiate and maintain stable relationships (King, 2012).

An additional advantage of housing, in a social context, is that through new construction, conversion of rental stock to owner occupied housing and other strategies, the social mix of an area can be changed. Housing allocation strategies used to stimulate social interaction, based on common shared characteristics of future residents can change an area’s social make up (Kleinhans, 2012:3).

The same author also mentions the notion of empowerment, where individuals “gain control and influence over their lives and become democratically enabled to participate in society” (Ibid, 2012:4). Housing can provide this empowerment, notably through such examples as the sale of social or public housing to renters via the Right to Buy Scheme.

In addition, the notion of repairing, altering and improving owner occupied housing to the taste of the individual gives increased control which “contributes to a more general sense of control” over important life events (Rohe and Stegman, 1994), as well as providing a sense of security, as owner occupiers cannot be evicted. The perceived improvement in status which comes about as a result of the purchase of a

home is an additional social benefit to people, via the psychological theories of social comparison and self attribution (Kleinhans, 2012).

In terms of community development, it has been cited that this is at its most successful when housing-led regeneration occurs. Similarly, the emphasis of the sustainable community policy has always been on regeneration with housing at the core (Rowlands, 2010).

2.8.4. Housing and the economic context

Liu (2010) states that the UK's most valuable asset continues to be housing, with a total value of £4.3 Billion, whilst the Office for National Statistics (2016) furthers this by claiming that the figure is even higher – at £5.5 Trillion, this being equivalent to 62% of the nation's wealth (Ibid, 2016).

According to the House of Lords (2015), housing is very important for the economy of the UK. Indeed, the housing sector is an important economic sector which plays an important role in the promotion of economic growth and which additionally affects economic and social stability (Xue, 2012). The Audit Commission (2009) writes that local economies will only thrive if people who work in an area can find the right housing within easy reach of their jobs. Indeed, Clapham et al., (1996) have even suggested that through the encouragement of housing investments on different levels, it is possible to reduce unemployment both on a national and regional scale through the creation of new job opportunities.

The price of housing can also act as a mediator which links housing markets and the rest of the economy, as housing price fluctuations represent the main source of fluctuations in housing wealth (European Central Bank, 2003).

The inability to find housing has economic consequences. For example, those unable to find housing in areas of growth will be less able to participate in labour markets and to raise their human capital by doing so whilst the construction and regeneration of housing additionally provides economic investment and can act as a driver for economic growth (Mah, 2012). Indeed, as Carter (2012) writes, investment in housing has traditionally been used to trigger job growth in times of high unemployment and during recessions in order to stimulate the economy.

2.9. Problems persist

Despite the increased levels of urbanisation in the world, the subsequent importance of urban regeneration, the alignment of urban regeneration with the notion of sustainable development and the increasing popularity and necessity of sustainable practices, and despite there being various policy systems and strategies developed over the years for the purpose of providing an impetus for sustainable development and regeneration (Lam et al., 2011; Van Bueren and De Jong, 2007), and, despite sustainable development being actively promoted within regeneration projects, there are often limited sustainability benefits for intended beneficiaries of schemes (Van Bueren and De Jong, 2007).

In addition, the UN asserts that there still remains a significant gap in terms of policy implementation and commitment in achieving Sustainable Development Goals (SDSN, 2016), whilst the flexibility and lack of conceptual clarity of the composition

of sustainability have often enabled practitioners to emphasise simply the dimensions of sustainability that fit within their own agenda (Brandon and Lombardi, 2011; Evans and Jones, 2008).

Akotia and Fortune (2012) explain that despite the amount of research carried out on sustainability and its evaluation in relation to urban regeneration projects in the UK, “there have not been any well-defined built environment research that has been able to deal holistically with the broader issues of sustainability in terms of benefits/impacts of the regeneration projects to the end-user and the communities concerned”, with attempts aimed at implementing sustainability assessment being primarily limited to the assessment of the environmental performance of a particular building alone (Akotia and Fortune, 2012). The Sustainable Development Commission has even suggested that the development of regeneration in terms of sustainability has proved to be a testing and on-going challenge for government agencies, the construction industry and practitioners and communities within the UK (SDC, 2003).

Further, the need for urban regeneration has not been reduced by over 30 years of policy initiatives (Carley and Kirk, 1998) and there are claims that the economic performance of ‘urban regeneration cities’ struggling economically in 1997, were not only continuing to struggle in 2007, but were also falling further behind (Leunig and Swaffield, 2008, cited in Turcu, 2012), and that the delivery of regeneration projects results, in most cases, in unsustainable results (Winston, 2009). A reason for this has been highlighted as the policy goals of urban regeneration and sustainable development not being integrated in practice (Couch and Denneman, 2000; Jones and Evans, 2008).

The same authors refer to urban regeneration and sustainable development as being parallel aspects of urban policy but with no co-ordination being carried out between them. Few checks are carried out to ensure that regeneration schemes are sustainable (Imrie and Thomas, 1993) and the very public and private organisations who mould and shape the physical environment appear to have a reluctance to “convert the rhetoric of sustainable development into practice” (Barton, 2000:246).

There is evidence to suggest that the delivery of sustainable outcomes in regeneration projects is still faced with numerous problems, and in most cases, results in unsustainable outcomes (Winston, 2009). Many concerns have additionally been raised about what exactly makes up the true composition (both theoretically and practically) of sustainability projects (Zheng, Shen and Wang, 2014; Carter and Fortune, 2007).

2.10. Summary

This chapter has provided an introduction to the subject domains of sustainable development and urban regeneration and has covered the history and definitions of sustainable development, together with definitions of ‘weak’ versus ‘strong’ sustainability, models of sustainable development, ‘capitals’, the UN Habitat III conference and its take on sustainable development and sustainable development and its links with urban regeneration. Further to this, the history and definitions of urban regeneration were covered. The chapter then proceeded to focus on the importance of housing within urban regeneration including the many links between housing and urban regeneration, housing and health, as well as housing and its relationship with

each aspect of the triple bottom line (Elkington et al., 2007). It was made clear in Section 2.8 that the focus for this study was that of housing-led regeneration.

Access to housing is considered as a human right (Universal Declaration of Human Rights, 1948) which has a multidimensional impact on human life (UN, 2016). In addition, because housing has been referred to as possessing “social, environmental and economic dimensions which are all closely interrelated”, it is cited as being “much more than providing people with a place to live” (UN, 2016).

Housing can additionally be said to play a ‘pivotal role’ in the regeneration processes being carried out in urban areas (Ha, 2007:118) and can also be considered to be a driving force of many regeneration schemes (Haran et al., 2011) or as being vitally important (ODPM, 2003). It has been referred to as being one of the most important public policies affecting urban development and consequently has significant potential to contribute to sustainable development (Priemus and ten Heuvelhof, 2005; Tosics, 2004).

It is within the area of housing-led regeneration within which the researcher works in full time employment, with City West Housing Trust, based in West Salford, UK. The researcher therefore has first hand and direct knowledge of the field and access to primary data and experts within the organisation and additionally within related organisations. Additionally, it is within the housing-led regeneration area that the researcher has experienced problematic areas in terms of the lack of a scientific, quantitative and accurate evaluation method of measuring socio-environmental impacts. Indeed, some housing-led organisations do not even take such impacts on

board. With the economic cuts faced by such organisations, it is increasingly important that the above mentioned impacts are measured, and measured correctly.

The economic climate and its effect on housing associations covered in Chapter 1 is also re-casted as a serious challenge to the achievement of SDGs, since failures in ensuring sufficient support to the housing sector would result in hindering a main pillar of the New Urban Agenda. The importance of this research is therefore fully evidenced, as a valuable contribution to the achievement of the international goals set by Habitat III.

CHAPTER THREE: EVALUATION OF SOCIAL AND ENVIRONMENTAL IMPACT

3.1. Introduction

This chapter will cover the subject of evaluation, its definitions and history. A brief history of urban regeneration evaluation in the United Kingdom (UK) context will be outlined, together with a background to evaluation within urban regeneration more generally. A critical review of current assessment methodology including that of the EGRUP Guidance, City Challenge, the Single Regeneration Budget, the New Deal for Communities, Urban Development Corporations, the Hemphill Framework, the Sustainable Urban Renewal Project Assessment Model (SURPAM), the UK Government 'Green Book' and the Royal Institution of Chartered Surveyors (RICS) 'Red Book' will be carried out, before the gap between such evaluation methods and SuROI are looked into specifically through a gap analysis between the evaluation of the Single Regeneration Budget and SuROI. The domain of Developmental Evaluation (DE), a form of evaluation particularly useful within the context of the goals of this thesis will be explained and outlined, together with its key characteristics and principles. DE will additionally be explained as against more traditional evaluation approaches, together with why the traditional approach to evaluation would not tend to fit the objectives of this thesis whilst finally covering the myths of DE.

3.2. Definition

Evaluation can be defined as the “systematic examination and assessment of the features of an initiative and its effects in order to produce information that can be used by those who have an interest in its improvement or effectiveness” (WHO, 1998) and in its broadest form, “means to ascertain the worth of or to fix a value on some object” (Rossi et al., 2004). The ‘value on offer’ has particular prominence in the current economic climate, ensuring that decision making and appraisal is part of economic accountability (Raphael, 2000).

In a more holistic sense, evaluation is defined by Smith (2006b) as “the systematic exploration and judgement of working processes, experiences and outcomes... [which] pays special attention to aims, values, perceptions, needs and resources”.

The author highlights the main characteristics of evaluation as being:

1. A research process
2. Able to make judgements
3. Sophisticated
4. Multi-levelled
5. Participatory

3.3. A brief history of evaluation

Scriven (1996) states that although evaluation is only young in terms of being a subject discipline, in practical terms however, it can be classified as being quite historic. In this regard, Guba and Lincoln (1981) cite personnel selection tests being carried out in China in 2200 BC by the incumbent Emperor as one of the earliest known examples of evaluation taking place.

More recently, it has been declared that the historical roots of evaluation can be found as far back as the 17th century (Rossi et al., 2004), or, alternatively and specifically in the year 1792 when William Farish invented the quantitative mark to score examinations (Hoskins, 1968).

Madaus and Kellaghan (1982, cited in Hogan, 2007) state that in a similar way at that time, education in the United Kingdom was also reformed through evaluation. Subsequently, Stufflebeam and Shinkfield (2007) go on to state that the first systematic school surveys “using printed tests” were conceived and produced in Boston, USA and were used to test students area-wide, across a range of subject areas.

The year 1815 brought about the earliest ‘formal’ evaluation in the form of the US Army’s standardised production policies for materials and products (Smith, 1987, cited in Hogan, 2007).

In the late 19th century, the educational reformer of New York, Joseph Mayer Rice (1857-1934) conducted what is generally recognised to be the first formal education programme evaluation in the USA (Stufflebeam and Shinkfield, 2007) when attempting to analyse students’ spelling deficiencies (Hogan, 2007).

The twentieth century brought about differing approaches to evaluation, including one particular school of thought introduced by Frederick Taylor, a leading US manufacturer. The standardisation and subsequent efficiency and consistency of quality used in that field influenced education leaders at the time to seek the same level of standardisation and efficiency in schools (Ireh, 2016). The standardised testing system was born, and was widely used throughout the United States and the United Kingdom.

There are examples of systematic evaluation being carried out as part of World War I assessment exercises carried out by the US Government (Rossi et al., 2004) whilst early evaluators were described by Freeman (1977) as social scientists who used “rigorous research methods to assess social programmes in a variety of areas”.

In the 1930s and 1940s, Dr Ralph Tyler, one of the leading educational researchers of the twentieth century and a man who was an educational advisor to six US Presidents (Stanford University, 1994) brought about an approach which was based on clearly stated objectives.

During World War II pioneering evaluations of the attitudes of American Soldiers were carried out (Stouffer et al., 1949), with similar research being carried out in Britain and elsewhere around the world (Freeman, 1977). The 1950s continued in much the same way, with programme evaluation being carried out as a part of programmes within “urban development and housing, technological and cultural education, occupational training and preventative health activities” (Rossi et al., 2004).

The 1960s brought about the birth of criterion reference testing (Hogan, 2007) whilst Scriven, Stufflebeam and Stake introduced new models in the 1960s and 1970s which “departed radically from prior approaches” (Stufflebeam and Shinkfield, 2007).

The 1960s also saw an increased number of books and papers published as evaluation research grew, whilst the 1970s saw the launch of the first journal dedicated to evaluation research; that of *Evaluation Review*, established in 1976 (Rossi et al., 2004) and the popularity of the subject continued into the 1980s and beyond. In latter years, standards are the latest measures to have been brought into the evaluation area, including those within the International Handbook of Educational Evaluation (Kellaghan and Stufflebeam, 2003).

According to Madaus et al., (2000, cited in Hogan, 2007), there are seven phases within the historical context of evaluation:

- Age of reform (prior to 1900)
- Age of efficiency (1900-1930)
- Tylerian age (1930-1945)
- Age of innocence (1946-1957)
- Age of development (1958-1972)
- Age of professionalisation (1973-1983)
- Age of expansion and integration (1983-2000)

Even in terms of the mere reporting of the history of evaluation, differences in opinion are highlighted. Stufflebeam and Shinkfield (2007) only identify with five periods:

- Pre-Tylerian period (prior to 1930)
- Tylerian age (1930-1945)

- Age of innocence (1946-1957)
- Age of realism (1958-1972)
- Age of professionalisation (1973-present day)

3.4. A brief history of urban regeneration evaluation in the UK

Since the mid-1980s, the British Government has “put more emphasis on evaluation and monitoring” (Ho, 1999). The UK Government concurs, stating that “regeneration has had a reasonably strong tradition of appraisal” (CLG, 2008).

This is however contradicted by both the CEA (2001), which states that the only UK guidance document specifically focused on evaluation in urban regeneration is known as the *EGRUP* guidance document (CEA, 2001) and additionally by Pollitt (1993), which states that evaluation in the UK has tended to be a poor relation. It reads that “the history of the last thirty years reveals that policy evaluation has never found a secure or permanent home near the heart of a (relatively centralised) state machine”.

The UK Parliament (2003) has expressed concerns regarding the lack of intellectual sophistication regarding evaluation methodology. It appears that despite many previous British evaluation studies being carried out, there still exists an inadequate understanding of how and why programmes are or were successful or not (Ho, 1999).

A main assumption in the past has been that by simply pumping money into an area, this would solve any inherent problems (Ho, 1999). Though this policy approach was stemming from the Keynesian theoretical model of the economic multiplier applied to

public policies, a variety of issues undermine this assumption. This has been also contradicted by the UK Department for the Environment, Transport and the Regions. The DETR expressed that deprivation in funded areas has not improved despite continued investment in pinpointed areas (Department for the Environment, Transport and the Regions, 1998). Indeed, Robson et al., (1994) state that between 1979 and 1991 a total of some £900 Billion was spent on urban regeneration initiatives in the UK and that to this day, money is still being channelled into the very same areas.

Continuing in this school of thought, Imrie and Thomas (1995) write that the intensity in which new urban policy initiatives have been created since the early 1980s has not been matched by any form of systematic monitoring and evaluation which could advise on where Government, or other organisations have been potentially going right or wrong in their approaches, whilst Turok (1989) adds that evaluative research has tended to be illogical, weak and increasingly concerned with a narrow range of quantitative evaluation criteria.

Commenting chronologically, Britain has some history of strategic evaluation as early as the 1970s through such organisations as the Central Policy Review Staff (CPRS) (Pollitt, 1993). However, the CPRS was disbanded due to the economic problems of that decade and because of the fall from power of the Conservative Government at the time. In addition to this, the 1970s witnessed a major restructuring of local government, which had a great impact in terms of corporate planning (HMSO, 1972).

The 1980s saw the creation of the National Audit Office and Audit Commission under Baroness Thatcher's Government and there was a criticism of neglect in terms of evaluation. This resulted primarily in the document *Policy Evaluation: A Guide for Managers* being produced and subsequently published (HM Treasury, 1988). Additionally, the UK Department of Environment (DoE) produced *Improving Urban Areas: Good Practices in Urban Regeneration* (1988).

Expenditure cutting continued to be necessary in the 1980s and the stance taken by the then Conservative Government on this issue led to a 'value for money' ideology being adopted within evaluation schemes. This led to the birth of so called 'Output and Performance Measures' (Lewis and Jones, 1990). Indeed, according to Pollitt (1993) there was perhaps too much focus on value for money at the expense of any real evaluation taking place.

What also seemed to be lacking, was quality or organisation in terms of Governmental approach, which then filtered down to local approach. For example, the *Urban Programme* of the 1980s was a major regeneration initiative of the time. This was replaced by *City Challenge* two years before its official evaluation assessment was carried out (Robson et al., 1994, cited in Ho, 1999). Subsequently to this, *City Challenge* was then replaced by the *Single Regeneration Budget*, two years before the interim assessment on *City Challenge* was completed (Russell et al., 1996). *New Deal for Communities* was introduced in 1998 to run alongside the Challenge Fund, when the evaluation study was only half completed (Brennan et al., 1998). Shaw (1995) adds that there was a marked absence of detailed government evaluations and policy reviews in the 1980s.

The 1990s saw evaluations offer more “value” (Pollitt, 1993). Examples are cited such as Quality Adjusted Life Year, (a measurement of disease burden), being used to allocate health resources and the Polytechnics and Colleges Funding Council actively using value for money evaluations.

According to Ho (1999) “all new initiatives in the 1990s were subjected to national evaluation studies”, however an engendering theme is that according to the author, “only limited lessons can be drawn from these studies”. Ho (1998) states that “accumulation of knowledge was limited”.

The 1990s saw the election of the New Labour Government, which continued with the same value for money theme. In wanting to be distanced from the previous Government, however, this was then re-termed “best value” (Department of the Environment, Transport and the Regions, 1998). This continued into the 1990s. Government documentation in 1998 regarding the New Deal for Communities Scheme advised that focus should be on whether value for money is being achieved with the public purse (Department of the Environment, Transport and the Regions, 1998). Ho (1999) seconds this, adding that “all regeneration initiatives in the 1980s and 1990s included stringent measures to record expenditure and output”.

In the 1980s and 1990s, Ho (1999) adds that baseline data and quantitative information gathering was prevalent. However Julnes et al., (1998) repeat an earlier negative, by stating that the monitoring processes of initiatives at the time offered little.

The post-1997 period was characterised by ‘realist’ approaches to evaluation that sought both to describe and explain policy outcomes (Ho, 1999; Taylor and Balloch, 2005). In 1998 the *New Deal for Communities* (NDC) was brought in which brought about the notion of partnership working to regenerate areas. The official NDC report written by the Government (Lawless et al., 2010) recommended that the setting of realistic targets, prioritising places for regeneration, partnership working, time frames, spatial remits, utilisation of a “year zero” to properly set up a scheme, engaging with communities and sustainability were among the effective recommendations provided. Subsequently, in 1999, it was the UK Department of the Environment, Transport and the Regions which took the lead and produced the *Local Evaluation for Regeneration Partnerships: Good Practice Guide*. The guide provides a seven stage process for evaluating regeneration as follows:

- 1) Establishing and choosing effective base line indicators;
- 2) Obtaining and updating baseline information;
- 3) Establishing targets for comparative information analysis;
- 4) Adding value to output monitoring;
- 5) Monitoring changes in local conditions;
- 6) Assessing impact; and,
- 7) The scheme evaluation report.

UK Government (1999)

On a general note, evaluation methodology, according to Evans and Shaw (2001a; 2001b) did develop substantially in the 1990s, drawing particularly from environmental health (Bowling, 1997), crime prevention, urban design and quality of life measurement (Rapley, 2001).

National evaluations of the New Deal for Communities programme (CLG, 2008), Neighbourhood Management (CLG, 2008), and Local Strategic Partnerships (ODPM, 2005a; 2005b) in the 2000s showed that long term national evaluations were starting to become more and more common place. It would appear that more research on areas including data on residents was indeed being carried out and was being used to formulate policy. However Ho (1999) states that “the current British approach to evaluation is [still] based on the ideology of value for money”.

In 2004, and coming towards the present day, the UK Government published documentation on the so called ‘3R’ interventions entitled *Assessing the impacts of spatial interventions: Regeneration, renewal and regional difference – ‘The 3Rs Guidance’* covering regeneration interventions, renewal interventions and regional development policies whereby the ODPM (2004) sets out a broad framework for the evaluation of UK Government backed regeneration projects. This framework utilises the notion of indicators as a measurement tool. There have also been Government led evaluations carried out towards the present day, on such urban regeneration initiatives as City Challenge, the Single Regeneration Budget and the New Deal for Communities, which will be looked at in more depth later in this chapter.

3.5. Background to evaluation within urban regeneration

Although the evaluation of regeneration schemes has been referred to as a “vital task” (Roberts and Sykes, 2000), there does not appear to be an agreed consensus on how this should be carried out. Indeed, Bowey (1997) adds that although there is a need for monitoring and evaluation of regeneration initiatives, there has been “scant regard” paid to this aspect.

In addition it would seem that any evaluations carried out have not had any real effect on wider progress within the field of urban regeneration. Carley and Kirk (1998) state that the need for urban regeneration hasn’t been reduced, even after thirty years of policy initiatives.

Various authors and scholars have, over the years, published their varying methods, models, frameworks and metrics on how they feel measurement and evaluation should be carried out. Authors have highlighted important aspects of an urban regeneration development, for example, Jeffrey and Pounder (2000) highlight the importance of physical or aesthetic redevelopment; economic redevelopment is highlighted by such authors as McGregor and McConnachie (1995) and Colantonio and Dixon (2010) refer to social impact, but what other aspects exist as part of a successful, or unsuccessful programme? As Tyler et al., (2013) state, “it is an obvious question to ask why there is so little evidence available on the aggregate value of regeneration benefits in the light of the resources that many countries commit to them”.

Further to this notion of evidence, Brandon and Lombardi (2011) assert that sustainability appraisal frameworks used in the built environment must address economic, environmental and social impacts to ensure continued sustainable development after regeneration. However there have been found to be gaps in sustainability frameworks in practice (Clapham, 2014) and it has been argued that many frameworks sacrifice social and economic factors at the expense of the environmental (Carter and Fortune, 2007) with some assessment methods being described as either too diverse from other methods (Russell et al., 2000), inadequate (Smith, 2006), lacking (Madlener et al., 2003) or even concerning (Diamond et al., 2006).

Within the housing sector, the Homes and Communities Agency has demanded “robust assessments” of assets (HCA, 2012) and in addition, it has been cited that schemes’ value to society need to be clear in today’s challenging economic environment (Tyler et al., 2013). Although the need to take into account both quantitative and, more qualitative or intangible impacts (Church and Young, 2001; Lee and Chan, 2008) has been cited (CLG, 2009; McQuaid et al., 2006), impact measurement has remained “under theorised” (Ebrahim and Rangan, 2010).

To this end, whilst there is no as yet accepted methodology of going about evaluation in urban regeneration (Bell and Morse, 2003), an alternative of traditional forms of evaluation would be to quantify or monetise the value of impacts normally categorised as being intangible; something previously considered difficult using conventional techniques (Vardakoulias, 2013). Such an alternative has however thus

far had very little critique within the existing literature (Bichard, 2015; Watson and Whitley, 2016).

Social Return on Investment (SROI) has been used as the primary mechanism for evidencing organisational impact in this way, being endorsed by both the Cabinet Office and the Scottish Government (Watson and Whitley, 2016), whilst Bridgman et al., (2016) and Watson and Whitley (2016) have remarked on the potential usefulness of the SROI methodology within the field of the built environment. SROI has been taken further by Bichard (2015), creating Sustainable Return on Investment (SuROI) after being refined, proving that monetary evaluation can indeed be implemented to evaluate sustainable performance of projects within the built environment.

3.6. Critical review of current assessment methodology

This section will set the context for understanding how the assessment of urban regeneration strategies has been typically performed so far and includes recent and/or current assessment methods, commonly used to assess the impacts of investment in housing in different programmes or initiatives. The following methods, mainly related to governmental schemes, will be reviewed: (1) EGRUP Guidance, (2) City Challenge, (3) Single Regeneration Budget, (4) New Deal for Communities, (5) Urban Development Corporations, (6) Enterprise Zones, complemented by the following methods: (7) Hemphill Framework, (8) Sustainable Urban Renewal Project Assessment Model, (9) UK Government 'Green Book' and (10) Royal Institution of Chartered Surveyors (RICS) 'Red Book'.

3.6.1. EGRUP Guidance

The EGRUP guidance uses a framework for the ex-post evaluation of expenditure and regeneration schemes (HM Treasury, 1995) and improves comparability of information on the value for money of regeneration programmes (Ibid, 1995), reinforcing the emphasis of Government at the time on value for money and the public purse (Gregory and Martin, 1988). It measures cost effectiveness via a basic cost benefit account for each regeneration measure concerned. EGRUP uses four proformas within its guidance, involving general management information about a scheme, quantifiable outputs and their costs, other relevant outputs and their costs and a measurement of additionality. It focuses on economic efficiency and outlines the inputs, outputs and outcomes of an urban regeneration scheme. The guidance refers to the importance of using indicators relating to government expenditure but concedes in Section three of the guidance, that although all costs can be quantified, some “important” or intangible benefits cannot be. Such benefits, for example social benefits, are simply listed, rather than being assigned a monetary and quantifiable value. This translates to such impacts not being recorded. In addition, attention is drawn to users of the guidance that there are issues with “outputs that are essentially unquantifiable” (HM Treasury, 1995). Environmental benefits were measured quantitatively, but by using a Likert Scale. The guidance itself states that there is “clearly a need for a more rigorous approach, which would involve assigning monetary values to the environmental improvements” (Ibid, 1995).

It is consistently stated within the evaluation document that further research is required in the area of valuation for regeneration activities for which market based information is not available.

3.6.2. City Challenge

City Challenge (Russell et al., 1996) was commissioned by the DETR and aimed to regenerate 31 areas through regeneration Partnerships which ran in deprived urban areas between 1991 and 1998 with the aim of improving specific rundown inner city areas and improving the quality of life of local residents (DETR, 1998). In terms of the evaluation of this scheme, negatives include that there is no one method or framework in place to cover the multitude of partnerships which makes consistency of evaluation very difficult. The Final Evaluation of City Challenge (Russell et al., 2000) found that there was an enormous diversity of local evaluations which translated to an insufficient level of consistency to make meaningful comparisons across all areas. A more standardised methodological approach was considered to have been of wider value (DETR, 1998). Additionally, the evaluations undertaken or commissioned by the partnerships themselves varied significantly in quality, content and approach, with some choosing to assess the effectiveness, efficiency and impact of a programme, while others concentrated on updating baseline indicators (DETR, 1998). A key aspect of the schemes supported through the City Challenge Programme was their integrated nature - with traditional housing improvements being complemented by other regeneration projects concerned, for example, with job creation, training and crime and community safety, however no method was set up to capture any of this information in numerical and quantifiable format. The DETR (1998) touches on the

notion of sustainable development, including a statement that if a regeneration programme is to be regarded as successful, the outcomes it generates must be sustainable in some form, however no method of measuring such aspects of sustainability is listed. Along the same lines, concern was also expressed within the City Challenge Final Evaluation on the lack of monitoring requirements for the quality of outputs or outcomes. Both City Challenge reports focus on outputs (rather than outcomes or impact) and focus on expenditure and outputs in relation to annual targets (OECD, 2004). Impact indicators form an integral part of the evaluation approach, but the indicators were chosen by the DoE, rather than stakeholders involved in the scheme in question (Ho, 2003). Further to this, it is cited by Robson et al., (1994) that some indicators although appearing to be covering outcomes, are actually again measurements of outputs. The focus of the Government at the time was rather a case of what had been done, rather than what impact was had on local communities, meaning that City Challenge was in fact output oriented (Ho, 2003). This emphasis is shown in the listings of such items as the amount of jobs created, the amount of business and commercial floorspace built or the amount of dwellings improved (DETR, 1998).

The indicators used within the evaluation can be seen below in Figure 3.1. It is noticeable that the indicators are only available for specifically quantified aspects. Within the qualitative and more intangible areas, such as the *quality of life* category, it is stated that there is no standard indicator. In addition, within the unit cost per output statistics (DETR, 2000:179), values pertaining to *health* and *community and social* are simply listed without any figures as “not applicable” and impacts are simply not measured within the summary cost benefit account (Ibid, 2000). It is additionally admitted within the official final evaluation that “more emphasis should be given to

assessing outcomes” (Ibid, 2000). It is this difficulty of quantification in terms of intangibles where the evaluation of City Challenge is unable to pick this area of impact up and where a methodology such as the previously cited SuROI can fill a gap in the knowledge base.

| City Challenge core impact indicators |
|--|
| <p><i>a) Employment/income</i></p> <p>1 – number of unemployed</p> <p>2 – number of residents of the City Challenge area obtaining permanent employment as a consequence of City Challenge actions</p> <p>3 – heads of households in receipt of income support</p> |
| <p><i>b) Education</i></p> <p>4 – number of pupils entered for GCSEs achieving grades A to C in 5 or more subjects and number of pupils leaving school with no GCSEs</p> |
| <p><i>c) Housing</i></p> <p>5 – number of households in owner occupation</p> <p>6 – number of unfit dwellings</p> |
| <p><i>d) Environment/economy</i></p> <p>7 – hectares of derelict land and vacant land</p> <p>8 – floorspace in derelict buildings and vacant buildings</p> |
| <p><i>e) Crime</i></p> <p>9 – reported crime per 1,000 households in residential burglary and theft of or from cars</p> |
| <p><i>f) Quality of life/perception of City Challenge area</i></p> <p>10 – no standard indicator but people’s attitudes towards a range of issues should be tracked over five years</p> |

Figure 3.1: City Challenge core impact indicators
Dept of the Environment (1993) City Challenge Guidance Note: Appraisal, Monitoring and Evaluation, document issued to City Challenge Partnerships, London: DoE. Annex B.

3.6.3. Single Regeneration Budget

The Single Regeneration Budget (SRB) (Brennan et al., 1997) used a cost benefit, inputs versus outputs approach within the study. Outcomes were measured in terms of indicators in such areas as jobs created or safeguarded, enhanced pupil attainment, and personal development of young people and community safety initiatives (Zuberi and Taylor, 2013). There were three levels of outcomes involved within the evaluation. These levels cut across the distinction between social, economic and environmental goals and were termed delivery (the level of outputs), impact (the level of outcomes) and sustainability, termed as the longer term social, economic and environmental impact over the life of a given partnership. Indicators were used to gauge economic benefits, housing benefits, social benefits, environmental benefits and community benefits (Brennan et al., 1999) whilst an extensive baseline was also used (Rhodes et al., 2007). Social surveys and structured interviews were used to gauge opinions of key stakeholders within the SRB partnerships, together with an in depth case study approach (Rhodes et al., 2007). The methodology looks to cite overall net additional achievements, however it is not able to numerically quantify the holistic sustainable impact of the programme in terms of all three aspects of the triple bottom line. In addition, it is stated that there are problems of comparability in the way the SRB is evaluated (Department of the Environment, 1997).

Perceptions about physical and environmental quality and amenity were assessed through resident and visitor surveys according to the methodology of Glennerster and Turner (1993) where scores were derived from direct observation (Department of the Environment, 1997). In addition, in terms of the measurement of social aspects such as quality of life, quantified outputs in this area simply enumerate the numbers of new

health, sports and cultural facilities and the numbers of local people given access to them. It is also stated that it is not thought generally possible to quantify all social effects (Ibid, 1997).

3.6.4. New Deal for Communities (NDC)

Each New Deal for Communities (NDC) programme was expected to achieve positive change in relation to six outcomes. Three of the outcomes were intended to improve thirty nine places. These were crime, the local community, and housing and the physical environment. Three were to improve outcomes for people: education, health, and worklessness (Lawless, 2011). A number of data collation and analysis tasks were central to the national evaluation, the most important of which was the biennial household survey. In 2002 a baseline was established across all thirty nine NDC areas using a survey questionnaire. This addressed socio-demographic, status, and attitudinal considerations across all outcome areas. It was based on a random-sample survey design and used 3, 4, or 5 point Likert scales to quantify the responses (Lawless et al., 2010). Any change in NDC areas was benchmarked against other deprived, comparator areas. No previous evaluation of any English Area Based Initiative at that time had been able to explore questions of net change across all relevant regeneration areas and their residents, for all outcomes, from a common baseline (Lawless, 2011). NDC used shadow pricing methods to determine value for money, the first time that this had ever been done (Lawless et al., 2010).

3.6.5. Urban Development Corporations (UDCs)

According to Imrie and Thomas (1999), UDC evaluations are performance related with a limited range of criteria, such as “jobs created and safe-guarded, hectares reclaimed and quantities of constructed roadway”. The emphasis in UDC evaluations is on value for money with many commentators asserting that a greater range of non quantifiable variables should have been accounted for within the scope of the evaluation (Hambleton and Thomas, 1995). Oatley (1989) states that performance indicators [were] mainly input and output measures and “did not provide a complete basis for assessment of how effectively the corporations have achieved their regeneration objective”. A list of such indicators can be seen on page 10 of Oatley (1989) showing that social and environmental outcomes are not taken into account via a quantified methodology.

3.6.6. Enterprise Zones (EZs)

The final evaluation of the original EZs was carried out in 1995 (HMSO, 1995) and assessed the extent to which EZs had generated both additional economic activity and physical regeneration (Potter and Moore, 2000). The evaluation methodology covered an analysis of data, which included annual monitoring data provided by the Department of the Environment, in combination with further data collected by consultants to quantify the additional economic activity generated. Main factors analysed included employment characteristics, the number of firms established, industrial compositions of the firms within the zones, environmental improvements

and impact on the local property markets (HMSO, 1995). The amount of jobs and costs per job created were highlighted, but the evaluation made a limited assessment of any inward investment to the zones (Potter and Moore, 2000). Face to face and postal surveys were sent out to local companies to gauge company perceptions of EZ benefits. Lastly, studies were carried out to assess the effects of EZ policy on local property markets, the creation of new economic activity and impact on the physical environment. There is simply no mention at all within archived governmental documentation on Enterprise Zones of social and environmental impacts being quantified.

3.6.7. Hemphill Framework

Hemphill et al., (2004) measure sustainability by allocating a points score to indicators within five areas including economy and work, resource use, buildings and land use, transport and mobility and community benefits. Residents and other users within a regeneration area are consulted through questionnaires and structured interviews where results contribute directly to a points scoring system. Points are allocated to each involved indicator and to each indicator set. Indicators are used to measure the performance of the regeneration scheme against sustainability criteria. However the authors add that “although it is possible to set indicator parameters for certain regeneration outputs (number of jobs created; amount of private sector investment levered), it is difficult to extend the same rationale to more specific and intangible sustainability criteria (quality of life, community enterprise and the social economy)” (Ibid, 2004:726).

3.6.8. The Sustainable Urban Renewal Project Assessment Model (SURPAM)

The Sustainable Urban Renewal Project Assessment Model (SURPAM) (Lee and Chan, 2007), uses weighted indicators and data, resulting from surveys and questionnaires. Subsequent factor analysis and analytic hierarchy process was carried out. All indicators fall under the triple bottom line. The model requires input from stakeholders and can be used to properly plan a prospective urban regeneration scheme. Citizens are able to express opinion on the design of a particular proposal before it becomes a reality with scores being expressed through multiplication of the weight of a design criterion by the score indicating the performance of a scheme with respect to an individual criterion. However, it is cited by the authors that the model struggles to measure subjective topics such as ‘sense of community’, as it was impossible to develop relevant quantitative indicators for this (Lee and Chan, 2008). As a best fit, the authors solve this issue by using both cardinal and ordinal scales and Likert scales.

3.6.9. The UK Government ‘Green Book’

The UK Government’s ‘Green Book’ focusses on techniques and procedures to follow when carrying out appraisal and evaluation and issues guidance which includes that of urban regeneration schemes. It outlines a “broad policy cycle”, which can be followed by the acronym ROAMEF (Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback), seen in the figure below:

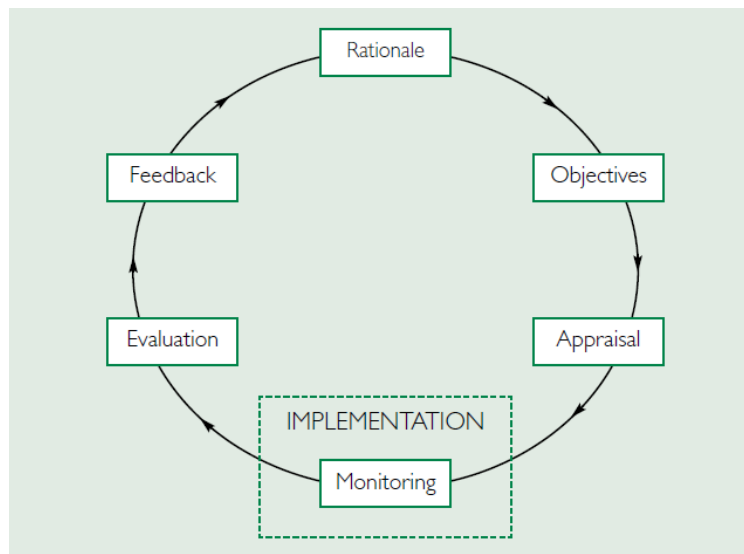


Figure 3.2: The 'ROAMEF' cycle (HM Treasury, 2018)

The evaluation process to be followed as per the Green Book guidance is:

1. *Establish exactly what is to be evaluated and how past outturns can be measured.*
2. *Choose alternative states of the world and/or alternative management decisions as counterfactuals.*
3. *Compare the outturn with the target outturn, and with the effects of the chosen alternative states of the world and/or management decisions.*
4. *Present the results and recommendations.*
5. *Disseminate and use the results and recommendations.*

(Taken directly from the Green Book Guidance, HM Treasury, 2018)

However, the Green Book's guidance on the measurement of intangible social and environmental impact relies on such techniques as social cost benefit analysis (SCBA), stated and revealed preference surveys, the subjective well being approach and life satisfaction approach. Health impacts are measured using the quality adjusted life year (a measurement of disease burden).

SCBA is a form of cost benefit analysis that considers the effect of a project on environmental and social factors (Bichard, 2015). However, an issue with the SCBA approach is that it tends to only "focus on economic costs and benefits" (Ibid, 2015).

In addition, stated and revealed preference surveys are good methods of stakeholder engagement, stakeholder engagement being integral to assessment, but this engagement should be used in conjunction with other proxy based information too, which gives a high level of scope to the numbers being used in the assessment, otherwise, despite the high level of stakeholder involvement, the certainty of the proxy could be diminished (Ibid, 2015). In addition, the subjective well being and life satisfaction approaches lack a direct connection to a scheme being evaluated, which means that responses given can be vague or not directly relevant to a particular scheme.

3.6.10. Royal Institution of Chartered Surveyors' 'Red Book'

Of similar guidance to the 'Green Book' is the so-called 'Red Book' published by the Royal Institution of Chartered Surveyors (RICS, 2017). Although the Red Book does advise that data collection and inspection routines should be extended when working within the sustainability agenda, that sustainability considerations are considered as important when undertaking valuation assignments (Bichard, 2015) and that valuers are actively encouraged to identify and collect sustainability related data, the guidance uses the following methods of valuation which are all entirely economically based and therefore not holistic in terms of the triple bottom line of sustainable development:

- *The Market Approach*

The market approach measures the value of an asset by comparing recent sales or offerings of similar or substitute property and related market data.

- *The Income Approach*

The income approach measures the value of an asset by the present value of its future economic benefits. These benefits can include earnings, cost savings, tax deductions, and proceeds from its disposal.

- *The Cost Approach*

The cost approach indicates the value of an asset by the cost to create or replace it with another similar asset.

(Taken directly from the RICS 'Red Book', 2017).

3.7. SRB v SuROI

Further to the above, it can be shown by way of a gap analysis, that SuROI can enable formerly hidden and intangible benefits to be made visible and explicit, and through a comparison with a more historical method of evaluation, such as the SRB evaluation, this can be made clear. In order to comprehensively validate that the evaluation method to be refined within this study, that of SuROI, does what it should – i.e. picks up socio-environmental impacts in a quantitative manner, it is necessary to show the difference in social and environmental impact values produced by the different methods of a) SuROI and b) the evaluation model used as part of the Single Regeneration Budget.

Only the one method (SRB) has been utilised for comparison purposes because all previous methods cited do not take such spillovers into account quantitatively. The figure below shows this:

| Evaluation method | Holistic (focus on economy, environment, social issues) | Measures inputs of a project | Measures outputs of a project | Measures outcomes of a project | Measures outcomes quantitatively | Measures social impact quantitatively | Measures environmental impact quantitatively |
|-------------------|---|------------------------------|-------------------------------|--------------------------------|----------------------------------|---------------------------------------|--|
| SuROI | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| EGRUP | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ |
| CC | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| SRB | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ |
| NDFC | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ |
| UDCs | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| EZs | ✗ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| Hemphill et al | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ |
| SURPAM | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ |
| Green Book | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ |
| Red Book | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |

Figure 3.3: Criteria for assessment of SuROI against other, more traditional approaches (Author’s elaboration)

The figure above draws from the discussion of the assessment methods commonly used to assess regeneration schemes in the UK so far, in order to check their capability of addressing the different aspects of sustainability. The analysis clearly shows how SuROI is the only method that explicitly allows the encompassing of both the social and environmental outcomes of a given scheme, which are equally considered in terms of quantifiable impacts. Therefore, with respect to the earlier mentioned UN Sustainable Development Goal number 11, it is the only method that allows the contribution to meet in full the aspiration to “make cities inclusive, safe, resilient and sustainable”. This objective is embedded into a holistic vision of sustainability encompassing economic, environmental, and social issues (the first criterion in the figure above), and complemented with a systematic appreciation of all the values considered in the process (the following criteria in the figure above).

Two sub case studies have been used to create the impact figures for comparative purposes. These two sub case studies will be looked at in further depth later in the thesis, being used as part of impact calculations for the artefact itself. At this point in time, they are being used for the gap analysis showing the difference in impacts produced by SuROI and the evaluation of the SRB. The first sub case study is the City West Housing Trust environmental-led programme with the second sub case study being the City West Housing Trust high rise scheme.

The choice of the Single Regeneration Budget (SRB) as comparator has been motivated by a variety of reasons. SRB projects were subject to a considerable amount of monitoring and evaluation (Robinson et al., 1995), SRB has been responsible for a huge amount of expenditure across the UK (£26 Billion in the 1990s) (Rhodes et al., 2003), it is holistic in approach (CLG, 2007) and the review of the SRB conducted from the Department of Land Economy at Cambridge University (Rhodes et al., 2007) had been referred to as the most extensive piece of evaluation work on the impact of urban regeneration interventions (Rhodes et al., 2007) with a substantial evaluation framework (Department of the Environment, 1997). Indeed the SRB application spans over quite a long period, running from 1994 until 2004 as part of a package of measures to make Government activity more responsible to local needs and priorities in England. There was also an encouragement of mainstream service deliverers to focus more resources on deprived areas. It was additionally more flexible than previous Government led initiatives, in that it could vary according to size and geography. A hands-off management approach was also a common feature with local partnerships being responsible for the management of their own

regeneration schemes (Rhodes et al., 2007). There is additionally a great deal of information available regarding the evaluation of the many SRB schemes carried out, including many reports, case studies and annexes.

Rhodes et al., (2002) assert that one feature of a good evaluation framework is that it should enable the outputs or benefits of a policy or programme to be compared with the inputs or costs, stating that it is only with information of this kind that an assessment of value for money can be made. Reference is also made to the existing methodology as being “too narrow, too heavily output based and full of estimation problems”. It cites the issue of qualitative changes associated with regeneration outcomes, which can be given a quantitative dimension by “using sample survey techniques by indicating the extent to which perceptions in the resident population have changed” (Ibid, 2002). This is the exact technique used in the version within this study below.

However, in terms of a straightforward way of going about the evaluation process, the “suggested approach” provided by Rhodes et al., (2007) in paragraph A.1.2 of the full evaluation report’s annexes will be used. This approach is as follows:

- 1) Obtain information on the activities and gross outputs associated with the SRB projects and the expenditure incurred disaggregated by key funding source
- 2) Assess the additionality of SRB projects using five categories:

| | Range | Mid-point |
|--------------------------|--------------|------------------|
| Negligible additionality | 0-9% | 4.5 |
| Low additionality | 10-34% | 22.0 |
| Medium additionality | 35-54% | 44.5 |
| High additionality | 55-74% | 64.5 |
| Very high additionality | 75-100% | 87.5 |

Other information will need to be assembled for the relevant projects relating to intended beneficiaries, displacement, substitution and leakage effects;

- 3) Assess the additionality of the public sector financial contribution to the funding of the project. This will require an analysis of mainstream bending according to whether it has taken place over short or relatively long distances;
- 4) Establish the baseline position in relation to key outcome indicators in each SRB area drawing upon a range of published and unpublished data sources and through the use of social surveys;
- 5) Establish evidence for each of the key outcome indicators in the SRB area at specific times during the life of the SRB and identify gross changes that lie behind the net outcomes. (The social surveys are essential in order to establish the gross changes that lie behind changes in net outcomes);
- 6) Combine evidence from project outputs with evidence on changes in area key outcomes remembering that there are difficult measurement problems, that change takes place often only relatively slowly and people move into and out of the areas that are the subject of the SRB assistance. This has clear implications for the scale of the survey work that should be undertaken.

The evaluation of both the environmental-led programme and high rise scheme cited, using the SuROI approach as compared to then using the SRB approach to evaluate those same schemes, highlights how simply by using two different evaluation approaches, different conclusions on respective impacts of schemes can be gleaned. It would have been ideal to carry out a direct comparison of the two evaluation approaches on each of the two schemes as part of an analysis. However, this cannot be done. This is because the traditional SRB method of evaluation, simply does not pick up on the social and environmental impacts that the SuROI approach does. In

addition, each method of evaluation does not follow the same structure or methodology. Consequently, in order to show a comparison between the two approaches, it was felt that the most comprehensive way of going about this would be to list the benefits of both approaches (SuROI as against SRB), showing the gaps in the SRB and quantifying the differences by considering those items which appear only in the SuROI impacts and not in the SRB approach (the socio-environmental impacts).

Where items such as “intended beneficiaries” or “activities” are listed within the SRB evaluation, they are left out and not compared to the SuROI approach. The central argument and defence of this stance centres on the notion that if you cannot quantify something, you cannot measure it. This is the very stance which has been taken elsewhere within the thesis. Because the focused evaluation approach of SuROI is a method that by its very essence quantifies, subsequently enabling comparisons between previously difficult to compare items, it was felt that to ensure consistency in approach, the same stance should be used to gauge the difference in impact between the two evaluation approaches.

Consequently, any aspect of the SRB approach that could not be quantified was left out and this resulted in the direct and quantifiable comparisons between the two evaluation approaches on each scheme, seen in the tables below:

| SRB | Values | SuROI | Values |
|---|---|--|---|
| Expenditure | £3,250,000 | Inputs | £3,250,000 |
| Activities and outputs | 476 customer homes refurbished; 300 dropped kerbs to access driveways; 476 plans drawn up for scheme; salaries of 14 CWHT officers | Outputs | 476 customer homes refurbished; 300 dropped kerbs to access driveways; 476 plans drawn up for scheme; salaries of 14 CWHT officers |
| Key outcome indicators and related baseline | <ul style="list-style-type: none"> • Customers happy with neighbourhood appearance -percentage increase of 60% • Security rated as good or excellent - increased by 23% • Vandalism and damage an issue - decreased by 10% • Works made a difference to 74% of customers • 300 cars off the road • CWHT cost of ASB case (£500) • Relet costs (£987) per property • Cyclical costs saved (£83 per | <p>Outcomes, Indicators, proxies and source</p> <p>139</p> | <ul style="list-style-type: none"> • Customers happy with neighbourhood appearance -percentage increased of 60% (CWHT customer surveys) • Security rated as good or excellent - increased by 23% (CWHT customer surveys) • Vandalism and damage an issue -decreased by 10% (CWHT customer surveys) • Works made a difference to 74% of customers (CWHT customer surveys) • Amount of cars taken off the road (300) • CWHT cost of ASB case (£500) • Relet costs (£987) per property • Cyclical costs saved (£83 per property) • <u>Not worried about crime for individuals</u> <u>(£859,211.50)</u> • <u>"Living in a safe area"</u> <u>(£195,000)</u> • <u>Well being values from less graffiti and damage</u> |

| | | | |
|--|-----------|--|--|
| | property) | | <p><u>(£337,976)</u></p> <ul style="list-style-type: none"> • <u>“Happiness and wellbeing: High Confidence” (£627,840)</u> • <u>“Good neighbourhood” (£83,856)</u> • <u>“Life satisfaction” (£23,970.24)</u> • <u>“Talks to neighbours regularly” (£22,555)</u> • <u>Costs of PCSO to deal with traffic incidents (£152.05)</u> • <u>Regeneration impact for local area (£32,500)</u> |
| | | Value in currency – quantifies with common unit | £2,183,060.79 is the grand total of all values |
| | | Deadweight | 0 |
| | | Displacement | 0 |
| | | Attribution | 0 |
| | | Drop off | 0 |
| | | Impact | 1:3.38 |
| | | Difference in value between SRB and SuROI | £2,183,060.79 - 0 = <u>£2,183,060.79</u> |

Table 3.1: Comparison of SRB with SuROI relating to the City West Environmental-Led scheme (calculation refined following the verification) (Author’s elaboration)

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| SRB | Values | SuROI | Values |
|---|--|--|--|
| Expenditure | £43,200,200 | Inputs | £43,200,200 |
| Activities and outputs | 666 high rise flats refurbished and 36 hours per week worked per staff member as a minimum | Outputs | 666 high rise flats refurbished and 36 hours per week worked per staff member as a minimum |
| Key outcome indicators and related baseline | <p>Physical/ aesthetic improvement: Customer rating on appearance of blocks after works: 85% (increase of 74 responses)</p> <p>Living space improvement: Customer rating on quality of living space: 86% (increase of 49 responses)</p> <p>Improve security: Customer rating on quality of security: 81% (increase of 52 responses)</p> <p>Improve community pride: Customer rating regarding feelings of pride amongst customers: 85% (increase of 36 responses)</p> <p>Ensure that customers have decent homes with affordable warmth: 93% now consider flat to be</p> | <p>Outcomes, Indicators, proxies and source</p> <p>142</p> | <p>Physical/ aesthetic improvement: Customer rating on appearance of blocks after works: 85% (increase of 74 responses)</p> <p>Living space improvement: Customer rating on quality of living space: 86% (increase of 49 responses)</p> <p>Improve security: Customer rating on quality of security: 81% (increase of 52 responses)</p> <p>Improve community pride: Customer rating regarding feelings of pride amongst customers: 85% (increase of 36 responses)</p> <p>Ensure that customers have decent homes with affordable warmth: 93% now consider flat to be affordable (increase of 75 responses)</p> <p>Average annual fuel saving bill due to affordable warmth improvements - £460 per property (£306,360)</p> <p>Customer rating of heating as being affordable or flat requiring little or no heat 93%</p> |

| | | | |
|--|--|--|--|
| | <p>affordable (increase of 75 responses)</p> <p>Average annual fuel saving bill due to affordable warmth improvements - £460 per property (£306,360)</p> <p>Customer rating of heating as being affordable or flat requiring little or no heat 93% (112 responses out of 121)</p> <p>Rent figures: £3,824 per property per year (£2,546,784)</p> <p>Average price of repair call out costs added to average cost for high rise cyclical works (£738.56 per property)</p> <p>ASB cost per incident to CWHT (£500)</p> | | <p>(112 responses out of 121)</p> <p>Rent figures: £3,824 per property per year (£2,546,784)</p> <p>Average price of repair call out costs added to average cost for high rise cyclical works (£738.56 per property)</p> <p>ASB cost per incident to CWHT (£500)</p> <ul style="list-style-type: none"> • "Not worried about crime for individuals" (£8,174,484) • "No problem with ASB" (£429,001) • "Talk to neighbours regularly" (£302,237) • "Good neighbourhood" (£1,163,502) • "Life satisfaction" (£332,587.08) • "Perceptions of community and neighbourhood change" (£487,200) • Wellbeing value (£111,421) • Active in tenants' groups (£543,772) • Improved neighbourhood (£1,107,558) |
|--|--|--|--|

| | | | |
|--|--|--|---|
| | | | <ul style="list-style-type: none"> • Relief from drugs/ alcohol problems (£182,868) • Physical health change in individuals (£1,616,040) • Relief from depression/ anxiety (£2,463,322) • Fear of burglary for social housing tenants (£5,200) • Regeneration impact to local area (£4,329,000) |
| | + £306,360 for fuel saving + £2,546,784 for rent value = £2,853,144 | Value in currency – quantifies with common unit | £21,248,192.08 + £306,360 for fuel saving + £2,546,784 for rent value =£24,101,336.08 |
| | | Deadweight | 0 |
| | | Displacement | 0 |
| | | Attribution | 0 |
| | | Drop off | 0 |
| | | Impact | 1:1.89 |
| | | Difference in value between SRB and SuROI | £24,101,336.08 - £2,853,144 = <u>£21,248,192.08</u> |

Table 3.2: Comparison of SRB with SuROI relating to the City West High Rise scheme (calculation refined following the verification) (Author’s elaboration)

In terms of the quantifiable outputs, the difference in value recorded for the environmental scheme was £3.38 for every £1 invested whilst the ratio for the high rise scheme was £1.89 for every £1 invested. The total SuROI valuation for the projects is $£2,183,060.79 + £21,248,192.08 = £23,431,252.87$ whilst the SRB valuation came to £2,853,144. This suggests that the SRB approach undervalued benefits of the same regeneration schemes by over £20m compared with the SuROI method. These figures are significant and are increasingly significant the more money is invested in a scheme. In terms of the types of data analysed, scheme expenditure and details of quantities of works carried out were recorded, staff salaries and officer time were also factored in in terms of scheme inputs, customer surveys were used for primary data which assessed impact, the detail of which could be used within both the SRB and SuROI approaches, monetary values were used based on a suitable financial proxy (Nicholls et al., 2012) (proxy values will be covered again later in the thesis) from a variety of respected statistical sources including the Global Value Exchange (GVE), the HACT database and in addition, a wide variety of City West Housing Trust company statistics. Such statistics included investment scheme costs, fuel bill amounts saved by tenants and the amount of rent received as income by City West Housing Trust.

It is also worth mentioning that some of the initial calculations published within Dean, Trillo and Bichard (2017a) were refined after the verification and validation stage of the research which resulted in slightly different impact values, due to three particular factors:

- 1) More information being available through the further consultation with CWHT staff
- 2) More emphasis on not double counting or overclaiming (for example a perfectly legitimate proxy approved by HACT could have been used for 'financial comfort' experienced by tenants, but wasn't used because of another proxy being used to measure fuel savings which was much more in line with what the focus group representatives thought would be an appropriate figure)
- 3) More emphasis on claiming where CWHT should have been claiming (there were some areas where figures were previously doing a disservice to CWHT) in the opinion of those involved in the verification and validation phase of the research.

Some observations can be gleaned from the comparison between the SRB evaluation and the SuROI approach. Within the SRB, there would appear to be a lot less information to hand from which to make strategic decisions or conclusions on the level of impact of a given scheme. In comparison, because the SuROI method in effect 'makes the invisible visible', previously intangible areas become tangible, meaning that more information is readily available to decision makers which in theory will increase the accuracy of decision making in the field of housing-led urban regeneration. Additionally, not all impacts of a scheme are going to be quantitative. The SRB led methodology quantifies qualitative values in terms of the change in numbers of respondents or percentage change of response. This provides accurate information from directly involved stakeholders, but this perhaps does not bring into play enough supporting data. By utilising the SuROI method, further indicator sets and proxies, brought about by tapping into sometimes thousands of responses

provided, again provide much more information, which in theory increases the accuracy of the impact and the accuracy of any subsequent strategic decision making.

SuROI allows the forming of a conclusive decision on actually what the clear cut, holistic and sustainable impact of the scheme is. Via the traditional method of evaluation, there is no clear cut, quantifiable and easy to understand ratio depiction of the impact or change promoted by a scheme, whereas within SuROI this is a fundamental part of the conclusion to the process. The traditional evaluation additionally struggles to adequately compare different forms of figures available. What is the value of one percentage point or one person's response within the evaluation? Is it the same or different to £1 of return? SuROI makes it easy to contrast figures and results, by quantifying them all in the common unit of a monetary value. Additionally, SuROI can use many different tools within its framework to gauge various impacts from social benefits to wellbeing, to environmental benefits. This makes SuROI a highly flexible and integrated approach. This level of flexibility and integration does not appear within the traditional evaluation. To ensure consistency in approach, SuROI's following of the Social Value SROI guidance principles brings about a discipline to an evaluation that does not appear to be present with the traditional evaluation approach involved with the SRB method. Lastly, with the SRB methodology, it would not be possible to predict the effects of a housing-led urban regeneration scheme which is planned for the future. With SuROI, because of the amount of data the method taps into, an accurate assessment could be gauged to again help strategic decision making.

The above SuROI versus SRB sub case study examples allow the identification of the gap that exists in terms of current evaluation methodology in the light of the Sustainable Development Goals and how far an alternative innovative method, that of SuROI, can be supportive in overcoming it. While environmental and social spillovers are largely disregarded because of a gap in the evaluation tools, implementing a more holistic and comprehensive methodology such as SuROI to the housing sector can be extremely beneficial in being able to capture those hidden benefits and emphasising the targets achieved as part of the Sustainable Development Goals.

With the above sub case study examples, the fact that a gap exists in terms of evaluation methodology due to the fact that current approaches do not highlight and make explicit previously intangible and hidden social and environmental impacts from housing-led urban regeneration schemes has been validated. The discussion and observations on the comparison of a traditional evaluation approach modelled on the Single Regeneration Budget programme which ran from 1994-2004, with the evaluation method put forward as a viable alternative, that of SuROI, shows that room for significant improvements in assessment methods still exists.

While environmental and social spillovers are largely disregarded because of a gap in the evaluation tools, implementing a more holistic and comprehensive methodology such as SuROI to the housing sector can be extremely beneficial in being able to capture those hidden benefits.

However, in addition, the original SuROI assessment methodology can be easily adapted by being refocused in terms of stakeholders' engagement. By repackaging the

financial calculation allocating costs and benefits across different stakeholders involved, it would be possible to attract potential new investors, willing to increase the benefits that the method has unveiled. In addition, the concept of time can be introduced to the former SuROI methodology as part of the novel artefact. Various pay back periods can be used as part of strategic decision making, management and governance. Therefore, through the novel artefact, not only has the original SuROI tool been refined, but the original purpose of the SuROI evaluation tool has also been refined, taking it into the areas of strategic decision making, management and governance.

3.8. Developmental Evaluation

Developmental evaluation (DE) is a strand of evaluation, particularly useful for the objectives of this thesis. It was developed and pioneered principally by Michael Quinn Patton, a global independent consultant and author on evaluation, which seeks to use evaluative thinking to support social innovation and is defined by Patton (2008) as:

“long-term, partnering relationships between evaluators and those engaged in innovative initiatives and development. Developmental evaluation processes include asking evaluative questions and gathering information to provide feedback and support developmental decision-making and course corrections along the emergent path. The evaluator is part of a team whose members collaborate to conceptualise, design and test new approaches in a long-term, on-going process of continuous improvement, adaptation, and intentional change. The evaluator’s primary function in the team is to elucidate team discussions with evaluative questions, data and logic, and to facilitate data-based assessments and decision-making in the unfolding and developmental processes of innovation.”

Developmental evaluation (DE) is suited to evaluating complex initiatives “in which both the path and the destination are evolving”, such as the path and destination involved in the creation of the ‘SuHousingImpact’ tool within this thesis, and which “combines the rigour of evaluation with the flexibility and imagination required for development; this new form of evaluation brings critical thinking to bear on the creative process in initiatives involving high levels of uncertainty, innovation, emergence, and social complexity” (Gamble, 2008).

Westley, Patton and Zimmermann (2006) cite that narrowly measured, pre-determined outcomes “achieved through a linear cause-effect intervention”, in the style of the more traditional evaluation approach, do not lend themselves to innovative, real world and developmental processes. Conversely, social innovators are driven by a desire to change the world and developmental evaluation supports such innovators “in the conceptualisation and articulation of the problem, by helping to frame the issue and its dynamics” (Gamble, 2008). Developmental evaluation would appear to have much in common with Design Science Methodology (Chapter Five).

Patton (2016a) describes the existence of a niche for a form of evaluation which focuses on the evaluation of innovations in complex dynamic environments, such as where social innovators are at work - exactly the type of scenario which will be involved in the development of the ‘artefact’ in this thesis (see Chapter Five).

Developmental evaluation has become recognised within the literature as being a distinct and useful evaluation approach (Dickson and Saunders, 2014; FSG, 2014; Lam and Shulha, 2014; Preskill and Beer, 2012) and can be defined as providing

“evaluative information and feedback to social innovators to inform adaptive development in complex dynamic environments” (Patton, 2016a). DE enables innovation and adaptation of the processes of “asking evaluative questions, applying evaluation logic, and gathering and reporting evaluative data to support project, programme, initiative, product, and/or organisational development with timely feedback” (Patton, 2016a). The innovative manner of DE is referred to by several authors within the literature base, including Fagan et al., (2011), Gamble (2008) and Patton (1994; 2006; 2016a) as is its usefulness to real world, complex and changing environments; characteristics it shares with that of Design Science Methodology.

Gamble (2008) describes developmental evaluation as a “dynamic, emergent process”, ideal for use with social innovations within complex environments, whilst highlighting that the more traditional evaluation approaches attempt to predict the outcomes of an innovation or innovative process and “focus measurement on those goals”, whereas comparatively, developmental evaluation supports innovation “within a context of uncertainty”. The author focusses on the word ‘developmental’ as being “based on the innovation driving change”.

DE is described as an evaluation approach which combines “the rigour of evaluation, being evidence-based and objective, with the role of organisational development coaching, which is change oriented and relational”. The evaluation process at hand should be “part of the work” so that planning, action and evaluation all work in tandem (see Figure 3.4 below). DE makes use of familiar evaluation methods such as surveys, interviews and observations. The result of a successful DE is described as being all about informed changes in what is being evaluated (Ibid, 2008), again,

marrying up to the iterative process involved in Design Science Methodology (Chapter Five).

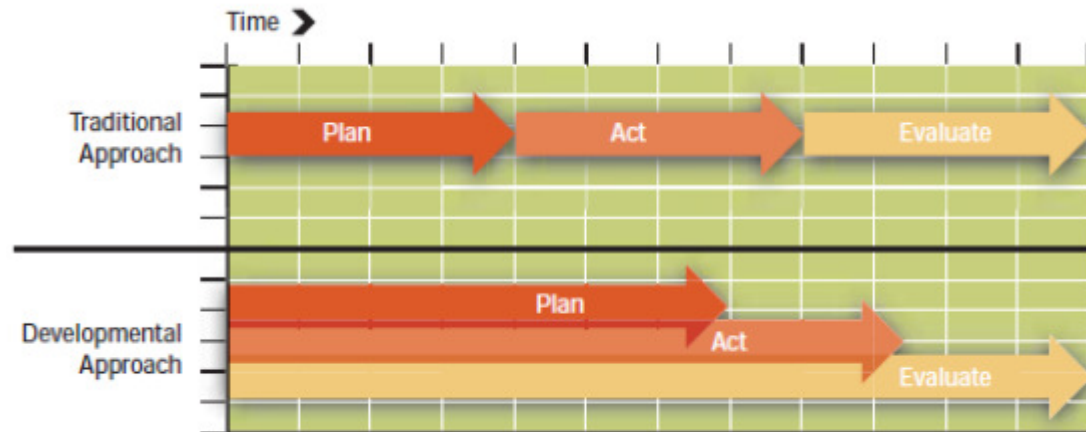


Figure 3.4: Planning, action and evaluation comparison between the traditional evaluation approach and developmental evaluation approach (Gamble, 2008)

Gamble adds that DE, with its “innovation and complexity orientation” is best suited to organisations which display the following characteristics:

- Where innovation is identified as a core value;
- Where there is an iterative loop of option generation, testing and selection;
- Where both board and staff are in agreement about innovation and willing to take risks;
- Where there is a high degree of uncertainty about the path forward;
- Where there are resources available for ongoing exploration; and
- Where the organisation has a culture suited to exploration and enquiry

(Ibid, 2008)

In terms of what exactly is involved in a developmental evaluation, Patton (2006) describes that an evaluator's primary function is to discuss, with evaluative questions and to facilitate on going assessments and decision making as the innovation and developmental process unfolds, with adjustments being made accordingly along the way. Gamble (2008) describes the process used as a "kind of organisational exploration" with the destination often being vague where much can change and evolve over time.

DE actively includes and records key insights from the process from problem to solution including the "roads not taken, unintended consequences, incremental adjustments, tensions and sudden opportunities" and ultimately makes decision making and related reasoning behind those decisions more transparent whilst additionally generating "valuable data useful for dissemination" which is also useful in terms of accountability and process flexibility (Ibid, 2008) which means that within the DE process, social innovators are able to observe, and subsequently make adjustments to what is possible or desirable, based on dialogue (Westley, Patton and Zimmermann, 2006).

Gamble (2008) compares the historic notions of evaluation, involving a logical, linear and formulaic approach where the problem in question is well understood, bounded and where a limited set of potential solutions exist, one of which is optimal, with the types of problem experienced by social innovators, i.e. those which are the exact opposite of the above, and which are often referred to as "wicked problems".

Wicked problems can be described as being unstructured or “ill formulated, where the information is confusing, where there are many clients and decision makers with conflicting values and where the ramifications in the whole system are thoroughly confusing” (Rittel, cited in Buchanan, 1992:15) with any decision making activities being typically defined as being “poorly formulated, confusing and permeated with conflicting values of many decision makers or other stakeholders” (Pries-Heje and Baskerville, 2008:731). In addition, such problems are usually difficult to define, as they tend to be unbounded. Such problems, sustainable development included (Peterson, 2009), often being solved by a combination of strategies, which emerge from the design process (Schon, 1983).

The term ‘problem’ can be defined as the existence of a gap between the current situation and that of the desired situation by human and/or organisational systems. This definition of the term is consistent with Simon’s definition, which states that “everyone designs who devises courses of action aimed at changing existing situations into preferred ones” (Simon, 1996:130).

3.8.1. Key characteristics of Developmental Evaluation

Guijt et al., (2012) state that the key characteristics of DE are:

- A focus on development (versus improvement, accountability or summative judgement)
- It takes place in complex dynamic environments
- Feedback is rapid (as real time as possible)

- The evaluator works collaboratively with social innovators to conceptualise, design and test new approaches in a long-term, on-going process of adaptation, intentional change and development
- The DE evaluator can be part of the intervention team
- The evaluator’s primary functions are to elucidate the innovation and adaptation processes, track their implications and results, and facilitate on going, real-time, data based decision-making in the developmental process
- DE becomes part of the intervention.

3.8.2. Principles of Developmental Evaluation

Patton (2016b) states that there are principles to be adhered to within DE, to merit the label of ‘DE’. All of the principles highlighted below in Table 3.3 should be addressed “to some extent and in some way” (Ibid, 2016b):

| Essential DE principles | What to look for to assess the degree of manifest sensitivity and sensibility in DE practice, from design to use of findings | Examples of contextual evidence of the essential DE element being incorporated in practice |
|---|--|---|
| 1. Developmental principle: illuminate, inform, and support what is being developed, by identifying the nature and patterns of development (innovation, adaptation, and systems change) and the implications and consequences of those patterns | Something (the innovation) is being developed. The evaluation tracks what is being developed and the implications of what emerges. The evaluation itself is developed (emergent design) as the innovation develops | The evaluation’s purpose, supporting development and adaptation of the innovation, is explicit and that focus is maintained throughout. The evaluation design’s emergence and adaptations are documented and their implications discussed |

| | | |
|---|---|--|
| <p>2. Evaluation rigor principle: Ask probing evaluation questions; think and engage evaluatively; question assumptions; apply evaluation logic; use appropriate methods; and stay empirically grounded—that is, rigorously gather, interpret, and report data</p> | <p>DE is empirically driven, and evaluative thinking undergirds all aspects of the engagement</p> | <p>Data are gathered, reported, and interpreted about the implications of what is being developed; DE findings and feedback inform next steps in the adaptive process</p> |
| <p>3. Utilisation-focused principle: Focus on intended use by intended users from beginning to end, facilitating the evaluation process to ensure utility and actual use</p> | <p>Intended use by intended users focuses the evaluation</p> | <p>Social innovators and their supporters are the primary intended users of DE and clearly identified as such. The explicit purpose of the evaluation is to support the development and adaptation of the innovation (vs. improvement, accountability, or summative judgement)</p> |
| <p>4. Innovation niche principle: Elucidate how the change processes and results being evaluated involve innovation and adaptation, the niche of developmental evaluation</p> | <p>A commitment to innovate is explicit and authentic: a fresh and effective response to an intractable social challenge or problem or to an emergent one</p> | <p>DE has helped the social innovation develop and adapt within the context where the innovation is occurring</p> |
| <p>5. Complexity perspective principle: Understand and interpret development through the lens of complexity and conduct the evaluation accordingly. This means using complexity premises and dynamics to make sense of the problems being addressed; to guide innovation, adaptation, and systems change strategies; to interpret what is developed; to adapt the evaluation design as needed; and to analyse emergent findings</p> | <p>The characteristics of the complex dynamic system in which innovation and evaluation are occurring are described. The complexity characteristics of the innovation being developed and evaluated are also described. The DE design, process, and outcomes reflect these complexity characteristics</p> | <p>The nature and degree of uncertainty, turbulence, nonlinear interactions, and dynamical patterns are highlighted. DE is explicitly aligned with the complexity of the innovation. Sensitivity to and implications of emergence, adaptation, and context are manifest</p> |

| | | |
|---|---|---|
| <p>6. Systems thinking principle: Think systemically throughout, being attentive to interrelationships, perspectives, boundaries, and other key aspects of the social system and context within which the innovation is being developed and the evaluation is being conducted</p> | <p>Attention to interrelationships, perspectives, and boundaries undergirds and informs both the innovation processes and the developmental evaluation</p> | <p>The design, data collected, findings presented, and use of findings demonstrate systems understandings and systems thinking. Contextual sensitivity is explicit and evident throughout the evaluation</p> |
| <p>7. Cocreation principle: Develop the innovation and evaluation together—interwoven, interdependent, iterative, and cocreated—such that the developmental evaluation becomes part of the change process</p> | <p>The developmental evaluator is close enough to the action to build a mutually trusting relationship with the social innovators. The collaborative process is active, reactive, interactive, and adaptive</p> | <p>In the process of collaboration, adaptations and developments are cocreated. DE becomes part of the intervention (cocreation). How this occurs and with what implications and consequences are discussed</p> |
| <p>8. Timely feedback principle: Timely feedback to inform ongoing adaptation as needs, findings, and insights emerge, rather than only at predetermined times (e.g., quarterly or at midterm and the end of project)</p> | <p>Feedback of findings is timely and ongoing (not just delivered at predetermined times, like quarterly, or midterm and the end of project)</p> | <p>Evidence is reported about how the DE feedback was engaged, useful, and used in close conjunction with real-time decision-making and adaptations</p> |

Table 3.3 Eight Essential DE Principles (Patton, 2016b)

3.8.3. Developmental Evaluation as against traditional approaches to evaluation

Recently, questions have started to be asked as to whether the traditional evaluation approaches are adequate in supporting social innovation (Dozois, Langlois and Blanchet-Cohen, 2010; Gamble, 2008; Patton, 2006; 2011; Preskill and Beer, 2012), whilst even more recent literature has cited limitations of standard evaluation practices in complex and changing environments (Dickson and Saunders, 2014).

Patton (2016a) recounts that the historical evaluation notions of formative and summative evaluation were first conceptualised by Michael Scriven (1967) for school curriculum evaluation purposes. The author explains that the historical assumption underlying the formative/ summative stance was that the “purpose of evaluation is to test and judge a model”, with formative evaluations being used to improve the said model, whilst summative evaluations were meant to “test the model and judge its merit” based on desired outcomes. Gamble (2008) defines formative evaluations as those which “help a programme become an effective and dependable model” and defines summative evaluations as those which “render judgements about the merit, worth and value of a standardised programme”.

Developmental evaluation can be compared to such traditional approaches to evaluation, including those of formative and summative evaluations. The table below, from Stufflebeam and Shinkfield (2007) shows, in further detail, the differences between formative and summative evaluations:

| Descriptors | Formative evaluation | Summative evaluation |
|-----------------------------|---|---|
| Purpose | Quality assurance; improvement | Provide an overall judgement of the evaluand (subject of an evaluation) |
| Use | Guidance for decision making | Determining accountability for successes and failures; promoting understanding of assessed phenomena |
| Functions | Provides feedback for improvement | Informs consumers about an evaluand's value, for example its quality, cost, utility and safety |
| Orientation | Prospective and proactive | Retrospective and retroactive |
| When conducted | During development or ongoing operations | After completion of development |
| Particular types of service | Assists goal setting, planning and management | Assists consumers in making wise decisions |
| Foci | Goals, alternative courses of action, plans, implementation of plans, interim results | Completed projects, established programmes, or finished products; ultimate outcomes |
| Variables | All aspects of an evolving, developing programme | Comprehensive range of dimensions concerned with merit, worth, probity, safety, equity and significance |
| Audience | Managers, staff; connected closely to insiders | Sponsors, consumers and other interested stakeholders; projected especially to outsiders |
| Evaluation plans | Flexible, emergent, responsive, interactive | Relatively fixed, not emergent or evolving |
| Typical methods | Case studies, observation, interviews, not controlled experiments | Wide range of methods including case studies, controlled experiments and |

| | | |
|---|--|---|
| | | checklists |
| Reports | Periodic, often relatively informal, responsive to client and staff requests | Cumulative record and assessment of what was done and accomplished; contrast of evaluand with critical competitors; cost effectiveness analysis |
| Relationship between formative and summative evaluation | Often forms the basis for summative evaluations | Compiles and supplements previously collected formative evaluation information |

Table 3.4: The differences between formative and summative evaluation approaches (Stufflebeam and Shinkfield, 2007)

Patton (2016a) disputes whether more traditional evaluation approaches can work in an environment where there is no such thing as clear, specific and measureable outcomes, presented in a linear logic model, and where the reality is more usually presented as “conditions of high innovation, exploration, uncertainty, turbulence, rapid change, and emergence” (Ibid, 2016a). The author even goes as far as to state that “premature specificity can do harm, by constraining exploration”. It has even been highlighted as to whether persons typically involved in innovative processes expect, or “even want” to use the more traditional evaluation approaches, which require a “state of stabilisation” to have an impact (Patton, 2006); something which is not always possible in a complex or constantly changing environment; such as one where social innovation is at work.

It has been made clear by social innovators that traditional evaluation methods can often be their “biggest obstacle” and typically do not meet their needs (Guijt et al.,

2012). It was even found that the “rigid, mechanical, narrowly accountability focused evaluation was doing harm” (Ibid, 2012), whilst it has been observed (Patton, 1994; 2006) that exercises in constructing clear and specific goals, in addition to finding and adopting “proven” implementation models, and using pre defined and measurable outcomes, are less important to social innovators than realising positive social change (Patton, 2011).

Traditional forms of evaluation work well where the progression from problem to solution can “be laid out in a relatively clear sequence of steps” (Gamble, 2008). However where there are areas which involve multiple stakeholders, high levels of innovation, fast paced decision-making, and areas of uncertainty, this requires a more flexible approach (Patton, 2008). This reflects the state of play within this thesis, in terms of the creation of the ‘SuHousingImpact’ tool.

Developmental evaluation differs from traditional forms of evaluation in the following ways:

- The primary focus is on adaptive learning rather than accountability to an external authority
- The purpose is to provide real-time feedback and generate learnings to inform development
- The evaluator is embedded in the initiative as a member of the team
- The DE role extends well beyond data collection and analysis; the evaluator actively intervenes to shape the course of development, helping to inform decision-making and facilitate learning

- The evaluation is designed to capture system dynamics and surface innovative strategies and ideas
- The approach is flexible, with new measures and monitoring mechanisms evolving as understanding of the situation deepens and the initiative's goals emerge.

(Taken directly from Dozois, Langlois and Blanchet-Cohen, 2010)

The goal of developmental evaluation is of learning and not judgement (Dozois, Langlois and Blanchet-Cohen, 2010) and can typically be used within “long-term initiatives that are not so much pre-planned as emergent” (Ibid, 2010). Developmental evaluation is suited to situations that are highly emergent and volatile, difficult to plan or predict because involved variables are interdependent and non-linear, socially complex, and which typically require collaboration among stakeholders from different organisations, systems or sectors and are innovative, which require real time learning or/and development (Patton, 2008; Gamble, 2008).

DE has three specific ‘entry points’ and four specific ‘practices’ as follows:

Entry points:

- ‘Orienting oneself’ – this means immersing oneself in the initiative and its broader context;

- ‘Building relationships’ – this translates to the involvement of stakeholders and actively interacting with them, whilst also understanding their interactions, tolerances and conflicts and additionally involves building relationships in a capacity so as to collect relevant data, and, in addition, not necessarily through traditional means;
- ‘Development of a learning framework’ – to guide the experience

Practices:

- Orienting – developmental evaluators should maintain an accurate and adaptive orientation in times of ambiguity, confusion and rapid change (Richards, 2004)
- Watching – good observation skills ensure that the orientation in question matches the issues of the real world (Ibid, 2004).
- Sense-making – making sense of the complex array of data and information
- Intervening – DEs have opportunities to shape, develop and get back on track the development process

(From Dozois, Langlois and Blanchet-Cohen, 2010)

Evaluators often cite that social problems persist despite many purposeful interventions designed to address them (Westley, Patton and Zimmermann, 2006). In addition, social science has previously been accused of proving to be “inept in offering solutions for the great problems of our time” (Patton, 2006). It is the disadvantages of the more traditional evaluation approaches, coupled with the failings of social science, added to the constantly changing and complex environment that typically surrounds social innovation, that has given rise to developmental evaluation.

3.8.4. Intended strategy versus realised strategy

As described, developmental evaluation is very useful when real world experiences are being actioned out (Gamble, 2008; Patton, 1994; 2006; 2016a; Dozois et al., 2010). Real world experiences normally dictate that there is not simply a logical set of steps from problem towards solution. In fact, what normally occurs is that fluctuations arise through the “experience of innovating” where a rapid moving back and forth occurs between problem and solution. Problems and solutions may therefore need to be reworked or recrafted in reality. Developmental evaluation is deemed more suitable by Gamble (2008) in such situations because it “supports the process of innovation in ways that enable exploration and development”.

Patton himself (cited in Guijt et al., 2012) illustrates this innovation, exploration and development by referring to the work of Henry Mintzberg, one of the world's leading management scholars, who has researched and examined processes by which

strategies are formed in different contexts, to illustrate the point that an intended strategy is not always the realised strategy, in a real world scenario.

Figuratively speaking, the journey between problem and solution is more frequently seen as a divergent line, which includes expected and unexpected variations in the strategic journey, in direct comparison to the straight line journey from problem to solution, as seen in Figure 3.5 below (from Mintzberg, 2007):

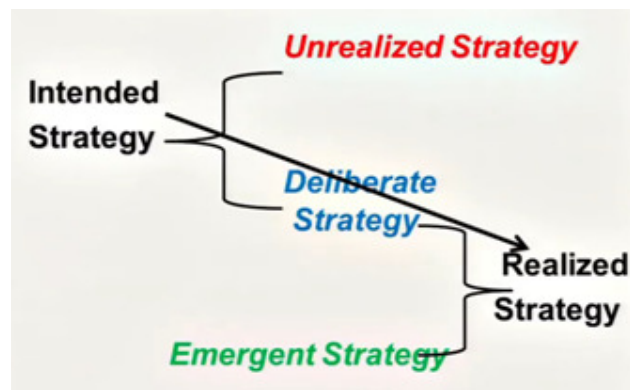


Figure 3.5: Intended strategy versus realised strategy (Mintzberg, 2007)

3.8.5. Myths of DE

Gamble (2008) lists six myths which have developed about DE as follows:

- 1) Developmental evaluation replaces other evaluations

DE is an addition to the current set of evaluation approaches

- 2) Developmental evaluation is about soft methods

DE is evidence-based and therefore as rigorous “as any evaluative process”

- 3) Developmental evaluation is about collecting stories

Story collecting can be used but this occurs in tandem with other data collection methods

- 4) Developmental evaluation is process evaluation

“Process is attended to, but developments that move something towards outcomes is the ultimate objective”

- 5) Developmental evaluation downplays accountability

“The accountability of developmental evaluation rests in its ability to support development. If nothing is developed, it has failed”

- 6) Developmental evaluation is the same as participatory evaluation

“Participatory evaluation is about a distinction in approach, where developmental evaluation is about a distinction in purpose”.

3.9. Summary

This chapter introduced the subject area of evaluation, together with its definitions and history. A brief history of urban regeneration evaluation in the UK context was outlined, together with a background to evaluation within urban regeneration more generally. A critical review of current assessment methodology then followed, including that of the EGRUP Guidance, City Challenge, the Single Regeneration Budget, the New Deal for Communities, Urban Development Corporations, the Hemphill Framework, the Sustainable Urban Renewal Project Assessment Model (SURPAM), the UK Government 'Green Book' and the Royal Institution of Chartered Surveyors (RICS) 'Red Book', before the gap between such evaluation methods and SuROI were looked into specifically through a gap analysis between the evaluation of the Single Regeneration Budget and SuROI.

The conclusion of this section of the chapter was that none of the traditional and current methods of evaluation take into account the hidden social and environmental impacts of housing-led urban regeneration schemes, meaning that there is a niche for a quantitative evaluation approach of a scheme's socio-environmental spillovers, such as can be seen within SuROI and, further to this, a potential refinement of the SuROI approach, something which will constitute one of the novel contributions to knowledge that this thesis offers.

The domain of Developmental Evaluation (DE), a form of evaluation particularly useful within the context of the goals of this thesis was outlined, together with the key characteristics and principles of DE. A comparison was made between DE and more traditional evaluation approaches and it was suggested that the traditional approaches to evaluation would not tend to fit the objectives of this thesis. The myths of DE, according to the literature, were also covered. DE is the method by which the artefact created later in the thesis (Chapter Six) is evaluated and re-evaluated until all participants in the DSR process are happy that a workable artefact is in place.

The chapter also shows that there is a necessity for a method that measures social and environmental impacts resulting from housing-led regeneration schemes in a much improved way than what has historically gone before.

The critical review of assessment methodology found within Section 3.6 of this Chapter shows that previous methods have either not measured social and environmental impacts at all, or that they have not been measured in a more quantifiable and scientific manner.

In addition, the direct comparison of the evaluation method used within the SRB to the SuROI method, on which the artefact of this thesis is based, shows that SuROI picks up many more social and environmental benefits of housing-led urban regeneration schemes than those of more historical methods, such as the SRB.

Therefore, the SuROI approach is an appropriate approach to take forward and refine, through the Design Science Research methodology, later in the thesis (Chapter Six), resulting in the artefact of the thesis.

CHAPTER FOUR: SUSTAINABLE RETURN ON INVESTMENT

4.1. Introduction

This chapter looks into the Sustainable Return on Investment approach and its origins within the domain of Social Return on Investment (SROI), whilst additionally covering SROI's definition and the technique of the monetisation of intangible values, one which is integral to SROI. Further, the concept of Social Value is discussed, together with the recent legislation pertaining to Social Value, that of the Social Value Act (UK) (2012).

Further to this the different stages of SROI are presented, together with the SROI framework and process, whilst the advantages and proclaimed disadvantages of SROI are additionally outlined. Also looked at is the notion of the SROI ratio. Subsequently, this leads into the understanding of the Sustainable Return on Investment (SuROI) approach together with an in depth explanation of the five stages involved in the calculative process. Lastly, there is a brief outline on indicators and their importance in the process.

Despite claims within the literature that sustainable social housing construction processes should include all three notions of the triple bottom line (Brandon and Lombardi, 2011; Langston and Ding, 2001), despite urban regeneration schemes typically failing to capture “social and environmental dimensions of creating sustainable places” (Evans, 2012), bearing in mind the difficulties experienced when

attempting to capture “social and environmental gains and losses as against more easily measured economic impacts” (Ibid, 2012), and despite there being a “lack of effective tools and robust methodologies capable of capturing the full social value generated by the housing association sector” (Fujiwara and HACT, 2013), there appears to be very little within the literature base which meets these criteria and there thereby appears to be a niche for a method to be utilised which does capture such impacts - something which makes intangible social and environmental impacts tangible.

4.2. Social Return on Investment (SROI)

Social Return on Investment is considered as “the most developed method with a robust framework for implementation” (Watson and Whitley, 2016) to carry out such appraisal. It provides a framework which can help to deliver social value through built environment projects (Chevin, 2014; Temple et al., 2014; Burke and King, 2015). Indeed, SROI has been used in the context of the built environment in a number of previous studies (Aspden et al., 2012; Bichard, 2015; Bridgeman et al., 2015; Bridgeman et al., 2016; Watson et al., 2016; Watson and Whitley, 2016). Aspden et al., (2012) used SROI as part of a low carbon retrofit scheme in Salford, whilst Watson and Whitley (2016) used the framework to show the impact that cancer care centres can have on building users, such as patients.

4.2.1. History of SROI

SROI was originally developed by George Roberts of the Roberts Enterprise Development Fund (REDF) in the US in the mid 1990s (Watson and Whitley, 2016). The REDF was seeking out methods by which they could apply commercial business acumen and practices to non profit owned social enterprises (Emerson and Twersky, 1996). Trustees of the Fund were in need of a method to gauge the amount of social impact created and delivered from investments.

Further to SROI's initial development under the REDF, the approach was then further refined at the Harvard Business School (Maughan, 2012) and was then subsequently promoted further in the early 2000s, before a number of social enterprise practitioners then developed it further (Scholten, Nicholls, Olsen and Galimidi, 2006).

In 2003, SROI was brought over to the UK and tested by the New Economics Foundation (NEF, 2004) before then being yet further refined by the NEF and the SROI Network in the UK (now Social Value UK) (Nicholls et al., 2012). Through the work of the NEF and the SROI Network, it evolved through a new emphasis on stakeholder engagement and by using a standardised methodology (Nicholls et al., 2007). In addition SROI has sought to solve earlier problems associated with using Cost Benefit Analysis for sustainability evaluation through its focus on broader indicators encapsulating social, economic and environmental costs and benefits (Rotheroe and Richards, 2007).

Policy makers continue to encourage social enterprises to measure social value through the usage of SROI (Nicholls, 2007) and it continues to develop in the UK social enterprise sector as “the primary mechanism for evidencing organisational impact” (Higham et al., 2017), with endorsement from the Cabinet Office and Scottish Government (Watson and Whitley, 2016, cited in Higham et al., 2017) as well as the UK’s Department of Health (UK Government, 2010) and in many other organisations such as the North West Social Value Foundation and Social Value UK in England and the Social Value Lab in Scotland (Watson et al., 2016). SROI is also being increasingly used within public policy (Musto, 2015) and commercial industry (Battle, 2014) whilst the SROI Network model has been actively promoted by the Office of the Third Sector in the UK (Zappala and Lyons, 2009).

In fact, SROI is not only taking off in the UK, but all over the world. It is now extending “beyond the US and UK as a global product” (Millar and Hall, 2013), with recent publications in Chinese and French (SROI Network, 2011) whilst the SROI Network can boast of members from all over the world (Millar and Hall, 2013).

4.2.2. What is SROI

According to the SROI Network (UK), a definition of SROI is as follows:

“Social Return on Investment (SROI) is a framework for measuring and accounting for [a] much broader concept of value; it seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits”.

(Nicholls et al., 2012)

The SROI Network goes on to state that SROI “measures change in ways that are relevant to the people or organisations that experience or contribute to it” and “tells

the story of how change is being created by measuring social, environmental and economic outcomes and uses monetary values to represent them” (Nicholls et al., 2012). Bichard (2016) adds that SROI methodology “compares the value of the benefits of a particular action, project or programme against its costs”. Semper and Fuertes (2015) add that SROI is a “focus for understanding and managing the impact of a project, an organisation or a given policy”. The authors also note SROI’s traditional use within the field of project evaluation and its usefulness within the subject area of urban regeneration.

According to Scholten et al., (2006), SROI is a process of understanding, measuring and reporting on the social, environmental and economic value that is being created by an organisation and captures social value by translating social objectives into financial and non-financial measures, whilst Watson and Whitley (2016) add that SROI is a social impact methodology that allows organisations to evidence the wider value of their work and “assigns a monetary value to social returns using financial proxies, which are compared against the level of investment to produce an SROI ratio of costs to social outcomes”.

4.2.3. Monetisation of values

The advantage that the monetising of values brings, in addition to enabling any previously intangible benefits and impacts to be measured, is that all impacts, both social and environmental, can be assessed using the same metric. Monetisation can also be seen to reduce complex information into data that can be easily compared and valued (Lingane and Olsen, 2004; Conejos, Langston and Smith, 2013). In addition, a novel approach is brought about through monetisation, as work carried out “to

monetise the detrimental or the added sustainable value of development schemes has not featured to date in the literature” (Bichard, 2016). Indeed, Watson and Whitley (2016) add that the “main point” of difference that SROI delivers beyond existing methods in the built environment is the monetising of outcomes identified through “qualitative stakeholder engagement providing a transferable evidence base that can be communicated to a wide range of audiences”. This is something that satisfies the criteria put down by Dixon et al., (2013) who suggest that there is “no universal model of urban regeneration and transferability to different contexts is often difficult”. The SROI Network Guide explains that the current approach was developed from a combination of social accounting and cost-benefit analysis and, that through an evidence-based framework, SROI “seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits”. The Guide additionally states that SROI can be carried out ex post, in an evaluative manner or ex ante as a forecasting or predictive method (Nicholls et al., 2012).

The New Economics Foundation (NEF) outline that SROI is “a technique widely advocated which is designed to understand, manage and report on the social, environmental and economic value created by an organisation” (NEF, 2004). The concept of ‘social value’ is again touched upon by Olsson and Nicholls (2005) when they outline that an SROI analysis is “a method for understanding the (environmental, social and public economic) value being created by organisations in addition to the financial value that accrues to owners”.

4.2.4. Social Value

The last two definitions of SROI above, bring the notion of social value to the surface. Although there is no unequivocal definition of social value (Bichard, 2016), or even a lack of one (Ebrahim and Rangan, 2010; Polonsky and Grau, 2011), there are varying degrees of opinion. The concept of social value has, for example, been variously defined as being created when “resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole” (Emerson et al., 2001, cited in Arli and Zappala, 2009), whilst Tuan (2008) adds that social value is the “concept and practice of measuring social impacts, outcomes and outputs through the lens of cost”. Emerson et al., (2001) explain that it is created “when resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole”. Wood and Leighton (2010) add to this, asserting that social value refers to “wider non-financial impacts of programmes, organisations and interventions, including the wellbeing of individuals and communities, social capital and the environment”.

The concept of social value has been primarily brought to the surface through the recent legislative requirements of the Social Value Act (UK) (2012).

4.2.5. Social Value Act (UK) (2012)

Social enterprises have come under increasing pressure to measure performance and value (Peattie and Morley, 2008) and the advent of the Public Services (Social Value) Act (2012) has further highlighted the importance, and indeed legal necessity, of evidencing social impacts of organisations and programmes. The Act requires “people who commission public services to think about how they can also secure wider social, economic and environmental benefits” and includes the notion that public service contracts take into account the wider value of a project over its entire lifetime, rather than by using a traditional cost based procurement and “emphasises the significance of value beyond profit-driven motivations” (Watson et al., 2016).

4.2.6. Principles and stages of SROI

There are seven principles of SROI as follows:

- Involve stakeholders
- Understand what changes
- Value the things that matter
- Only include what is material
- Do not over-claim
- Be transparent
- Verify the result

(Nicholls et al., 2012).

The NEF focusses on four areas within SROI, including:

- **Stakeholder engagement**
- **Materiality**
- **Impact map**
- **Appreciation of deadweight**

(Rotheroe and Richards, 2007)

In addition, the various stages of SROI, can be seen below:

1 Establishing scope and identifying key stakeholders.

Clarity is needed on exactly what the SROI will cover, who will be involved and how

2 Mapping outcomes.

Stakeholder engagement allows the development of the impact map and creates a theory of change which shows relationships between inputs, outputs and outcomes

3 Evidencing outcomes and giving them a value.

Researching of appropriate data to show whether outcomes have happened and subsequently valuing them

4 Establishing impact.

Once evidence is collected on outcomes and they are subsequently monetised, aspects of change that would have happened anyway are deducted

5 Calculating the SROI.

Calculations involve the addition of all benefits, before subtracting any negatives and comparing the result to the investment. This is also where the sensitivity of the results can be tested

6 Reporting, using and embedding.

This step involves sharing findings with stakeholders and responding to them, embedding good outcomes processes and verification of the report.

(Adapted from Nicholls et al., 2012)

The above stages are contradicted slightly by the ten stage progression outlined by the NEF:

1. Understand and plan the scope of the study.
2. Stakeholders – identify and gain inputs to understand their goals and objectives.
3. Boundaries – prepare background information; learn more about the main target group.
4. Analyse income and expenditure – is financial information reported in a way that links it with economic, environmental or social objectives?
5. Impact map and indicators – understand stakeholder participation through inputs, outputs, outcomes and impacts.
6. SROI plan – summary to date. Determine the timetable for collecting the remaining data, completing calculations, report writing and sharing findings with stakeholders.
7. Implementing the plan and data collection.
8. Projections – determine for how long, if at all, projections can be justified.
9. Calculate SROI – create discounted cash flow. Use sensitivity analysis to identify areas that would yield improvements in social value.
10. Report – present results in a manner that reveals the study’s subtleties, limitations and assumptions.

(Rotheroe and Richards, 2007)

4.2.7. SROI Framework and Process

The SROI framework involves a robust, standardised and replicable method (Watson and Whitley, 2016) through the framework, in the form of an impact map spreadsheet, together with underlying principles and detailed guidelines and involves a high level of stakeholder interaction. It is based on traditional cost benefit analysis and assigns monetary values to social impacts using financial proxies. These values are then compared to the level of investment to produce an SROI ratio of costs to outcomes. The framework is in the form of an impact map and includes such terms as inputs (resources that go into the intervention), outputs (product of an intervention), outcomes (difference made by an intervention), counterfactual evidence (outputs and outcomes that would have happened anyway, in spite of whether an intervention occurred or not) and impact (overall effect of outcomes, minus the counterfactual evidence) (Watson and Whitley, 2016).

There are four stages to the impact mapping process. The four stages involve the inputting of information describing:

Stage one:

- The involved stakeholders in a scheme, together with any intended or unintended changes.

Stage two:

- Inputs being invested, together with their value (in pounds); a summary of the output activities in numbers together with associated outcomes.

Stage three:

- This stage involves the associated quantifiable data, including indicators used to quantitatively measure the impact/ change, the corresponding source of the indicator, the quantity in terms of numbers affected and the duration of that change. There are then further columns for the inputting of any associated proxies, together with their values and relevant sources.

Stage four:

- Stage four involves sensitivity testing calculations, including the calculation of any deadweight (what would have happened without the activity), displacement (whether another activity has been displaced), attribution (was there anyone else or any other organisation who contributed to the change) and drop off (the financial deterioration of an outcome over time [Bichard, 2015]). This stage ends in the final impact ratio for the scheme in question being created.

The SROI impact map, in spreadsheet format, can be seen in Figure 4.1 below:

| Stage 1 | | Stage 2 | | | |
|--|---|----------------------|--|--------------------------------|--|
| Stakeholders | Intended/unintended changes | Inputs | | Outputs | The Outcomes (what changes) |
| Who do we have an affect on? Who has an effect on us? | What do you think will change for them? | What do they invest? | What is the value of the inputs in currency <i>(only enter numbers)</i> | Summary of activity in numbers | Description How would the stakeholder describe the changes? |
| | | | | | |
| | | | | | |
| | | | | | |

| Stage 3 | | | | | | | |
|---------------------------|---|----------------------------|---|--|---|---|---|
| changes) | | | | | | | |
| Indicator | Source | Quantity | Duration | Outcomes start | Financial Proxy | Value in currency | Source |
| How would you measure it? | Where did you get the information from? | How much change was there? | How long does it last after end of activity? <i>(Only enter numbers)</i> | Does it start in period of activity (1) or in period after (2) | What proxy would you use to value the change? | What is the value of the change? <i>(Only enter numbers)</i> | Where did you get the information from? |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Stage 4 | | | | |
|--|---------------------------------|-------------------------------------|--|---|
| Deadweight % | Displacement % | Attribution % | Drop off % | Impact |
| What would have happened without the activity? | What activity did you displace? | Who else contributed to the change? | Does the outcome drop off in future years? | Quantity times financial proxy, less deadweight, displacement and attribution |
| | | | | |
| | | | | |
| | | | | |

Figure 4.1: Social Value United Kingdom (UK) Social Return on Investment (SROI) Impact Map (Social Value UK, 2018)

4.2.8. SROI Ratio

The SROI process leads to a ratio of benefits to costs being calculated. For example, a ratio of 7:1 means that an investment of £1 delivers £7 of social value (Arli and Zappala, cited in Maughan, 2012).

Within SROI parlance, money is the common unit of measurement used to show such quantifiable impact and is termed as a “widely accepted way of conveying value” (Ibid, 2012).

The SROI ratio is typically formulated as follows:

$$\text{SROI} = \frac{\text{Net Present Value of Benefits}}{\text{Net Present Value of Investments}}$$

4.2.9. Advantages and disadvantages of SROI

The perceived disadvantages of SROI include an over focus on financial value at the expense of a “fuller and more rounded understanding of project effects” (Durie et al., 2007), the resources required in terms of staff and time (Maughan, 2012) and abilities of built environment organisations to collect a sufficient amount of information to operate such an analysis (Hall Aitken, 2011; Trotter et al., 2014), the expense involved in the involvement of stakeholders and in carrying out “accurate economic

analysis” (Maughan, 2012; NPC, 2010), which can become an inaccurate analysis, if the quantification and monetisation on the intangible social outcomes is not carried out with rigour or objectively (Krlev et al., 2013).

However the literature cites advantages to the SROI process including the amount of stakeholder engagement involved (Maughan, 2012) and the richness of the data collected through qualitative stakeholder engagement (Watson and Whitley, 2016), the end ‘ratio’, which is something commonly understood by investors, commissioners and lenders (Maughan, 2012; Watson and Whitley, 2016); it has a usefulness in predicting or defining what is wanted from potential future contracts, in terms of social impact; it can be used in terms of strategic management – for example “monetised indicators can help management analyse what might happen if they change their strategy, as well as allowing them to evaluate the suitability of that strategy in generating social returns, or whether there may be better means of using their resources”; whilst external verification and assurance is provided through such bodies as the SROI Network (Ibid, 2012). In addition, SROI measures outcomes of interventions, rather than simply measuring outputs, with its monetisation technique facilitating “the comparison of otherwise incommensurable benefits across different activities” and allows the measurement of “what matters” to end users through a comprehensive method that is both “robust and replicable” (Watson and Whitley, 2016).

However, with existing literature so far failing to demonstrate how SROI can provide the full holistic sustainable value put forward through the notion of the triple bottom

line, a “revised” form of SROI (Higham et al., 2017) has been produced by Bichard (2015). This has been termed “Sustainable Return on Investment” or “SuROI”.

4.3. Sustainable Return on Investment

Langston and Ding (2001) and Brandon and Lombardi (2011) cite the importance of frameworks able to carry out full, holistic and sustainable evaluations. In addition to this, the literature shows that in real world experience, most built environment professionals working within the social housing sector are using frameworks which generate a monetary valuation of less tangible outcomes (Higham et al., 2016).

Neatly fitting into this practice, but bringing a more sustainable and holistic approach into play than is currently found within SROI, Sustainable Return on Investment (SuROI) (Bichard, 2015) is a structured and flexible approach to calculating the social and environmental value of change in the built environment, which can be used for this purpose. SuROI can “incorporate any approach that places a value on social and environmental change” (Bichard, 2015). The flexibility and different stakeholder and proxy values involved in a SuROI process ensure that a transferability to different contexts can be carried out, thus meeting the criteria of Dixon et al., (2013) and additionally means that business decisions related to potential built environment projects can be driven by best value in terms of sustainable impact, rather than simply by lowest cost (Higham et al., 2015).

SuROI has been described as an adaptation and extension of the SROI methodology for built environment regeneration projects (Higham et al., 2017), with the

modifications allowing traditional SROI to “forecast change not only impacting on social actors, but also [on] wider aspects of economic and environmental sustainability critical to the built environment and compliance with the Public Services (Social Value) Act”. SROI alone has been described as failing to provide a holistic evaluation of sustainable value within the built environment (Ibid, 2017).

SuROI progresses SROI by incorporating such valuation method frameworks as Social Return on Investment (SROI), Ecosystem Services Analysis (ESA), Wellbeing Valuation or Life Cycle Assessment which allows the appraiser to make a quantitative valuation of both social and environmental benefits following the implementation of a regeneration scheme.

In this study, SuROI has been selected in order to: (1) deliver a quantitative assessment of both tangible and intangible benefits deriving from housing-led urban regeneration schemes; (2) add a further component to the current SuROI, thus creating a new methodology suitable to support decision making within social housing and to map stakeholders potentially interested in collaborating in social housing delivery and additionally to introduce the concept of time to the method, thus creating a management tool.

SuROI follows the process flow as set out for SROI, in the Social Value UK Guide, as found below:

- 1) **Establish scope and identify key stakeholders** – who will be involved in the process and how?
- 2) **Map outcomes** – through engagement with stakeholders, an impact map, or theory of change will be developed which shows the relationship between inputs, outputs and outcomes.
- 3) **Evidence outcomes and give them a value** – this stage involves finding data to show whether outcomes have happened and then valuing them.
- 4) **Establish impact** – having collected evidence on outcomes and monetised them, those aspects of change that would have happened anyway or are as a result of other factors are eliminated from consideration.
- 5) **Calculate** – this stage involves adding up all the benefits, subtracting any negatives and comparing the result to the investment.
- 6) **Report, use and embed** – the last step involves sharing findings with stakeholders and responding to them, embedding good outcome processes and verification of the report.

According to Nicholls et al., (2012:8), “things which get bought and sold take on greater significance”. Sustainable Return on Investment takes this mantra on board (Bichard, 2015) and places a numerical value on the social and environmental components of the triple bottom line; aspects which are normally difficult to compare against more easily measured economic impacts (Conejos, Langston and Smith, 2013). Other authors cite the typical difficulty in measuring the social ‘pillar’ due to its abstract nature and consider that it could be overshadowed by the economic and environmental domains (Lehtonen, 2004; Davidson, 2009; Littig and Griessler, 2005).

Xing et al., (2009:210) cite that one of the main challenges can be a difficulty in the measurement of what they term “apples and pears”, which is to compare the measurement of costs and values which are expressed in different units. The SuROI method potentially solves this issue. SuROI also satisfies evaluation criteria set out by Roberts (2006) who cites that an evaluation should be inclusive, open, accountable and transparent, that it should take into account the views and objectives of all actors involved, that the methodology in question should allow meaningful comparisons to occur, that the methodology can be adjusted to fit in with local or regional circumstances and that it can be used to enhance participation and engagement with different actors and organisations. Similarly, it doesn’t just take into account the “standard indicator which pays little attention to prevailing conditions” but does involve “tailored to fit” indicators (Ibid, 2006) and proxy values.

In addition, recent guidance from the Royal Institution of Chartered Surveyors (2014) recognises the need to include a wider range of factors that can influence the value of built environment projects and asserts that sustainability considerations are now considered as being important when undertaking valuations (Bichard, 2015). The aforementioned Social Value Act (2012) additionally requires that economic, environmental and social benefits are taken into consideration as part of any procurement processes, showing that the focus on sustainability is perhaps starting to change and is potentially becoming more important at national level also.

SuROI aims to allow the environmental and social value of a project, programme or policy in the built environment to be made explicit through evidence and be added to capital costs to give an overall sustainable value (Bichard, 2015).

As has been seen previously, SROI compares the prospective social benefits of a particular scheme against its costs and ESA takes the costs and benefits of the environment into consideration. ESA covers both the natural and built environment, including architectural aspects within its definition (DEFRA, 2007).

SuROI is heavily influenced by SROI and incorporates the same Social Value UK impact map (Figure 4.1) that SROI utilises as its framework (Bichard, 2015). Although SROI takes into account only social value, amendments to SROI by Bichard (2015) outline how environmental value can also be taken into account and such quantifiable impact inputted into the impact map framework format, thus providing a more sustainable impact calculation than SROI otherwise would.

SROI measures social change and uses monetary values to represent that change (Nicholls et al., 2012) by comparing the value of the benefits of a project against its costs. SROI is flexible (other approaches can be incorporated into the impact map shown below) and its principles ensure a consistency in approach. It is the flexibility of the SROI methodology which lends itself to an incorporation of additional approaches. The practical workings of the SROI methodology involve the usage of the impact map in the form of a Microsoft Excel spreadsheet. SROI uses the impact map to list and subsequently monetise social changes, benefits and impacts (both positive and negative) and to show all calculations leading to a cost/benefit impact ratio (Nicholls et al., 2012). Information populated includes stakeholders, inputs, outputs (number of units of delivery) and outcomes (stakeholder defined change). Because the impact map is able to incorporate other approaches into its framework, this has led to environmental impacts being able to be measured, this being

additional to the previously measured social value, within the parameter of the impact map. In the same way that social value can be measured through SROI or Wellbeing Valuation (measurement of life satisfaction), environmental value can be measured through Ecosystem Services Analysis (ESA) (costs and benefits of the natural environment). All values can be inputted, costed and calculated within the same impact map.

4.4. Ecosystem Services Analysis

Social and ecological systems are closely linked (Young et al., 2006; Folke, 2006), with the world's ecosystems sometimes being referred to as capital assets which if properly managed can yield a flow of vital services (Daily et al., 2000).

Ecological systems contribute in many ways. They are of great importance to human survival (TEEB, 2011), are highly valuable – the cost of ecosystem services in 1997 estimated by Costanza et al., (1997) would have been nearly twice the entire gross national product at that time. In addition, if one ecosystem service were to decline this would impact on future production capabilities in another (Shelton et al., 2001).

In addition, natural ecosystems play an essential role in the regulation and maintenance of ecological processes and life support systems on earth. They include such aspects as gas regulation, climate regulation, disturbance prevention, water regulation, water supply, soil retention, soil formation, nutrient cycling, waste treatment, pollination, biological control, refugium function, nursery function, food, raw materials, genetic resources, medicinal resources, ornamental resources,

aesthetics, recreation, cultural and artistic inspiration, spiritual and historical elements and scientific and educational information (De Groot et al., 2002).

A definition of ecosystem services by the same author in 1992 asserts that ecosystem functions as the “capacity of natural processes and components to provide goods and services that satisfy human needs, directly or indirectly” (De Groot, 1992).

Historically, there have been references to ecosystem services and their economic value dating back to the 1960s and 1970s (King, 1966; Helliwell, 1969; Odum and Odum, 1972). And in recent times, there has been a growth in publications on the benefits of ecosystems to human society (Pearce, 1993; Turner, 1993; De Groot, 1992, 1994; Bingham et al., 1995; Daily, 1997; Costanza et al., 1997; Wilson and Carpenter, 1999; Daily et al., 2000).

It has been regarded as being difficult to understand the complexity and ‘public goods’ nature of ecosystems (Costanza et al., 1997) and has also been cited that gaps exist in terms of the measurement of ecosystem services (ten Brink et al., 2011). However, contrary to this, it is important to cite that many databases are available (such as the TEEB database) to provide a large amount of indicators and proxy values for ecosystem services whilst “each ecosystem service has aspects that can be measured” (Zari, 2012). It is also important to note that as human ingenuity in deriving benefit from ecosystem services and lists of known ecosystem services evolve and expand over time, it is likely that more will come about in the future (Heal et al., 2005).

De Groot et al., (2000) group ecosystem functions into four primary categories:

1. Regulation functions

This relates to the capacity of natural and semi-natural ecosystems to regulate essential ecological processes. (Benefits to humans from regulation include clean air, water, soil and biological control services).

2. Habitat functions

Natural habitats provide refuge and reproduction habitat to plants and animals which enables the species to continue, to continue to evolve and the conservation of such species to continue.

3. Production functions

Photosynthesis and nutrient uptake converts energy, carbon dioxide, water and nutrients into carbohydrate structures, used by secondary producers to create a further and larger variety of living biomass. Human services resulting from this include food, raw materials, energy resources and genetic material.

4. Information functions

Natural ecosystems provide a reference function and contribute to the maintenance of human health through opportunities for reflection, spiritual enrichment, cognitive development, recreation and aesthetic experience.

(Adapted from De Groot et al., 2000)

Figure 4.2 below shows ecosystem services relating to the built environment:

| Ecosystem service | Ranking criteria | | | Examples of existing design methods that could be potentially be used | Positive environmental implications |
|---|--|-------------------------|---|--|--|
| | Applicability to the built environment | Ecological significance | Negative environmental impact caused by the built environment | | |
| Supporting services | | | | | |
| 1. Habitat provision (including: provision of genetic information; biological; fixation of solar energy; and species maintenance) | Medium | High | High at a local scale | Revegetation; preservation of existing flora and fauna; urban wildlife sanctuaries; living walls; urban forests; green roofs and facades; wildlife corridors; green belts | Increased biodiversity; reduction of the urban heat island effect; sequestration of carbon; increased air, water and soil quality; remediation of some forms of water, air and soil pollution; possible protection from wind or wave surges; more adaptable ecosystems as the climate changes; reduction of storm water peak flows |
| 2. Nutrient cycling (including: decomposition; soil building; and the provision of raw materials) | Medium | High | High at a regional/global scale | Recycling and reuse techniques; cradle-to-cradle design; composting techniques; design for deconstruction; land fill mining; industrial ecology | Reduction of waste; reduced need for mining/growing/production/transportation of materials and energy leading to reduction in greenhouse gas (GHG) emissions, waste and ecosystem disturbance; decreased use of energy; increased health of ecosystems and humans |
| Regulation services | | | | | |
| 3. Purification | High | High | High at a local/regional scale | Living machines; phyto-remediation and bio-remediation; filtration techniques; green roofs and facades; urban forests; constructed wetlands; composting techniques | Increased health of living organisms; increased terrestrial and marine productivity; reduction of air and water pollution; eutrophication reduction; remediation of polluted sites; reduced ozone damaging gas and GHG emissions |
| 4. Climate regulation | High | High | High at a global scale | Storage of carbon in building structure; revegetation; design to enable behaviour change in energy use; renewable energy generation; passive solar design; non-high thermal mass infrastructure and landscaping; design to reduce reliance on fossil fuels | Mitigation of the causes of climate change; more adaptable communities; mitigation of the urban heat island effect; improved health of living organisms |
| Provisioning services | | | | | |
| 5. Provision of fuel/energy for human consumption | High | Medium | High at a global scale | Design for renewable energy generation; cogeneration methods; design to enable behaviour change to reduce energy use; industrial/construction ecology | Reduced transport and energy generation-related GHG emissions; more self-reliant and therefore robust urban environments; reduction of air, water and soil pollution; reduction of mining and drilling impacts |
| 6. Provision of fresh water | High | High | High at a regional scale | Rain water harvesting and storage; grey/black water recycling; design incorporating water saving equipment; porous paving surfaces; water efficient landscaping | Reduction of water pollution; increased health of riparian systems; reduction of the urban heat island effect; increased quality of water; increased health of living organisms |

Figure 4.2: Ecosystem services relating to the built environment (De Groot et al., 2002)

4.5. SuROI process and stages

The SuROI approach assesses the degree to which change has occurred, both in terms of the significance of the change and the number of people experiencing that change. Both social and environmental outcomes are then able to be monetised by identifying an appropriate indicator for the change and then by applying a suitable monetary value or proxy to each indicator. Indicators and proxies are typically taken from wellbeing sources, or socio-economic statistics compiled by a range of agencies. The values are multiplied by the numbers affected and the amount of time the change is expected to last for (Bichard, 2016). SuROI combines stakeholder accounts and statistical trends as part of its calculations, to ensure “a robust and defensible result” (Ibid, 2016). As previously described, because all value is monetised, this has the advantage of measuring and presenting information according to the same metric. The social monetary changes are added to the environmental monetary changes to give a gross value used to calculate SuROI. The net value is then subsequently derived once adjustments are made, including deadweight (the amount of outcome that would have occurred anyway), displacement (the amount of activity that has been displaced), attribution (the amount of outcome caused by other interventions) and drop off – (the deterioration of an outcome over time).

Data used within the impact map can be that of primary data, secondary data or both. Methods of primary data include interviews, focus groups, surveys or questionnaires, whilst secondary data includes data sets such as social/ economic statistical sets, indicators, proxies or/and databases. In order to estimate the value of non traded and non market goods, financial proxies are used.

An example of the outline of the impact map can be seen in Figure 4.3. Stakeholder data collected in the field can be used to evaluate social and environmental change caused by previously completed projects, and also to predict future change from planned projects.

The impact map requires the inputting of details and figures into its spreadsheet format to ultimately arrive at the final quantitative impact ratio of a project. Such details include the establishment of stakeholders (those who influence the project), inputs (costs of the project), outputs (number of units of delivery) and outcomes (predicted/ stakeholder change) (Higham et al., 2017). The approach attributes financial value to inputs and outcomes (Arvidson et al., 2013).

There are five stages involved in a SuROI calculation. Four stages can be seen within the parameter of the impact map, in spreadsheet format, with the final stage 5 involving the final ratio centred calculations:

Stage One:

Stage one of the process involves the establishment of a project's scope, the making explicit of the aims and objectives of a project, including “features of the scheme that it is appropriate to measure” (Higham et al., 2017) and intended/ unintended changes arising from a project (Nicholls et al., 2012). The identification of relevant and affected stakeholders who have an effect on a project and/or who are affected by it is

additionally carried out. Nicholls et al., (2012) and Bichard (2015) cite the importance of involving stakeholders at this stage.

Stage Two:

On completion of stage one, stage two of the impact map involves the identification of impacts, the valuing of inputs and the clarification and description of outputs involved. Nicholls et al., (2012) cite that the process involves the establishing of inputs which then subsequently lead to delivering activities (outputs) which then result in impact or change (outcomes) for identified stakeholders.

Stage Three:

Stage three involves the evidencing of what changes. This stage involves fieldwork and desk based research to establish outcomes and their relevant monetary values (Watson and Whitley, 2016). At this stage, interviews, focus groups, questionnaires or workshops can be held with involved stakeholders.

Outcomes are determined and their effects quantified, with monetary values attached to each outcome. Such monetary values can come in the form of financial proxies (Bichard, 2015) which can be gleaned from primary data, or academic, public or social enterprise literatures (Higham et al., 2017), or existing social value assessments or datasets such as the HACT database of Wellbeing Valuation (Trotter et al., 2014) or the Global Value Exchange (GVE, 2017). The “total incidence of impact multiplied by the proxy determines the value created by each outcome for a specific user group in a single year” (Higham et al., 2017). The duration of an impact is also highlighted within this stage.

Stage Four:

Stage four involves the establishment of the impact and involves taking into account counterfactuals such as deadweight and displacement, attribution, drop off and finally the calculation of the impact (Nicholls et al., 2012). This enhances the validity of the calculations and impact (Bichard, 2015) and “allows adjustments to be made to the initial valuation ensuring it provides a reasonable representation of new impact” (Higham et al., 2017).

Stage Five:

Stage five involves the calculation of the SuROI ratio, whilst also projecting impact into the future and additionally undertaking a sensitivity analysis (Nicholls et al., 2012), designed to “mitigate the effects of risk” (Higham et al., 2017).

The SuROI ratio is calculated by dividing the present value over the value of inputs. The ratio does not express financial value, but is instead a comprehensive way of expressing the “currency of social value” (Arvidson et al., 2013).

The future projection of drop off over time is calculated as part of the impact map spreadsheet and discounts using the 3.5% social time preference rate outlined in HM Treasury’s *Green Book* (HM Treasury, 2004).

The Sensitivity Analysis is carried out to ensure validity (Nicholls et al., 2012; Bichard, 2015). RICS guidance on development appraisal recommends that any financial appraisal has full counterfactual and sensitivity testing prior to reporting (RICS, 2012). Sensitivity checks can involve estimates of deadweight, attribution, drop off, financial proxies, quantity of outcomes and values of inputs (Higham et al., 2017).

Sensitivity testing aims to calculate the amount each counterfactual needs to be changed to take the SuROI ratio to 1.0 i.e. from positive to negative, or vice-versa, which guards against potential over claiming (Nicholls et al., 2012).

| Stage 1 | | Stage 2 | | | |
|--|---|----------------------|--|--------------------------------|--|
| Stakeholders | Intended/unintended changes | Inputs | | Outputs | The Outcomes (what changes) |
| Who do we have an effect on? Who has an effect on us? | What do you think will change for them? | What do they invest? | What is the value of the inputs in currency <i>(only enter numbers)</i> | Summary of activity in numbers | Description How would the stakeholder describe the changes? |
| | | | | | |
| | | | | | |
| | | | | | |

| Stage 3 | | | | | | | |
|---------------------------|---|----------------------------|---|--|---|---|---|
| changes) | | | | | | | |
| Indicator | Source | Quantity | Duration | Outcomes start | Financial Proxy | Value in currency | Source |
| How would you measure it? | Where did you get the information from? | How much change was there? | How long does it last after end of activity? <i>(Only enter numbers)</i> | Does it start in period of activity (1) or in period after (2) | What proxy would you use to value the change? | What is the value of the change? <i>(Only enter numbers)</i> | Where did you get the information from? |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Stage 4 | | | | |
|--|---------------------------------|-------------------------------------|--|---|
| Deadweight % | Displacement % | Attribution % | Drop off % | Impact |
| What would have happened without the activity? | What activity did you displace? | Who else contributed to the change? | Does the outcome drop off in future years? | Quantity times financial proxy, less deadweight, displacement and attribution |
| | | | | |
| | | | | |
| | | | | |

Figure 4.3: The SuROI impact map, which uses the Social Value UK SROI impact map as its framework (Social Value UK, 2018)

One of the main attributes to SuROI, as stated previously, is the quantitative measurement of previously intangible social and environmental spillovers. It is important that hidden social and environmental benefits are taken into consideration upon carrying out an evaluation for the following reasons:

- To present a basic knowledge of what a scheme can offer in terms of social and environmental impact
- To ensure that financial decisions are being made with the maximum amount of information being available on social and environmental benefits
- Housing-led urban regeneration schemes being evaluated as “successful” schemes might not be “successful” and vice versa, which would lead to incorrect decision making in terms of future targeted investment, and potential wasting of money as a consequence
- Social and environmental benefits “of central concern to individuals and communities” (Vardakoulias, 2013) are potentially not being highlighted and measured correctly, which is potentially having a direct impact on residents’ quality of life.

4.6. General issues and issues with indicators

A SuROI analysis is usually formed from data received as a combination of first hand primary data from involved and related stakeholders, in combination with secondary data, in the form of indicators and proxies (Bichard, 2015; 2016).

However, an analysis is only as good as the data that goes into it and which formulates it. Some issues to bear in mind when a SuROI analysis is performed includes the importance of choosing datasets, indicators and financial proxies which are specific, reliable, accurate and applicable (Higham et al., 2017).

Additionally, as is the case with SROI, it can be argued that there is significant time and expense in carrying out such an analysis, both in terms of collecting the data, and in terms of the associated calculations. However this author's first hand experience, together with feedback received as part of the interviews carried out later on within this thesis with practitioners in the field, would suggest that the costs incurred through the usage of previous evaluation methods nevertheless promote great enthusiasm with a way forward such as the approach of SuROI.

There has additionally been an argument within the literature base that there is an inability to benchmark SuROI valuations. Because of the flexible nature of the SuROI approach, namely that the various interrelated inputs, outputs and outcomes for different schemes can all be entered into the SuROI impact map, this does mean that an absolute direct benchmarking is impossible, simply because all schemes are different. This is however the case with any evaluation methodology. What can be stated, is that SuROI presents more of a 'benchmarkability' with regard to the measurement of previously intangible social and environmental impact, because previously this has never before been carried out in such a quantifiable and holistic fashion.

4.7. Gaps within the SuROI methodology

The SuROI methodology incorporates in its very essence the usage of stakeholder involvement. Subsequently, gaps within the domain of stakeholder analysis can be highlighted whilst gaps within the SuROI literature base can also be made explicit, to better clarify the formation of the new SuROI refined artefact that this thesis subsequently focuses on.

Cross co-operation across and amongst different stakeholders is important when attempting to reverse the effects of urban degeneration of areas and when attempting to promote socio-environmental impacts to an area. The cross co-operation amongst stakeholders promoted as part of the artefact of this thesis can be a particularly useful concept with regard to public policies, theoretically and with specific reference to housing.

4.8. Public policies

Public policy decision making has been referred to as almost always involving “multi-party decisions”, with both procedural and communication components involved amongst parties which affect outcomes (Fischer et al., 2007).

Indeed, Andrews (2007) cites the example regularly seen as the norm in society, typically at a local authority level, of a lone person within a public domain making decisions affecting an entire community. The author adds that it is important that we

move away from this, towards a more involved and stakeholder oriented approach, thus again tallying with the artefact within this research.

The above approach can be referred to as a Multi-Stakeholder Partnership (MSP) approach where groups of individuals are brought together to collectively drive a process that seeks to change a common environment (Truex and Soreide, 2010) and which can potentially create a “new form of global governance with the potential to bridge multilateral norms and local action by drawing on a diverse number of actors in civil society, government and business” (Bäkstrand, 2005). Partnerships have been referred to as implementation networks which have the potential to “bridge global multilateral norms and local action in areas such as sustainable development” (Joyner, 2005), which can potentially “operationalise lofty principles of sustainable development” (Bäkstrand, 2005). Indeed, more than 200 such partnerships for sustainable development purposes were announced as part of the World Summit on Sustainable Development held in Johannesburg in 2002 (Ibid, 2005). Deepak (2011) concurs, adding that MSPs are “unique in both character and substance” and are generally directed at the problems and challenges of sustainable development.

MSPs are increasingly important mechanisms of improving corporate social responsibility (Seitanidi and Crane, 2009), solving social problems (Kanter, 1999), improving social welfare (Berger, Cunningham and Drumwright, 2004) and achieving strategic corporate goals (Sloan, 2009).

The emergence of MSPs within the field of sustainable development, particularly useful as guidance and background within this thesis, includes “the emergence of governance structures based on private authority, private regimes and a mix of public

and private actors” and adds that such partnerships have been brought about to create solutions where “intergovernmental diplomacy alone cannot grapple with the pressing problems and complex dimensions of sustainable development” (Bäkstrand, 2005).

MSPs have been referred to as being “about sharing not shifting risks; finding innovative ways to pool resources and talents based on each party’s core strengths; and designed and maintained over time in such a way as to deliver mutual benefits for all collaborating parties, whilst working together in such a way as to promote shared visions, joint problem solving, a work ethos that exploits mutual self interest and adds value” (Deepak, 2011).

The partnerships involved in MSPs have been described as:

- 1) A means to an end and not an end in themselves (they are formed to actually achieve something)
- 2) A sharing of resources and responsibility (resources not necessarily only involving money, but knowledge and skills too)
- 3) Needing to give up some element of their own control (which carries both risks and benefits)
- 4) Having a sufficient amount of mutual respect and trust between partners to enable them to work together and sufficient overlap of goals

(From Deepak, 2011)

The set of principles for multi-stakeholder partnerships drawn up as preparatory input to the World Summit on Sustainable Development in 2002 entitled the “Bali Principles” cite that partnerships should:

- 1) Help achieve the further implementation of Agenda 21 and Millennium Development Goals, consistent with sustainable development strategies and poverty reduction strategies;
- 2) Be voluntary and self-organising;
- 3) Be based on mutual respect and shared responsibility of the partners involved;
- 4) Have a multi-stakeholder approach, arranged among any combination of partners, including governments, regional groups, local authorities, non-governmental actors, international institutions and private sector partners; and
- 5) Be international in their impact, beyond the national level.

(GKP, 2003).

Key operational challenges of effective partnerships have been cited in the literature. Within Malena (2004)’s background paper for a multi-stakeholder workshop on partnerships and UN-Civil Society relations in New York in 2004 which described different categories pertaining to the process involved in MSPs, it is cited that the following aspects are of importance:

Inclusion:

As Malena states “a first key operational challenge of an effective partnership is getting the right actors around the table”. It is cited that stakeholder analyses, the placing of particular emphasis on primary stakeholders, the development of a strategy or action plan to promote inclusion and the use of clear and transparent processes to identify potential partners are all useful strategies.

Clear definition of purpose and roles:

It is important to ensure that purpose and expected results of a partnership, together with the respective roles and responsibilities of each partner are clearly defined and commonly agreed. A common purpose should be defined, together with the establishment of accepted parameters of divergence, a focus on results and a clear negotiation of partner roles. Additionally, specific commitments should be encouraged.

Participation/ power sharing:

This category involves the challenge of ensuring effective participation and appropriate power sharing within multi-stakeholder partnerships. Guidance is provided by suggesting an open acknowledgement and addressing of power differentials, the establishment of appropriate decision making structures and rules, and possibly even toolkits utilised to facilitate decision making or conflict resolution.

Accountability:

Included within the category of accountability are such methods as the drafting of an accountability map and strategy, transparency and communication, emphasising and supporting links between partners and the development and adherence to strict performance standards, monitoring and reporting requirements.

Strategic influence:

The maximisation of strategic influence can be achieved through such methods as the cementing of partnerships to agreed priorities and targets, the development of a strategy relating to official agendas and processes and ensuring that processes are strategically anchored within host organisations and the setting of strategic as well as organisational goals.

4.9. Stakeholder management

Stakeholder management has been cited as being a vital part of any project deliverables (Chang et al., 2013) whilst researchers elsewhere have described stakeholder management as a “systematic approach to organise the relationship between business and society” (Roloff, 2008), or a process in which a project

team facilitates the encompassing needs of stakeholders to identify, discuss, agree or contribute to achieve their objectives (Brammer and Millington, 2004; Pajunen, 2006; Rowlinson and Cheung, 2008).

Kerzner (2011:34) cites six processes being involved in stakeholder management, including “identifying stakeholders, analysing, engaging, identifying information flow, enforcing stakeholder agreement and stakeholder debriefing” whilst contrary to this, Eskerod and Jepsen (2013) assert that there are only the three processes involved: – those of stakeholder identification, assessment and prioritisation.

There are typically two categories of stakeholder management, one of organisational focussed stakeholder management and one of issue focussed stakeholder management. Issue focussed stakeholder management is the category most pertinent to this research, and involves the building of social capital. It has the “potential to initiate more sustainable solutions” (Roloff, 2008).

The differences between the two concepts are outlined within the figure below:

The characteristics of stakeholder management approaches focussing on organizations or issues

| Focus on | Organization | Issue |
|------------------------|--|---|
| Point of reference | Focal organization, e.g. a corporation | A mutual problem, a crisis, a conflict, a challenge |
| Stakeholder definition | A group who can affect or is affected by the activities of a focal organization | A group who is affected by the solution of a problem/crisis/conflict |
| Aim | Protect the focal organization | Approach an issue, solve a problem |
| Method | Relationship management | Identification and implementation of a common course of action |
| Initiator/Organizer | Focal organization | Stakeholder or focal organization |
| Topics discussed | The conduct and misconduct of the focal organization | Structures that cause or enforce the problem/crises/conflict |
| Means of communication | Reports, press releases, public discussions aiming at potential costumers, personal interactions, etc. | Face-to-face interactions in groups, inclusion of new participants, but exclusion of onlookers, personal interactions, etc. |
| Mode of interaction | Strategic action | Communicative action |
| Type of legitimacy | Pragmatic legitimacy | Moral legitimacy |

Figure 4.4: The characteristics of stakeholder management approaches focussing on organisations or issues (taken from Roloff, 2008)

Stakeholder management has been referred to as a “fundamentally pragmatic concept” (Freeman, 1999: 234) thus fitting in with the pragmatic nature of this research.

4.10. Multi-stakeholder networks

As Roloff (2008) cites; “whenever a problem or challenge relates to several stakeholders, it is likely to have a complexity that cannot be handled by one actor. In this situation the companies involved should adapt an issue-focussed stakeholder management approach that aims to solve the problem by communication and collaboration between the stakeholders of the issue”.

Multi stakeholder networks are networks comprised from “business, civil society and governmental or supranational institutions” who come together to find a “common approach to an issue that affects them all and that is too complex to be addressed effectively without collaboration” and indeed often forces stakeholders of the issue to co-operate with each other (Roloff, 2008). Many authors refer to multi-stakeholder networks as functioning as an additional venue for democratic participation (Hajer and Wagenaar, 2003; Rhodes, 2000).

Roloff (2008) describes there being seven phases “that amount to a life cycle” within typical processes encountered by multi stakeholder networks - initiation, acquaintance, first agreement, second agreement, implementation, consolidation and institutionalisation or extinction:

Initiation phase

This phase consists of the period of time when multi-stakeholder networks emerge, as a problem or a challenge becomes urgent for several different actors.

Acquaintance phase

The acquaintance phase comprises of understanding the opinions of other involved stakeholders, together with each stakeholder’s separate interpretation of the problem. Participants also begin to grasp the complexity of the issue, learn about

interdependencies that were not apparent before and learn to respect each other's concerns.

First agreement phase

The first agreement phase involves different accounts of the situation being presented and discussed with the aim of agreeing upon a common description. This ideally involves an analysis of issue-related knowledge and shared interpretations of this knowledge to ultimately lead to a problem definition (Rauschmayer and Wittmer, 2006) or to shared objectives.

Second agreement phase

The second agreement phase is used to compare the different approaches available and to subsequently select one or more for implementation.

Implementation phase

The implementation phase involves the proposed approach being broken down into activities and a division of labour as agreed upon by the stakeholders involved, with every stakeholder honouring his or her promises and contributing to the mutual aim.

Consolidation phase

In this phase, the experience of co-operation between stakeholders should have built up some levels of trust. Activities and procedures are then institutionalised with potential constitutions, rules, divisions of work and contributions between stakeholders being written if applicable. New stakeholders typically join the network in this phase when abilities are proven and rules for participation and co-operation are well established.

Institutionalisation/ extinction phase

The final phase involves the network of stakeholders either becoming established and carrying out and solving tasks according to earlier phases, or alternatively becoming extinct.

In addition to the above process models, the table below cites some alternative viewpoints from the literature, with a focus on stakeholder management process models within construction projects in the built environment – a relevant topic area for this research:

| Scholars | Stakeholder management processes |
|---------------------------|--|
| Karlsen (2002) | Identification of stakeholders; analysing the characteristics of stakeholders; communicating and sharing information with stakeholders; developing strategies, following up. |
| Elias et al., (2002) | Developing a stakeholder map of the project; preparing a chart of specific stakeholders; identifying the stakes of stakeholders; preparing a power versus stake grid; conducting a process level stakeholder analysis; conducting a transactional level stakeholder analysis; determining the stakeholder management capability of the projects; analysing the dynamics of stakeholder interactions. |
| Young (2006) | Identifying stakeholders; gathering information about stakeholders; analysing the influence of stakeholders. |
| Bourne and Walker (2006) | Identifying stakeholders; prioritising stakeholders; developing a stakeholder engagement strategy. |
| Olander (2006) | Identification of stakeholders; gathering information on stakeholders; identifying stakeholder mission; determining stakeholder strengths and weaknesses; Identifying stakeholder strategy; predicting stakeholder behaviour; implementing stakeholder management strategy. |
| Walker et al., (2008) | Identifying stakeholders; prioritising stakeholders; visualising stakeholders; engaging stakeholders; monitoring effectiveness of communication. |
| Jepsen and Eskerod (2009) | Identification of the (important) stakeholders; characterisation of the stakeholders pointing out their (a) needed contributions, (b) expectations concerning rewards for contributions, (c) power in relation to the project; decision about which strategy. |

Table 4.1: Stakeholder management process models in construction projects according to the literature (Taken from Yang et al., 2009)

4.11. The Kaldor-Hicks compensation criterion

The field of microeconomics and more specifically the Kaldor-Hicks compensation criterion acts as a theoretical basis for the offloading of costs onto stakeholders described earlier in the thesis, and acts as a fundamental of the artefact to be created.

Public policy decision making has been referred to as almost always involving “multi-party decisions”, with both procedural and communication components involved amongst parties affecting outcomes (Fischer et al., 2007). Indeed, Andrews (2007) cites the example previously and typically used in society of a lone person within a public domain making decisions affecting an entire community, adding that it is important that we move away from this, towards a more involved approach.

It is the science behind stakeholder co-operation which serves a fundamental component of the artefact created within this thesis and which relates to both microeconomics, welfare economics and the ‘compensation principle’ which states that if prospective gainers could compensate prospective losers and leave no one worse off, the alternate state is to be selected (Chipman, 1987).

In particular, it is the Kaldor-Hicks compensation criterion which originates from Nicholas Kaldor (1939) and John Hicks (1939) which proves particularly useful. Kaldor and Hicks describe the criterion at the time of their writing, through citing the example of the English Corn Laws in 1846 which “removed legal protections of corn farming” (Bostani and Malekpoor, 2012). This harmed landowners, but helped consumers of bread. Kaldor and Hicks state that if those gaining could theoretically

compensate those harmed and yet still remain better off, then this is a desirable situation. Note that compensation potentially paid is a theoretical possibility rather than a factual certainty. The Kaldor-Hicks criterion can be contrasted to the Pareto Principle which states that there must be no losers in the same circumstances.

The key requirement for a Kaldor-Hicks analysis is the “ability to gather and sum up people’s willingness to pay attached to different outcomes” (Stringham, 2001). Kaldor-Hicks efficiency criterion implies that beneficiaries of a decision should hypothetically be able to compensate losses of losers. The measurement unit cited to compensate potential loss is not utility; but rather money (Bostani and Malekpoor, 2012).

According to Deepak (2011), co-operation between all stakeholders is fundamental to ensure the sustainability of programmes. Indeed, the author cites that an unequal participatory process can actually endanger such sustainability due to the lack of participation involved, before adding that co-operation and co-ordination between all sectors within society is imperative to ensure an efficient social housing sector.

In this research, we will be refining SuROI. One of the refinements includes the offloading of costs onto potential stakeholders by combining the usefulness and practicalities of stakeholder networks with the theoretical underpinning of the Kaldor-Hicks criterion.

By implementing SuROI in the housing sector it should be easier to activate additional stakeholders whose benefits in participating and supporting housing

programmes was previously not perceived, while after quantifying them, they could be more willing to invest having seen through an evidence-based methodology, the positive spillovers (or the saved costs) they would incur in the case of non-action.

4.12. Stakeholders analysis: Limitations and potential for honing the SuROI methodology

A stakeholder analysis can be used to inform project planning, implementation or evaluation (ODA, 1995; MacArthur, 1997) by typically identifying key persons involved in a project, and subsequently assessing their knowledge, interests, positions, alliances, and importance related to the policy in question. This enables more interaction, success and the prevention of potential problems (Schmeer, 1999). A stakeholder approach reflects the realisation that the interests and influence of individuals or groups, both within and outside a prospective organisation, need to be taken into consideration (Brugha and Varvasovszky, 2000).

Stakeholder analysis was derived from business management (Reed et al., 2009), with the original concept behind stakeholder analysis being to identify any stakeholder groups wishing to threaten corporate organisations. This changed full swing over time, to give a voice to marginalised stakeholders in order that decision making by the powerful could be influenced.

4.12.1. Stakeholders definitions

Stakeholders are integral to a stakeholder analysis. The table below provides some definitions of the term ‘stakeholder’:

| Author | Definition of ‘stakeholder’ |
|---------------------------------------|--|
| Freeman (1984) | “any group or individual who can affect or who is affected by the achievement of the organisation’s objectives” |
| Bryson (1995) | “any person, group or organisation that can place a claim on the organisation’s attention, resources or output, or is affected by that output” |
| Morgan and Taschereau (1996) | “as persons or groups whose interests and activities strongly affect and are affected by the issues concerned, who have a stake in a change, who control relevant information and resources and whose support is needed in order to implement the change” |
| Brugha and Varvasovszky (2000) | “individuals, groups, and organisations who have an interest (stake) and the potential to influence the actions and aims of an organisation, project, or policy direction” |
| Jonker and Foster (2002) | “an entity with some form of claim on the focal organisation and sufficient power to influence that organisation” |
| Johnson and Scholes (2002) | “those individuals or groups who depend on the organisation to fulfil their own goals and on whom, in turn, the organisation depends” |
| Newcombe (2003) | “as groups or individuals who have a stake in or an expectation of the project’s performance and indicated that this would include people inside the project, e.g. designers and contractors, and people outside the project e.g. users and the community” |
| Walker et al., (2008) | “an individual or group who has an interest or some aspect of rights or ownership in a project, and can contribute to, or be impacted by, either the work or the outcomes of the project” |

Table 4.2: Definitions of the term ‘stakeholder’ within the literature (Author’s elaboration)

4.12.2. Definition of stakeholder analysis

There are many references to the definition of the term ‘stakeholder analysis’ in the literature. Common keywords appear in the definitions. The notion of identification of stakeholders appears in the definitions provided by Gupta (1995), Allen and Kilvington (2002), Mushove and Vogel (2005), Jepsen and Eskerod (2009), Reed (2008) and the WHO (2009). Stakeholder power is referred to in Gupta (1995) whilst the notion of relationships or interrelationships is covered in Gupta (1995), Brugha and Varvasovszky (2000) and Mushove and Vogel (2005). Schmeer (1999), Brugha and Varvasovszky (2000), Mushove and Vogel (2005) and Weible (2006) cover the importance of stakeholder interests, whilst the topic of influence is raised in Mushove and Vogel (2005) and Weible (2006). Only once is stakeholder analysis referred to as a management tool.

The various definitions of ‘stakeholder analysis’ can be seen below, in tabular format:

| Author | Definition of ‘stakeholder analysis’ |
|---------------------------------------|--|
| Gupta (1995) | “to identify and specify the stakeholders and their interests, domain and specificity; identify and describe the power relationships between the stakeholders and the firm, and among the stakeholders; incorporate the concepts of action and time ” |
| Schmeer (1999) | “a process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing and/or implementing a policy or programme” |
| Brugha and Varvasovszky (2000) | “an approach, a tool or set of tools for generating knowledge about actors so as to understand their behaviour, intentions, interrelations and interests ; and for assessing the influence and resources they bring to bear on decision-making or implementation processes” |
| Allen and Kilvington (2002) | “the identification of a project’s key stakeholders, an assessment of their interests, and the ways in which those interests affect project riskiness and viability ” |
| Mushove and Vogel (2005) | “a range of tools or an approach for understanding a system by identifying the key actors or stakeholders on the basis of their |

| | |
|---|---|
| | attributes, interrelationships and assessing their respective interests related to the system, issue or resource” |
| Weible (2006) | “to address a set of questions: who are the stakeholders to include in the analysis; what are the stakeholders’ interests and beliefs ; who controls critical resources; with whom do stakeholders form coalitions ; and what strategies and venues do stakeholders use to achieve their objectives” |
| Jepsen and Eskerod (2009) | “ identification of stakeholders; characterisation of the stakeholders; decision about which strategy to use to influence each stakeholder” |
| Reed (2008) | “a process that: defines aspects of a social and natural system, identifies stakeholders, and prioritises stakeholders for involvement in the decision-making process” |
| World Health Organisation (2009) | “to identify stakeholders that will influence your project; anticipate the kind of influence, positive or negative, these groups will have on your project; develop strategies to get the most effective support possible for your project and reduce any obstacles to successful implementation” |
| Shirey (2012) | “Stakeholder analysis is an organisational management tool used for long-range strategic planning and stakeholder management. Stakeholder analysis can be used to inform project planning, implementation, and evaluation ” |

Table 4.3: Definitions of the term ‘stakeholder analysis’ within the literature
(Author’s elaboration)

4.12.3. Growing importance

Stakeholder analysis has been described as having a “growing popularity” (Brugha and Varvasovszky, 2000) and as being critical to programme success (Nutt, 2002; Project Management Institute, 2004; Smudde and Courtright, 2011). It is argued that stakeholder analyses are “arguably more important than ever because of the increasingly interconnected nature of the world” (Bryson, 2004), that the importance of stakeholder analysis is growing due to the governmental and non profit reforms across the world (Barzelay, 2001; Kettl, 2002) and that “failure to attend to the

information and concerns of stakeholders clearly is a kind of flaw in thinking or action that too often and too predictably leads to poor performance, outright failure, or even disaster” (Bryson, 2004). Jones (2003) adds that it is of importance in urban development projects to “stress exactly who the stakeholders are” whilst Lawson and Kearns (2010) add that it is only with the capturing of stakeholders’ real interests, that they can be sufficiently empowered in urban development decision making.

4.12.4. Carrying out a stakeholder analysis

Various methods and techniques outlining how to carry out a stakeholder analysis have been outlined previously within the literature.

These typically follow a set amount of “steps” to follow. Such methods include Schmeer’s “eight steps” (Schmeer, 1999), the five steps of Grimble and Chan (1995), the four steps of 1) stakeholder identification 2) mapping of stakeholder interests 3) evaluation of stakeholder importance and influence and 4) development of stakeholder strategy plan (Rietbergen-McCracken and Narayan, 1998; WHO, 2009), Shirey (2012)’s four steps, the three steps of Reed et al., (2009) or Jepsen and Eskerod (2009), or the two steps of Jones (2003).

In addition, such models exist in aiding stakeholder analysis such as the:

- Influence-interest grid (Imperial College London, 2007)
- Power versus interest/ predictability grids (Eden and Ackermann, 1998)
- Power-impact grid (Office of Government Commerce, UK, 2003)

- Three techniques used by the Australian Department of Sustainable Environment (2007) which include an influence-importance grid, Venn diagrams and CLIP (collaboration/ conflict, legitimacy, influence and power) analysis
- Power-interest grid (Moorhouse Consulting, 2007)
- Problem-frame stakeholder mapping technique (Anderson et al., 1999)
- The three-dimensional grouping of power, interest and attitude (Murray-Webster and Simon, 2006)

The figure below, taken directly from Yang (2014) also shows practical methods for stakeholder analysis used in previous studies:

| Practical methods for stakeholder analysis used in previous studies. | | | | |
|--|---|----------------------------|----------------------------|---|
| Approaches | Description | Steps | | Scholars |
| | | Stakeholder identification | Stakeholder prioritisation | |
| Focus groups | A small group brainstorm stakeholders, their interests, influence and other attributes, and categorise them. | ✓ | ✓ | Reed et al. (2009), Lawson and Kearns (2010), Larson et al. (2010) |
| Interviews | Interviews with stakeholders to identify their interests. | ✓ | | Mushove and Vogel (2005), Oakely (2007) |
| Power/interest matrix (power/interest matrix; power/predictability matrix; stakeholder interest intensity index; the stakeholder impact index) | Despite various transformations, basically, stakeholders are categorised according to the levels of their power and interests. | | ✓ | De Lopez (2001), Winch and Bonke (2002), Young (2006), Olander and Landin (2008), Chinyio and Akintoye (2008), Walker et al. (2008), Reed et al. (2009) |
| Snow-ball sampling | Based on identified stakeholders, a series of interviews and questionnaire surveys are conducted to identify more stakeholders. | ✓ | | Prell et al. (2009), Reed et al. (2009) |
| Social Network Analysis | Through the use of structured interview/questionnaire surveys, stakeholders' interrelationships are mapped, and stakeholders' influence are analysed. | ✓ | ✓ | Rowley (1997), Prell et al. (2009) |
| Stakeholder Circle methodology | An integrated process for classifying stakeholders, prioritising stakeholders, visualising stakeholders; and developing strategies. | ✓ | ✓ | Bourne (2005), Walker et al. (2008) |
| Surveys | Relatively large numbers of stakeholders are asked to express their opinions. | ✓ | | Timur and Getz (2008), Prell et al. (2009) |
| Workshops | Stakeholder representatives discuss specific issues and provide feedback. | ✓ | | Department of Planning (2005); Amado et al. (2009) |

Figure 4.5: Practical methods for stakeholder analysis (Yang, 2014)

4.13. Towards a new artefact

As anticipated, a focus of this thesis is that of offering preliminary insights on a novel methodology, by furthering an existing assessment method, SuROI. This will be achieved by creating a 'hybrid' method, aimed at drawing from the stakeholder analysis to sharpen the understanding of measurable benefits and costs for each stakeholder. The benefit of merging two different approaches will come from the filling of one another's gaps, due to the intrinsic nature of either qualitative or quantitative methods.

From one side, the stakeholder analysis presents some weaknesses: (1) Subjectivity. It has been noted that subjectivity can weaken the effectiveness of a stakeholder analysis (Shirey, 2012). The quantitative approach outlined within SuROI could be utilised to reduce the subjectivity of the stakeholder analysis. (2) Lack of outcomes. Bryson (2004) has argued that at present there is no overwhelming body of evidence indicating that stakeholder analyses help to produce desirable outcomes. Therefore, an addition is needed to the stakeholder analysis process showing a potential quantified outcome, thus proving that such an analysis can produce a desirable outcome. (3) Consider levels of interest/ influence. Reed et al., (2009) proposed the use of 'extendable matrices' that consider levels of interest and influence of stakeholders. This thesis suggests that not only should the interest and influence of stakeholders be quantified, but how much a particular stakeholder would stand to gain, or lose from a given project should also be quantified.

From the opposing side, SuROI still presents room for improvement: (1) Understanding of the “extent of stakeholders”. As stated in Higham et al., (2017), Watson and Whitley (2016) suggest that with SROI, and so consequently with SuROI, being very stakeholder orientated, without an understanding of the extent of the “web of interconnected stakeholders”, it cannot be clear at the outset if the analysis can capture the full nature of a project’s eventual impact. This “understanding” can potentially be improved by reinforcing the stakeholder analysis component of the SuROI methodology. (2) Understanding who the winners and losers are. SuROI doesn’t take into account who the winners and losers of a given project are, and how much they gain or lose from a project individually - it normally allows quantifying only the overall benefits from a given intervention.

The proposed ‘SuHousingImpact’ tool is transdisciplinary in nature, in that it combines the quantitative approach of SuROI (which stems from cost benefit analysis), with the qualitative approach of stakeholder analysis (which in essence is a management/policy making tool). The creation of a ‘hybrid’ method allows the production of a new ‘artefact’, useful to support decision makers not only in making the right decisions, but also in negotiating with potential further interested parties. Being a management/ policy making tool, current stakeholder analyses fall into the same category as previous methods of evaluating housing-led urban regeneration projects, which is that they are typically qualitative in nature. As has been seen earlier in this thesis, qualitative methods have disadvantages, which can be solved by introducing quantities into the analysis. To counteract the qualitative essence of stakeholder analysis, we can use the SuROI methodology to change the analysis into a quantifiable one. By doing this, it would be possible to quantifiably measure how

much each given stakeholder of a project gains or loses from that given project. At the same time, by readdressing the SuROI traditional methodology towards a stakeholder oriented perspective, it is possible to emphasise the potential benefits for different stakeholders influenced by the intervention, thus orienting its usability from a decision making tool to a management tool. This is particularly relevant in the era of 'New Public Management' within public administration which involves such aspects as explicit standards and measures of performance, a greater emphasis on output controls, a shift to the disaggregating of units in the public sector, a shift to greater competition in the public sector and a stress on greater discipline in resource use (Hood, 1991). New Public Management additionally involves many different administrative departments, each with their own separate budgets, competing against each other for potential financial injections, in a similar way to the "new territorial governance" described by Roberts (2000). Indeed, Roberts (2006) asserts that the allocation of power, responsibilities and resources is more fragmented than in the past.

SuROI assumes that there is one large public domain whereas in practice this is not the case. New Public Management correctly assumes that there are competing agencies where the behaviour of the differing agencies' management is changing. Currently it is the case through New Public Management that each separate stakeholder has its own budget and each separate stakeholder such as the NHS, highways or parks and gardens to name but only a few mere examples, is fighting for as much money as it itself can get hold of, and probably looks at its own needs before thinking about needs belonging to other competing stakeholders.

Therefore, rather than thinking in terms of overall ‘public’ benefit, it is important to rely on quantifiable methods showing benefits and costs for different public actors. This would potentially be able to show how a specific intervention reflects on each separate stakeholder’s budget line.

The prospective ‘SuHousingImpact’ tool would be used to gauge the quantifiable amount of impact for each stakeholder involved in a housing-led urban regeneration scheme and would show in monetary units whether or not each stakeholder gains or loses from a given project, and additionally, by the cash flow amount involved.

This aspect of the new artefact could then potentially act as a negotiating tool in the quest for more investment into housing-led urban regeneration schemes, thus ensuring financial sustainability going forward.

Figure 4.6 below acts as a pictorial example of what is meant:



Figure 4.6: Quantification of “winners and losers” using the SuROI methodology (Author’s elaboration)

4.13.1. Concept of time

In addition, there is a further potential of the SuROI approach as a quantitative methodology for the assessment of interventions. In particular, the concept of time can be brought into SuROI. As Roberts (2006) asserts “it is unlikely that all elements of a sustainable development programme will be delivered at a single point in time”.

The payback period is one of the most popular methods in the evaluation of capital budgeting decisions which has been referred to as “one of the most important techniques in evaluating capital budgeting” (Mawih, 2015) and can be brought into play as part of the novel attributes of the artefact. It is a simple method that determines when a project breaks even (Awomelwe and Ogundele, 2008) and has been defined as the time required to recover the initial investment in a project from operations (Ibid, 2008).

The payback period has been defined as the number of years it would take to recover a project’s costs of investment and is in use all over the world, including in the UK and USA where the payback period has been shown to be an important method (Pike, 1985), in Japan (Shinoda, 2010), in Kenya (Khakasa, 2009) and indeed on various different continents of the globe including Europe, America and Africa (Awomelwe and Ogundele, 2008). Managers have been said to be “risk averse” and so typically attempt to minimise such risk by using the payback period method (Mawih, 2015).

The payback period can be easily expressed through the following equation:

Payback period = cost of project / annual cash flow

The popularity of the payback period has been cited by Ryan and Ryan (2002), who comment, as part of their research looking into the uses of capital budgeting techniques by 1000 chief financial officers and financial managers, that one of their principal conclusions is that financial managers prefer to use multiple capital budgeting techniques including that of the payback period. As Blatt (1979) had earlier remarked, “a payback time limit is used by nearly every responsible manager, in fact”. Segelod (1995) cites that although the use of payback period as a single criterion has decreased over time, its use as a secondary measure has actually increased over the same period.

Some advantages and disadvantages of the payback period include:

Advantages:

- The payback period technique is simple and easy to understand (Mawih, 2015; Dayananda et al., 2002), being probably the simplest method to use to rank projects in accordance of timestreams of costs and benefits (French, 1988)
- There is a wide acceptance of this technique by managers and investors (Mawih, 2015). Indeed, data from numerous previous studies show that managers “prefer the simple payback period method” (Shinoda, 2010)
- It has a great importance, which includes, but is not limited to, its simplicity, liquidity and risk assessment (Awomelwe and Ogundele, 2008)

- It is still used in organisations all over the world (Ibid, 2008)
- It contains a built-in safeguard against risk and uncertainty in that the earlier the payback the lower the risk (Ibid, 2008)
- It remains a major supplementary tool in investment analysis (Ibid, 2008)

Disadvantages:

- It ignores cash flows (Mawih, 2015)
- It cannot distinguish between projects with the same payback period (French, 1988)
- It ignores any benefits that occur after the payback period i.e. it does not measure total income (Awomelwe and Ogundele, 2008)

The introduction of the notion of the payback period being available for each individual stakeholder can enable the provision of a rough estimate of when each involved stakeholder could expect to see a gain from a housing-led intervention.

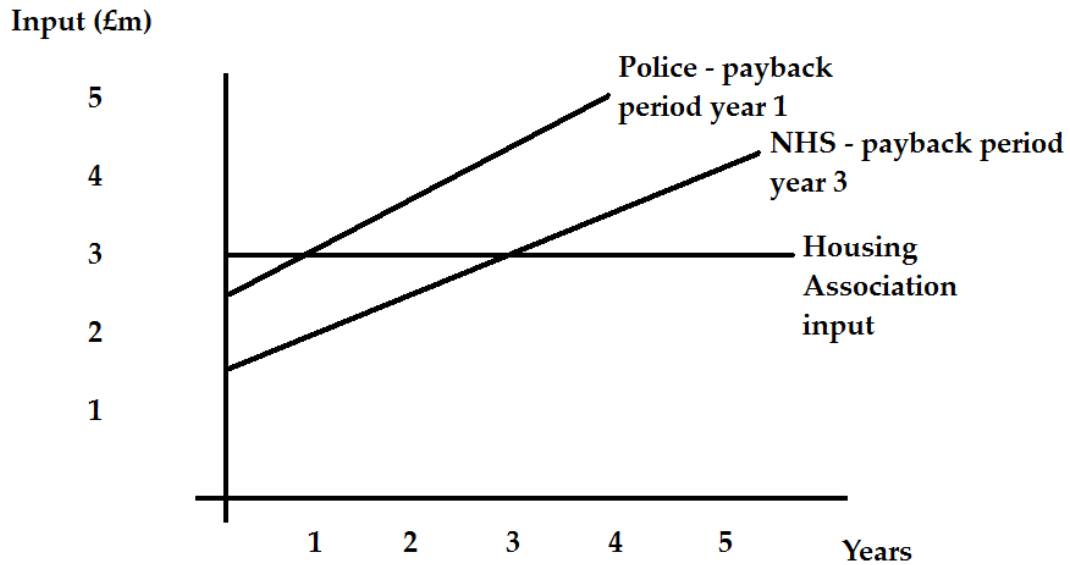


Figure 4.7: Payback period by using calculations from the SuROI methodology (Author's elaboration)

4.14. Summary

This chapter covered the Sustainable Return on Investment (SuROI) approach, whose origins stem from Social Return on Investment (SROI).

SROI's definition, its history, the monetisation of intangible values integral to SROI, as well as the concept of Social Value and the concept's recent accompanying legislation – the Social Value Act (2012) were outlined.

Further to this, the different principles and stages of the SROI process were made explicit, as was its framework in the form of an impact map spreadsheet.

The SROI ratio and the advantages and disadvantages of SROI were additionally

outlined. Subsequently, this led to the understanding of the SuROI approach, together with a summary of the same principles that SuROI follows. The domain of Ecosystem Services Analysis was also covered, followed by an in depth explanation of the five stages involved in the SuROI calculative process.

There was a brief outlining of indicators and their importance in the SuROI calculation process – an analysis only being as good as the data sources that go into such an analysis. In addition, gaps within the SuROI methodology were outlined, together with a synopsis of public policies and multi stakeholder partnerships.

The concepts of stakeholder management and multi stakeholder networks were covered, before the Kaldor-Hicks compensation criterion was highlighted as being a theoretical foundation for further refinement of SuROI in terms of introducing a per stakeholder impact. Stakeholder analysis and the concept of the stakeholder were introduced before the respective weaknesses of stakeholder analysis and SuROI were outlined with a view to improving such weaknesses and harnessing them as part of the new ‘SuHousingImpact’ artefact created within this research. Lastly, the concept of utilising potential pay back periods within the new artefact created, stemming from such per stakeholder perspectives was additionally discussed.

CHAPTER FIVE: RESEARCH METHODOLOGY

5.1. Introduction

The purpose of this chapter is to describe the study's underlying philosophical paradigms and research strategy and to provide a justification of the research methodology utilised by the researcher.

The chapter will additionally provide an insight into the techniques used to collect and analyse data.

For the sake of clarity, this chapter is composed of the following major themes:

- The Research Philosophy
- The Research Approach
- The Case Study
- The Research Techniques
- Design Science Research

Regarding the research philosophy underpinning the research in this thesis, due to the fact that the built environment can be argued to be multi-disciplinary, have different realities and be an applied subject area which is essentially practice based, this leads to the necessity for a different philosophical underpinning compared with the more

traditional approaches. Pragmatism looks to create practical solutions to social problems and places a primary importance on the research question (Tashakkori and Teddlie, 2003). It is focussed on not only what exists, but what doesn't yet exist, and what "might be" in existence in the future (Goldkuhl, 2004), especially appropriate for, and linking in directly with this research study, due to the fact that the main focal point of the research is the creation of a new artefact being used to evaluate socio-environmental impacts. The pragmatist philosophy asserts that philosophical thinking between one position, in terms of epistemology, ontology, or axiology and the other is unrealistic in practice, and it is argued that the most important determinant of which position to adopt is through that of the research questions (Creswell and Plano Clark, 2011; Saunders et al., 2009). This is of particular relevance where a research question does not suggest clearly that a positivist or interpretivist philosophy should be used (Inuah and Eaton, 2013), again, such as within this study.

The research approach used is that of a mixed method approach involving both qualitative and quantitative approaches.

The qualitative approach has been used within the literature review, the semi structured and open ended interviews and the focus group used within the study. Due to the focus on naturally occurring, ordinary events in natural settings with real lived experiences being recounted by interviewees as part of the data collection within this thesis, the qualitative approach is useful during the validation of the 'SuHousingImpact' artefact. Additionally, with qualitative data being "advocated as the best strategy for discovery, exploring a new area [and] developing hypotheses" and being considered as "useful when one needs to supplement, validate, explain,

illuminate or reinterpret quantitative data gathered from the same setting” (Amaratunga et al., 2002), the qualitative approach is again useful in terms of the validation of the ‘SuHousingImpact’ artefact in this thesis and with the creation of ideas pre artefact.

The quantitative approach is used widely in the quantitative and scientific measurement of socio-environmental spillovers of the housing-led urban regeneration schemes cited within this thesis, through measurement carried out via the ‘SuHousingImpact’ artefact.

The approach is also inductive, due to the fact that the research moves from the data received through the above means, to theory; such theories including those shown in Chapter Eight, Section 8.3.

In terms of the research strategy, the case study strategy was preferred due to the how and why questions invoked in this thesis. Additionally, the researcher did not have control over how urban regeneration impacts were being monitored and was ‘outside’ of the case and an observer, whilst, in addition, the issue under investigation was contemporary in nature. Proverbs and Gameson (2008) add that case study research “appears to be highly relevant to an industry that is project driven and made up of many different organisations and businesses” for example, such as those in the built environment, whilst Amaratunga et al., (2002) state that case studies are “tailor made for exploring new processes or behaviours or those which are little understood”.

With regard to other potential strategies that could have been used to carry out the research, surveys would not have provided the depth or rich, inductive data that a case study does, experiments involve the manipulation of independent variables to observe

the behaviour of the dependent variable(s) (Collis and Hussey, 2009) and Grounded Theory would not be appropriate due to the fact that in this study, existing theory has also been applied as well as the search for inductive, grounded data.

Regarding the number of case studies utilised within the research, two sub case studies were chosen. Analytic conclusions arising independently from two cases, as would be the case with two experiments, are more powerful than those coming from a single case (Yin, 2009). The two sub case studies of the environmental and high rise housing-led urban regeneration schemes were considered as sufficient to obtain the desired information for the purposes of this thesis, for the following reasons:

- 1) Because of the range of housing types on offer
- 2) Because of the amount of community engagement carried out with stakeholders by City West Housing Trust
- 3) Because of the potential for future research
- 4) Because the two schemes used as the sub case studies were the only two schemes that had reliable recorded stakeholder feedback on them within City West Housing Trust
- 5) The time constraints of the PhD timeframe.

The research techniques involved in the research study involve the use of a literature review, semi structured interviews carried out with representatives of City West Housing Trust, a focus group carried out with representatives of City West Housing Trust and a representative of RICS, and open ended interviews carried out with other housing-led regeneration facilitating organisations.

Design Science Research (DSR) was used in combination with the case study approach.

The case study approach has been cited by Costa et al., (2016) as being useful with Design Science Research, stating that the knowledge within Design Science Research is created by interaction between professions in the practical field and scientists. Examples of such interaction can be found within qualitative approaches such as the case study. In addition, according to Johannesson and Perjons (2012), “social science offers models and theories as well as research strategies and methods, which can be used when doing design science”. The authors go on to state that “social science models and theories are often key components of the knowledge base used when developing artefacts” and that a case study is a “natural choice” when a real life case is being used (Ibid, 2012).

Teegavarapu and Summers (2008) also defend the usage of the case study method with DSR. They add that case studies are suitable for developing theories which is “the need of the day” in design research and “could effectively fill the void that exists due to the lack of a formal method of conducting systematic research in design”. Peffers et al., (2008) also provide backing to the combination of both case study and DSR when adding that “case studies [will] provide useful templates for researchers who want to apply DSR to their efforts”, whilst Hevner et al., (2004) propose five classes of evaluation methods, one of which (observational methods) include case studies and field work.

The related issue and sometimes confusion of Action Research versus DSR can also be enlightened upon by various authors throughout the literature:

DSR uses an artefact as a solution to a practical problem whereas Action Research does not. Action Research instead addresses problems through “psychological, social and organisational change” (Johannesson and Perjons, 2012). In addition, DSR does not require the practical problem to come about from a specific organisation, while this is the case in Action Research. In this study, the literature review showed problems with evaluation in housing-led urban regeneration schemes in many different situations and scenarios. In addition, all interviewees, including those from other housing-led regeneration facilitators, agreed that there were again problems in this area, not just interviewees from one of the organisations in question. Lastly, Action Research “is a single research strategy, whilst DSR can make use of many different research strategies” (Johannesson and Perjons, 2012), as is the case in this study where some strategies are used for problem explication, others for the define requirements stage, others for the demonstrate artefact stage and others for the evaluate artefact stage. In addition, to further clarify the differences between the usage of Action Research versus that of DSR; within Action Research, if an artefact is produced, it is “normally the by-product of the research intervention” (Papas et al., 2012), not the goal of it, as is the case with DSR, and as is the case within this research. Also, a DSR intervention is counted as a success if a practice or state is changed through the use of the artefact, whereas for Action Research, success is only achieved if an organisational change has been effected. Subsequently, for an Action Research approach, an evaluation would focus on details of an organisation’s acceptance of an artefact, not an assessment of the actual artefact itself (Papas et al., 2012), as is the case within this thesis.

In terms of the DSR process itself, the process relates back to a knowledge base which includes the literature review, ethnographic work and observations, with research strategies of interviews, ethnography, observation and two sub case studies.

The artefact itself was developed through the DSR process by the explication of the problem – the problem experienced by the researcher first hand through participant observation and ethnographic study; the implementation of the DSR process to the case study performed through a qualitative methodology, based on a constructivist approach, by administering a set of semi structured interviews modelled both on the SuROI method and allowing the development of further concepts, thus deriving a further component of the method, suitable to put it forward in a different perspective (stakeholder mapping and quantification of the respective benefits/ costs).

The outline artefact and define requirements stage involves the semi structured interviews carried out with key staff within the investment and regeneration directorate at City West Housing Trust (CWHT), carried out in order to attempt to outline the key areas an artefact should cover.

The artefact is demonstrated to holders of key positions in CWHT and feedback sought. The artefact is then to additionally be shown to focus group representatives, a mix of CWHT representatives and a member of RICS. Finally, the artefact will be demonstrated to representatives of other housing-led urban regeneration facilitators.

It will then be used at a preliminary stage on two housing-led schemes (the CWHT environmental-led programme and the CWHT high rise scheme) in order that any potentially hidden failings are made explicit.

Finally, the evaluation stage involves the artefact being used and applied to the chosen housing-led regeneration schemes.

5.2. Research Methodology

Research is an important activity in both business and academia, however there is no consensus in the literature on how it should be defined. Indeed McGrath (1982) suggests that there are no ideal solutions, whilst Patton (1990) asserts that there are only a series of compromises. It appears that research means different things to different people. However, from the many definitions on offer there is an agreement that research is a process of enquiry and investigation, and that it is systematic, methodical and increases knowledge (Amaratunga et al., 2002).

According to Remenyi et al., (1998), research methodology is a procedural framework within which the research is constructed, with the main intention of any research being to add value to the already accumulated knowledge base through the means of identifying, investigating and producing solutions to an unsolved problem. In addition, the same authors add that a research methodology should be chosen on the basis of the topic being researched and the specific research question. Remenyi et al., (2003) refer to methodology as being the “overall approach to a problem which could be put into practice in a research process, from the theoretical underpinning to the collection and analysis of data”, whilst Collis and Hussey (2009) assert that methodology is the “overall approach to the entire process of the research study”. Bechhofer (1974) also comments on the research journey, stating that the process of finding solutions to a research problem is “not a clear cut sequence of procedures followed by a neat pattern, but a messy interaction between the conceptual and

empirical world”. Booth et al., (2003) share the same opinion, asserting that “research follows a crooked path, taking unexpected turns, even looping back on itself”.

Creswell (1994) asserts that pragmatically, the guiding principle for developing any research methodology is that it must completely address the research question.

Simister (1995) goes on to explain that this involves:

- Making explicit the questions the researcher should answer
- Developing a data collection methodology
- Discussing the data in relation to the initial research questions

According to Denzin (1984), any substantial research investigation must be founded on rigorous scientific methodology and, to further complicate matters, the term ‘research’ can mean different things to different people. There is agreement within the literature that research is a process of enquiry and investigation, that it is systematic and methodical and that it increases knowledge. Additionally, it is claimed that research is a process of “finding out something you don’t know” (Phillips and Pugh, 2000), “a learning process” (Fellows and Liu, 1997) and “a systematic investigation, including research development, testing and evaluation, designed to contribute to generalisable knowledge” (Frankfort-Nachmias and Nachmias, 2008).

Frankfort-Nachmias and Nachmias (2008) define research methodology as “a system of explicit rules and procedures upon which research is based and claims for knowledge are evaluated”, whilst Fellows and Liu (1997) assert that research methodology can be defined as “the principles and procedures of logical thought

processes which are applied to a scientific investigation” and, more specifically for research in the field of the built environment: “The built environment draws on a wide variety of established subjects/ disciplines, including natural sciences, social sciences, engineering and management. These are then applied to the particular built environment context and requirements”.

Lee (1989) states that there is no single universally accepted scientific methodology and suggests that a combination of methodological paradigms should be used to form the methodology. This would render every methodology as unique and applicable only for its intended purpose and would mean that a selection of research methods would need to be undertaken, seen as no single study would be sufficient. Yin (2003) adds to this, stating that the research methodology for any study should be clearly based on a particular research philosophy and, when reported, should describe the process of the research, the particular style and different methods used, the extent of control the researcher has over actual behavioural events, the degree of focus on contemporary events and the nature of the enquiry.

This guidance can be utilised, together with more specific direction from the hierarchical model of Kagioglou et al., (2000) which, within it, includes research philosophy, approach and techniques (Figure 5.1). Within Kagioglou et al., (2000)’s nested model, the research philosophy can be seen to be located within the outer ring of the model. This guides the research approaches and subsequent research techniques, whilst additionally ensuring that the chosen research philosophy, approach and techniques are all compatible with each other.

The model was chosen to guide the research, due to its ability to serve different research genres and the varying “disparate issues” (Kagioglou et al., 2000) that tend to appear during a typical research project. As the authors put it: a “contingency-based, but integrated, research methodology to accommodate [...] differing [research] demands in a coherent and consistent way”.

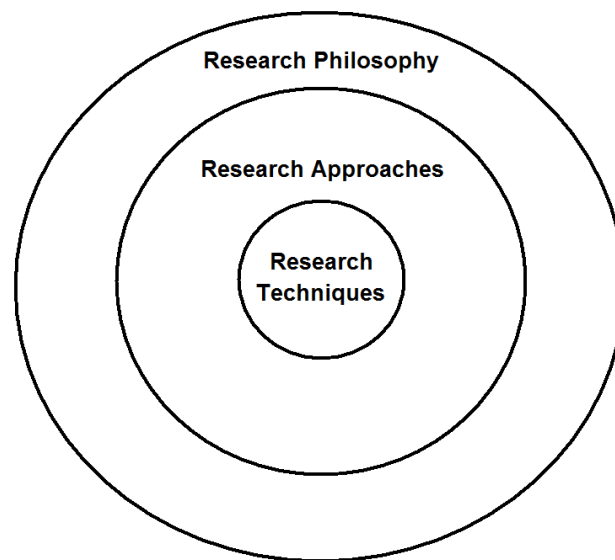


Figure 5.1: The nested approach of research methodological design (Kagioglou et al., 2000)

The different parts of the above model are looked at in further detail in the next sections of this chapter.

5.3. The Research Philosophy

The research philosophy refers to the epistemological, ontological and axiological assumptions that guide research (Pathirage et al., 2008).

Within the realm of research philosophy are the three assumptions (Collins, 1998; Guba and Lincoln, 1994) of epistemology, ontology and axiology. Definitions of these three terms can be seen in Table 5.1 below, taken from Sexton (2003), whilst brief explanations follow:

| | |
|-------------------------|--|
| Epistemology (The how?) | General set of assumptions about how we acquire and accept knowledge about the world |
| Ontology (The what?) | Assumptions that we make about the nature of reality |
| Axiology (The why?) | Assumptions about the nature of values and the foundation of value judgements |

Table 5.1: Assumptions of research philosophy (Sexton, 2003)

5.3.1. Epistemology

Knight and Turnbull (2008) explain that the term epistemology derives from the ancient Greek word ‘episteme’, meaning *knowledge* and ‘logos’ which can be translated to the word *account*. The authors go on to explain that “as a sub-discipline of modern philosophy, epistemology is principally concerned with theories of knowledge. These theories attempt to answer questions surrounding the nature of knowledge, its limits and how we acquire it”.

Johnson and Duberley (2000) describe epistemology as being “the study of the criteria by which we can know what does and does not constitute warranted, or scientific,

knowledge”. Healy and Perry (2000) refer to the concept of ‘reality’, adding that epistemology is “the relationship between the reality that researchers investigate and the researcher”, whilst according to Gill and Johnson (2010), epistemology is a “pivotal issue in any form of research for it is about how we know whether any claim, including our own, made about the phenomena we are interested in, is warranted”. Crotty (2003) echoes this, explaining that the epistemology assumption examines “how we know what we know”, with Collis and Hussey (2009) furthering, by stating that the term is concerned with what one would accept as being valid knowledge. According to Remenyi et al., (2003), epistemological assumptions “underpin any approach to research”.

5.3.2. Ontology

Ontology is “concerned with the nature of reality” (Saunders et al., 2007) or alternatively can be referred to as the “study of being” (Crotty, 2003). Healy and Perry (2000) add that ontology is the “reality” that researchers investigate, whilst Knight and Turnbull (2008) echo that it can be referred to as being “concerned with existence or being”.

The ontological assumption takes the view that the external world has either a predetermined nature and structure which is referred to as “realism” (Johnson and Duberley, 2000), or alternatively, the assumption which takes the view that the external world does not have a pre determined nature or structure. This is referred to as “idealism” (Gummesson, 1991).

Burrell and Morgan (1979) assert that ‘realist’ methodologies base their research on systematic techniques which focus on the testing of a hypothesis, whereas ‘idealist’

methodologies look to analyse the subjective matter through involvement in the corresponding everyday activities (Ibid, 1979).

Table 5.2 below compares the realist and idealist methodologies:

| | Realist methodology | Idealist methodology |
|----------|--|--|
| 1 | Deduction | Induction |
| 2 | Explanation via analysis of causal relationships | Explanation of subject meaning systems and explanation by understanding |
| 3 | Generation and use of quantitative data | Generation and use of qualitative data |
| 4 | Use of various controls, physical or statistical, so as to allow the testing of a hypothesis | Commitment to research in everyday settings, to allow access to and minimise reactivity among subjects of research |
| 5 | Highly structured research methodologies to ensure replicability of above 1,2,3 and 4 | Minimise structure to ensure above 2,3 and 4 |

Table 5.2: Comparison of realist and idealist methodologies (Kulatunga et al., 2006)

Alternatively, Bryman (2007) and Sutrisna (2009) divide ontology into two common positions of objectivism and constructivism (subjectivism). Objectivism refers to an ontological position that states that phenomena and their meanings have an existence that is independent from actors (Bryman, 2007), whereas constructivism (subjectivism) asserts that phenomena and their meanings are continually being accomplished by the involved actors (Sutrisna, 2009). The objectivist mindset is that there is only one reality, whilst constructivists believe that reality is constructed separately and in different and multiple ways.

5.3.3. Axiology

Axiology is referred to as philosophical fields that depend on notions of value and are sometimes held to lay the groundwork for these fields (Tobi, 2010). Saunders et al., (2007) refer to axiology as a “branch of philosophy that studies judgements about value”.

Sexton (2008) echoes the notion of value in stating that the axiological assumption is about the nature of values and the foundation of value judgements. This equates to how one “thinks” about the world and how one “acts” in the world (Kasim et al., 2010). The researchers further describe that the processes reflect and influence how one “thinks” about and subsequently “sees” the world that helps one to “act” in inquiry and practice within ontological and epistemological orientations.

Social constructionism maintains that research is value-laden (Healy and Perry, 2000; Silverman, 1998) whereas the positivist stance states that the researcher should retain a value free view (Susman and Evered, 1978). Accordingly, in the value free research, the choice of what to study and how to study is determined by objective criteria and in value laden research the choice is determined by human beliefs and experiences (Easterby-Smith et al., 2002). Figure 5.2 below summarises philosophical orientation:

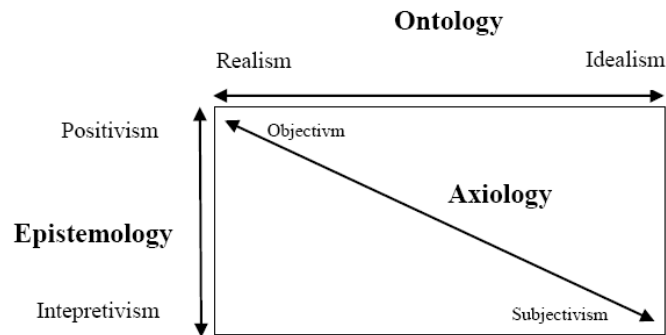


Figure 5.2: Philosophical orientation (Sexton, 2003)

A research philosophy is a reflection of a researcher’s approach to understanding the world he or she investigates (Kvale, 1996; Saunders et al., 2007) and is dependent on the researcher’s thinking and assumptions about the progress of knowledge which subsequently affects the way the research is carried out (Saunders et al., 2007). This thinking and these assumptions underpin the research strategy and any research methods chosen as part of the strategy.

Remenyi et al., (2003) add that due to the unpredictable nature of the research process, which often involves a lack of structure and some form of unpredictability, by understanding the philosophical stance of the research, potential risks of uncertainty or mistakes are reduced. Easterby-Smith et al., (2002) assert that research philosophies are the base for effective research design and that failure to consider the philosophical basis of research will negatively affect the quality of the research, whilst Easterby-Smith et al., (2008) add that an understanding of philosophical issues is useful because:

- 1) It helps to clarify the research design
- 2) It helps the researcher to recognise which research designs will work and which research designs will not work under the given circumstances of the research
- 3) It helps the researcher to identify, and create, research designs that may be outside his or her previous experience.

The research philosophy is an important foundation. Failure to think through philosophical issues can seriously affect the quality of a piece of research (Easterby-Smith et al., 2002). The two “extreme ends” of the epistemological undertakings are those of positivism and socio-constructionism (alternatively described in this thesis as ‘interpretivism’) (Pathirage et al., 2008).

5.3.4. Positivism

The first of the traditional philosophical stances is that of Positivism (also termed as *naturalism*, *empiricism* and *objectivism*), which originated from the thinking of Auguste Comte (1853). Positivism is a term used by Comte to describe the positive, rather than the imaginary (Susman and Evered, 1978), and is defined as the social world existing “externally”, with its properties being measured “through objective methods, rather than being inferred subjectively through sensation, reflection or intuition” (Easterby-Smith et al., 2008; Keraminiyage et al., 2005).

Levin (1988) echoes Easterby-Smith et al., (2008) and Keraminiyage et al., (2005) in asserting that positivist researchers believe that “reality is stable” and “can be observed and described from an objective viewpoint”. Remenyi et al., (1998, cited in

Saunders et al., 2007) assert that positivist researchers prefer “working with an observable social reality” whilst an “end product of such research can be law-like generalisations similar to those produced by the physical and natural scientists” (Ibid, 1998).

In addition, Tobi (2010) refers to learning and theory grounded in positivist philosophy as a suggestion that “learning can be acquired and that reality as well as knowledge is discovered, rather than created”. The positivist researcher believes in clear cut relationships between both events in the outside world and people’s knowledge of them (Staiton-Rogers, 2006). Gill and Johnson (1997) add that this approach has “an emphasis on highly structured methodology to facilitate replication” with Remenyi et al., (1998) adding that “the researcher is independent of and neither affects nor is affected by the subject of the research”.

This philosophical stance is intertwined with the ontological assumption of reality being external and objective (Easterby-Smith et al., 2008). Researchers belonging to the positivist philosophical standpoint will take a ‘top down’ approach, starting with a theory or hypothesis, which may then be subsequently amended or contradicted (Creswell and Plano Clark, 2007).

5.3.5. Interpretivism

Contrary to Positivism, Interpretivism (also described as *social-constructionism*, *idealism* and *relativism*) states that the world does not exist independently of our knowledge of it (Easterby-Smith et al., 2008; Gill and Johnson, 2002).

The roots of interpretivism are associated with the thoughts of Max Weber in the early part of the 20th century who reflected that ‘*verstehen*’ or understanding, was required within social science research, in contrast to the concept of ‘*erklaren*’ or explaining approach associated with the natural sciences (Crotty, 1998).

Interpretivism is described as being a view that “reality is not objective and exterior, but [one which] is socially constructed and given meaning by people”. It is held that interpretivism “focuses on the ways that people make sense of the world, especially through sharing their experiences with others via the medium of language” (Easterby-Smith et al., 2008). Those people, according to Robson (2002), being conscious, purposive actors going about their lives and attaching meaning to what is going on around them. Crabtree and Miller (1999, cited in Baxter and Jack, 2008) add that an advantage of the interpretivist approach is the close collaboration between researcher and participant whilst enabling participants to tell their stories. Collis and Hussey (2009), Creswell (2003) and Amaratunga et al., (2002) maintain that interpretivism refers to the subjective aspects of human activity through focussing on the meaning of, rather than the measurement of social phenomena. Researchers within the interpretivist philosophical standpoint will use a ‘bottom-up’ approach to research,

using social views to build broader themes and subsequently generate theory (Creswell and Plano Clark, 2007).

The table below shows the contrasting implications of positivism and interpretivism:

| | Positivism | Interpretivism |
|------------------------------------|---|--|
| The observer | Must be independent | Is part of what is being observed |
| Human interests | Should be irrelevant | Are the main drivers of science |
| Explanations | Must demonstrate causality | Aim to increase general understanding of the situation |
| Research progresses through | Hypotheses and deductions | Gathering rich data from which ideas are induced |
| Concepts | Need to be defined so that they can be measured | Should incorporate stakeholder perspectives |
| Units of analysis | Should be reduced to simplest terms | May include the complexity of 'whole' situations |
| Generalisation through | Statistical probability | Theoretical abstraction |
| Sampling requires | Large numbers selected randomly | Small numbers of cases chosen for specific reasons |

Table 5.3: Contrasting implications of positivism and interpretivism (Author's elaboration)

5.3.6. Research philosophy and the built environment

The built environment is a multi-disciplinary subject area (Chynoweth, 2006) where there can be multiple realities at play. In addition, the built environment is a real world environment, where the subject area has a predominantly applied nature to its knowledge base (Chynoweth, 2009). It has a practice based output and can be described as a “range of practice-oriented subjects concerned with the design,

development and management of buildings, spaces and places” (Griffiths, 2004). This, as the author goes on to say, includes the subject areas of housing policy and management and urban regeneration, all pertinent subject areas to this thesis.

Indeed, the built environment can be referred to as a subject area which exhibits the notion of “research for practice” (Chynoweth, 2013). Archer (1995) describes this style of research as “research which is undertaken for the purposes of contributing to practitioner activities”. In addition, the importance of a practical result stemming from such practice based research can be considered as especially important at the current moment in time. Due to the present economic situation, research funders are increasingly asking for demonstrable impacts beyond a contribution to solely the academic world (REF, 2012).

With the built environment additionally having vocational origins (Chynoweth, 2013), it can be argued that the purpose of built environment research should be to make a real world difference (Ibid, 2013). Practical experiences, their relationship to knowledge and the process by which they are known and developed in real life situations is considered of particular importance (Saunders et al., 2009).

Because the built environment can be argued to be multi-disciplinary, have different realities, and be an applied subject area which is essentially practice based, this leads to a necessity for a different philosophical underpinning from the more traditional approaches, and, subsequently, of a different form of research methodology.

To this end, and contrary to the more traditional philosophical approaches, such as Positivism and Interpretivism, in the field of the built environment it may be prudent to underpin research with the pragmatic philosophical underpinning.

5.3.7. Pragmatism

The pragmatic philosophical underpinning is most suited to the research carried out in this thesis.

Pragmatism originates from the Greek word *pragma* which means ‘action’, from which the words ‘practice’ and ‘practical’ originate (James, 2000). The pragmatic approach underlies that multiple realities exist in any given situation and that the researcher’s choice of paradigm is dependent on the research question attempting to be solved within the study (Saunders et al., 2009).

Pragmatism is referred to so far within this thesis as a philosophical underpinning which is of ‘less-traditional’ orientation. It has been said to replace the more traditional philosophy of knowledge approach (Guba, 1990; Guba and Lincoln, 2005). However, this ‘newness’ can be challenged. Aristotle wrote many seminal works, however only a fifth of his literary works have survived (Barnes, 2000). Belonging perhaps to the lesser known works is the Aristotlean concept of *episteme* (theoretical ‘know-how’), which can be contrasted importantly to the concepts of *techne* (technical ‘know-how’) and *phronesis* (‘practical wisdom’) in ‘The Nicomachean

Ethics'. Barnett (1997) interprets this as a legitimising of knowledge gained through practice. The fact that the notion of practical knowledge was discussed by one of the founding fathers of philosophy can show that the idea of knowledge relating to practice is not quite as new as might be thought.

A leading scholar within the field of pragmatism, John Dewey, “looked to philosophy to develop a methodology for dealing with an environment of disruptive change” (Diggins, 1991), such as is typically experienced within ever changing, fast paced, real world practical scenarios. Dewey himself described that pragmatism should be seen as a systematisation of human beings’ efforts to improve their situation (Dewey, 1938) and that knowledge should make a difference in action (Dewey, 1931). Pragmatism can thereby be linked to action, intervention and constructive knowledge and is concerned with the interplay between knowledge and action. This makes it very appropriate for research studies intervening into the real world and not merely observing it (Goldkuhl, 2012). It is this action, instead of merely observation, that is a fundamental of the pragmatist philosophy. Indeed, Blumer (1969) adds that “to be understood, a society must be seen and grasped in terms of the action that comprises it”. This aligns well with Dewey’s thoughts.

The pragmatic approach is one that emphasises that multiple realities exist (Saunders et al., 2009) and is a process to answering ‘what’, ‘why’ and ‘how’ questions (Ibid, 2009), such as the questions posed within this thesis. Pragmatists believe that science exists in order to facilitate human problem solving (Powell, 2001; Morgan, 2014), that it should be outcome-oriented (Johnson and Onwuegbuzie, 2004) and that there should be a focus on the product of a piece of research (Biesta, 2010).

Pragmatism looks to create practical solutions to social problems and places a primary importance on the research question (Tashakkori and Teddlie, 2003). It is focussed on not only what exists, but what doesn't yet exist, and what "might be" in existence in the future (Goldkuhl, 2004), and rejects the forced choice between positivism and interpretivism (Pansiri, 2005), being seen as a viable alternative to positivism and anti positivism (Goldkuhl, 2004) and thereby offers "an alternative epistemological paradigm" (Hall, 2013).

The pragmatist philosophy asserts that philosophical thinking between one position, in terms of epistemology (theory of knowledge), ontology (theory of being), or axiology (theory of value) and the other is unrealistic in practice, and it is argued that the most important determinant of which position to adopt is through that of the research questions (Creswell and Plano Clark, 2011; Saunders et al., 2009). This is of particular relevance where a research question does not suggest clearly that a positivist or interpretivist philosophy should be used (Inuah and Eaton, 2013), such as within this study.

5.4. The Research Approach

According to Yin (2003), deciding on the appropriate research approach is an essential part of any research study. Yin (2003) additionally identifies three conditions which should be considered when selecting the appropriate research approach:

- The type of research question posed;
- The extent of control an investigator has over the actual behavioural events;
- The degree of focus on a contemporary event.

Creswell (2009) adds that the research approach is used as the strategy for data collection and analysis.

The research approach can typically be split into two approaches (Collis and Hussey, 2003; Phillips and Pugh, 2000; Bryman, 2001), those of qualitative and quantitative approaches.

Advocates of qualitative and quantitative research approaches have engaged in dispute for many years (Ayer, 1959). However, according to Amaratunga et al., (2002), qualitative research approaches concentrate on words and observations to express reality and attempt to describe people in natural situations and in contrast, the quantitative approach “grows out of a strong academic tradition that places considerable trust in numbers that represent opinions or concepts”. Bryman (2001) echoes this by adding that the qualitative approach usually emphasises words rather

than quantification in the collection and analysis of data, whilst the quantitative approach usually emphasises quantification.

5.4.1. Qualitative research approach

Denzin and Lincoln (2000) define qualitative research as follows: “Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense out of, or to interpret, phenomena in terms of the meanings people bring to them”. In addition, qualitative research “embodies strategies such as grounded theory or case studies” (Lee, 2002) and involves “collecting data that is mainly in the form of words” (Easterby-Smith et al., 2008). Additionally, qualitative research is typically conducted through an intense and/or prolonged contact with a “field” or life situation (Amaratunga et al., 2002).

Adejimi, Oyediran and Ogunsanmi (2010) state that many researchers in the built environment “are believed to be shifting towards the qualitative research methods with a belief that it is simpler, easier and involves less mathematical analysis”. Davis (2007) adds that “good qualitative research has equalled, if not exceeded quantitative research in status, relevance and methodological rigour”.

In echoing the above, Miles, Huberman and Saldaña (2013) list the common characteristics of qualitative research as follows:

- It is conducted through intense contact or within a field/ real life setting
- The role of the researcher is to gain a holistic or integrated overview of the study which includes the perceptions of participants
- Emerging themes are reviewed with informants for verification
- The main focus of research is to understand ways in which persons act and also how they account for their actions

A main feature of the qualitative approach can be the grounding of theory, resulting from the data. According to Easterby-Smith et al., (2008), grounded theory was first formulated by Glaser and Strauss (1967) who saw the key task of the researcher as being able to develop theory “through looking at the same event or process in different settings or situations”.

Patton (2002) describes that the main aim of qualitative research is to uncover themes, patterns, concepts, insights and understandings whilst Sutrisna (2009, cited in Adejimi, Oyediran and Ogunsanmi, 2010) adds that qualitative methods are “considered capable of studying complex situations, particularly involving human beings and therefore yielding rich findings”. Because of this, qualitative methods are highly pertinent in this thesis in terms of the validation of the ‘SuHousingImpact’ artefact and additionally because urban regeneration is a man made subject area and its evaluation would be carried out by human practitioners.

Amaratunga et al., (2002) add to this, in writing that features of qualitative data include there being a focus on naturally occurring, ordinary events in natural settings with “real life” viewpoints or lived experiences being seen; again the lived experiences being highly useful in terms of data collection within this thesis during the validation of the ‘SuHousingImpact’ artefact.

Additionally, and again, appropriately for this thesis in terms of data collection within the subject area of the built environment, the authors cite the richness and holism, the capacity to reveal complexity, the flexibility and the ability to collect data over a sustained period of time, involving a possible variation in data collection times and methods as being a great advantage of this form of data. Also, qualitative data “have often been advocated as the best strategy for discovery, exploring a new area [and] developing hypotheses” and are “useful when one needs to supplement, validate, explain, illuminate or reinterpret quantitative data gathered from the same setting” (Amaratunga et al., 2002) again showing relevance to the validation of the ‘SuHousingImpact’ artefact in this thesis and also with the creation of ideas pre artefact.

Some disadvantages however include the lack of objectivity of the data (Fellows and Liu, 1997), the amount of data collection, which is typically of large proportions, with the subsequent analysis and interpretation of data becoming potentially more difficult and the fact that it can be harder to control the pace, progress and end points of the research process (Amaratunga et al., 2002), together with the fact that it often involves much filtering, sorting and transcribing of interviews (Adejimi, Oyediran and Ogunsanmi, 2010). However, Berg (1989, cited in Miles and Huberman, 1994) raises an interesting contradictory point in adding that, in some senses, all data are

qualitative in that they all refer to issues relating to people, objects and situations. In addition Seale (2004) adds that although quantitative approaches are often considered to be value free, an argument can be made that theories and values were implied by the framing of the research questions. Also Bernard and Ryan (2010) add that “analysis is the essential qualitative act” and that many methods for quantitative analysis are simply data processing methods and “tools for finding patterns in data”. They go on to say that the interpretation of those patterns is what makes the real analysis, that interpretation coming from the qualitative approach. Dey (1993) adds that “the more ambiguous and elastic our concepts, the less possible it is to quantify our data in a meaningful way” and Mintzberg (1979) adds that “we uncover all kinds of relationships in our hard data, but it is only through the use of this soft [qualitative] data that we are able to explain them”.

Contrary to the qualitative approach however, is the quantitative approach.

5.4.2. Quantitative research approach

It is argued by Amaratunga et al., (2002) that pragmatism could be at the root of the historical adoption of the quantitative approach to research, whereby in academic environments, where resources are typically limited, quantitative approaches to research allow “large scale data collection and analysis at a reasonable cost and effort, as well as providing statistical proof”.

Bryman (1993) asserts that the quantitative research approach is the preferred method by researchers adopting a positivist stance, whilst Nau (1995) states that such approaches tend to measure “how much” and “how often” and that they look for

“distinguishing characteristics, elemental properties and empirical boundaries”. Also, quantitative research emphasises methodology, procedure and statistical measures of validity (Chadwick et al., 1984).

Amaratunga et al., (2002) add that the strengths of quantitative methodologies for built environment research include:

- Comparison and replication being allowable
 - Independence of the observer from the subject being observed
 - The subject under analysis being measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition
 - Reliability and validity being determined more objectively than through qualitative techniques
 - Strength in measuring descriptive aspects of the built environment
 - An emphasis on the need to formulate the hypothesis for subsequent verification
 - The helping to search for causal explanations and fundamental laws and reducing the whole to the simplest possible elements to facilitate analysis
- (Easterby-Smith et al., 1991)

However, weaknesses of quantitative research techniques include the “failure to ascertain deeper underlying meanings and explanations of the built environment” plus the fact that quantitative studies tend to take a snapshot of a situation which doesn’t

always lend itself to the built environment where there might be “temporal changes which cannot always be identified within a single quantitative study” (Amaratunga et al., 2002).

The differences between the qualitative and quantitative approaches can be seen in Table 5.4 below:

| | Qualitative approach | Quantitative approach |
|------------------------------------|---|---|
| General framework | <p>Seek to explore phenomena</p> <p>Instruments use more flexible, iterative style of eliciting and categorising responses to questions</p> <p>Use semi-structured methods such as in-depth interviews, focus groups, and participant observation</p> | <p>Seek to confirm hypotheses about phenomena</p> <p>Instruments use more rigid style of eliciting and categorising responses to questions</p> <p>Use highly structured methods such as questionnaires, surveys, and structured observation</p> |
| Analytical objectives | <p>To describe variation</p> <p>To describe and explain relationships</p> <p>To describe individual experiences</p> <p>To describe group norms</p> | <p>To quantify variation</p> <p>To predict causal relationships</p> <p>To describe characteristics of a population</p> |
| Question format | Open-ended | Closed-ended |
| Data format | Textual (obtained from audiotapes, videotapes and field notes) | Numerical (obtained by assigning numerical values to responses) |
| Flexibility in study design | Some aspects of the study are flexible (for example, the addition, exclusion or wording of particular interview questions) | <p>Study design is stable from beginning to end</p> <p>Participant responses do not influence or determine how and which questions</p> |

| | | |
|--|--|---|
| | Participant responses affect how and which questions researchers ask next | researchers ask next |
| | Study design is iterative, that is data collection and research questions are adjusted, according to what is learned | Study design is subject to statistical assumptions and conditions |

Table 5.4: Comparison of qualitative and quantitative approaches (Mack et al., 2005)

5.4.3. Mixed method approach

Das (1983) argues that qualitative and quantitative methodologies both focus on different dimensions of the same phenomenon. The mixed method approach, referred to as the “third major research approach” (Johnson et al., 2007) satisfies this criteria.

A number of advantages for the usage of mixed methods cited by Bryman (2004) include the logic of triangulation, the ability to fill in any gaps left from using one dominant approach, to gain the perspective of the researcher and the researched and to use quantitative data to facilitate qualitative data and vice versa. Other advantages of a mixed method approach include the ability to answer research questions that other approaches cannot, the simultaneous answering of confirmatory and exploratory questions and the providing of stronger inferences through depth and breadth of research (Tashakkori and Teddlie, 2003). Saunders et al., (2009) assert that the pragmatic research approach provides for the adoption of the mixed method approach due to the subjective and objective nature of the involved analysis whilst Creswell (2009) echoes this view, stating that the pragmatic approach seems the most prominent paradigm for a strong philosophical relationship with the mixed method

approach. Indeed, pragmatism has been referred to as the foundation of mixed method research (Tashakkori and Teddlie, 2003).

By combining the strengths of the quantitative and qualitative methodologies, their “relevant strengths” can be focussed on (Amaratunga et al., 2002).

Rossmann and Wilson (1991) state that by mixing both quantitative and qualitative data during analysis, this enables confirmation or corroboration via triangulation, it can elaborate or develop analysis and provide richer details and new lines of thinking can be initiated by providing new and different insights.

Indeed, Das (1983) writes that:

“...qualitative and quantitative methodologies are not antithetic or divergent, rather they focus on the different dimensions of the same phenomenon. Sometimes, these dimensions may appear to be confluent: but even in these instances, where they apparently diverge, the underlying unity may become visible on deeper penetration... The situational contingencies and objectives of the researcher would seem to play a decisive role in the design and execution of the study”.

As can be seen from Jones (1997, cited in Amaratunga et al., 2002), there are many reasons as to why a mixed approach can be used:

- Qualitative methods allow the researcher to develop an overall picture of the investigation

- Quantitative analysis may be more appropriate to assess behavioural or descriptive complements of the built environment
- Much of built environment research is exploratory and so the use of qualitative methods allows for any unexpected developments that may arise
- Quantitative analysis can complement the findings of qualitative methods by indicating their extent within aspects of the built environment
- Quantitative data can be used to confirm or reject any apparently significant data and any relationships that may emerge together with the statistical testing of the strength of those relationships
- If such relationships are determined, quantitative methods are weaker in providing explanations whilst qualitative methods can assist in understanding any underlying explanations

The mixed method approach is an approach “whose time has come” whereby words can add meaning to numbers and numbers can add precision to words, according to Johnson and Onwuegbuzie (2004) and is increasingly being recognised as the third major research approach or paradigm (Johnson et al., 2007; Teddlie and Tashakkori, 2009). However, an additionally important factor is rigour through validity, reliability and appropriate methods to ensure this takes place. Indeed, according to Woodside (2010), the use of mixed or multiple methods leads to increasing accuracy.

For exactly the reasons found above, the mixed methods approach will be used in this study through the combination of literature reviews (qualitative), semi structured and open ended interviews and a focus group (qualitative) and by the measurement of

socio-environmental spillovers through measurement via the ‘SuHousingImpact’ artefact (quantitative).

5.4.4. Deductive and inductive approaches

The deductive and inductive approaches to research are two further aspects which are of note. Das (1983) writes that there are two differing approaches for deductive and inductive research: Deductive research proceeds from theory to data, whilst inductive research is the opposite, proceeding from data to theory (Pathirage et al., 2008). Alternatively, this can be explained as deductive research moving from the “general to the particular” (Welman et al., 2005), that is to say research “in which a conceptual and theoretical structure is developed and then tested by empirical observation; thus, particular inferences are deduced from general inferences”. Accordingly, the same authors describe inductive research as research “in which theory is developed from the observation of empirical reality; thus general inferences are induced from particular instances”, or alternatively referred to as moving from the “specific to the general” (Ibid, 2005). Cepeda and Martin (2005) add that “inductive theory building is built on deep understanding, rather than statistical comparisons between data collected through standardised protocols”.

Table 5.5 below shows the major differences between the deductive and inductive approaches to research (adapted and modified from Saunders et al., 2007):

| Deduction | Induction |
|---|---|
| Moving from theory to data | Moving from data to theory |
| Common with natural sciences | Common with social sciences |
| A highly structured approach | Flexible structure to permit changes |
| Explain causal relationships between variables | Understanding of meanings humans attach to events |
| Select samples of sufficient size to generalise conclusions | Less concern with the need to generalise |

Table 5.5: Major differences between the deductive and inductive approaches to research (adapted and modified from Saunders et al., 2007)

Figure 5.3 adapted from Perry (1998), shows, in graphical format, the difference between deductive and inductive approaches in case study research, the main research technique of this study:

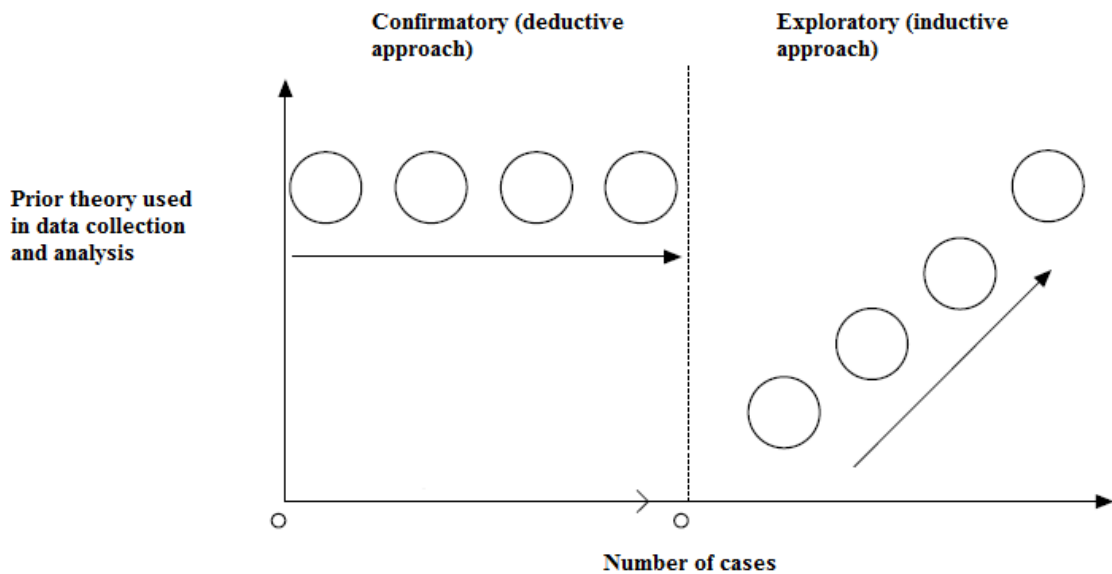


Figure 5.3: A comparison of two case study positions, deductive and inductive (adapted from Perry, 1998)

5.5. Case study

5.5.1. Introduction

In order to gain the depth of understanding necessary to develop a real world, pragmatic and practical tool, used to quantitatively measure the sustainable impact of a housing-led urban regeneration scheme, the case study approach is used in this study.

A case can be an individual, organisation, role, community or nation (Punch, 2005, cited in Gray, 2014) whilst case study research can be invaluable in adding to understanding, extending experience and increasing conviction in a subject area (Stake, 2000, cited in Gray, 2014). The case study is a research strategy which “focuses on understanding the dynamics present within single settings” (Amaratunga and Baldry, 2000) and can be classed as a “rigorous research strategy in its own right” (Hartley, 2004). Robson (2002) describes a case study as being “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence”.

Remenyi et al., (2002) cite that a case study typically incorporates the following characteristics:

- It is a story
- It draws on multiple sources of evidence
- Its evidence should be based on triangulation of this evidence

- It seeks to provide meaning in context
- It shows an in depth understanding of the central issue(s) being explored and a broad understanding of related issues and context
- It has a clear focus on an organisation, situation or context
- It must be reasonably bounded and must not stretch over too wide a canvas

Yin (2003) adds that a case study can be defined as an “empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”, whilst Meyer (2001) adds that case study research consists of a detailed investigation which attempts to provide an analysis of the context and processes in the phenomenon under study. Collis and Hussey (2009) define a case study as “a methodology that is used to explore a single phenomenon in a natural setting using a variety of methods to obtain in depth knowledge”.

Yin (2003) agrees with the usage of a variety of methods, in writing that case study research can utilise both qualitative and quantitative data, as is the case in this study. Dul and Hak (2008) focus on only qualitative data when stating that a case study is “a study in which (a) one case (single case study) or a small number of cases (comparative case study) in their real life context are selected and (b) scores obtained from these cases are analysed in a qualitative manner”. Easterby-Smith et al., (2008) agree on the number of cases, whilst stating that a case study looks “in depth at one, or a small number of, organisations, events, or individuals, generally over time”,

again, the time element lending itself perfectly to research in the built environment, where projects typically last and are evaluated over a period of time. Esteves et al., (2002) and Glaser and Strauss (1967) however clarify that the number of cases used in generating theory is not important because a range of two cases, all the way up to a greater number of cases can inform theory development.

Saunders et al., (2007) add that case studies have “considerable ability to generate answers to the question “why?” as well as the “what?” and “how?” questions”, whereas Yin (2003) states that only “how” and “why” questions favour the use of the case study strategy. Benbasat et al., (1987, cited in Woodside, 2010) also add that the case study method allows the researcher to answer “how” and “why” questions whilst similarly stating that case study research provides an opportunity to study within natural settings, to generate theory from practice, to understand the nature and complexities of the processes which may be taking place and that the method is particularly useful when researching an area where few previous studies have been carried out, as is the case with this PhD study.

According to Saunders et al., (2007), the “case study strategy is most often used in explanatory and exploratory research”. The author goes on to say that there are various potential data collection techniques that can be utilised for this method, including interviews, observation, documentary analysis and questionnaires. Amaratunga et al., (2002) add that the case study strategy can utilise “a range of research methods and techniques”, with these techniques subsequently enabling the researcher to examine contemporary events via such means as interview, observation or the studying of “life history documents”. Yet Bryman (2001) asserts that

“exponents of the case study design often favour qualitative methods, such as participant observation and unstructured interviewing” due to the methods above generating a detailed and intensive examination of the case in hand.

Baiden (2006) explains that the “main concern of a case study is the understanding of the context of the case itself”. Amaratunga et al., (2002) further this by stating that the main feature of the case study approach is the “emphasis on understanding processes as they occur in context”.

Yin (2003) and Stake (1995) suggest binding the case in question, to avoid a common pitfall of case study, the attempting to answer a question or questions which are too broad or alternatively one which seeks answers to too many objectives. Creswell (2003) suggests binding a case by time and place, Stake (1995) by time and activity and Miles and Huberman (1994) by definition and context.

Woodside (2010, cited in Onatu, 2013) touches on the ‘process’ involved when stating that case study research focuses on describing, understanding, predicting and/or controlling the individual (i.e. process, animal, person, household, organisation, group, industry, culture or nationality). Onatu (2013) goes on to say that a case study has a “better way of painting a picture than other research methods”.

Eisenhardt and Graebner (2007) point out that case studies can be historical in nature, with the need for case studies, according to Yin (2003) arising “out of the desire to understand complex social phenomena” because “case study method allows investigators to retain the holistic and meaningful characteristics of real life events”.

The use of the case study strategy is highly applicable for this thesis, due to the fact that data collection within the subject area of the built environment has to be carried out in 'real world' conditions, with the kind of control present in laboratories being both infeasible and not even ethically justifiable (Miles and Huberman, 1984; Yin, 2003; Remenyi et al., 1998). Johansson (2003) argues that in practice-oriented fields of research, of which the built environment is an example, the case study has a "special importance". The author goes on to add that "the ability to act within professional practice is based on knowledge of a repertoire of cases. These cases are based either on personal experience or model cases established within the profession. Case studies contribute to the building of a professional repertoire". Additionally, Leedy and Ormrod (2005, cited in Onatu, 2013) assert that case study as a research methodology can be useful for investigation into how an individual or programme changes over time. This as mentioned above, being a scenario that is commonly faced within the subject area of the built environment, where projects and programmes can outlast their evaluation and be driven in different ways through such mediums as changes of governments or their policies. Yin (2003) also asserts that a case study research strategy can be used when there is a technically distinctive situation at hand, when multiple sources of evidence are relied upon and where there is a benefit of a prior development of theoretical propositions to guide data collection and its subsequent analysis.

There are many advantages to the case study approach (Miles and Huberman, 1984). Yin (2003) explains how a case study provides a researcher with "an opportunity to observe and analyse a phenomenon previously inaccessible to scientific

investigation”. Simister (1995) refers to the flexibility of case studies; this flexibility allowing issues to be explored as they develop, whilst Yin (2003) states that another advantage of the case study method is that the examination of the data is carried out in the context of its use.

Hartley (1994) adds that the case study method is highly useful for exploring new or indeed little understood processes or behaviours, whilst Flyvbjerg (2006) provides a different slant on common misunderstandings of case studies. The author states that when invited to Harvard University to learn about case study methodology in action, he was told to forget any conventional negativity about the case study methodology and to “go ahead and do” one. Flyvbjerg states that “if it is good enough for Harvard, then it is good enough for [him]”. The five misunderstandings, together with their corrections are as follows:

| Misunderstanding | Correction |
|--|---|
| 1) General, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge | Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is, therefore, more valuable than the vain search for predictive theories and universals |
| 2) One cannot generalise on the basis of an individual case; therefore, the case study cannot contribute to scientific development | One can often generalise on the basis of a single case, and the case study may be central to scientific development via generalisation as supplement or alternative to other methods. But formal generalisation is overvalued as a source of scientific development, whereas “the force of example” is underestimated |
| 3) The case study is most useful for generating hypotheses; that is, in the first | The case study is useful for both generating and testing of hypotheses but |

| | |
|---|--|
| stage of a total research process, whereas other methods are more suitable for hypotheses testing and theory building | is not limited to these research activities alone |
| 4) The case study contains a bias toward verification, that is, a tendency to confirm the researcher's preconceived notions | The case study contains no greater bias toward verification of the researcher's preconceived notions than other methods of inquiry. On the contrary, experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification |
| 5) It is often difficult to summarise and develop general propositions and theories on the basis of specific case studies | It is correct that summarising case studies is often difficult, especially as concerns case process. It is less correct as regards case outcomes. The problems in summarising case studies, however, are due more often to the properties of the reality studied than to the case study as a research method. Often it is not desirable to summarise and generalise case studies. Good studies should be read as narratives in their entirety. |

Table 5.6: Five common misunderstandings of case studies (Flyvbjerg, 2006)

However, Yin (2003) does assert that case studies can suffer from a lack of rigour and that they are subject to bias, stating that “the case study has long been stereotyped as a weak sibling ...investigators who do case studies are regarded as having deviated from their academic disciplines; their investigations as having insufficient precision (quantification), objectivity and rigour”. Simister (1995) adds that this perception could be because of the flexible nature of case study design, however, Eisenhardt and Graebner (2007) state that “well done theory building from cases [case studies] is surprisingly ‘objective’, because its close adherence to the data keeps researchers

'honest'. The data provides the discipline that mathematics does in formal analytic modelling".

Yin (2009) adds that there are typically three prejudices against the case study method. These, as above, include a lack of rigour, the lack of a basis for scientific generalisation and that case studies take too long and frequently result in "massive, unreadable documents". However, Yin (2009) describes how most scientific enquiries are replicated through multiple experiments, which is exactly the same approach used in multiple case studies; Lincoln and Guba (1985) assert that "the trouble with generalisations is that they don't apply to particulars" and Yin (2009) clarifies the issue regarding the length of time taken on a case study as confusing the entire notion of the case study with one particular type of case study – that is to say the use of ethnographic or participant observation study.

Simister (1995) suggests that a case study is only as robust as its research design, which should be explicit, and that there should be several methods of data collection used whilst Yin (2003) states that any research approach adopted should reflect and be appropriate to the type of research question being addressed.

Yin (2009) takes things further when stating that "criticisms about single-case studies usually reflect fears about the uniqueness or artifactual conditions surrounding the case... having two cases can begin to blunt such criticism and scepticism". This advice has been taken on board within this thesis by the utilisation of two sub case study examples.

5.5.2. Rationale for selecting case study research

Yin (2003) asserts that three conditions need to be satisfied in order to undertake a research strategy:

- 1) The type of research question posed
- 2) The extent of control the researcher has over actual behavioural events
- 3) The degree of focus on contemporary issues

In answer to the criteria listed above, the case study strategy was preferred due to the how and why questions invoked in this thesis; additionally, the researcher did not have control over how urban regeneration impacts were being monitored and was 'outside' of the case and an observer. Lastly, the issue under investigation, was contemporary in nature.

With regard to other potential strategies that could have been used to carry out the research, surveys would not have provided the depth or rich, inductive data that a case study does, experiments involve the manipulation of independent variables to observe the behaviour of the dependent variable(s) (Collis and Hussey, 2009) and Grounded Theory would not be appropriate due to the fact that in this study, existing theory has also been applied as well as the search for inductive, grounded data.

Proverbs and Gameson (2008) add that case study research "appears to be highly relevant to an industry that is project driven and made up of many different organisations and businesses" for example, such as those in the built environment,

whilst Amaratunga et al., (2002) state that case studies are “tailor made for exploring new processes or behaviours or those which are little understood. In this sense, case studies have an important function in generating hypotheses and building theory in built environment research”. In addition, the case study approach has been cited by Costa et al., (2016) as being useful with Design Science Research, stating that the knowledge within Design Science Research is created by interaction between professions in the practical field and scientists. Such interaction can be found within qualitative approaches such as the case study.

5.5.3. Single case versus multiple case

According to Herriot and Firestone (1983), case studies can be either single or multiple in nature. A single case study is “often used where it represents a critical case or, alternatively, an extreme or unique case” whereas multiple cases can be used where there is a need to “establish whether the findings of the first case occur in other cases and, as a consequence, the need to generalise from these findings” (Saunders et al., 2007).

Yin (2003) argues for the use of multiple case studies being utilised as a research strategy but also states that the number of case studies for a multiple case study approach is not pre-defined in the literature and additionally asserts that the decision on the appropriate number of case studies is intuitive and depends on what new information can result from studying further cases. The author goes on to say that

multiple case studies can be used to either predict similar results (literal replication) or to predict contrasting results but for predictable reasons (theoretical replication).

Saunders et al., (2007) emphasise that the rationale for using multiple cases focuses upon the need to establish whether the “findings of the first case occur in other cases and, as a consequence, the need to generalise from these findings”, with Yin (2009) furthering this by stating that by using two cases, there is the possibility of “direct replication”. Leonard-Barton (1990) echoes the generalisation point made above, in stating that multiple case studies have more external validity i.e. generalisability, than a single case does.

Yin (2009) adds that analytic conclusions arising independently from two cases, as would be the case with two experiments, are more powerful than those coming from a single case. In the case of this thesis, the two sub case study examples to be utilised will be those of both an environmental and high rise housing-led urban regeneration scheme. This contrasting situation, referred to by Yin (2009), even though not classed as being of “direct replication”, would still vastly strengthen findings, compared to those from a single case and, as Stake (1995) adds, would “lead to better understanding, perhaps better theorising, about a still larger collection of cases”. Miles and Huberman (1994) add that if replication logic is followed, more confidence can be had in terms of research findings. Yin (2003) echoes this in stating that multiple case studies typically provide a stronger base for theory building. Indeed Eisenhardt and Graebner (2007) maintain that multiple cases “create more robust theory because the propositions are more deeply grounded in varied empirical

evidence”. Baxter and Jack (2008) additionally refer to the robustness and reliability of the multiple case study technique.

To accomplish the aim and objectives of this study, and bearing in mind the researcher’s background, which includes access to a large scope of good quality empirical information from within City West Housing Trust and taking into account the research time constraints, one case study of City West Housing Trust and two sub case studies of the environmental and high rise housing-led urban regeneration schemes were considered as sufficient to obtain the desired information for the purposes of this thesis, for the following reasons:

- 1) Because of the range of housing types on offer
- 2) Because of the amount of community engagement carried out with stakeholders by City West Housing Trust
- 3) Because of the potential for future research
- 4) Because the two schemes used as the sub case studies were the only two schemes that had reliable recorded stakeholder feedback on them within City West Housing Trust
- 5) The time constraints of the PhD timeframe.

Case study is an in depth subject area. Yin (2003) distinguishes not only between single and multiple case studies but holistic and embedded ones. If the research is concerned only with the organisation as a whole, then the case study is holistic (Saunders et al., 2007). However, if “a number of logical sub-units within the

organisation, perhaps departments or work groups”, are covered within the study, then this would be an embedded case study. As Saunders et al., (2007) state, the differentiation revolves around the “unit of analysis”. Taking into account the above definitions, the embedded case study approach is to be taken in this thesis with the context being the two housing-led regeneration schemes within the organisation of City West Housing Trust.

The negotiation of access, a sometimes difficult task within case study research, as Saunders et al., (2007) cover, is not an issue with regard to the case study choice used. With the researcher being employed in a full time capacity at City West Housing Trust, based in West Salford, the contacts, knowledge, context of the organisation and trust that the researcher has are invaluable assets to have. However, it is important that the researcher does not have any preconceptions which could bias the analysis and it is important that the familiarity the researcher has with personnel within the organisation does not stifle answers to basic questions that may be posed within an interview, for example, simply because the interviewees assume that the answers to those questions are already known by the researcher.

5.5.4. Ensuring rigour: validity and reliability

Then (1996) writes that validity means “that a theory, model, concept or category describes reality with a good fit” whilst Saunders et al., (2007) echo this in asserting that validity is “concerned with whether the [research] findings are really about what they appear to be about”.

According to Gibbert and Ruigrok (2010), the “most influential model used to ensure the rigour of case study research adheres to what is commonly called the ‘natural science model’”. This model groups together four separate criteria; those of construct validity, internal validity, external validity and reliability. The authors add that these four criteria have been adapted for usage in the case study environment to improve its quality, chiefly by Yin (2003), but also by Fellows and Liu (2008), Campbell (1975), Denzin and Lincoln (1994), Eisenhardt (1989), Kidder and Judd (1986), Kirk and Miller (1986), Silvermann (2005; 2006), Stake (1995) and Riege (2003).

5.5.5. Construct validity

Denzin and Lincoln (1994) describe the notion of construct validity as the extent to which a study investigates what it claims to investigate. Saunders et al., (2007) write that construct validity refers to the extent to which measurement questions actually measure the presence of those constructs which were intended to be measured. Two measures have been developed to ensure construct validity (Gibbert et al., 2008):

- 1) “The establishing of a clear chain of evidence to allow readers to reconstruct how the researcher went from the initial research questions to the final conclusions” (Yin, 2003)
- 2) Through triangulation (Denzin and Lincoln, 1994; Yin, 2003).

Within the study, the establishing of a clear chain of evidence to be used for reconstruction can be seen clearly from the guiding Design Science Methodology framework. In addition, triangulation of data was used in the study (i.e. literature review, semi structured interviews, open ended interviews and focus group/workshop), whilst interviewees of different functions and job roles within CWHT's asset management department were interviewed, the semi structured interview questions involved both structured and open ended questions, the structure of the questions was based on the SuROI framework, and this same structure was repeated by virtue of the repetition of the interview script to each interviewee. All the interviewees were asked if what they had uttered was correct, which was then subsequently validated by said interviewees by a cross checking of notes taken by the researcher and a focus group/ workshop, utilising open ended questions, together with further open ended interviews being carried out with key employees of other organisations. All these techniques were used as a process to validate the artefact.

5.5.6. Internal validity

Gibbert et al., (2008) cite that internal validity is all about whether the researcher provides a plausible causal argument, logical reasoning that is powerful and compelling enough to defend the research conclusions and go on to say that there are three measures which have been proposed to enhance internal validity as follows:

- 1) Researchers should formulate a clear research framework which shows that variable x led to the outcome y and was not affected by z

- 2) Through pattern matching, empirically observed patterns should be compared with either predicted ones or patterns observed in previous studies or contexts
- 3) Triangulation enables findings to be verified

Additionally, as Hartley (2004) describes, checking the case study findings with case study participants can enhance internal validity.

Again, as with the concept of construct validity, the Design Science Methodology framework not only guides the process, but provides a clear research framework to satisfy a criteria of internal validity, plus again, triangulation of data and the checking of case study findings as part of the focus group and open ended interviews was carried out.

5.5.7. External validity

External validity is also referred to as “generalisability” (Saunders et al., 2007; Gibbert et al., 2008) and is concerned with whether research findings are “equally applicable to other research settings, such as other organisations” (Saunders et al., 2007).

External validity is difficult to measure in the case study setting (Berger, 1983) however Eisenhardt (1989) states that a cross case analysis of 4 to 10 case studies may provide a good basis for analytical generalisation. Additionally, Yin (2003) adds that multiple case studies from within one organisation can be carried out, referred to

as the ‘nested approach’, whilst a clear rationale for the case study selection and many details on the case study context should be provided (Cook and Campbell, 1979).

Two sub case studies from one organisation were carried out within this research study, so Yin (2003)’s criteria is fulfilled. In addition, the clear rationale for the selection of the case study includes that City West Housing Trust is a housing association that runs housing-led urban regeneration schemes, the researcher has access to data within the organisation to a much further extent than if employment within the organisation was not the case, City West Housing Trust has a range of housing types on offer, a large amount of community engagement is carried out by the company, the two sub case studies used were the only two schemes that had reliable recorded stakeholder feedback on them within City West Housing Trust and the case study provides a strong potential for future research. In addition, further open ended interviews were carried out with employees of other, different housing-led regeneration facilitators, this adding to the external validity of the research.

5.5.8. Reliability

Reliability within research can be defined as the extent within which similar results are produced under constant conditions on all occasions (Yin, 2003). Simon and Burstein (1985) add that reliability is in effect “repeatability”. Gray (2014) refers to the “stability of findings”. Gibbert et al., (2008) add that reliability refers to the “absence of random error” whilst stating that the key words in terms of reliability are ‘transparency’ and ‘replication’ and go on to say that transparency can be enhanced through the usage of a case study protocol, whereby a report is written detailing how

the entire case study has been conducted, whilst replication can be achieved through such mediums as a case study database, which includes such items as case study notes, documents or narratives from the study. Silverman (2005) adds that in terms of the usage of interviewing as a research technique, reliability is enhanced by the tape recording of all face to face interviews, transcription, using fixed choice answers as far as is possible, also by using inter-rater reliability checks on the coding of answers and lastly the presentation of long extracts of data in the research report.

According to Easterby-Smith et al., (2002), reliability can be assessed via the following three questions:

- 1) Will the measures yield the same results on other occasions?
- 2) Will similar observations be reached by other observers?
- 3) Is there transparency in how sense was made from the raw data?

Yin (2003) states that validity and reliability can be established within qualitative research through the following means:

- 1) Establish a chain of evidence
- 2) Have the draft study report reviewed by the key informants
- 3) Use of single research exploratory design by: establishing a causal relationship; use of a single case explanatory design; and specification of the unit of analysis
- 4) Develop formal research study framework, which typically contains the following:

- An overview of the study project
- Field procedures
- Research study questions
- A guide for the research report

Buckley et al., (1975, cited in Then, 1996) add the following guidelines to achieve reliability and validity in research:

- 1) Knowledge stems from observations which take place through a definable searching process
- 2) The research problem is defined, which means answering the questions why the research is being done and what it is supposed to achieve
- 3) A research plan or modus operandi must be formulated. The purpose of the plan should be directed towards the testing of a hypothesis (deduction) or evaluation of evidence in terms of constructing a hypothesis (induction)
- 4) The outcome of the enquiry is stated in explicit terms, which may result in the support or refutation of an existing hypothesis (deduction) or a proposed one (induction)
- 5) The conclusions are documented with sufficient support and clarity to establish what was done, what was found and what significance the findings may have. The researcher is also careful to separate their work from that of others, and to show how their methodology or findings mesh with other efforts within the same field of enquiry.

Figure 5.4 below shows a framework for an investigation of the methodological rigour of case studies, found in Gibbert et al., (2008) which summarises and gives examples of how rigour can be achieved:

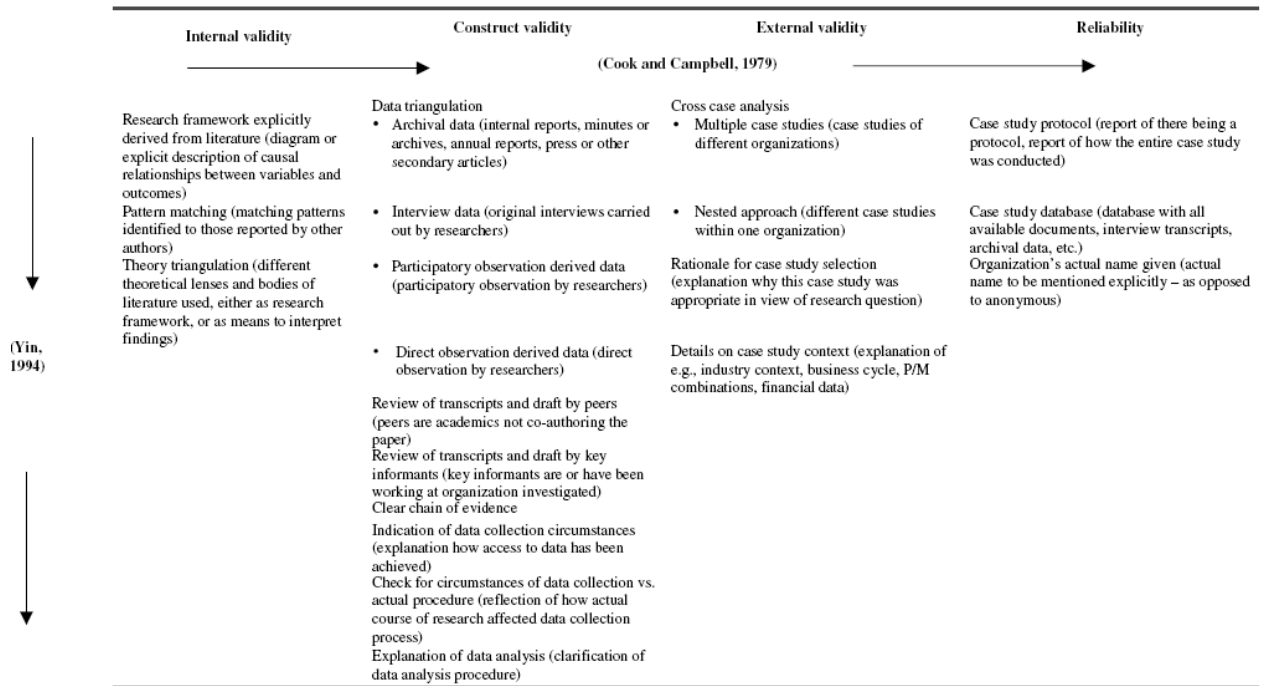


Figure 5.4: Framework for an investigation of the methodological rigour of case studies (Gibbert et al., 2008)

Additionally, in terms of reliability by way of interviews, the like of which has been carried out in this study, Saunders et al., (2007) write that a lack of standardisation in interviews may lead to a lack of reliability, together with interviewer bias or interviewee bias.

Interviewer bias is where “comments, tone or non-verbal behaviour of the interviewer creates bias in the way that interviewees respond to the questions being asked” and

can also be caused if there is a lack of trust being built between interviewer and interviewee, the interviewee then potentially stifling or reducing the value of the reply or information given (Saunders et al., 2007). The authors also cite the lack of structure to the exploration of certain themes as a potential issue, together with the time consuming nature of interviews.

In this study, transparency has been enhanced through the reports within this thesis of all details of the case study and two sub case studies; in addition, the Design Science Research framework again provides direction for explanation and replication and provides a chain of evidence and research plan. In addition, case study transcripts from the semi structured, open ended interviews and focus group can be found within the appendices of this thesis. The interviews and focus group were carried out with tape recording, together with ad verbatim transcriptions, and notes were reviewed by participants. Reliability within the interviews was achieved through the semi structured interview transcript, found within the appendices of this thesis. It was very easy to have no interview bias within the interviews because the interviewees were keen to get as valid an answer to the real world problems they are experiencing as the researcher is. There was implicit trust between interviewer and interviewees, due to the fact that the researcher was well known prior to engagement. In addition, there are a multitude of long extracts of data in the research report, by way of the nature of the 'SuHousingImpact' tool. The overview of the study, field procedures and research study questions are all included in this thesis and the research problem was clearly defined, together with the significance of the findings. The researcher has also taken care to separate this work from the related work of other academics.

5.5.9. Triangulation

Triangulation has been referred to as a “combination of methodologies in the study of the same phenomenon” (Amaratunga et al., 2002).

Due to case study approaches often being criticised for their lack of measurability, which often subsequently makes the quantification and summary of findings very difficult (Glaser and Backer, 1972), the researcher triangulated the data collection processes as much as possible, by carrying out literature reviews, interviews and a focus group. This subsequently reduces the bias inherent in data sources (Creswell, 1994; Simon et al., 1996).

Triangulation is defined by Denzin (1978) as “the combination of methodologies in the study of the same phenomenon” and according to Smith (1975), the term originates from a navigation and military strategy which uses many reference points to pinpoint an object’s position.

The concept was introduced by Campbell and Fiske (1959) who argued that more than one method should be used in the validation process to ensure that the variance reflected is that of the trait and not of the methods (Lee, 2002).

Amaratunga et al., (2002) add that the assumption of triangulation is that the “weaknesses in each single method will be compensated by the counter-balancing strengths of another”.

Johansson (2003) states that one major feature of case study methodology is the combining of different methods with the purpose of “illuminating a case from different angles”, through combining methodologies and triangulating data, so the

technique of triangulation within a case study research setting, such as in this thesis, is appropriate.

Yin (2003) echoes that case study research frequently uses triangulation, which the author refers to as using three sources of evidence methods, whilst Saunders et al., (2007) state that “since all different techniques and procedures will have different effects, it makes sense to use different methods to cancel out the ‘method effect’. That will lead to greater confidence being placed in your conclusions”. Due to the perceived lack of objectivity of qualitative methods, usually associated with the case study method, the confidence created by triangulation is an important factor in terms of validity.

Indeed, according to McCutcheon (1993, cited in Lee, 2002), triangulation tests the degree of external validity. This is of particular relevance in this thesis as much is unknown. As stated previously, triangulation has been carried out within this study with data sources such as a literature review, semi structured and open ended interviews and a focus group being utilised.

5.5.10. Case study generalisation

The generalisability of research findings can be defined as the extent to which it is possible for conclusions drawn from the selected sample to be applied to the wider population (Easterby-Smith et al., 2002). It has been held that the development of a “rich theoretical framework” is essential in replication procedures which can then be used for generalisation purposes in the context of the built environment (Yin, 2003). Eisenhardt (1989) adds that research which promotes theory building typically

combines multiple data collection methods. This study does this and additionally uses triangulation. However, as Yin (2003) states, “case studies [...] are generalisable to theoretical propositions and not to populations or universes. In this sense, the case study [...] does not represent a ‘sample’, and in doing a case study, your goal will be to generalise theories (analytical generalisation) and not to enumerate frequencies (statistical generalisation)”.

Yin (2012) defines analytical generalisation as an ability to compare and contrast results with a set of principles or theory. The author adds that if two (or more) cases support the theory, then analytical generalisation has been achieved. Statistical generalisation would not be able to be achieved as data would not be able to be generalised to a larger population. As Gomm et al., (2000) state, “there will never be enough cases for statistical generalisation” to take place.

However, in terms of theory building from single case studies, this is possible according to the academic literature. This has been cited when a single case is unusually revelatory, or when it is extremely exemplar, or when offering opportunities for unusual research access (Yin, 2009; Eisenhardt and Graebner, 2007). In addition, Eisenhardt and Graebner (2007) also cite that single cases can allow for the creation of more complicated theories than multiple cases, because single case researchers can fit their theory exactly to the many different details of a particular case.

Contrary to this, the authors cite that multiple case research retains only relationships that are being replicated across all or most of the cases chosen (Eisenhardt and

Graebner, 2007:30). Eisenhardt and Graebner (2007) and Siggelkow (2007) also cite that if theoretical insights are wished for as part of a case study, cases should be selected due to their applicability for the analysis of a specific theme, not because they are representative of a population. This way connections can emerge between constructs which can lead to theoretical insights.

5.6. Research techniques/ strategy

Research strategies in topic areas of the built environment have been “criticised for their anecdotal approach when interpreting real world phenomena” (Amaratunga et al., 2002). The same authors go on to assert that a “clear definition of a research strategy is a fundamental and necessary requirement for a sound empirical study in such a field”, whilst Remenyi et al., (2003) add that the research strategy provides overall direction of the research including the process by which the research is conducted. The research strategy will be outlined below.

5.6.1. Research strategy

Saunders et al., (2009) define research strategy as “the general plan of how the researcher will go about answering the research questions” and add that the most appropriate strategy is based on the research questions at hand, the time and resources available and the philosophical stance of the researcher.

Bryman (2008) adds that the research strategy is “a general orientation to the conduct of research” whilst McGrath (1982) adds that there are no ideal solutions regarding

research strategy, only a series of compromises, whilst Patton (1990) echoes this in stating that “research, like diplomacy, is the art of the possible”.

The research strategy for this thesis involves the use of the literature review, semi structured interviews, a focus group and open ended interviews. These will be discussed below:

5.6.1.1. Literature Review

According to Sharp et al., (2002), there are two major reasons for reviewing the literature. The first reason is to carry out the preliminary search that helps to generate and refine research ideas whilst the second reason is to carry out a critical literature review. A review of the literature makes clear the research gap and also enables the gathering of secondary data. The literature review explored the subject areas of urban regeneration, sustainable development, evaluation and SuROI and included published information which included information from sources such as books, journals, conference proceedings, newspaper articles, PhD theses and reports.

A literature review additionally prevents the researcher from duplicating the efforts of previous researchers and provides the stimulus to focus on more specialised information sources (Bryman, 2001) and the review acts to help further refine research question(s) and objectives and to highlight research possibilities that have been overlooked implicitly in research to date (Gall et al., 2006, cited in Saunders et al., 2009). There can also be an issue of secondary research going out of date or of the

research failing to meet the needs of the research problem in hand (Bell, 1999). This makes primary data all the more important.

5.6.1.2. Semi-structured interviews

In order to gauge the personal opinions and accounts of staff of City West Housing Trust, as a pre-cursor to the artefact being created in this study, semi-structured interviews were carried out. This enabled both researcher and participants to reflect on questions posed and to express opinion and provide answers immediately.

Interviews are guided conversation (Yin, 2009) and can be used to derive different interpretations rather than facts or laws (Gubrium and Holstein, 2002) and can expose intimate matters (Atkinson and Silvermann, 1997).

Semi structured interviews are open ended and assume a conversational manner but follow a set of pre scripted questions as guidance (Kvale, 1996) and provide a platform for an unrestricted expression of personal perspectives (Awuzie and McDermott, 2015). They come as highly recommended by several researchers (Denscombe, 2007; Hartley, 1994; Kvale, 2006; Miles and Huberman, 1994).

This type of interview/ question allows for balance between consistency and flexibility (Smith et al., 2009). Consistency was important regarding the questions and topics talked about, whilst flexibility was important regarding the variety of opinion on offer and ideographic nature of the experience (Edwards and Holland, 2013).

Due to the nature of semi-structured interviews, the order and content of the interview would, to an extent, be determined by the trend of conversation (Bryman, 2008).

Semi structured interviews allow for a number of planned questions that must be asked, however there is additional flexibility to allow for further exploration of interesting responses as well as additional scope to explore participant led tangents being followed (Arthur and Nazroo, 2003). It is this concept that led to the generation of ideas which lead to a fundamental component of the novel artefact (the potential financial sustainability created by the off-loading of costs to involved stakeholders).

One week before the interview commenced, the questions were sent to each participant by email so that a familiarisation of the questions could be had. This would enable a fuller and more comprehensive and knowledgeable response on the day of the interview. There was also an avoidance of leading questions either by words, body language or tone so no influence was exerted on the participant in question.

The process followed for the interviews was as follows:

- 1) Interview scheduled with participant
- 2) Interview questions provided one week before
- 3) Participant information sheet read by participant
- 4) Participant consent sheet signed by participant
- 5) Semi structured interview held

The interviews were all recorded on a dictophone and were subsequently transcribed ad verbatim. These transcripts can be found in the appendices to the thesis. This takes away the possibility of memory limitations on the part of the interviewer, but just as importantly allows for a more thorough examination of what was said than can be afforded in the interview itself (Bryman, 2001).

There can be problems encountered during the transcription process, including misunderstanding sentence structure and mistaking words or phrases (Gubrium and Holstein, 2002). In order to overcome these potential issues, transcriptions were made straight after the interview, recording quality was maximised and the transcriptions were verified by each participant once written up.

Planning for the interview was important to ensure a successful outcome.

When constructing the questions it was important to consult the research aim and objectives (Daymon and Holloway, 2002) and by the same process, consulting the SuROI framework which the questions attempted to bring about enlightenment on.

5.6.1.3. Workshop/ focus group

It is an important part of the research process to gather primary data in addition to secondary data. Through this, it is ensured that the data stands the best possible chance of being up to date, whilst also being comprehensive and appropriate for the

study in question. In this study, a workshop/focus group was carried out in order to gather primary data for the validation of the ‘SuHousingImpact’ artefact.

Workshops can also be referred to as *focus group interviewing* (Ho, 2006; Berg, 1995) or *group discussion* (Krueger, 1988; 1998) or simply as *focus groups*. In this thesis, the focus group term has been used.

Kitzinger (1994) writes that focus groups were first used in the 1920s for market research purposes (Bogardus, 1926) whilst Gray (2014) adds that focus groups were “first developed in the 1940s by Robert Merton at the Bureau of Applied Social Research in the USA” and after having initially lost the interest of the academic community, made a return in the 1980s, becoming very popular.

Carson et al., (2001) define a focus group as “a research technique that collects data through group interaction on a topic or topics” whilst Gray (2014) defines a focus group as an “organised discussion among a selected group of individuals with the aim of eliciting information about their views”.

According to Bryman (2001), a focus group is a “form of group interview in which there are several participants (in addition to the moderator/ facilitator); there is an emphasis in the questioning on a particular fairly defined topic; and the accent is upon interaction within the group and the joint construction of meaning”. Easterby-Smith et al., (2002) refer to them as loosely structured “steer conversations”.

This can be compared to a ‘group interview’, which involves ensuring that all participants have an opportunity to state their different points of view and answer questions with this data then being subsequently captured. As Morgan (1997) and Sarantakos (2013) allude, it is the emphasis on group discussion where the group interview technique is lacking.

Kitzinger and Barbour (1999) state that “any group discussion may be called a focus group as long as the researcher is actively encouraging of, and attentive to, the group interaction”.

Focus groups can be used as effective interactive and experiential methods of data collection, with subsequent validation carried out (Kaglioglou et al., 1998), which is ideal for this PhD study.

Finch and Lewis (2003) assert that a focus group can be described as a qualitative research technique involving a number of participants where experiences, perceptions, opinions, beliefs and attitudes are shared, based on topics determined by the researcher whilst Sarantakos (2013) states that this method involves “first, the selection of people with a particular interest, expertise or position in the community; second, the formation of the group by bringing these people together in the same venue; third, the introduction of the discussion topic by the researcher, who acts as a facilitator and arbitrator; fourth, guiding the discussion so as to address the research topic; fifth, encouraging discussion among the members of the group rather than between them and the researcher; and sixth, observing and recording the discussion” and that this method “offers information about group processes, spontaneous feelings, reasons and explanations for attitudes and behaviour as adequately as any other method”.

Focus groups are said to be a “highly efficient technique for qualitative data collection since the amount and range of data is increased by collecting it from several people at the same time” (Robson, 2002). Other important advantages of focus groups are that

they can offer an understanding of a wide range of views about a particular topic area (Conradson, 2005). Indeed Gray (2014) states that focus groups “allow researchers to explore feelings, attitudes, beliefs, prejudices, reactions and experiences of a subject, in a way that would not be so accessible through other approaches such as observation, interview or survey”.

Morgan and Krueger (1993) assert that the exploration of the degree of consensus on a particular subject area is an area where a focus group is particularly effective, whilst Stewart et al., (2007) add that focus groups can be described as being a flexible tool which can elicit information on any topic, from diverse groups and in diverse settings. They also enlighten in discovering how far the gap is between what people say they do and what they actually do (Conradson, 2005), as well as offering multiple lines of communication where there can be a safe environment to express ideas (Madriz, 2003) including non verbal responses (Stewart et al., 2007).

Lindlof and Taylor (2002) also mention the fact that there can be a triggering of ideas in people’s minds through listening to other persons’ comments and experiences.

Additionally Borkan, Morad and Shvarts (2000) state that there can be quite a good standard of in built data control within focus groups by virtue of the fact that any extreme views expressed within the group are often muted or marginalised as part of the greater whole. Also, as Hughes and Lang (2004) and Liamputtong (2009) state, modern technology can give rise to virtual focus groups which can facilitate research in a modern manner, increasing their flexibility as a consequence.

According to Morgan (1997), focus groups “are useful for orienting oneself to a new field, generating hypotheses based on informants’ insights, evaluating different

research sites or study population, developing interview schedules and questionnaires or getting participants' interpretations of results from earlier studies", thus focus groups lend themselves well to the research in this thesis.

This, coupled with Morgan (1997) and Sarantakos (2013)'s earlier assumptions on the nature of focus groups lead to the researcher deciding that the validation of the PhD artefact is better achieved through feedback received through group discussion, instead of simply through structured or semi structured interviews. Kitzinger (2005) states that it is the focus group technique which can capture different points of view, needs, beliefs and concerns. It is felt that interviews do not offer this depth and therefore cannot provide as much depth of feedback as the focus group technique.

In terms of focus groups, as Sarantakos (2013) states, it is important that the choosing of groups, the introducing of a goal directed discussion, the guiding of the discussion and the group leader are all aspects that are carried out wisely, with particular attention needed regarding this.

Group participants are typically chosen due to their "expertise and social attributes", whilst the group discussion beginning with "a few general points to familiarise the participants with the group, moving on to a discussion generating question related to the research topic" (Ibid, 2013) is another recommendation. Gibbs (1997) adds to this sentiment in adding that one way a group leader can convey respect and encourage participation is through the use of an effective introductory statement.

The group leader will guide and facilitate the group discussion, whilst also providing "motivation, encouragement, stimulation and control" (Ibid, 1997), conducive to group discussion.

Another important aspect is lack of bias. Too much approval should not be shown (Krueger 1988; 1998), which then prevents the favouring of particular participants and group participants must be only that, participants. The discussion must not be lead by them.

On occasions where answers or points are not forthcoming, a favourable technique which can be used is one known as the *probe technique* (Gibbs, 1997).

A focus group was used to validate the 'SuHousingImpact' artefact. Within it, discussions related to each sub case study example. The first being the 'environmental-led' scheme within City West Housing Trust's stock and the second being the 'high rise' scheme within City West Housing Trust's stock. These were carried out following one another on the same day and in the same location because of the difficulty in getting as many people together as possible in the same place at the same time in a pressured business environment. Questions were asked to attempt to gauge any common views or to explain differences in opinion in relation to the artefact created.

It was felt appropriate to choose practitioners from different hierarchical levels (Flynn et al., 1994) but from the same, relevant and appropriate field. Aspects borne in mind during the carrying out of the focus group were such as potential power issues within the hierarchy, which can be addressed by being attentive to group dynamics and to re-interview a smaller group from within the larger group to revalidate findings. Additionally the advantage of the researcher knowing the persons involved in the focus group on a professional level, meant that the researcher was more attuned to the power dynamics of the group in question. It was also communicated to participants that even though they might wish to be nice in their feedback and discussions, the

researcher was not personally offended by any responses and wished for honest assessment and feedback. The focus group took place at City West Housing Trust's headquarters in Eccles, Salford. The location was known by the researcher and staff. Consequently, staff were more at ease with their surroundings and it was felt that this would lead to more open expression. Additionally, this choice of location helped greatly due to the availability of staff members and their busy schedules, and for ease of access and location.

The researcher outlined the purpose of the study and outlined the artefact. Participants were asked to comment and provide feedback, commenting particularly on what they felt needed reworking and commenting on why they felt that this was the case. As a consequence of this level of interaction, participants' ideas and perceptions broaden and the level of engagement with other participants increases. Tape recording of all focus group conversations was carried out with the consent of the participants. This lead to a more efficient analysis and also lead to a more attentive and relaxed approach by the researcher in the context of the focus group setting. This yielded better interaction, trust, communication and attention and also enabled the researcher to look for cues, clues and changes in body language during the focus group, rather than busily scribbling notes and missing the cues in question.

5.6.2. Open ended interviews

In addition to a focus group being carried out as part of the verification/ validation of the artefact, open ended (sometimes referred to as 'unstructured interviews') were

additionally carried out with key employees of City West Housing Trust and, additionally, with those of other housing-led urban regeneration facilitators.

Unstructured interviews tend to be able to encourage participants to reveal their own experiences in a more personal detail than when structured (Corbin and Morse, 2003).

In an unstructured interview, the aim is one of freedom of expression, typically based on a general question (Hopf, 2004) where the researcher does not have a sequence of questions to pose to interviewees. Main objectives include the discussion of some main issues or variables which then lead to, and indeed call on, a more in depth level of subsequent discussion.

Skills required to conduct open ended interviews include sensitively interacting with participants thus eliciting stories whilst allowing the interview to progress naturally, though at the same time, maintaining focus (King and Horrocks, 2010). Patience and good interpersonal skills were additionally needed during the open ended interviews, which all started with a question asking what the key employee's thoughts were on the artefact, including its strengths and weaknesses. The conversation flowed from there, with all transcripts being available within the appendices of the thesis. It should be noted that the researcher's individual perspectives also need to be taken into account, making reflexivity an important factor to be considered (Cousin, 2009). Because an open ended interview is conversational by nature, there is often a co-construction of meaning formed between interviewer and participant (Horsdal, 2012).

Advantages of the unstructured interview is in its detail, variety and richness of data collected (Chase, 2013) whilst the unstructured nature also provides flexibility enabling unexpected or unforeseen experiences or phenomena to be explored (Mischler, 1986).

Disadvantages include the time involved, cost, difficulty in transcribing the data, subjects' bias or the omission of information which could potentially lead to distorted data (Neuman, 1997).

5.6.3. Ethical Issues

Ethical issues are defined as the “moral principles, norms or standards of behaviour that guide moral choices about our behaviour and our relationships with others” (Blumberg et al., 2005). Saunders et al., (2007) details that the topic of ethics refers to the “appropriateness of your behaviour in relation to the rights of those who become the subject of your work, or are affected by it”. It was important that no one's personal or professional futures were affected in any way by the carrying out of the semi structured or open ended interviews or focus group. Ethical issues were taken into account as part of the study and considered as an important part of the credibility of research findings. In addition, all University of Salford Ethical Approval procedures were adhered to as part of the process.

5.7. Solving real world problems: Design Science Research

Because of the aspiration to create a new tool not yet existing, it was decided to frame traditional research strategies and tools within a more innovative approach, explicitly aimed at supporting the creation of a new artefact with rigour.

There has been a long standing neglect of addressing how things “ought to be” and a long standing neglect of the design sciences, which originated through Aristotle’s “science of production” (Koskela, 2008). Taking into consideration the earlier mentioned notion that the traditional sciences are unable to address how things “ought to be” (Ibid, 2008; Simon, 1996), there is a need for a science which can carry out this function.

Because Design Science Research (DSR) is a systemic but flexible methodology aimed at improving practices through iterative analysis, design, development and implementation in real-world settings (Wang, Vogel and Ran, 2011) and because more traditional methods of research are not capable of determining the future shape of the intricate and socially constructed built environment (Ratcliff, 2008) it is an applicable methodology for this study.

It has been claimed that design science may be being carried out if a research question contains any of the following words: design, build, change, improve, develop, enhance, maintain, extend, correct, adjust or introduce (Järvinen, 2004). However Hevner et al., (2004) add that in the case of design science, to be different to ordinary designing, building or changing, the research task must address important and unique

problems, or solve problems in a more effective way whilst similarly providing contributions to knowledge.

Further to the above already outlined pragmatist philosophical stance in being central to the solving of real world, practical problems, with potentially multiple realities, it is necessary to utilise a methodological framework which guides the research to this end. Design science research methodology has been closely associated with the paradigm of pragmatism (Holmström et al., 2009; Kasanen et al., 1993; Van Aken, 2005). Design science is additionally viewed as both a paradigm in its own right and as a methodological research framework (Hevner et al., 2004; Vaishnavi and Kuechler, 2007; Van Aken, 2004).

Research carried out under the paradigm of the traditional sciences, such as the natural and social sciences, focus on explaining, describing, exploring or predicting phenomena and their relationships with each other (Van Aken, 2004; March and Smith, 1995). This translates into the assessment of things that exist. However the traditional sciences, as mentioned previously, have limitations when the goal of research is to study the design, construction or creation of a new *artefact* i.e. something that currently does not exist (Simon, 1996), or to conduct research based on problem solving. March and Smith (1995) emphasised the importance of a science that is able to support the construction and evaluation of new 'artefacts'. It is in these circumstances that the usage of DSR is recommended as a new epistemological paradigm for conducting research (Van Aken, 2004; March and Smith, 1995; Simon, 1996).

Whilst empirical research seeks to “describe, explain and predict the world” and sees the world “as it exists, regardless of human interests and biases”, DSR does not only describe, explain and predict, but wants to “change the world and create new worlds” (Johannesson and Perjons, 2012:1). Along the same lines, Iivari and Venable (2009) define DSR as “a research activity that invents or builds new, innovative artefacts for solving problems or achieving improvements”. Academic research in applied disciplines such as the built environment have the dual role of generating theoretical conceptual knowledge and simultaneously contributing to the solution of practical problems (Azhar et al., 2010). DSR is a research procedure which incorporates this “research for practice” stance (Chynoweth, 2013) and seeks a solution to a real world problem of interest to practice. It stems from a problem solving paradigm and seeks to create innovations (Hevner et al., 2004), which, through the artefact being developed, is the goal of this study. DSR has been described as the “scientific study and creation of artefacts as they are developed and used by people with the goal of solving practical problems of general interest” (Johannesson and Perjons, 2012:8; Voordijk, 2009) which subsequently make a contribution to the theory of the discipline in which it is applied (Lukka, 2003). Koskela (2008) maintains that research within the built environment is suffering from a lack of development by way of DSR.

This research is driven by a problem solving approach and aims at creating something new, suitable to fill an existing gap in the current methods of assessment of interventions in social housing. For this reason, DSR has been considered the most appropriate framework to create and validate a novel *artefact*, which is, in this study, a new method – the new method being a refinement (SuHousingImpact) of a previous method (SuROI). DSR is an example of a constructive research approach, which

focuses on producing innovative constructions to solve real world problems, to implement the developed construction and test its practical applicability and to make a contribution to the theory of the discipline within which it is applied (Lukka, 2003), brought directly from the pragmatist philosophical stance (Vaishnavi and Kuechler, 2007; Lukka, 2003).

In addition, because the main goal of the research is, by applying DSR, to deal with a real life organisation where the problem and potential solution is practice based and practice related, DSR is an appropriate choice of methodology. As Archer (1995) writes “there are circumstances where the best or only way to shed light on a proposition, a principle, a material, a process or a function is to construct something, or to enact something, calculated to explore, embody or test it”. This is exactly what DSR does. It “attempts to create things that serve human purposes” and devises artefacts to obtain goals (March and Smith, 1995).

Hevner et al., (2004) count seven guidelines for DSR: (1) Design as an artefact: Design science research must produce a viable artefact in the form of a construct, a model, a method, or an instantiation; (2) Problem relevance: The objective of design science research is to develop technology based solutions to important and relevant business problems; (3) Design evaluation: The utility, quality, and efficacy of a design artefact must be rigorously demonstrated via well-executed evaluation methods; (4) Research contributions: Effective design science research must provide clear and verifiable contributions in the areas of the design artefact, design foundations, and/or design methodologies; (5) Research rigor: Design science research relies upon the application of rigorous methods in both the construction and evaluation of the design

artefact; (6) Design as a search process: The search for an effective artefact requires utilising available means to reach desired ends while satisfying laws in the problem environment; (7) Communication of research: Design science research must be presented effectively both to technology-oriented as well as management-oriented audiences. Similarly, Kasanen et al., (1993) provide the following list of steps involved in the DSR process: (1) Find a practically relevant problem which also has research potential; (2) Obtain a general and comprehensive understanding of the topic; (3) Innovate, i.e. construct a solution idea; (4) Demonstrate that the solution works; (5) Show the theoretical connections and the research contribution of the solution concept; (6) Examine the scope of applicability of the solution.

This research will apply the DSR to create an *artefact* in a disciplinary field still new to this approach, i.e. evaluation methods, by:

(1) Exploring the problem to be solved and the *artefact* needed; (2) Demonstrating how DSR can be employed to support the creation and subsequent validation of a new method (SuHousingImpact), building on, refining and taking forward an existing method (SuROI) already tested; the tool being demonstrated to relevant experts and modified according to feedback as part of the DSR process; (3) Developing the tool through a single case study methodology by using two real historical sub-case studies from City West Housing Trust's stock in West Salford, UK and, (4) Verifying the tool through a focus group and additional open ended interviews with experts in the field.

The research philosophy comparison between that of DSR and the earlier mentioned positivist and interpretivist stances can be seen in the table below:

| Research Philosophy | | | |
|----------------------------|--|--|---|
| Basic Belief | Positivist | Interpretivist | DSR |
| Ontology | A single reality Knowable, Probabilistic | Multiple realities, socially constructed | Multiple, contextually situated alternative world-states Socio-technologically enabled |
| Epistemology | Objective; dispassionate, Detached observer of truth | Subjective (i.e., values and knowledge emerge from the researcher- participant interaction) | Knowing through making: objectively constrained construction within a context Iterative circumscription reveals meaning |
| Axiology: what is value | Truth: universal and beautiful; prediction | Understanding: situated and description | Control; creation; progress (i.e., improvement); understanding |

Table 5.7: Philosophical assumption of the three research perspectives (from Vaishnavi and Kuechler, 2007)

DSR provides a framework which acts to structure research logically, thus ensuring quality of results (Johannesson and Perjons, 2012). The different stages of DSR can be seen in the figure below (Ibid, 2012):

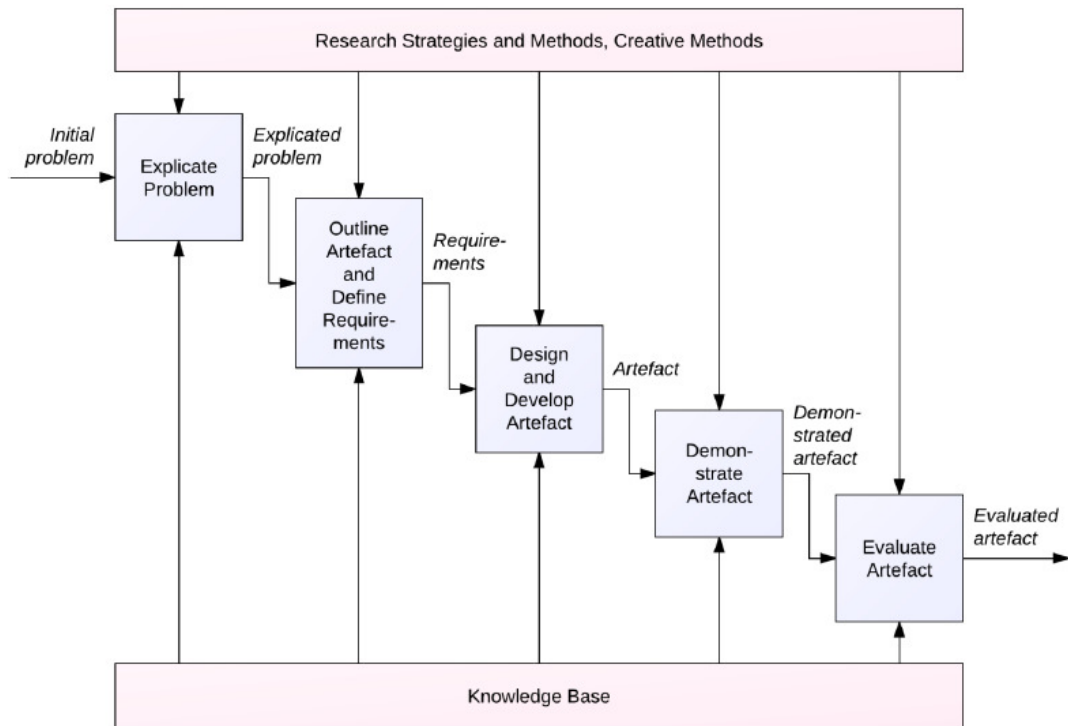


Figure 5.5: The stages of DSR (Johansson and Perjons, 2012)

The DSR framework above can be used as an overall guidance or template, which can then be subsequently used to factor in all strategies and methods that are used within this study. The Figure shows the journey from the conception of a real world problem that needs to be solved, through a step by step process, eventually leading to the problem being solved.

The overarching research strategies and methods utilised within the DSR process include interviews, ethnography, observation and case studies, whilst the knowledge base used to underpin the study was formed and created not only from the literature review, but also from practical knowledge acquired by the researcher within his day to

day work at City West Housing Trust through ethnography and observation. Knowledge that has been referred to as “mode two knowledge” (Chynoweth, 2013).

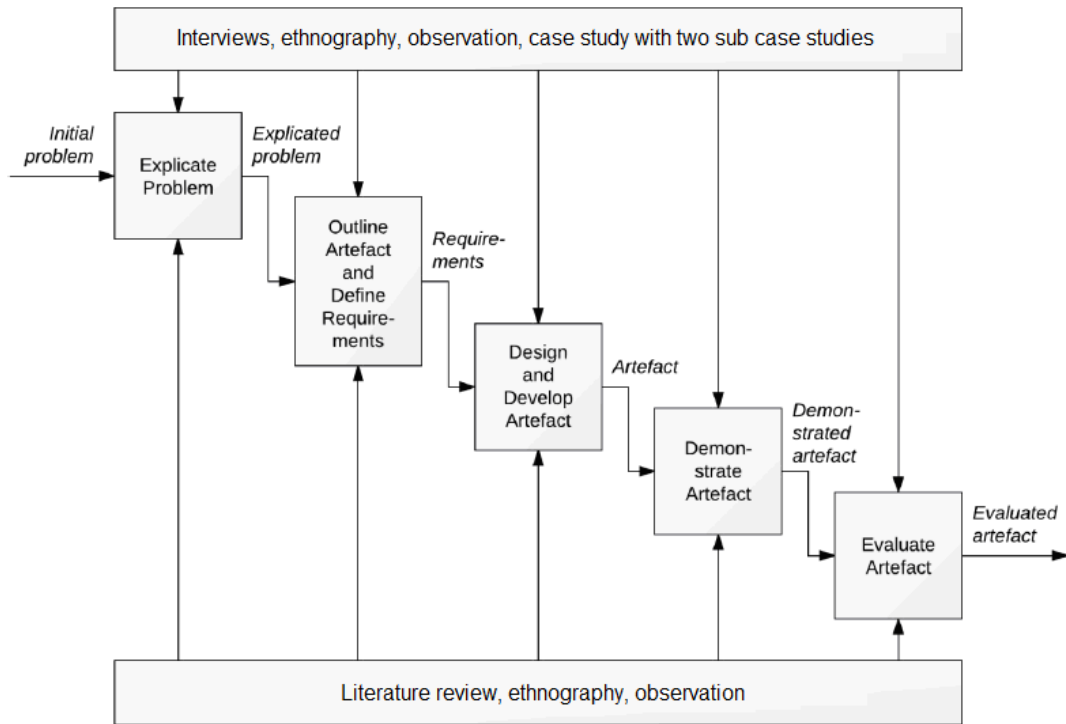


Figure 5.6: The stages of DSR incorporating detail relating to the research (Johansson and Perjons, 2012)

The different stages of the DSR process will now be looked at in more detail and explicit guidance given as to the nature of the research being carried out within each stage:

1. EXPLICATE PROBLEM

The problem, experienced by the researcher first hand through participant observation and ethnographic study, is that within housing-led urban regeneration, there is no tool which can a) evaluate schemes holistically and sustainably, by taking into account social and environmental impacts quantitatively, b) no tool which takes into account potential budgetary cost savings to ensure financial sustainability and c) no tool which in addition to a) and b), carries out pay back period analyses to show when contributing stakeholders get their money back.

This is an absolute necessity in current times due to the following:

- Current austerity and lack of funding within organisations such as City West Housing Trust
- A lack of basic knowledge of what a scheme can offer in terms of social and environmental impact
- Financial decisions are being made without the maximum amount of information available which, if this continues, will potentially lead to millions of pounds being spent on aspects which don't make any difference to an area socially or environmentally

- Historically ‘successful’ schemes might not be ‘successful’ and vice versa which would lead to incorrect decision making in terms of future targeted investment and a potential wasting of money
- Social and environmental benefits “of central concern to individuals and communities” (Vardakoulias, 2013) may not be being highlighted and measured correctly, which may be having a direct impact on residents’ quality of life.

Solving this problem would be beneficial not only to City West Housing Trust, but to the entire housing-led sector. It is important to note that any artefact produced by DSR does result from a research process that involves existing theories and knowledge (Peffer et al., 2008), with requirements being gathered from and validated by persons within the intended practice (Johannesson and Perjons, 2012).

There are many guiding models within DSR literature including Peffer et al., (2008), Hevner et al., (2004) and March and Smith (1995), however the most comprehensive is that of Johannesson and Perjons (2012), which can be seen again below:

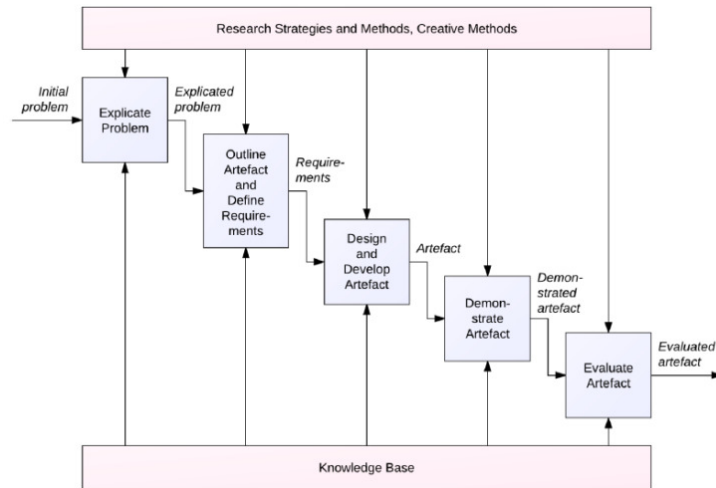


Figure 5.7: The stages of DSR (Johannesson and Perjons, 2012)

By following the DSR process as outlined by Johannesson and Perjons (2012) in their comprehensive and seminal text on the subject, a summary can be made of the steps that the researcher will follow to create the artefact. The following sub-sections will systematically show the application of this DSR model to the design and verification of the new method, by going through each individual stage through the selected case study perspective. The City West Housing Trust housing association has been chosen so to have straightforward access to the available data, since the researcher works for the company as an employee. The implementation of the DSR process to the case study has been performed through a qualitative methodology, based on a constructivist approach, by administering a set of semi structured interviews modelled both on the SuROI method and allowing the development of further concepts, thus deriving a further component of the method, suitable to put it forward in a different perspective (stakeholder mapping and quantification of the respective benefits/ costs).

Within the first stage of the DSR process, the ‘explication of the problem’, it can be seen that the initial problem is that there is no tool which quantitatively measures the hidden social and environmental impacts of a housing-led regeneration scheme. In addition to this, and after feedback and input from the semi structured interviews carried out with City West Housing Trust staff being used, it can be seen that in conclusion, there is additionally no tool which looks into the concept of financial sustainability, by taking into account potential wider stakeholders to subsequently bear costs, or, which takes into account pay back period analyses for involved stakeholders, or indeed for a scheme as a whole.

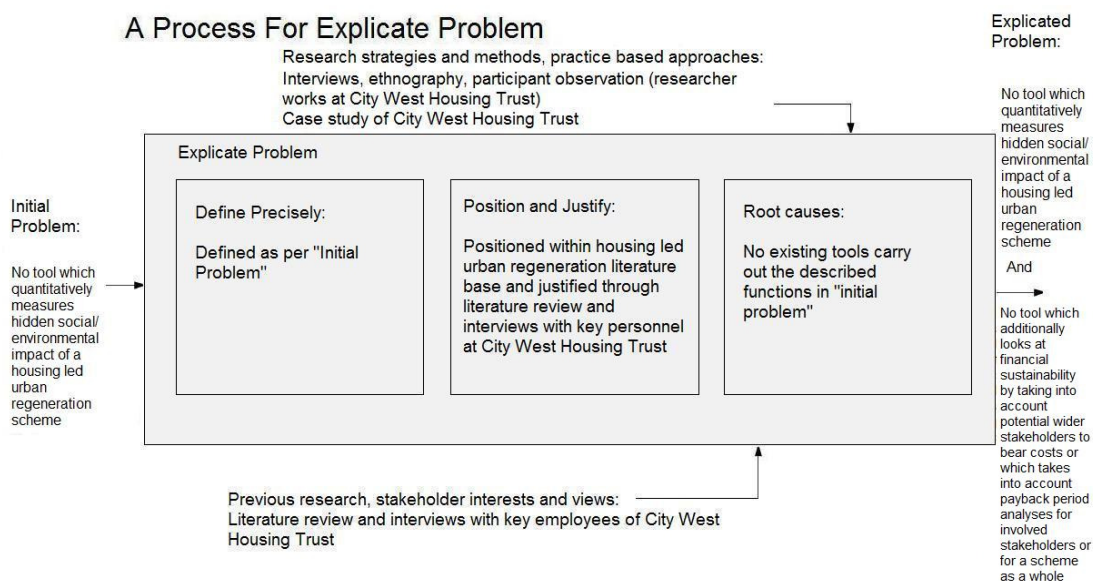


Figure 5.8: The author’s adaptation of the specific research element for “A Process for Explicate Problem”, as shown in Johannesson and Perjons (2012)

2. OUTLINE ARTEFACT AND DEFINE REQUIREMENTS

Further to the explication of the problem above, a tool is needed that looks to solve the said problem by carrying out the evaluation of housing-led urban regeneration schemes in such a way, as to satisfy the sought criteria:

- By using SuROI to uncover the hidden **social** and **environmental** benefits of a given scheme
- But by *then* additionally taking on the SuROI method by also analysing company budgetary costs and identifying potential further stakeholders capable of turning a cost into a profit to satisfy the concept of **economic** sustainability
- And by additionally calculating when the pay back period will be, for each individual stakeholder, to be used to inform and advise stakeholders and organisations. This can also be done for a scheme as a whole.

A practical real world tool needs creating in order to carry out these tasks and to satisfy these criteria and to plug the gap in the knowledge base.

The aforementioned interviews carried out with key staff within the investment and regeneration directorate at City West Housing Trust (CWHT) were also carried out in order to attempt to outline the key areas an artefact should cover.

Aims of the interviews not only included attempting to gauge the problem or problems to be explicated, but also the gauging of whether CWHT evaluates current regeneration schemes in any way, whether CWHT evaluates regeneration schemes in terms of social or environmental impact and lastly whether CWHT evaluates regeneration schemes in terms of hidden benefits. The transcripts for these interviews can be seen in the appendices to the thesis.

It was the results of the conducted interviews with key members of staff at CWHT which led to the idea of further refining the SuROI approach. Interviewees stated that there had previously been many regeneration schemes where lots of investment had been put in, only for the social and environmental return to be minimal. Interviewees additionally stated that in the current economic climate, the housing trust did not want to be outlaying massive investment, only to be having to do exactly the same in 30 years' time. Employees interviewed wanted to see more sustainability, less wasting of money and most importantly, ways to plug the gap created by the recently experienced economic shortfall which is impacting heavily on housing associations, tenants and communities alike.

Also covered was the topic area of how CWHT currently procures and whether the company would ever think about procuring with a focus not just on price/ quality but also in terms of social impact or hidden environmental, economic or social benefits. Ideas pertaining to an artefact that could be useful in solving such issues were used via the feedback from the interviews and the outline of the artefact was developing.

A Process for Define Requirements

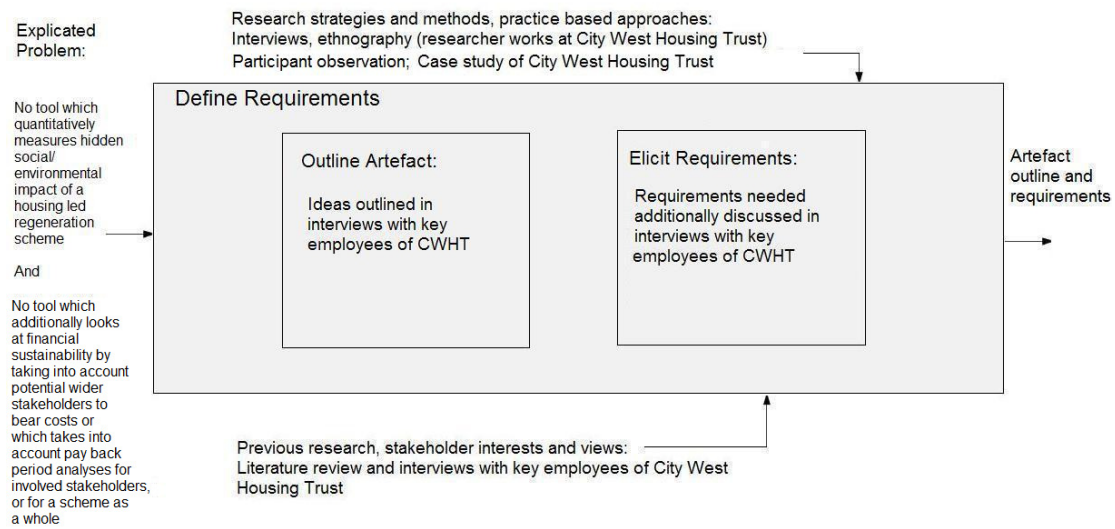


Figure 5.9: The author’s adaptation of the specific research element for “A Process for Define Requirements”, as shown in Johannesson and Perjons (2012)

3. DESIGN AND DEVELOP ARTEFACT

The design and development of the artefact stage is creative by nature (Lukka, 2003).

The designed and developed artefact created after the outline artefact and define requirements stage of the research is as follows:

A Process for Design and Develop Artefact

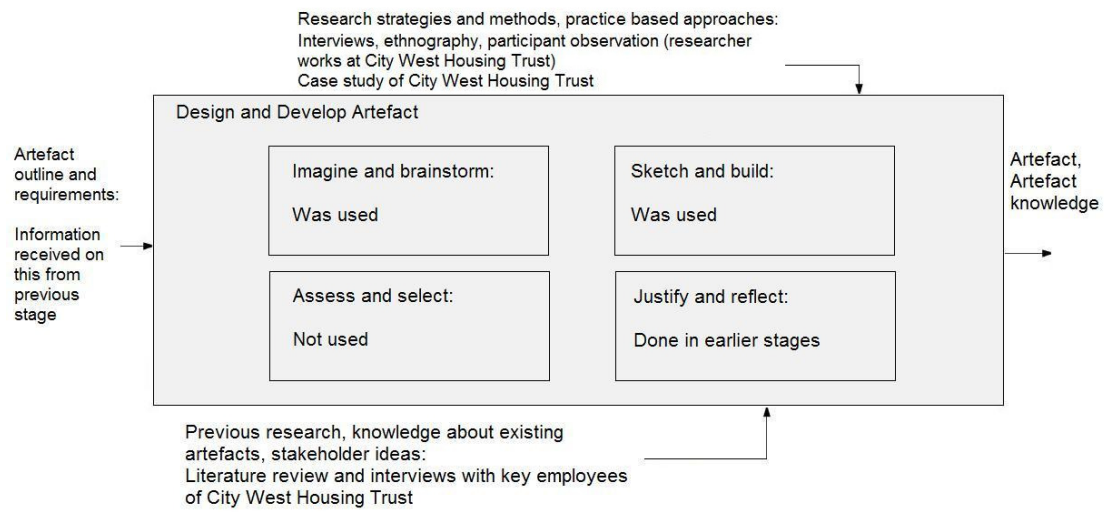


Figure 5.10: The author's adaptation of the specific research element for "A Process for Design and Develop Artefact", as shown in Johannesson and Perjons (2012)

This then lead to the artefact below being created:

| Stage 1 | | Stage 2 | | | |
|--|---|----------------------|---------|--------------------------------|---|
| Stakeholders | Intended/unintended changes | Inputs | | Outputs | The Outcomes (what changes) |
| Who do we have an effect on? Who has an effect on us? | What do you think will change for them? | What do they invest? | Value £ | Summary of activity in numbers | Description How would you describe the change? |
| | | | | | |

| Stage 3 | | | | | | | Stage 4 | | | | | |
|---------------------------|---|----------------------------|------------------------|---|----------------------------------|---|--|---------------------------------|-------------------------------------|--|---|------------------------|
| anges) | | | | | | | Dead-weight % | Displacement % | Attribution % | Drop Off % | Impact | Action Plan |
| Indicator | Source | Quantity | Duration | Financial proxy | Value £ | Source | What would have happened without the activity? | What activity did you displace? | Who else contributed to the change? | Does the outcome drop off in future years? | Quantity times financial proxy, less deadweight, displacement, and attribution. | What needs to be done? |
| How would you measure it? | Where did you get the information from? | How much change was there? | How long does it last? | What proxy would you use to value the change? | What is the value of the change? | Where did you get the information from? | | | | | | |
| | | | | | | | | | | | | |

| Stage 5 | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Calculating Social Return | | | | | | |
| Discount rate | | 3.5% | | | | |
| Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total | 600.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 |
| Present value of each year | 0.00 | 573.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Present Value (PV) | | | | | | 573.71 |
| Net Present Value | | | | | | 373.71 |
| (PV minus the investment) | | | | | | |
| Social Return | | | | | | 2.90 |
| Value per amount invested | | | | | | |

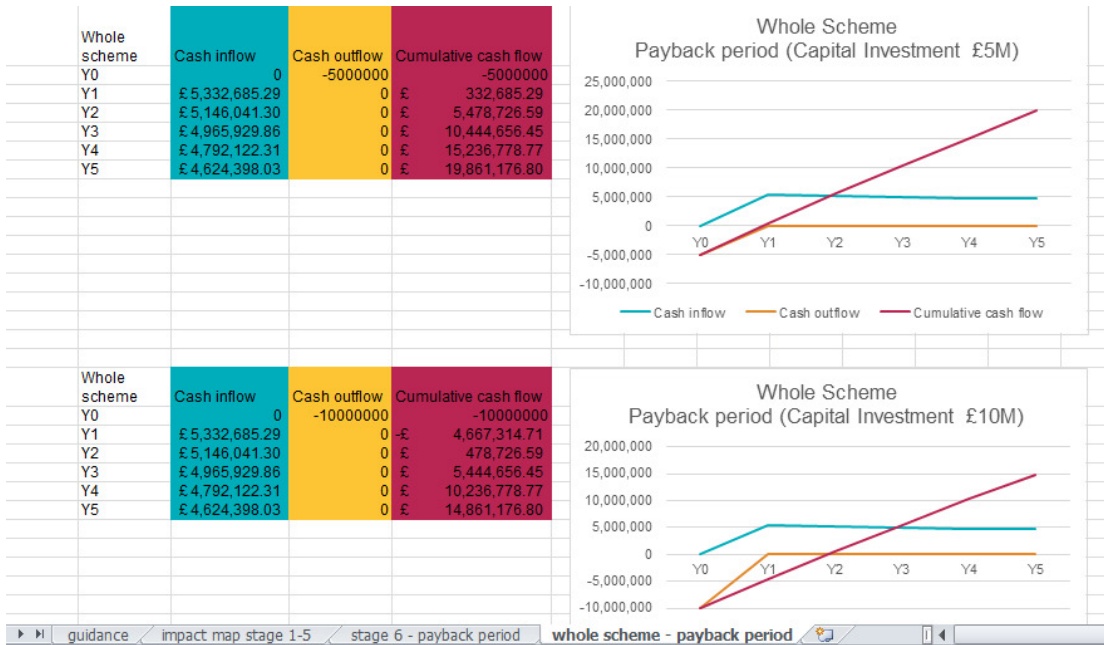
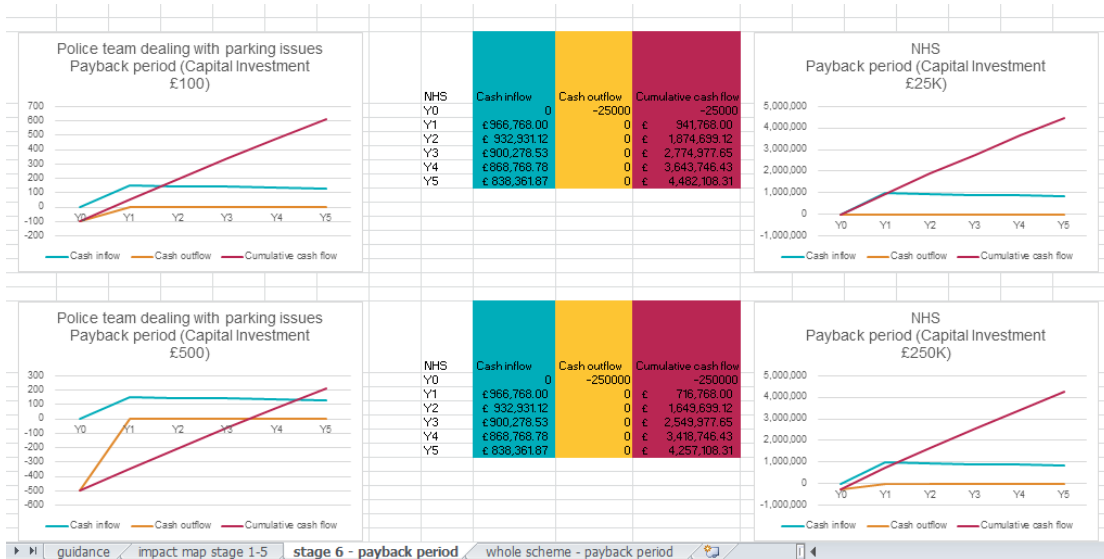


Figure 5.11: The 'SuHousingImpact' Artefact

4. DEMONSTRATE ARTEFACT

The detailed research plan for the demonstrate artefact stage of the DSR process can again be explained with reference to the guidance found in Johannesson and Perjons (2012) as follows:

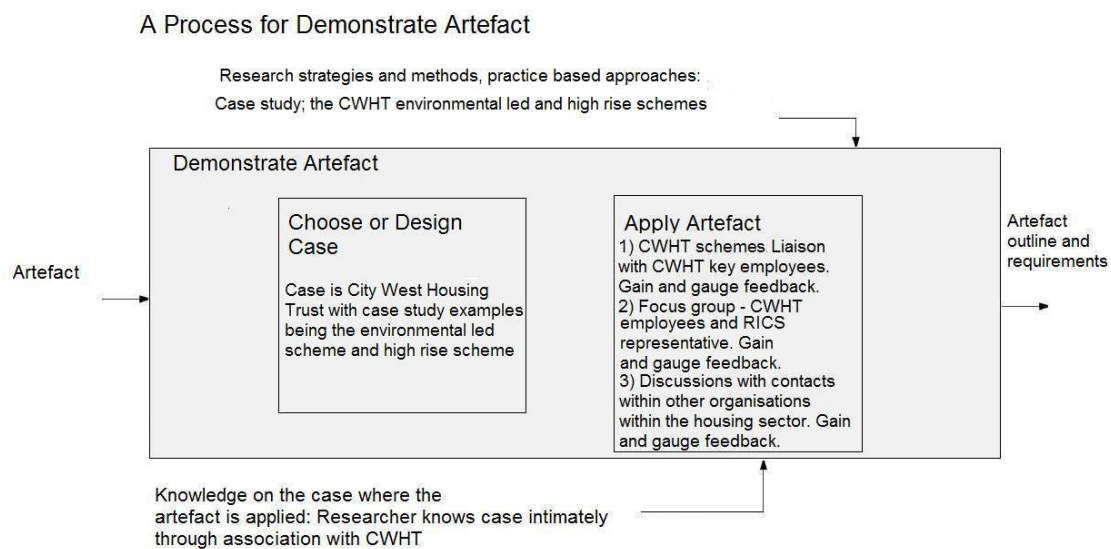


Figure 5.12: The author's adaptation of the specific research element for "A Process for Demonstrate Artefact", as shown in Johannesson and Perjons (2012)

In terms of the 'demonstrate artefact' stage of DSR, stakeholder accounts will again be sought as part of the DSR process. The artefact will be shown to holders of key positions in CWHT and feedback sought. The artefact will additionally be shown to the focus group representatives, a mix of CWHT representatives and a member of RICS. Finally, the artefact will be demonstrated to representatives of other housing-led urban regeneration facilitators. As part of the process it will be used at a

preliminary stage on two housing-led schemes (the CWHT environmental-led programme and the CWHT high rise scheme) in order that any potentially hidden failings are made explicit. Any required changes gathered as a result of feedback and any practical failings will then be carried out, in accordance with the feedback received, and changes made continually until all stakeholders are happy with the artefact. This process will continue until all are in agreement that the artefact has been developed to such a stage where all are happy with it.

5. EVALUATE ARTEFACT

The detailed research plan for the evaluate artefact stage of the DSR can again be explained with reference to the guidance found in Johannesson and Perjons (2012) as follows:

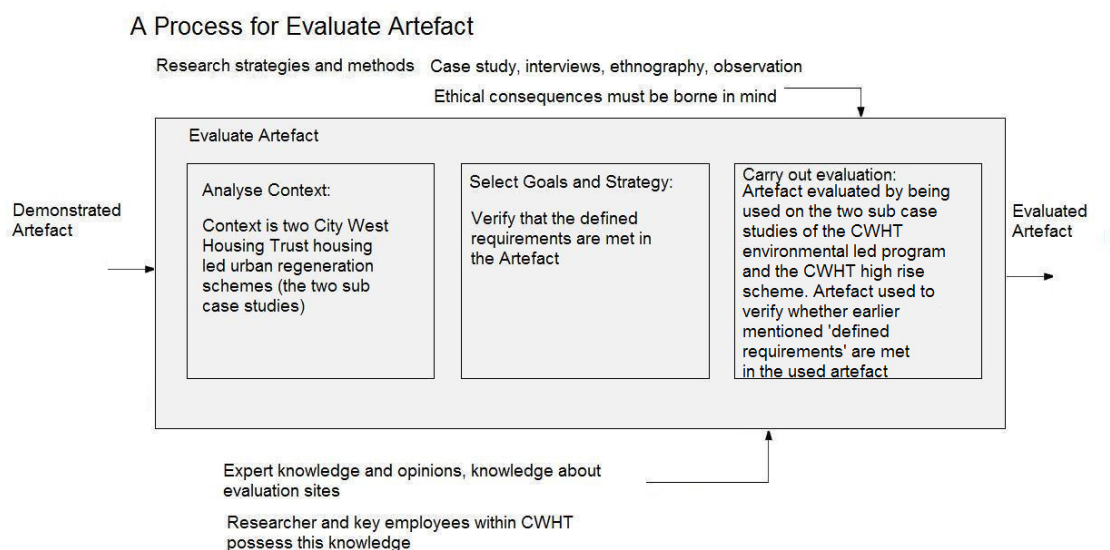


Figure 5.13: The author’s adaptation of the specific research element for “A Process for Evaluate Artefact”, as shown in Johannesson and Perjons (2012)

On selection of the case study, and after verifying that all defined requirements are met in the artefact, the artefact/ tool will be used and applied to the chosen housing-led regeneration schemes. The schemes used have already had a more traditional form of evaluation carried out on them, that of the evaluation format of the Single Regeneration Budget (Brennan et al., 1997) (see Section 3.7).

Because of the researcher's role as an employee of CWHT, this means that he is subject to potential bias. However, a method chosen to counteract this bias was to refrain from looking at the results of the previously carried out more traditional form of evaluation until the very end of the process; i.e. once the artefact had been used to create an additional set of results. By not knowing the previous results generated by the previously used method, there is much less bias in place than might otherwise have been the case.

The subsequent and following aim is to then carry out a full evaluation of the CWHT environmental-led programme and the CWHT high rise scheme through the 'SuHousingImpact' tool and then to compare, contrast, discuss and analyse results.

It will be necessary to list all the hidden social/ environmental values the researcher wishes to assess in order to quantify the previously intangible benefits. It is then a matter of following the processes of SROI and ESA which involve finding indicators and proxies relating to these values.

5.8. Summary

This chapter has covered the research methodology of the research. It firstly introduced the methodological choices and justifications involved in the research. It was stated that the research philosophy underpinning the research was that of Pragmatism. Pragmatism looks to create practical solutions to social problems and places primary importance on the research question (Tashakkori and Teddlie, 2003) and focusses on not only what exists, but what doesn't yet exist, and what "might be" in existence in the future (Goldkuhl, 2004), especially appropriate for, and linking in directly with this research study, due to the fact that the main focal point of the research is the creation of a new artefact being used to evaluate socio-environmental impacts. The pragmatist philosophy asserts that philosophical thinking between one position, in terms of epistemology, ontology, or axiology and the other is unrealistic in practice, and it is argued that the most important determinant of which position to adopt is through that of the research questions (Creswell and Plano Clark, 2011; Saunders et al., 2009). This is of particular relevance where a research question does not suggest clearly that a positivist or interpretivist philosophy should be used (Inuah and Eaton, 2013), again, such as within this study.

It was additionally stated that the research approach used is that of a mixed method approach involving both qualitative and quantitative approaches, including the literature review, the semi structured and open ended interviews, the focus group and the quantitative and scientific measurement of socio-environmental spillovers of the

housing-led urban regeneration schemes cited within this thesis, through measurement carried out via the 'SuHousingImpact' artefact.

The approach is additionally inductive, due to the fact that the research moves from the data received through the above means, to theory; such theories including those shown in Chapter Eight, Section 8.3.

A case study research strategy has been chosen as part of the research; the case study being that of City West Housing Trust, a housing association in West Salford, UK, where the researcher is in full time employment. The two sub case studies are those of the organisation's environmental-led programme and a high rise scheme. The two sub case studies of the environmental and high rise housing-led urban regeneration schemes were considered sufficient to obtain the desired information for the purposes of this research.

The case study strategy was preferred due to the 'how' and 'why' questions invoked in this thesis. Additionally, case study research has been cited as being "highly relevant to an industry that is project driven and made up of many different organisations and businesses" for example, such as those in the built environment (Proverbs and Gameson, 2008).

The research techniques involved in the research study involve the use of the literature review, semi structured interviews carried out with representatives of City West Housing Trust, a focus group carried out with representatives of City West

Housing Trust and a representative of RICS and open ended interviews carried out with other housing-led regeneration facilitating organisations.

In addition, because the main aim of this thesis is to create a real world tool or artefact for use in real world settings, Design Science Methodology has been used to create such an artefact. The justification of using DSR in combination with case study was covered within the introduction to the Chapter, as was the related issue of Action Research versus DSR. The case study approach has been cited by Costa et al., (2016) as being useful in combination with Design Science Research, stating that the knowledge within Design Science Research is created by interaction between professions in the practical field and scientists. Examples of such interaction can be found within qualitative approaches such as the case study.

The DSR process itself was covered, together with how the artefact was developed, through the various stages of the DSR process, with detailed, stage by stage pictorial explanations being put forward in terms of how an already existing evaluative tool (SuROI) is to be refined, creating a new tool (the artefact) through the Design Science Methodology. The artefact is then to be subsequently created and verified before being evaluated through two sub case studies – the same two schemes as previously being mentioned within this summary.

CHAPTER SIX: THE ARTEFACT - ‘SuHousingImpact’ TOOL

6.1. Introduction

This chapter will explain exactly how the artefact (the ‘SuHousingImpact’ tool) which has been developed within this study, and which acts as both a focal point of the study, and, one of the novel contributions made to the knowledge base, functions. Screenshots of the artefact together with step by step instructions will be provided in order that readers of this thesis, including academics and housing association staff alike, are able to fully understand, and, subsequently implement the artefact for their own usage. Guidance will also be given on sources of indicators and proxies to feed the tool with all necessary quantifiable information on socio-environmental spillovers from housing-led urban regeneration schemes.

6.2. The Artefact

It is prudent at this stage to be reacquainted with the artefact itself:

| Stage 1 | | Stage 2 | | | |
|--|---|----------------------|---------|--------------------------------|---|
| Stakeholders | Intended/unintended changes | Inputs | | Outputs | The Outcomes (what changes) |
| Who do we have an effect on? Who has an effect on us? | What do you think will change for them? | What do they invest? | Value E | Summary of activity in numbers | Description How would you describe the change? |
| | | | | | |

| Stage 3 | | | | | | | Stage 4 | | | | | |
|---------------------------|---|----------------------------|------------------------|---|----------------------------------|---|--|---------------------------------|-------------------------------------|--|---|------------------------|
| anges) | | | | | | | Deed-weight % | Displacement % | Attribution % | Drop Off % | Impact | Action Plan |
| Indicator | Source | Quantity | Duration | Financial proxy | Value E | Source | What would have happened without the activity? | What activity did you displace? | Who else contributed to the change? | Does the outcome drop off in future years? | Quantity times financial proxy, less deadweight, displacement, and attribution. | What needs to be done? |
| How would you measure it? | Where did you get the information from? | How much change was there? | How long does it last? | What proxy would you use to value the change? | What is the value of the change? | Where did you get the information from? | | | | | | |
| | | | | | | | | | | | | |

| Stage 5 | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Calculating Social Return | | | | | | |
| Discount rate | | 3.5% | | | | |
| Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 600.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 |
| Present value of each year | 0.00 | 579.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Present Value (PV) | | | | | | 579.71 |
| Net Present Value | | | | | | 379.71 |
| (PV minus the investment) | | | | | | |
| Social Return | | | | | | 2.90 |
| Value per amount invested | | | | | | |

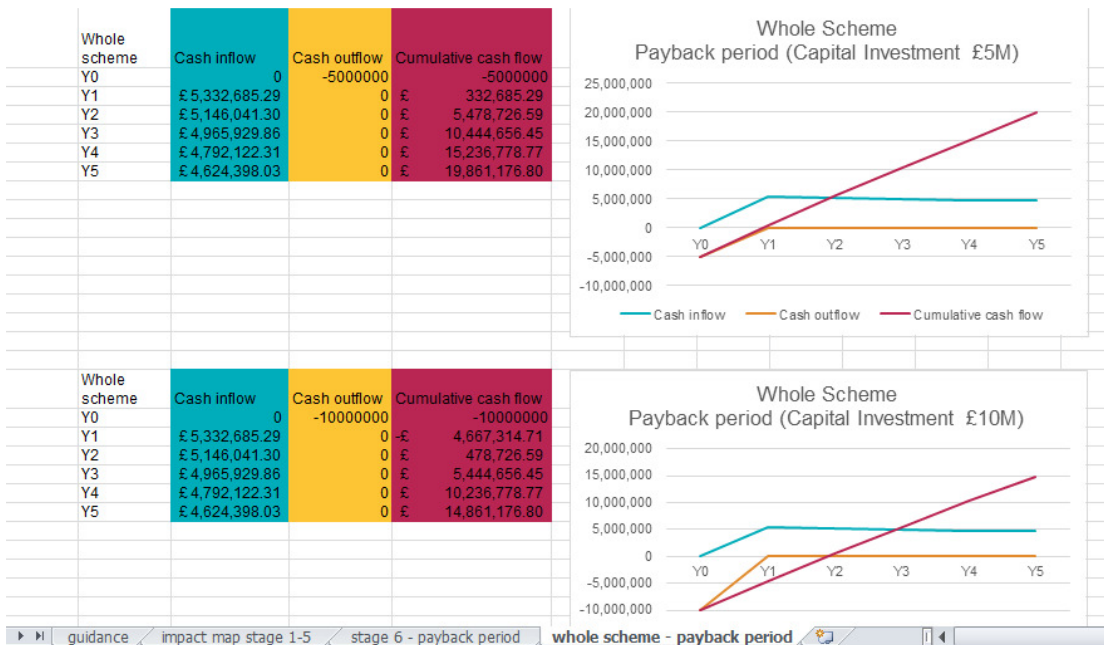
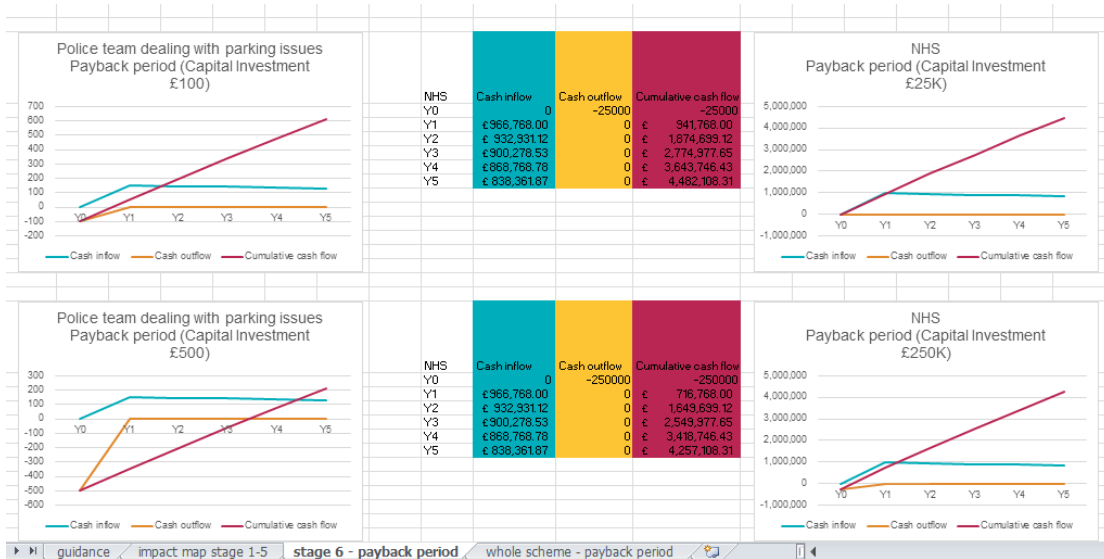


Figure 6.1: The ‘SuHousingImpact’ Artefact

As can be seen, and as has been stated previously, the artefact is a refinement of SuROI methodology.

The artefact actively uses not only the SROI (Social Value UK) impact map, in spreadsheet format, but additionally uses the principles of SROI (covered in Chapter Four).

In addition, the artefact uses SuROI quantitative measurement of social and environmental impacts and spillovers, and potential usage of SROI, ESA, Wellbeing Valuation or/and any other method of gauging social and environmental impact quantitatively, that will fit flexibly into the impact map spreadsheet.

The ‘SuHousingImpact’ tool then subsequently refines and furthers SuROI methodology by creating a novel ‘stage 6’ to the impact map process.

By way of this new ‘stage 6’, the ‘SuHousingImpact’ tool then focuses on the potential to look in far greater depth at future economic sustainability, than has previously been covered within SuROI. By doing this, the three separate aspects of the triple bottom line are all being actively looked at within this artefact and future economic sustainability is being covered more actively than has been previously carried out by way of SuROI.

This active economic focus is carried out through the provision of a platform within which costs and benefits to potential future stakeholders can be mapped out - such stakeholders being potentially involved in the housing-led urban regeneration scheme or process. The SuROI assessment methodology has been easily adapted by being refocused in terms of stakeholders’ engagement. By repacking the financial calculation allocating costs and benefits across the different stakeholders involved, it

would be possible to attract potential new investors, willing to increase the benefits that the method has unveiled.

If previously invisible and intangible benefits resulting from a housing-led urban regeneration scheme are being made visible and tangible by using the SuROI method, then by analysing which potential stakeholders are receiving benefit from the said scheme, we can highlight to those stakeholders not yet involved in the scheme, the cost benefit that is attributable and which is actively helping that stakeholder organisation, as a result of the said scheme.

By actively seeking out and discussing the financial benefits that are coming the way of the not yet involved stakeholder, it is possible to prevent schemes being affected by current economic cuts, and subsequently ensuring that there are adequate resources to match the ambition of sustainable development (Roberts, 2000), and the UN's SDGs, in particular Goal 11 of the SDGs, by offsetting budgetary cuts through striking agreements with those stakeholders who benefit, thus tapping into the theoretical premise covered within the Kaldor-Hicks criterion.

As an example, let us say that due to a housing-led urban regeneration scheme, local housing association tenants are benefitting health wise from works that have been carried out, but the National Health Service (NHS) is not currently an active stakeholder in the scheme in question. Through using the 'SuHousingImpact' tool, it can be highlighted to the NHS how much they are potentially receiving in terms of previously intangible benefits being costed out, according to the methodology, which results in savings to the State.

It can be highlighted to the NHS that although they do not have to participate in any way in the urban regeneration scheme in question, by contributing an amount of money to the ongoing works involved in the said scheme, they could be offsetting the financial contribution by saving an outlay of money in the future. It could be the case that by not investing, they accrue higher costs if the sustainability of the said scheme is compromised by a lack of funds, which then ends the productivity of the scheme and ends the benefits that were previously being created; those benefits previously saving the NHS money.

It was the results of the previously conducted interviews with key members of staff at City West Housing Trust which led to the idea of 'hybridising' or refining existing SuROI methodology. Interviewees stated that there had previously been many regeneration schemes where lots of investment had been put in, only for the social return to be minimal. Interviewees additionally stated that in the current economic climate, the housing trust doesn't want to be outlaying massive investment, only to be having to do exactly the same in 30 years' time. Employees interviewed wanted to see more sustainability, less wasting of money and most importantly, ways to plug the gap created by the recently experienced economic shortfall which is impacting on housing associations, tenants and communities alike.

Focussing practically on the SuHousingImpact tool, calculations and formulas have been inputted into the impact map spreadsheet to split potential gains and losses in pounds sterling between individual and different stakeholders, aligning each separate impact with each individual stakeholder, whilst also, additional formulas have then been inputted and used within the spreadsheet, to calculate pay back period analyses

for each individual potential stakeholder. The thinking behind this being that if one or more potential stakeholders are being found to be profiting well from a given scheme, then the monetary values within the spreadsheet can act as evidence to be supplied to the stakeholder(s) in question, which may then enable a cost contribution via agreement to be made by the stakeholder(s) in question to the housing association or housing-led urban regeneration facilitator in question. This can then potentially mitigate financial problems or concerns on behalf of the housing association or facilitator in question during a period of current and severe economic constraints.

Lastly, in the same way as pay back periods for each individual stakeholder have been carried out, the same pay back period calculations can also be performed for the scheme as a whole.

In terms of how this has been technically carried out within the impact map spreadsheet, firstly the involved formulas which enable these sums to be processed will be discussed, before moving on to commentary and guidance on the six stages involved in the tool.

1) Socio-environmental impact per stakeholder

If we use the example below, which is presented within an impact map with only two hypothetical stakeholders of ‘City West Housing Trust customers’ and ‘NHS’, for ease of viewing, clarity and to aid learning, it can be seen that formulas can be inputted within the impact map spreadsheet in order to separate socio-environmental spillovers that previously although being a part of the SuROI spreadsheet calculations,

were not organised or highlighted in this specific way, that is to say per individual stakeholder.

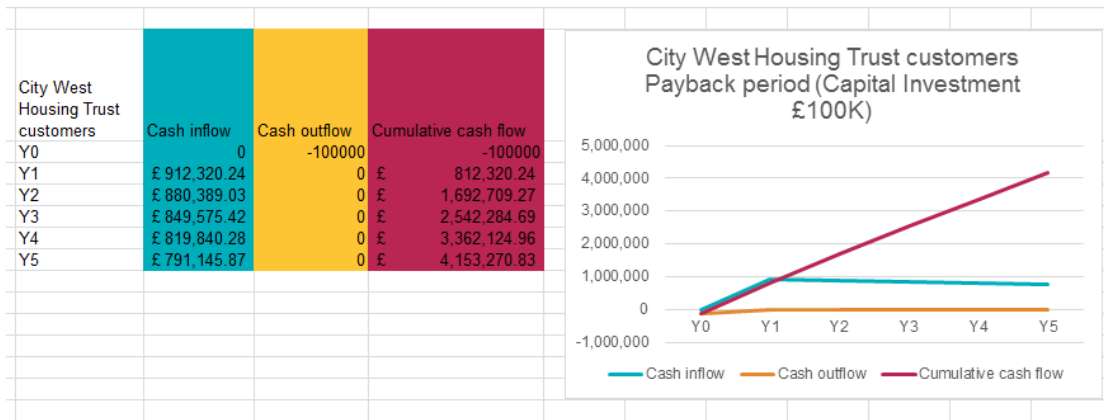


Figure 6.2: The ‘SuHousingImpact’ Artefact – the novel ‘stage 6’ – stakeholder of ‘City West Housing Trust customers’

In the above screenshot, it can be observed that an additional ‘stage 6’ has been added to the existing SuROI impact map. Formulas have then been inputted to provide monetary valuations of socio-environmental spillovers on a per stakeholder basis, which then over time (years one to five) take into account the 3.5% depreciation rate already advised by HM Treasury’s Green Book, and utilised previously within both SROI and SuROI.

The screenshot above shows this 3.5%, which is added to the initial impact calculation, year on year, meaning that the value of impacts drop off over years one to five. The total amount of socio-environmental spillovers (the cash inflow column within the table) comprises of the addition of all spillovers attributed to the particular

stakeholder in question – on this occasion, the stakeholder of ‘City West Housing Trust customers’.

This principle can again then be utilised for the next involved stakeholder – that of the ‘NHS’. This method can then subsequently be repeated for the many stakeholders often involved in housing-led urban regeneration schemes.

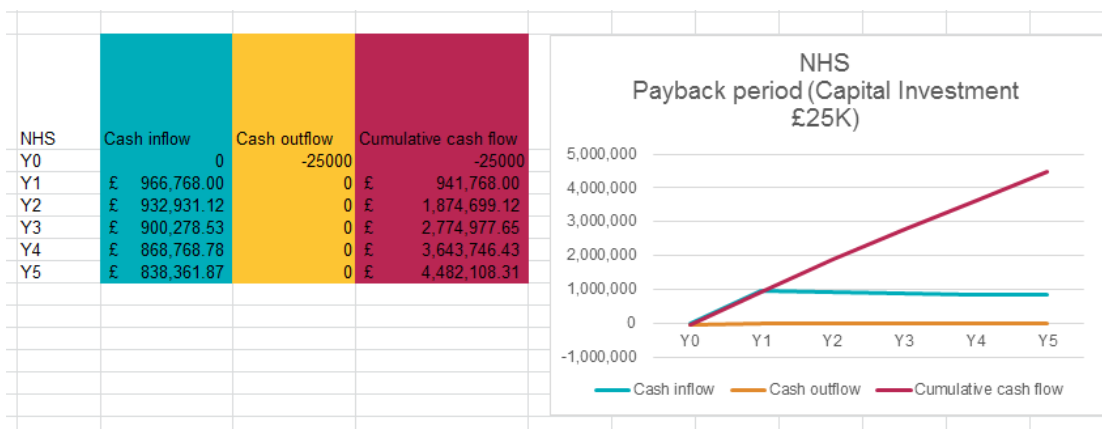


Figure 6.3: The ‘SuHousingImpact’ Artefact – the novel ‘stage 6’ – ‘NHS’ stakeholder calculations

At the end of such a process, a comprehensive list can be built of all involved stakeholders and their respective socio-environmental impacts from a given housing-led urban regeneration scheme.

The way the discounted figure is built up over time, can be seen from the formulas below. The same yearly depreciation percentage is added year on year to provide a discounted impact value per year, from years one to five:

f_x =BK9*(1-'impact map stage 1-5'!W8)

| | BI | BJ | BK | BL | BM |
|--|----|-----|--------------|--------------|----------------------|
| | | | | | |
| | | | | | |
| | | NHS | Cash inflow | Cash outflow | Cumulative cash flow |
| | | Y0 | 0 | -25000 | -25000 |
| | | Y1 | £ 966,768.00 | 0 | £ 941,768.00 |
| | | Y2 | £ 932,931.12 | 0 | £ 1,874,699.12 |
| | | Y3 | £ 900,278.53 | 0 | £ 2,774,977.65 |
| | | Y4 | £ 868,768.78 | 0 | £ 3,643,746.43 |
| | | Y5 | £ 838,361.87 | 0 | £ 4,482,108.31 |

Figure 6.4: Year 1 of depreciation

f_x =BK10*(1-'impact map stage 1-5'!W8)

| | BH | BI | BJ | BK | BL | BM |
|--|----|-----|--------------|--------------|----------------------|----|
| | | | | | | |
| | | | | | | |
| | | NHS | Cash inflow | Cash outflow | Cumulative cash flow | |
| | | Y0 | 0 | -25000 | -25000 | |
| | | Y1 | £ 966,768.00 | 0 | £ 941,768.00 | |
| | | Y2 | £ 932,931.12 | 0 | £ 1,874,699.12 | |
| | | Y3 | £ 900,278.53 | 0 | £ 2,774,977.65 | |
| | | Y4 | £ 868,768.78 | 0 | £ 3,643,746.43 | |
| | | Y5 | £ 838,361.87 | 0 | £ 4,482,108.31 | |

Figure 6.5: Year 2 of depreciation

| | | | | | |
|--|----|-----|--------------|--------------|----------------------|
| fx =BK11*(1-'impact map stage 1-5'!W8) | | | | | |
| BH | BI | BJ | BK | BL | BM |
| | | | | | |
| | | NHS | Cash inflow | Cash outflow | Cumulative cash flow |
| | | Y0 | 0 | -25000 | -25000 |
| | | Y1 | £ 966,768.00 | 0 | £ 941,768.00 |
| | | Y2 | £ 932,931.12 | 0 | £ 1,874,699.12 |
| | | Y3 | £ 900,278.53 | 0 | £ 2,774,977.65 |
| | | Y4 | £ 868,768.78 | 0 | £ 3,643,746.43 |
| | | Y5 | £ 838,361.87 | 0 | £ 4,482,108.31 |

Figure 6.6: Year 3 of depreciation

| | | | | | |
|--|----|-----|--------------|--------------|----------------------|
| fx =BK12*(1-'impact map stage 1-5'!W8) | | | | | |
| BH | BI | BJ | BK | BL | BM |
| | | | | | |
| | | NHS | Cash inflow | Cash outflow | Cumulative cash flow |
| | | Y0 | 0 | -25000 | -25000 |
| | | Y1 | £ 966,768.00 | 0 | £ 941,768.00 |
| | | Y2 | £ 932,931.12 | 0 | £ 1,874,699.12 |
| | | Y3 | £ 900,278.53 | 0 | £ 2,774,977.65 |
| | | Y4 | £ 868,768.78 | 0 | £ 3,643,746.43 |
| | | Y5 | £ 838,361.87 | 0 | £ 4,482,108.31 |

Figure 6.7: Year 4 of depreciation

The same formula can be used with all additional stakeholders.

2) Payback period analyses:

The payback period has been defined as the number of years it would take to recover a project's costs of investment. Simple payback period analyses can be carried out using the artefact by comparing the impact as against the input value per year either for each individual stakeholder or within a scheme as an entire entity.

The socio-environmental spillover values created from the earlier calculations can be used in comparison with various levels of capital investment values. The subsequent results can be provided in tabular and graphical format within 'stage 6' of the artefact.

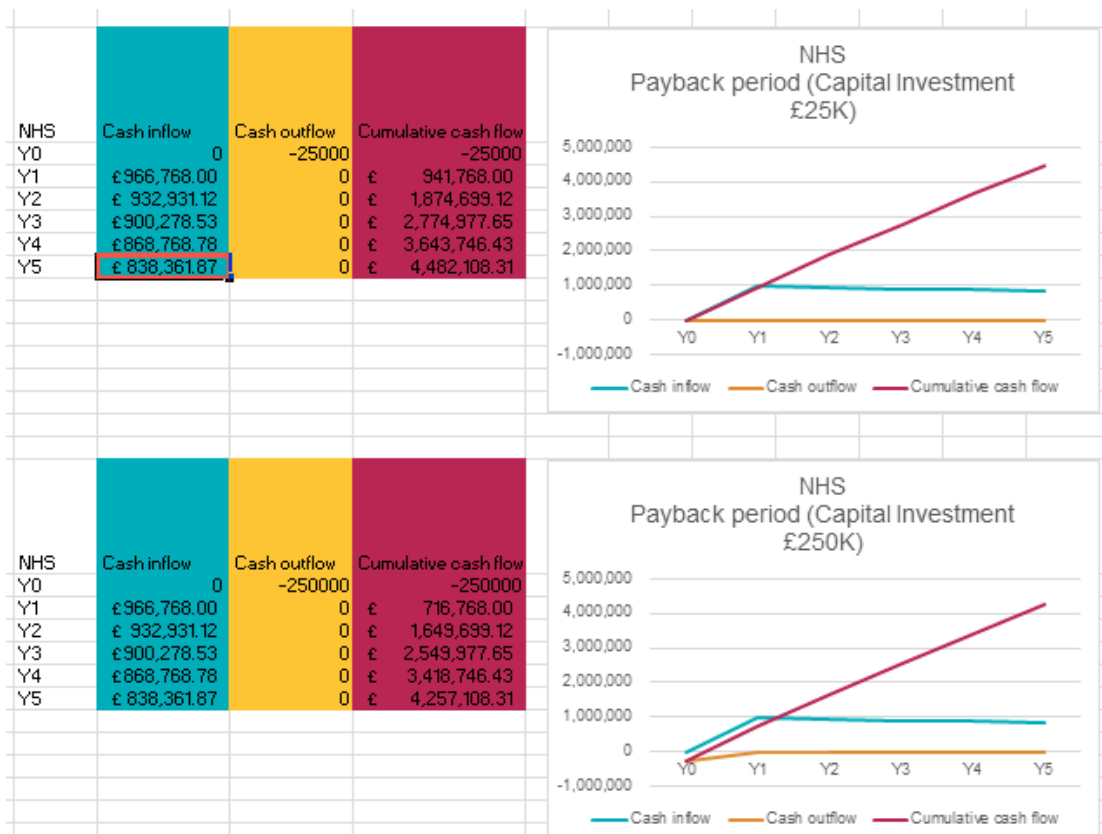


Figure 6.8: Spillovers versus different levels of capital investment for the 'NHS' stakeholder

Different capital investment amounts can be inputted into the tables (such as £25,000 and £250,000 in the example of Figure 6.8 above), which then promote different pay back period analyses, on a per stakeholder basis, according to the amount of money a particular stakeholder is willing to contribute to a scheme. The financial amount potentially inputted by a particular stakeholder can be offset by the monetary value received by the said stakeholder in the form of the cash inflow, which is the amount of monetisable socio-environmental spillovers.

In addition, the same calculations can be used for the scheme as a whole, as in the Figure below, taken from the City West Housing Trust environmental-led programme:

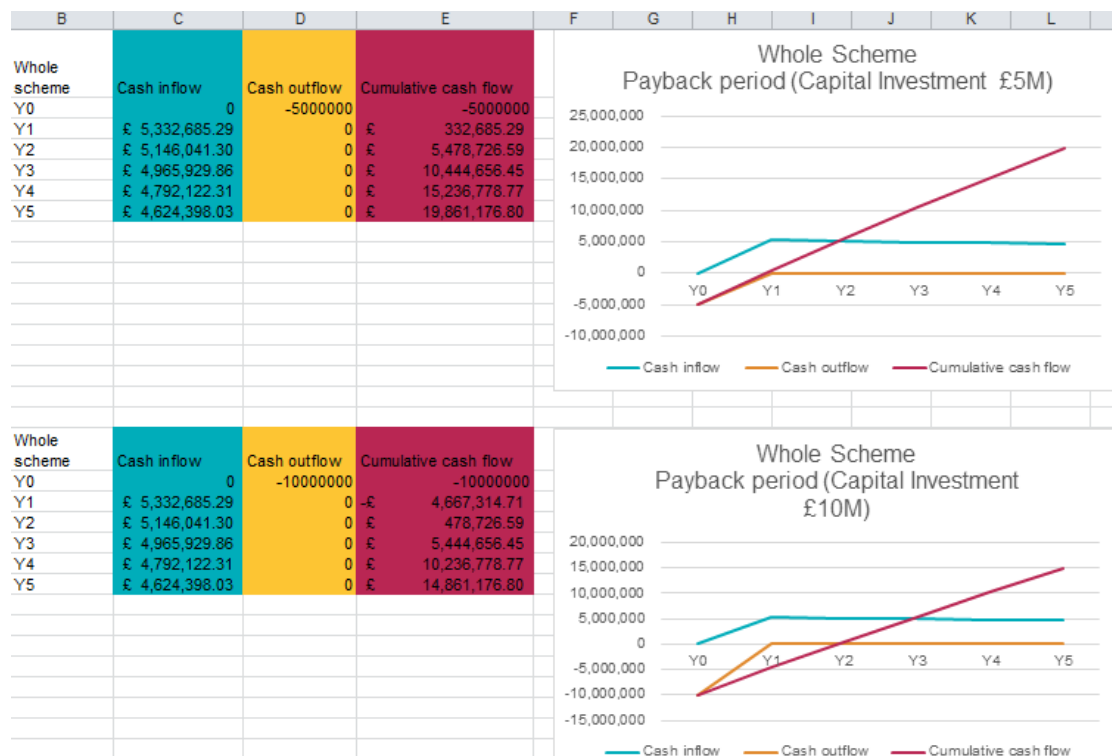


Figure 6.9: Payback period for environmental-led programme as a whole

Again, the different amounts of money inputted (in this example £5m and £10m) can be used to gauge the various differing payback periods for each stakeholder (or in this example, for a scheme as a whole) and would be changeable according to the amount of cash offered.

6.3. How to use the tool – Stage One to Stage Six

Firstly, before commencing with usage of the SuHousingImpact tool, it would be beneficial for any prospective user of the tool to familiarise themselves with the SROI or SuROI impact map and the accompanying SROI principles which underpin the valuation processes within such a methodology. These have been previously cited within this thesis, however for ease of reference they are repeated below:

There are seven principles of SROI as follows:

- Involve stakeholders

- Understand what changes

- Value the things that matter

- Only include what is material

- Do not over-claim

- Be transparent
- Verify the result

(Nicholls et al., 2012).

In addition, the various stages of SROI can be seen below:

1 Establishing scope and identifying key stakeholders.

Clarity is needed on exactly what the SROI will cover, who will be involved and how

2 Mapping outcomes.

Stakeholder engagement allows the development of the impact map and creates a theory of change which shows relationships between inputs, outputs and outcomes

3 Evidencing outcomes and giving them a value.

Researching of appropriate data to show whether outcomes have happened and subsequently valuing them

4 Establishing impact.

Once evidence is collected on outcomes and they are subsequently monetised, aspects of change that would have happened anyway are deducted

5 Calculating the SROI.

Calculations involve the addition of all benefits, before subtracting any negatives and comparing the result to the investment. This is also where the sensitivity of the results can be tested.

(Adapted from Nicholls et al., 2012)

6.3.1. Stage One

The first stage of the SuHousingImpact tool, in the same way as with SROI and SuROI, involves the inputting of stakeholder information. Such information requires actively thinking about which stakeholders are involved within a scheme. This initial stage is very important because without properly taking into account the correct number of stakeholders involved in a scheme, incorrect impact values will be being produced and it will not be clear if the analysis can capture the full nature of a project's eventual impact (Higham et al., 2017; Watson and Whitley, 2016). This will have an impact on all figures from the overall socio-environmental impact, to the impacts per stakeholder and the pay back period analyses. As previously advised

within this thesis, this aspect can potentially be improved by reinforcing the stakeholder analysis component of the SuROI methodology. Once all stakeholders are listed, then all intended and unintended changes can be listed within the impact map spreadsheet. This is where one looks on change encountered for the stakeholders involved in the housing-led urban regeneration scheme in question. Written data should be filled in within the cells found under the stage one heading.

| Stage 1 | |
|--|---|
| Stakeholders | Intended/unintended changes |
| Who do we have an affect on? Who has an effect on us? | What do you think will change for them? |
| | |
| | |
| | |
| | |
| | |
| | |

Figure 6.10: Stage One of the SuHousingImpact Artefact

6.3.2. Stage Two

Stage two of the process involves filling in information covering the inputs of a scheme, together with information on outputs and outcomes. Input information includes anything which is invested in a scheme, together with the value of those

inputs, in currency. The outputs should involve numerical summaries and outcome information should include how the involved stakeholders would describe the changes. It is important not to confuse the concepts of output and outcome. An example of an output would be an amount of jobs created or the amount of persons employed as a result of a given scheme, whilst related outcomes to these examples cited would include aspects such as personal wellbeing or confidence improving as a consequence of the aforementioned outputs.


| Stage 2  | | | |
|--|--|--------------------------------|---|
| Inputs | | Outputs | The Outcomes (what) |
| What do they invest? | What is the value of the inputs in currency (only enter numbers) | Summary of activity in numbers | Description |
| | | | How would the stakeholder describe the changes? |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Figure 6.11: Stage Two of the SuHousingImpact Artefact

6.3.3. Stage Three

Stage three of the artefact involves assigning monetary values to the outputs and outcomes assigned in stage two. These monetary values are in the form of either indicators and/or proxy values. For each indicator, the source should be highlighted

(information such as this satisfies the earlier mentioned transparency SROI principle) together with the change and duration. In addition to indicator values, financial proxy values can then be inputted for valuation purposes together with the accompanying value in currency and the source of the proxy, again to promote transparency. A financial proxy can be described as a figure that can be assigned as a stand in for variables that cannot be directly measured. The value of change and quantity of change are calculated via the embedded formulas within the spreadsheet.

In terms of sourcing indicators and/or proxy values for inputting purposes, any related and good quality primary data can and should be used for these purposes. Ideally, direct communication with stakeholders should take place either in the form of interviews or focus groups. In terms of appropriate secondary data, the following sources are of use:

6.3.3.1. Housing Associations' Charitable Trust (HACT) Social Value Bank

The HACT Social Value Bank database measures how much people's life satisfaction changes and is based on large data sets from national UK surveys (Trotter et al., 2014) such as the British Household Panel Survey (BHPS), Understanding Society, The Crime Survey of England and Wales and The Taking Part Survey (Bichard, 2015). These surveys are carried out in a general manner and attempt to gauge how people feel about their lives overall. This general approach avoids any psychological biases involved with questions being posed about a particular scheme or a particular project (Ibid, 2015). Of late, the English Housing Survey has also been used to contribute to the database. This involves information from over 13,000 households including

interviews with householders and a physical survey being carried out on the resident's property in question.

The HACT database includes up to 74 proxy values and more are to be added in 2018.

| Code | Outcome | Unknown | <25 | 25-49 | >50 | London | <25 | 25-49 | >50 | Outside of London | <25 | 25-49 | >50 |
|---------|---|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|---------|---------|---------|
| EMP1401 | • Full-time employment | £14,433 | £13,446 | £15,354 | £13,865 | £14,380 | £10,126 | £15,337 | £16,168 | £14,433 | £13,702 | £15,371 | £13,720 |
| EMP1602 | • Self-employment | £11,588 | £13,157 | £11,952 | £10,538 | £12,116 | £16,471 | £12,406 | £11,027 | £11,537 | £12,848 | £11,887 | £10,520 |
| EMP1603 | • Part-time employment | £1,229 | £737 | £1,824 | £1,966 | £1,966 | £1,966 | £1,966 | £1,966 | £1,176 | £737 | £1,850 | £1,966 |
| EMP1604 | • Government training scheme | £9,447 | £11,903 | £5,668 | £12,817 | £5,668 | £5,668 | £5,668 | £5,668 | £9,596 | £12,083 | £5,668 | £12,034 |
| EMP1605 | • Secure job | £12,034 | £10,871 | £12,148 | £11,969 | £10,502 | £9,089 | £11,504 | £8,993 | £12,083 | £10,923 | £12,164 | £12,116 |
| EMP1606 | • Apprenticeship | £2,353 | £1,861 | £2,948 | £3,090 | £3,764 | £3,764 | £3,764 | £3,764 | £2,195 | £1,756 | £2,868 | £2,985 |
| EMP1607 | • Vocational training | £1,124 | £1,124 | £1,124 | £1,124 | £1,798 | £1,798 | £1,798 | £1,798 | £1,019 | £1,019 | £1,019 | £1,019 |
| EMP1408 | • Regular volunteering | £3,249 | £2,895 | £2,742 | £3,324 | £3,772 | £4,663 | £4,663 | £2,306 | £3,199 | £2,562 | £2,536 | £3,474 |
| EMP1609 | • Regular attendance at voluntary or local organisation | £1,773 | £1,901 | £1,064 | £1,064 | £1,064 | £2,836 | £1,064 | £1,064 | £1,875 | £1,824 | £1,567 | £1,824 |
| EMP1610 | • General training for job | £1,567 | £2,507 | £1,437 | £2,507 | £2,206 | £940 | £2,507 | £2,507 | £1,515 | £2,507 | £1,359 | £2,507 |
| EMP1611 | • Employment training | £807 | £484 | £887 | £940 | £1,291 | £1,291 | £1,291 | £484 | £647 | £484 | £674 | £1,071 |
| EMP1612 | • Employed parent for children (11-15) | £1,700 | £1,700 | #N/A | #N/A | £1,020 | £1,020 | #N/A | #N/A | £1,901 | £1,901 | #N/A | #N/A |
| ENV1601 | » No problem with teenagers hanging around | £5,760 | £6,963 | £4,684 | £8,746 | £4,333 | £3,456 | £3,456 | £9,216 | £6,034 | £7,532 | £5,084 | £8,353 |
| ENV1602 | » No problem with vandalism/graffiti | £4,072 | £2,443 | £4,684 | £4,906 | £3,089 | £2,443 | £2,443 | £6,515 | £4,289 | £2,443 | £5,263 | £4,115 |
| ENV1403 | » Not worried about crime | £12,274 | £17,356 | £12,435 | £13,978 | £19,399 | £7,525 | £19,399 | £16,527 | £11,535 | £18,813 | £11,222 | £10,348 |
| ENV1604 | » No problem with anti-social behaviour | £6,403 | £3,842 | £7,199 | £6,496 | £3,842 | £3,842 | £5,579 | £7,580 | £7,057 | £4,289 | £7,868 | £6,310 |
| ENV1605 | » Police do good job | £5,340 | £6,263 | £6,082 | £3,204 | £8,543 | £8,148 | £8,543 | £3,204 | £4,800 | £5,959 | £5,277 | £3,204 |
| ENV1606 | » No litter problems | £3,555 | £3,173 | £3,684 | £3,300 | £2,133 | £2,133 | £3,470 | £2,133 | £3,942 | £5,533 | £3,813 | £3,513 |
| ENV1607 | » Able to obtain advice locally | £2,457 | £2,507 | £1,567 | £3,561 | £3,919 | £3,931 | £3,003 | £3,931 | £1,977 | £1,474 | £1,474 | £3,931 |
| ENV1608 | » Good neighbourhood | £1,747 | £1,048 | £1,048 | £2,795 | £1,048 | £1,048 | £1,048 | £2,795 | £2,054 | £1,048 | £1,048 | £2,795 |
| ENV1609 | » Feel belonging to neighbourhood | £3,753 | £2,706 | £2,252 | £6,004 | £2,252 | £2,252 | £2,682 | £2,407 | £3,919 | £3,223 | £2,252 | £6,004 |
| ENV1410 | » Talks to neighbours regularly | £4,511 | £3,369 | £3,195 | £6,820 | £3,910 | £2,972 | £4,007 | £6,820 | £4,535 | £3,837 | £3,070 | £5,075 |
| HEA1601 | ☒ High confidence (adult) | £13,080 | £14,224 | £13,065 | £12,565 | £13,188 | £15,264 | £12,801 | £12,817 | £13,065 | £14,152 | £13,096 | £12,549 |
| HEA1602 | ☒ Relief from depression/anxiety (adult) | £36,766 | £33,107 | £36,949 | £38,800 | £35,563 | £52,293 | £38,053 | £28,627 | £36,827 | £31,914 | £36,706 | £39,302 |
| HEA1603 | ☒ Good overall health | £20,141 | £16,921 | £21,200 | £20,323 | £23,338 | £25,869 | £24,282 | £21,715 | £19,913 | £16,412 | £20,922 | £20,186 |
| HEA1604 | ☒ Relief from drug/alcohol problems | £26,124 | £30,633 | £30,688 | £15,674 | £41,798 | £41,798 | £41,798 | £29,324 | £24,120 | £25,616 | £29,540 | £15,674 |
| HEA1605 | ☒ Smoking cessation | £4,010 | £4,571 | £4,072 | £3,856 | £2,410 | £6,416 | £2,406 | £2,406 | £4,041 | £4,414 | £4,196 | £3,948 |
| HEA1406 | ☒ Feel in control of life | £15,894 | £15,637 | £17,504 | £16,427 | £14,894 | £18,607 | £12,833 | £15,311 | £15,878 | £14,399 | £16,474 | £15,734 |
| HEA1607 | ☒ Can rely on family | £6,784 | £10,855 | £6,784 | £6,742 | £7,532 | £10,855 | £7,876 | £4,389 | £6,700 | £10,855 | £6,636 | £7,086 |

Figure 6.12: The Housing Associations' Charitable Trust (HACT) Social Value Bank (2018)

6.3.3.2. Global Value Exchange (GVE)

The Global Value Exchange is an online portal for social change metrics which includes work resulting from hundreds of organisations and researchers (Bichard, 2015) and includes a wide variety of databases including the English Indices of Deprivation, the Happy City Index (measures Wellbeing Valuation), the Progress out of Poverty Index, The Journey to Employment Framework, the Economy for the Common Good Balance Sheet, the New Economy Unit Cost Database, the NICE Indicators, the Global Youth Development Index and the NHS Outcomes Framework. All indicators and proxies can be searched by inputting key words into the search facility on their web site.

6.3.3.3. The Economics of Ecosystems and Biodiversity (TEEB) Valuation Database

The TEEB database includes a large database on monetary values of ecosystem services which now contains over 1,350 data points from over 300 case studies (GVE, 2017). After the release of the TEEB Valuation Database in 2010, the authors continued development of the database under the name “Ecosystem Services Valuation Database” (ESVD).

6.3.3.4. New Economy Manchester Unit Cost Database

The New Economy Manchester Unit Cost Database includes indicators and proxies within seven categories including crime, education and skills, employment and economy, fire, health, housing and social services and provides a very comprehensive set of data for use within the artefact.

6.3.3.5. Government Statistics

Government statistics are searchable via the web site of the Office for National Statistics (ONS, 2018), which has access to over 2,000 datasets including road safety data, crime statistics, databases published by the NHS, information on regeneration areas, housing and social housing.


| Stage 3  | | | | | | | |
|--|---|----------------------------|---|--|---|---|---|
| at changes) | | | | | | | |
| Indicator | Source | Quantity | Duration | Outcomes start | Financial Proxy | Value in currency | Source |
| How would you measure it? | Where did you get the information from? | How much change was there? | How long does it last after end of activity? (Only enter numbers) | Does it start in period of activity (1) or in period after (2) | What proxy would you use to value the change? | What is the value of the change? (Only enter numbers) | Where did you get the information from? |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Figure 6.13: Stage Three of the SuHousingImpact Artefact

It should be borne in mind that specific stakeholder engagement should be sought, resulting in primary data as far as possible which should be used in conjunction with such information highlighted above. It is not enough to simply use secondary data. Ideally, both primary and secondary data should be used to provide a full stakeholder account of impacts.

6.3.4. Stage Four

During stage four of the artefact, counterfactuals are used before the final impact of a scheme is conveyed. This involves deadweight, referred to as what would have happened anyway - deadweight is always considered to be an estimate due to the fact that a perfect comparison with the same group of people not benefitting from the same intervention is not possible (Nicholls et al., 2012). Next, displacement is an assessment of how much of an outcome has displaced other outcomes. It does not apply to every analysis but it is however important to be aware of this notion

(Nicholls et al., 2012). In addition its application ensures that any “negative issues that regeneration seeks to eliminate” (Higham et al., 2017) would not simply be transferred to another community, thereby giving a false reading of impact. Attribution is the assessment of how much of an outcome was caused by other organisations or people and at its most basic level involves making sure that all relevant stakeholders are included in the process (Nicholls et al., 2012). The authors state that drop off is “usually calculated by deducting a fixed percentage from the remaining level of outcome at the end of each year” (Ibid, 2012). The counterfactuals adhere to another of the aforementioned SROI principles in not overclaiming.


| Stage 4  | | | | |
|---|---------------------------------|-------------------------------------|--|---|
| Deadweight % | Displacement % | Attribution % | Drop off % | Impact |
| What would have happened without the activity? | What activity did you displace? | Who else contributed to the change? | Does the outcome drop off in future years? | Quantity times financial proxy, less deadweight, displacement and attribution |
| 0% | 0% | 0% | 0% | 0.00 |
| 0% | 0% | 0% | 0% | 0.00 |
| 0% | 0% | 0% | 0% | 0.00 |
| 0% | 0% | 0% | 0% | 0.00 |
| 0% | 0% | 0% | 0% | 0.00 |

Figure 6.14: Stage Four of the SuHousingImpact Artefact

6.3.5. Stage Five

Stage five involves the application of a discounted rate to the impact value, again, used in order so as not to over claim. There are a range of different rates that could be applied to totals within stage five of the process. However, for the public sector, the rate recommended in HM Treasury’s Green Book is that of 3.5%. Formulas are embedded within the cells in this stage of the impact map to calculate the discounted values.


| Stage 5  | | | | | | |
|--|--------|--------|--------|--------|--------|------|
| Calculating Social Return | | | | | | |
| Discount rate | | 3.5% | | | | |
| Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Figure 6.15: Stage Five of the SuHousingImpact Artefact

6.3.6. Stage Six

Stage six involves the novel contribution of this tool, and is the stage that has refined Bichard's SuROI methodology into the 'SuHousingImpact' tool. This stage splits numerical and quantifiable values within the impact map to show how potential stakeholders can either be winners or losers from a particular housing-led urban regeneration scheme, and by how much, in terms of socio-environmental impact. This stage is particularly useful in terms of being able to evidence how much or how little a stakeholder stands to gain from a particular scheme, which is useful in terms of the aforementioned offloading of costs to various involved stakeholders to ensure continued economic sustainability. In addition, this stage uses these same impact values to create pay back periods for each stakeholder and for the scheme as a whole. This is very useful as a strategic decision making, management or governance tool. Using these calculations, which have never before featured as part of a SuROI process, it would be able to prioritise schemes based on how quickly the pay back periods come along or alternatively it would be able to potentially cancel plans for any schemes which take too long to break even and it would additionally be able to be used to target certain groups of stakeholders that housing associations or housing-led urban regeneration facilitators wish to target as part of a scheme, either such stakeholders who previously have not benefitted from any such schemes or stakeholders who are currently benefitting from schemes at a cost to the housing association and who could potentially supplement such costs thus ensuring continued economic sustainability.



Figure 6.16: Stage Six of the SuHousingImpact Artefact

The workings and function of the payback period table and graph analyses can be seen within the simple examples below. If a stakeholder (such as ‘City West Housing Trust customers’) is made aware of the evidence-based socio-environmental benefits coming its way through a housing-led urban regeneration scheme, and that stakeholder agrees to pay a capital investment amount towards the financial sustainability of the scheme going forward, to the sum of, for argument’s sake, £100, then the payback period can be calculated to be within year 1, and seen below within the table and corresponding graph:

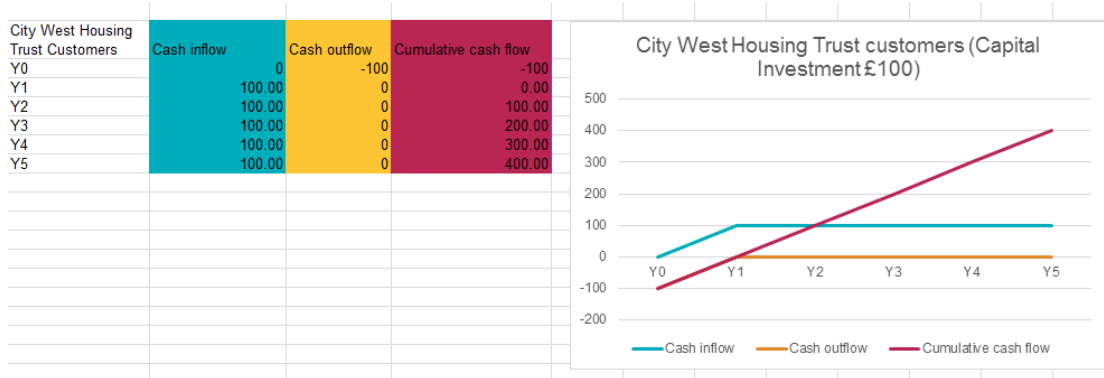


Figure 6.17: Capital investment of £100 payback period hypothetical calculation

Similarly, the same can be carried out, with a hypothetical sum of £200, where the payback period would then be within year two:

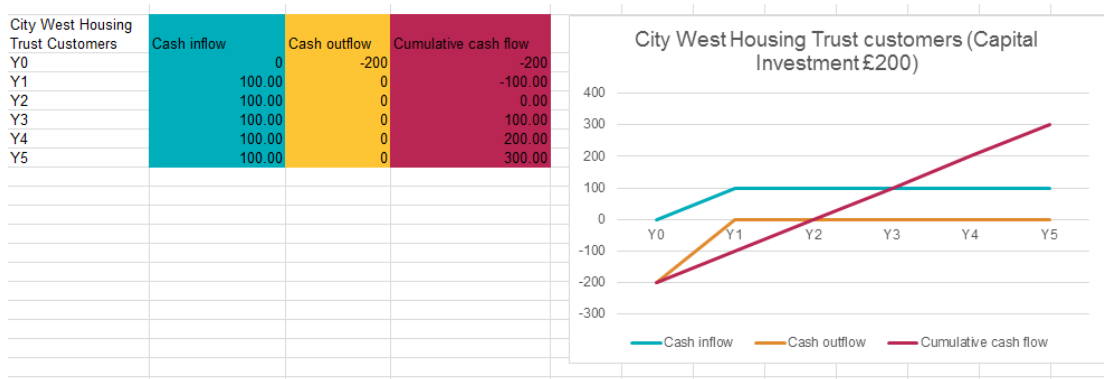


Figure 6.18: Capital investment of £200 payback period hypothetical calculation

The same can be carried out for the capital investment sum of £300, where the payback period is then within year 3:

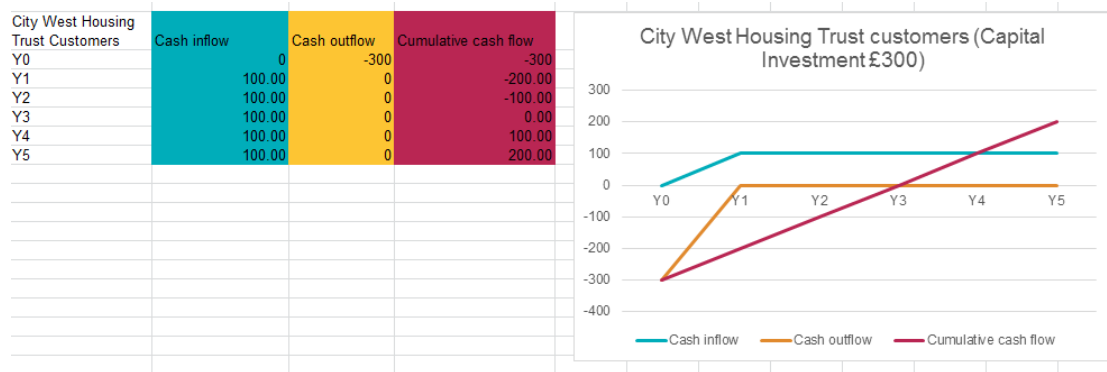


Figure 6.19: Capital investment of £300 payback period hypothetical calculation

The same calculation can be made with a capital investment sum of £400, where the payback period would then be within year four:

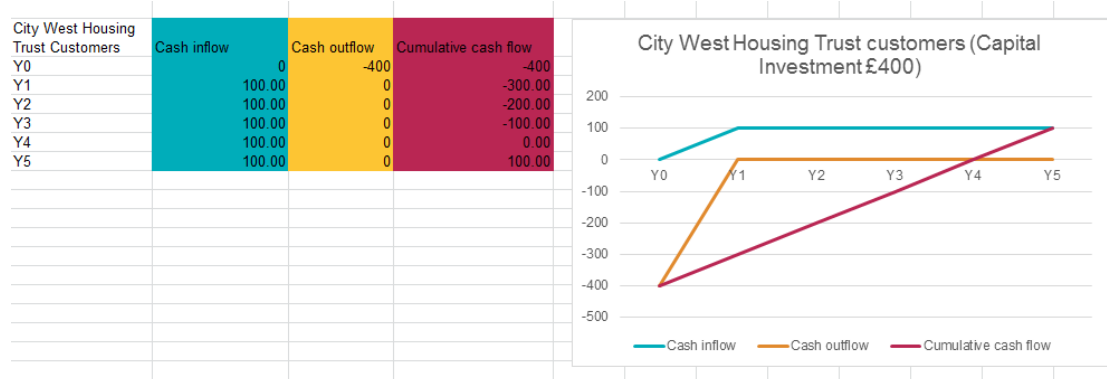


Figure 6.20: Capital investment of £400 payback period hypothetical calculation

Finally, the same calculation can be made with a capital investment sum of £500, where the payback period would then be within year five:

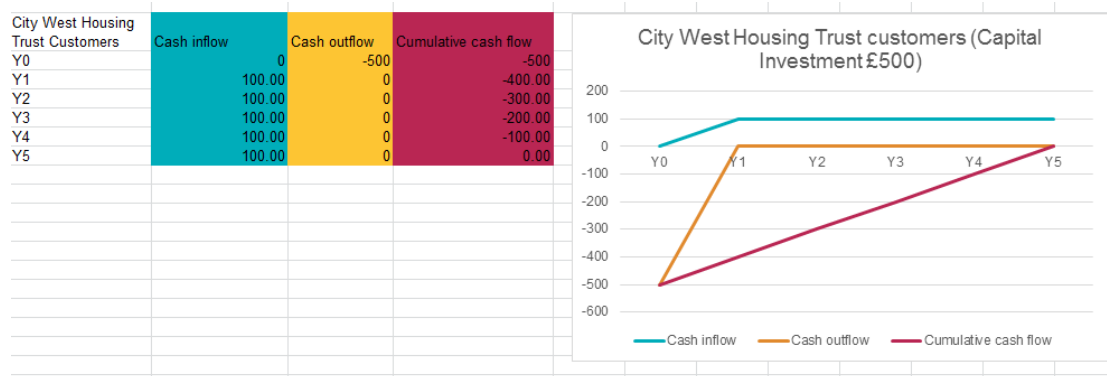


Figure 6.21: Capital investment of £500 payback period hypothetical calculation

6.4. Summary

This chapter has outlined the artefact produced as a ‘hybrid’ or refinement of the SuROI methodology and has been named the ‘SuHousingImpact’ tool. The tool acts as one of the novel contributions to knowledge found within this thesis in that it extends the already existing SuROI methodology by fine tuning the calculations within the impact map spreadsheet to create impact values for each individually involved stakeholder within a housing-led urban regeneration scheme. These values allow users of the tool the ability to view who the winners and losers of a particular scheme are in terms of social and environmental impact. In addition to this, pay back period analyses are created as part of the artefact for each individual stakeholder and also for the scheme as a whole. This changes the SuROI methodology from being an evaluation methodology into not only this, but in addition, a tool which can be used for strategic decision making, management or governance purposes.

CHAPTER SEVEN: EVALUATION, VALIDATION AND TESTING OF THE ARTEFACT

7.1. Introduction

This chapter will cover the case study example of City West Housing Trust, West Salford, UK, and will be used to show how the artefact as described in Chapter Six of this thesis can be useful for housing-led urban regeneration providers such as City West, both in terms of evaluating schemes more sustainably, through a quantifiable methodology, and also, of especial importance in the modern day economic climate faced by such regeneration providers, through its potential application in terms of offsetting economic costs onto potential wider stakeholders and, also, through the additional usage of the artefact as a strategic decision making or management tool through the new found information produced by stage 6 of the artefact which gauges impacts per stakeholder, and which introduces the notion of time, through pay back period analyses being able to be carried out both per stakeholder and for a scheme as a whole.

The full DSR template will again be utilised as a guide for the research whilst the process experienced by the researcher is fully explained.

This starts from the initial recognition that there was a necessity for a real world problem to be solved, through to the literature review being carried out, before the problem begins to be explicated, before the outlining of an artefact is carried out, then progressing onto relevant opinion and feedback being sought through key personnel at

City West Housing Trust, carried out through semi structured scoping interviews, the coding of said interviews then subsequently being carried out.

The data from the original scoping surveys will be shown to have been utilised directly in the ideology pertaining to the creation of the new artefact – the ‘SuHousingImpact’ artefact – a refinement of the SuROI methodology.

The artefact was then designed and developed, before being validated in two ways – firstly through a focus group context with key personnel at City West Housing Trust and additionally through open ended interview questions to both City West Housing Trust key employees and with representatives of other similar organisations who carry out housing-led regeneration or who have a practical interest in the subject area.

The artefact was then subsequently demonstrated and evaluated by being used on two housing-led urban regeneration schemes (which act as the two sub case studies) – an environmental-led programme and a high rise scheme.

7.2. Case Study: City West Housing Trust, West Salford, UK

City West Housing Trust (CWHT) is a not-for-profit housing association, based in West Salford that owns and manages over 14,600 homes in the North West of England. It launched in October 2008, following a stock transfer from Salford City Council. Following this, the company has worked in partnership with customers and

partners to build sustainable communities where local people are empowered to improve their lives through education, training and enterprise.

The Trust is passionate about managing, maintaining and building homes and services that local people need - both now and for the future.

CWHT is a ForViva group member and the vision and values of the company reflect this. ForViva's vision of 'improved lives' is underpinned by the group's Community Impact Strategy. This is all about working openly and in partnership so that together it is possible to make a difference to people's lives and futures.

The company has a vision of improved lives which applies right across communities, customers and staff; it values innovation, trust, openness, excellence, respect and passion, and has the following priorities:



Figure 7.1: City West Housing Trust's Priorities (City West Housing Trust, 2018)

Almost £250 million has already been invested in homes and neighbourhoods, and further major projects are underway. However, these projects work against a backdrop of difficult economic times.

City West Housing Trust was chosen as a case study because of the following reasons:

- The organisation is not a brand new housing association and so as part of the research, historical urban regeneration schemes are able to be looked at. Because of this, impacts can be assessed in a way that couldn't be done with more recent schemes
- It has a large portfolio of assets
- It has a range of housing types
- The Trust carries out a great deal of work within the local community, as was touched on in the scoping interviews in the Appendix of the thesis
- The Trust carries out a lot of community engagement and has built up an excellent relationship with its stakeholders
- There will be a wider range of opportunities to carry out further research in terms of future regeneration over time.

The researcher's background and interests are closely related and inter-linked with that and those of City West Housing Trust.

The researcher's background stems from working with the company in full time employment from its inception, in 2008, to the present moment in time, in a variety of roles. Before that, the researcher worked for City West Housing Trust's predecessor, New Prospect Housing Ltd, which was an Arms Length Management Organisation (ALMO) of Salford City Council.

It was a frequent regret at New Prospect Housing Ltd, and this has certainly continued with City West Housing Trust, that difficulties emerged when the organisations in question wished to evaluate housing-led urban regeneration schemes efficiently and through some sort of evidence-based approach. All too often the only methods for carrying evaluations out were customer satisfaction surveys that simply outlined what a customer/ tenant thought. The lack of a scientific approach meant that much of the time, these surveys were only useful to a certain extent.

In much the same way as has been highlighted earlier within the literature base, it proved difficult to capture social and environmental impacts of schemes. In previous years it was simply taken as 'one of those things' that such intangible benefits were simply not able to be recorded as part of any official evaluation. There were certainly areas where money was invested only for there to be the same prevailing issues only a few years down the line, as has been described previously within the academic literature, by Carley and Kirk (1998) and Leunig and Swaffield (2008), because of the lack of an appropriate methodology.

Areas of central Salford, in the Salford Precinct area of the city and the 'Valley' estate in Swinton, certainly fall into this school of thought. The Salford Precinct area is now managed by Salford City Council and Salix Homes, whilst City West Housing Trust has continued its management of the 'Valley' estate.

The common problem seen regularly by the researcher in his early days with both companies and the same common problem being discussed on a consistent basis by his colleagues led to a process of thought being undertaken by the researcher into whether there may be any potential solutions. Early thought processes involved whether there might be a simple generic way to evaluate urban regeneration schemes as a whole, whereby schemes were classed simply as being successful or as a failure. The involved scope was soon seen to be far too exhaustive, and there were additionally issues with the definitions of what actually constituted a 'success' or a 'failure'.

Upon enrolling for this PhD degree at the University of Salford, and upon embarking on the literature review, it was exciting that the academic literature base showed a resemblance to what the researcher and his colleagues were experiencing on a practical day to day level. The researcher's participant observation, and the subsequent literature review led him to focus on the need to find or create a practical solution to these longstanding issues.

Once the literature review was carried out, it was clear that the niche within the literature base was within the area of quantifying social and environmental impact; something previously not carried out. In effect making the 'invisible, visible'.

This niche within the literature was further developed when the researcher studied the area of SROI and the SuROI tool developed by Bichard (2015), with Professor Bichard initially being a supervisor of the researcher.

A real world practical problem had emerged. As described, and upon much thought, it was decided to use the DSR methodology to create a practical real world tool, or artefact, to solve the longstanding issues experienced by the researcher and his colleagues, which continue to the present day.

7.2.1. Explicate Problem

The initial problem at this point was the lack of quantifying the social and environmental impacts of a given housing-led urban regeneration scheme. Armed with this knowledge, the researcher carried out some semi structured scoping interviews with key staff at City West Housing Trust.

The semi structured scoping interviews were carried out for use with two specific tasks:

- 1) To attempt to gauge real world problems in the field in order that a new artefact be created to add to and refine existing SuROI in order to more specifically meet the needs of housing associations

- 2) To bring about and make clear relevant information pertaining to the environmental-led scheme and the high rise scheme, both carried out by CWHT in order that relevant data and information could be used within the two sub case studies carried out in order to then subsequently run such detail and information through the artefact.

The key employees interviewed worked on:

- a) the City West Housing Trust environmental-led programme,
- b) the City West Housing Trust high rise improvement scheme, or
- c) both of the above.

Seventeen interviews were carried out. This equates to one interview with every employee involved in the above two schemes. Because the schemes were run from the Asset Management department within CWHT, which meant that the researcher had excellent access to all parties and because the numbers of involved persons within each scheme was a manageable number of persons, it was possible to interview every single involved key employee relating to both schemes. This was of great benefit to the research.

There were two members of staff who had an interest, and could therefore provide opinion and feedback, on both schemes. Out of the remaining thirteen key employees, five were involved in the high rise scheme, with eight being involved in the environmental-led scheme. The reason for the slight difference in numbers was due to two full estates being open within the environmental-led programme simultaneously,

thus demanding more staff, and only typically one high rise block being worked on at any one time for the high rise scheme, thus demanding slightly fewer staff.

Roles of the interviewees within the organisation ranged from Assistant Director level, through to surveyors, planning managers, planning officers and administrative officers. Years of involvement with the company and its predecessor organisations carrying out housing-led regeneration activity in the West Salford area of the UK ranged from a couple of years' duration, through to two decades and over, and in one example, forty years' experience. The vast majority of interviewees had extensive experience in the field of housing-led urban regeneration both whilst at CWHT and during their previous roles.

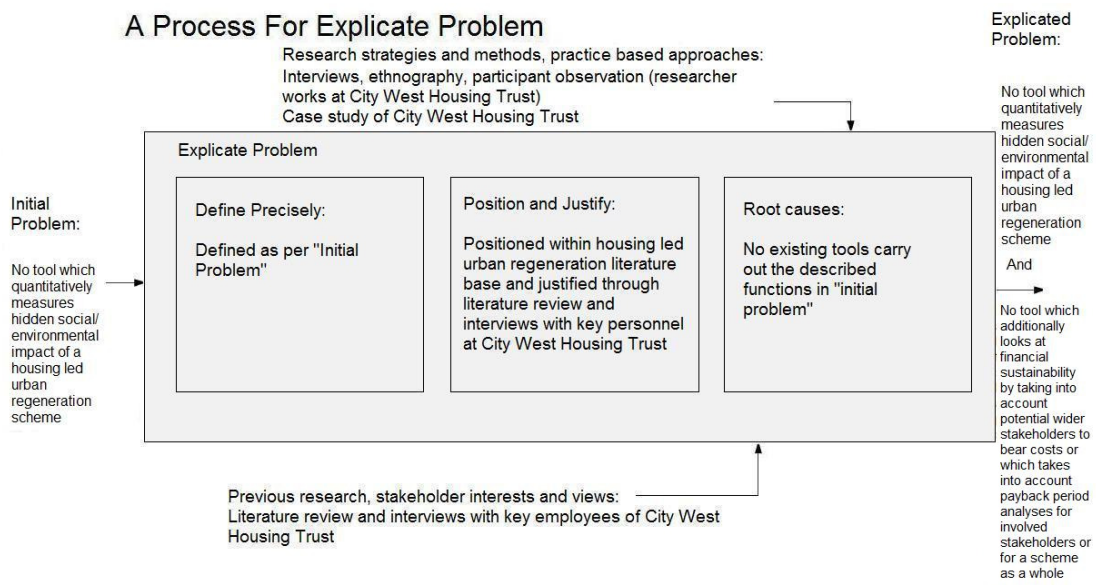


Figure 7.2: The author’s adaptation of the specific research element for “A Process for Explicate Problem”, as shown in Johannesson and Perjons (2012)

As can be seen from the above “explicate problem” stage of the DSR process, the initial problem was that there was no tool to quantitatively measure hidden social and environmental impacts of housing-led urban regeneration schemes – this becoming initially apparent through the researcher’s participant observation, ethnographic study and literature review, and became even more apparent through the scoping interviews with key CWHT staff covering their experiences with the environmental-led and high rise schemes. However the interviews additionally brought about a need for financial sustainability to be taken into account in some way. The interviewees cited that there had previously been many regeneration schemes where lots of investment had been put in, only for the social return to be minimal. Interviewees additionally stated that in the current economic climate, the housing trust doesn’t want to be outlaying massive investment, only to be having to do exactly the same in 30 years’ time. Employees interviewed wanted to see more sustainability, less wasting of money and most importantly, ways to plug the gap created by the recently experienced economic shortfall which is impacting on housing associations, tenants and communities alike. This led to the revised explicated problem of there being not only no tool to quantitatively measure hidden social and environmental impacts of housing-led urban regeneration schemes but also that there was no tool which, in addition to this, looks at financial sustainability by taking into account potential wider stakeholders to bear costs or which takes into account pay back period analyses for involved stakeholders or for a scheme as a whole.

7.2.1.1. Explicate Problem: Semi structured interview findings leading to the refinement of SuROI

The semi structured interview transcripts were provided to participants prior to interviews taking place. All interviews were electronically taped and transcribed by using a dictophone. The transcripts were then exported to NVivo software for analysis.

Content analysis is an appropriate technique to identify key issues from a large volume of transcribed qualitative data (Weber, 1985) and is considered as a suitable technique to reduce answers to “manageable” and “meaningful” categories (Gilham, 2000).

All scoping interviews were transcribed, recorded and then stored by using the Microsoft Word document format before being uploaded onto NVivo. NVivo can be used to efficiently manage, code and manipulate large amounts of qualitative data and analyse them through such methods as autocoding (this manipulates data according to inputted headings which means that the sorting of data can be carried out question by question for example), word frequencies and associated ‘word clouds’ or cluster analyses. Conceptual maps can also be created.

Coding is used to identify relevant information in the qualitative data which involves assigning a word or phrase (a concept) which best represents the relevant information

(Bazeley and Jackson, 2013). It is important to review the characteristics of the research question in carrying this out (Kane and Trochim, 2007).

The semi structured scoping interview transcript was split into two parts and can be seen, together with all responses, within the appendices of this thesis. The first part consisted of an introductory or more general section. This was followed by a specific case related section.

Although some questions within the more general section were designed to ease the interviewee into the mode of conversation, some questions were designed to gain specific data that could potentially be useful later in the analysis.

One such question asks whether the interviewee had ever been introduced to the quantifying of socio-environmental benefits:

Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

There were mixed responses to this question with some interviewees having heard of this concept, whilst others hadn't.

Interviewees were aware of the necessity of measuring social and environmental impacts and the advantages and disadvantages of carrying this out.

“Even if you can’t assess the impact, it still makes you look at what you did and what it cost, so at least you have the context... you need to assess the inputs, the outputs and the outcomes”

“Being able to justify that the project achieved its aims is a big part”

“We could use this if we are looking to gain funding. We could use actual figures to back our argument up with. It provides a lot more weight than simply comments from customers”

A comprehensive response on such impacts from one interviewee is outlined below:

“We want our tenants to be able to pay their rent. For them to do that, they need to be able to afford to live in their properties. We can make the affordability of those properties more sustainable by the investment we undertake.

So for example in terms of fuel poverty, the corporate strands are factored into our investment programme. So, one of those may be health and wellbeing, which is something that is important to our customers and not something which you might feel is easy to measure, however we’ve put things in place to try and get quantifiable outputs on the back of our investment programmes.

We know that our carbon footprint on those blocks are significantly reduced, we know, remotely through the BMS (Building Management Systems) systems what some are paying for their heating systems, and we knew this with our work with Cambridge University what customers were paying before we did the work.

Traditionally, other providers would probably look at “what do we need to spend on the block as a minimum” just to fulfil statutory obligations, and not to consider the impact of doing something which may give a customer more or less disposable income whereby they may or may not be able to pay the rent and then on the back of that, property turnover might get higher, so it impacts on you and the customer so we’re all about tackling both sides”.

It was also cited that nothing is in use that quantifies such impacts currently, because, up until recently, CWHT was very focussed on delivering the necessities by which they themselves were being evaluated by Government and the banks that were lending them money – i.e. the decent homes standard, for all its customers and improving the

physical quality of their stock. Because of this, it wasn't necessary to quantify the reasoning behind schemes. The only necessary reasoning was because of the decent homes standard:

“We don't use anything quantifiable currently”

“We didn't previously need to quantify why we were doing schemes”

The problem with a lack of clarity regarding where social and environmental impacts lie however is that in essence, schemes are not being planned in or carried out in a targeted fashion:

“We are tending to do stuff which seems to be the general wish of our customers but whether this has any environmental or social benefit or not, we don't know. We need something more than what we've got to go off so far”.

Another question covers the existing methods or metrics that City West Housing Trust currently uses to monitor change or impacts:

Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Out of seventeen responses, seven responders answered that this was a 'no', with two respondents stating that they did not know. Out of the remaining respondents,

customer satisfaction surveys were mentioned as being one method used by CWHT to monitor change or impact, with one respondent stating:

“But I don’t know where they go or what we do with them”

Key Performance Indicators (KPIs) (which include the length of time works are carried out within a property, the quality of a handover, whether the handover was accepted first time, and the amount of no accesses) were another. A handover is when a job is complete and the contractor carrying out works hands back the property to the client organisation for perusal, appraisal and acceptance, or non acceptance as the case may be. The handover is only then accepted on the surveyor in question being happy at the standard of work carried out.

The organisation’s customer inspectorate/ customer feedback was highlighted as being a method of monitoring change and impact, but whilst this is impressive in terms of customer liaison, involvement and consultation, it does not utilise a scientific or evidence-based methodology.

One respondent highlighted a study carried out by students of the University of Cambridge nine years ago, which involved the thermal mapping of blocks and energy usage data.

Other responses include questions being asked of the customer base which asked tenants for an opinion on a rating of their neighbourhood and included questions on customers’ feelings of vehicle security, whilst the usage of SAP (Standard

Assessment Procedure - a framework for calculating the energy consumption of dwellings) rating or a monitoring of customers' fuel bills were featured.

One respondent mentioned the Housing Associations' Charitable Trust (HACT) values.

Another question within the general section of the scoping interview transcript which links into the above asked:

Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Again, in answer to this question, customer satisfaction surveys, 'lessons learned' sessions or the evaluation of specific contractors' performance were highlighted as being useful, whilst 'Promaster' (the CWHT Asset Management team's property management system and database) was also cited. This was referred to as providing a social impact score via the Net Present Value system, against each of CWHT's neighbourhoods, but in reality this scoring system is little more than a drop down menu which links to nothing. Additionally this system does not evaluate the social or environmental impact of housing-led regeneration schemes (NPV is covered in more detail later in this section).

It was additionally mentioned that there have been evaluation opportunities but because of time constraints and the fast paced environment within the housing sector, staff don't always have time to carry this out.

In addition, references to a recurring theme reappear. The responses outline the necessity of being able to gauge what is received in terms of impact, from a given

outlay of money invested in a scheme and the expression that this is something both not currently carried out, and something that would be needed in future. The last quote also highlights the necessity of not only CWHT being able to gauge the impact from its own perspective, but from the perspective of the impact on its customers. This can be extended to any particular stakeholder:

“I also think that if you look at some of the sums we’ve been spending on things, we just don’t know what we’ve got back from this. We need to know this really”

“We, and others, need to know what we are getting back from our investments”

“We don’t really know if some of the huge outlays we have are working. We can’t keep spending large sums of money in the current climate unless we know what we are getting [back]”

“There wasn’t any obvious toolkit [...]. We need to improve because we don’t want to be constantly outlaying money on schemes where there’s no impact. Things are tough at the moment financially so we need more robust methods in place to show that we know exactly what we and different parties are getting out of schemes”

“We have to make sure we know what we’re getting back though from the investments we’re putting in [to schemes], otherwise it’ll be a disaster financially. Especially the way things have gone recently”

“Financially things are tight currently and we don’t want to be spending money in location X if we aren’t going to have an impact. We need to know exactly what is going on in every way regarding the various impacts that are being created”

“In terms of what difference [that makes], we’re not so good at [measuring] that”

“We don’t know what we get back from investment and we don’t know what our customers get back either”

“Something that we really need is to have an evaluation system in place really that generates good results. Good evaluations. We’ve spent a lot of money recently on the refurbished schemes and we don’t want to be outlaying this money constantly going forward”

“Also we don’t really know how particular groups of stakeholders benefit from schemes if I’m being honest”

“Some of the investment we are putting in is pretty big money. We currently don’t know what we as an organisation are getting out of such an investment. Neither do we really know what other stakeholders are getting out of it. That’s something we need to be looking at.”

The above quotes are reaffirmed by a commentary on the Net Present Value (NPV) of stock. Net Present Value is a calculation that compares the amount invested today to the present value of the future cash receipts from the investment and is calculated using rental income, management costs, void maintenance cost, void rent loss, repairs and maintenance costs, capital and revenue costs, a discount rate of 5.5% and the rate of inflation – current figure applied by CWHT is 2.5%.

The commentary cites that despite the use of NPV in terms of channelling investment to get the best return:

“We need more [than this] to show us what we get back for our money”

In terms of a focus on less tangible benefits of delivering investment, it is also cited that CWHT does carry out some social accounting, which makes it *“more robust than most”* according to one respondent, but it was also expressed that there are issues with an inability to measure more intangible impacts and that this is a wider issue within the sector as a whole:

“There is nothing to tangibly measure how successful a scheme has been”

“A lot within the sector don’t do anything in terms of looking at the less tangible benefits of delivering investment”

Also covered was the issue that there is a lack of knowledge relating to being able to scientifically or sustainably measure the impacts created by a given regeneration scheme:

“We don’t know at present whether what is happening is as a direct result of the regeneration works or not. I don’t think there are any targets or measures. If for example we see lettability increase on the estate in question, we don’t actually know whether that is a result of the regeneration works or not currently. It might or it might not be. Nothing currently scientific”

“From a sustainability perspective [current evaluation methods are] not very good because there were no tools in place to assess that”.

7.2.1.2. Coding of initial scoping interviews

On assigning the codes for the scoping interviews, which were assigned through reading the transcripts several times and then adding a relevant word or phrase used to sum up a part of the text, the chosen codes were then reassessed before duplicates were deleted and similar codes were brought together. It was found that five codes (or ‘nodes’ as NVivo refers to them as) were present within the transcript qualitative data produced by the scoping surveys:

The final codes/ nodes were:

- **CURRENT EVALUATION METHODS**
- **DATA COLLECTION**
- **LACK OF KNOWLEDGE ON HOW STAKEHOLDERS BENEFIT**

- **NEED FOR MORE KNOWLEDGE BACK FROM FINANCIAL OUTLAY**
- **POTENTIAL BENEFITS OF SuROI METHODOLOGY**

If we take each of the codes assigned to the scoping interview transcripts, we can see the amount of sources and references belonging to each code in the table below which is useful in terms of not only analytical purposes, but from Silverman (2005)'s perspective in terms of inter-rater reliability (see Section 5.4.8):

| CODE | Sources | References |
|--|----------------|-------------------|
| Current evaluation methods | 11 | 16 |
| Data collection | 1 | 1 |
| Lack of knowledge about how stakeholders benefit | 7 | 7 |
| Need for more knowledge back from financial outlay | 8 | 10 |
| Potential benefits of SuROI methodology | 2 | 6 |

Figure 7.3: Codes assigned to the scoping interview transcripts

The scoping interviews were used to give direction to the creation of the new artefact, to be subsequently created through a refinement of the existing SuROI methodology.

The information gleaned from the scoping interviews mostly aligns with the knowledge that has already been gained from the literature review. This is namely that there exists issues with current evaluation methods – i.e. that they do not quantify

socio-environmental impacts. The interviews show that currently such evaluation methods in use include:

- Customer satisfaction surveys

“[the] only method that I know of is that of the customer satisfaction survey”

- Net present value model

“We have a Net Present Value model which sits on the Asset Management database”

- ‘Lessons learned’ approach

“We have had lessons learned workshops with people involved in the projects”

- Simple contract management/ monitoring

“There are methods to evaluate schemes but this is mainly whilst schemes are progressing and to evaluate contractors’ performance”

The qualitative data also shows that there are potential benefits of using the SuROI methodology:

“We don’t know at present whether what is happening is as a result of the regeneration works or not”

“[We use] nothing quantifiable currently”

“Nothing currently scientific [is used]”

An important point about data collection is referred to as part of a third category:

“[Any artefact is] only as good as your data collection”.

Data collection issues were revisited during the second set of open ended interviews which will be looked at later in the chapter.

However, two particularly interesting areas that arose from the scoping interviews were the areas that ultimately lead to the refining of SuROI in the manner that is carried out within this thesis, thus creating the artefact. These are the two codes of **“lack of knowledge about how stakeholders benefit”** and **“need for more knowledge back from financial outlay”**.

In terms of a lack of knowledge about how stakeholders benefit, the following was cited:

- CWHT and stakeholders need more knowledge on how they benefit from a given scheme

“We and others need to know what we’re getting back from our investments”

“Neither do we know what other stakeholders are getting out of it”

“We don’t know what we get back from investment and we don’t know what our customers get back either”

- CWHT and other stakeholders need more knowledge on what they get back from investments/ financial outlay

“We, and others, need to know what we’re getting back from our investments”

“We’ve spent a lot of money recently on the refurbishment schemes and we don’t want to be outlaying this money constantly going forward”

“We need more robust methods in place to show that we know exactly what we and different parties are getting out of schemes”

The links between the codes above can be described in accordance with the literature base in that **current evaluation methods** would appear to be insufficient, this then leads to **potential benefits of the SuROI based methodology** to be discussed and researched, then by taking on board practical real world viewpoints from professionals within the field of housing-led urban regeneration, a new artefact is created to plug the gaps which are explicitly stated as being a **lack of knowledge about how stakeholders benefit** and a **need for more knowledge back from financial outlay**.

It was the responses and data gained above that lead to the idea of refining the SuROI methodology in order to gauge impacts and inputs per stakeholder (and for the scheme as a whole) and it was the highlighting of the importance of the financial component in the responses which lead to the idea of pay back periods being developed per stakeholder (and for the scheme as a whole). The financial component of the triple bottom line further subsidised by looking into which stakeholders gain and lose, and allowing for potential donations to alleviate financial issues from

stakeholders who gain, thus reinforcing the economic component of the triple bottom line.

7.2.2. Define Requirements

As a result of the above, the defined requirements necessary and the outlining of the potential artefact to solve the original explicated problem can be made clear.

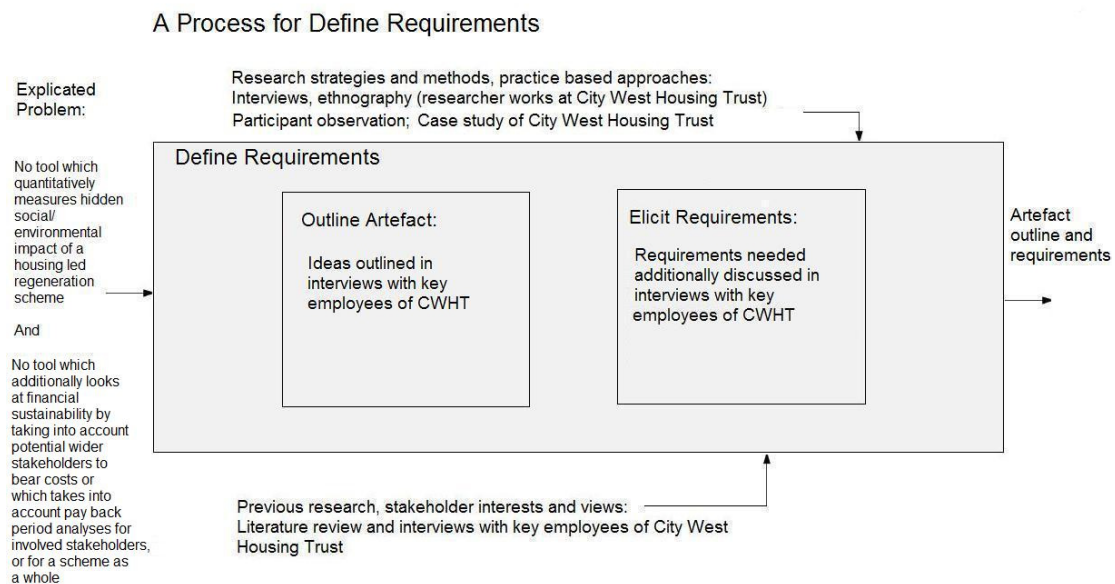


Figure 7.4: The author’s adaptation of the specific research element for “A Process for Define Requirements”, as shown in Johannesson and Perjons (2012)

Next, the primary interviewing stage was completed and the work on the design and development of the artefact was carried out on the part of the researcher himself.

7.2.3. Design and Develop Artefact

Within this stage, which is a creative stage, the brainstorming of ideas was used from the interview sessions, but also imagination and sketch and build on the part of the researcher.

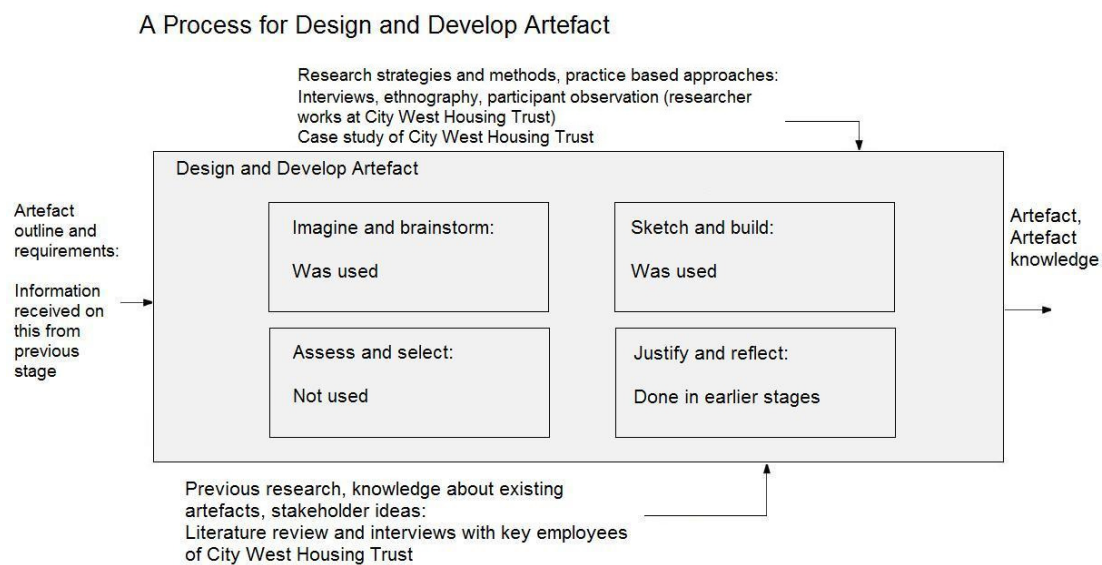


Figure 7.5: The author’s adaptation of the specific research element for “A Process for Design and Develop Artefact”, as shown in Johannesson and Perjons (2012)

The creation and refinement of the artefact took many months, with the completed artefact being a refinement of the SuROI methodology (Bichard, 2015), where SuROI has been further improved by being used to map out costs and benefits of potential future stakeholders – such stakeholders potentially being involved in the housing-led urban regeneration scheme or process, with the assessment methodology being easily adaptable by being refocused in terms of stakeholders’ engagement. The thinking

behind the artefact is that by repacking the financial calculation allocating costs and benefits across different stakeholders involved, it would be possible to attract potential new investors, willing to increase the benefits that the method has unveiled. This resulting form of SuROI means that it is packaged as a hybrid, including both the exposure of hidden costs and benefits, but additionally with a transfer of the methodology to attract potential new investors.

If previously invisible and intangible benefits resulting from a housing-led urban regeneration scheme are being made visible and tangible by using the SuROI method, then by analysing which potential stakeholders are receiving benefit from the said scheme, we can highlight to those stakeholders not yet involved in the scheme, the cost benefit that is attributable and which is actively helping that stakeholder organisation, as a result of the said scheme.

By actively seeking out and discussing the financial benefits that are coming the way of the not yet involved stakeholder, we can prevent schemes being affected by current economic cuts, by offsetting budgetary cuts through striking agreements with those stakeholders who benefit.

The new artefact would be used to gauge the quantifiable amount of impact for each stakeholder involved in a housing-led urban regeneration scheme and would show in monetary units whether or not each stakeholder gains or loses from a given project, and additionally, by the cash flow amount involved.

In addition, the time of the pay back period, where the quantifiable impact meets the figure of the inputted cost of the project, can be calculated by using the SuROI methodology and would result in a graphical format. The pay back period can be calculated for both the entirety of the scheme and, alternatively, for each individual stakeholder.

7.2.4. Demonstrate Artefact

Once the new ‘SuHousingImpact’ artefact was created and once the researcher was confident that it could be used in a practical context and met all requirements deemed necessary from within the ‘define requirements’ stage of the DSR process, the artefact was demonstrated.

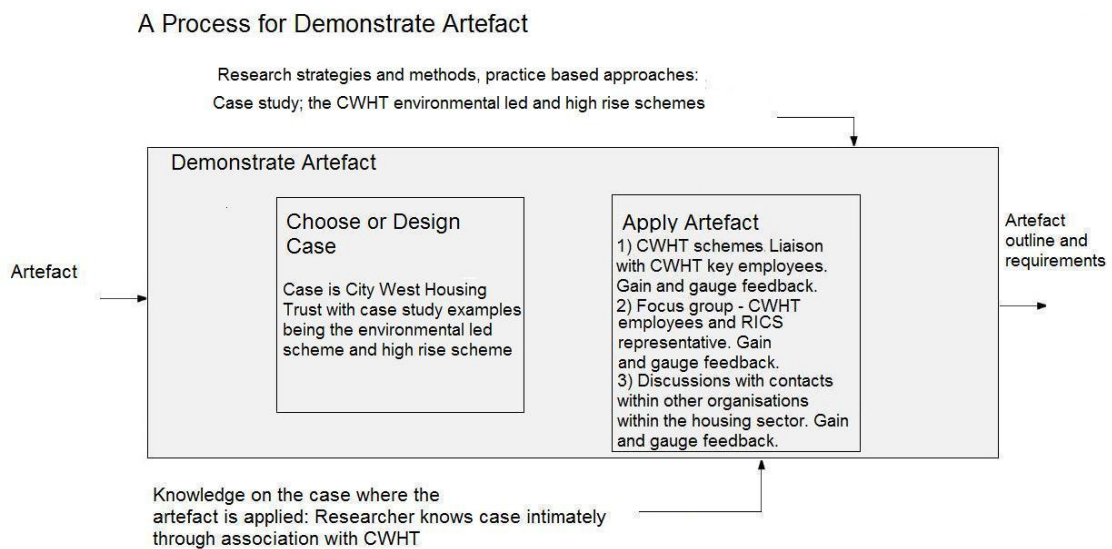


Figure 7.6: The author’s adaptation of the specific research element for “A Process for Demonstrate Artefact”, as shown in Johannesson and Perjons (2012)

Values were inputted into the artefact from the City West Housing Trust environmental-led programme and the City West Housing Trust high rise scheme which the researcher knew intimately. This formed part of the 'demonstration of the artefact' and includes the application of the artefact through different methods:

- 1) Artefact applied with a liaison with key employees of the housing association. This would be contextually relevant and appropriate due to their knowledge of the organisation and the housing field and their day to day, practical knowledge. Feedback on any potential failings of the artefact were subsequently gained and gauged.
- 2) Artefact discussed within a focus group context with key employees of City West Housing Trust and a representative of the Royal Institution of Chartered Surveyors (RICS). Feedback was again gauged on potential artefact failings.
- 3) Artefact discussed with contacts pertaining to other, different organisations within the housing sector, to attempt to get a further, more rounded and fuller feedback on the artefact, from real world professionals working within the field on a day to day basis, but from other organisations than City West Housing Trust. Again, feedback was gained regarding any potential artefact failings.

The validation of the artefact was also carried out as part of the above process. The open ended interviews and focus group involved in the above three areas formed the basis of this.

7.2.5. Evaluation of the Artefact

After the above validation of the artefact, the evaluation of the artefact is then carried out by using the SuHousingImpact artefact on both sub case studies within this research – the sub case studies of:

- a) the environmental-led programme and
- b) the high rise scheme

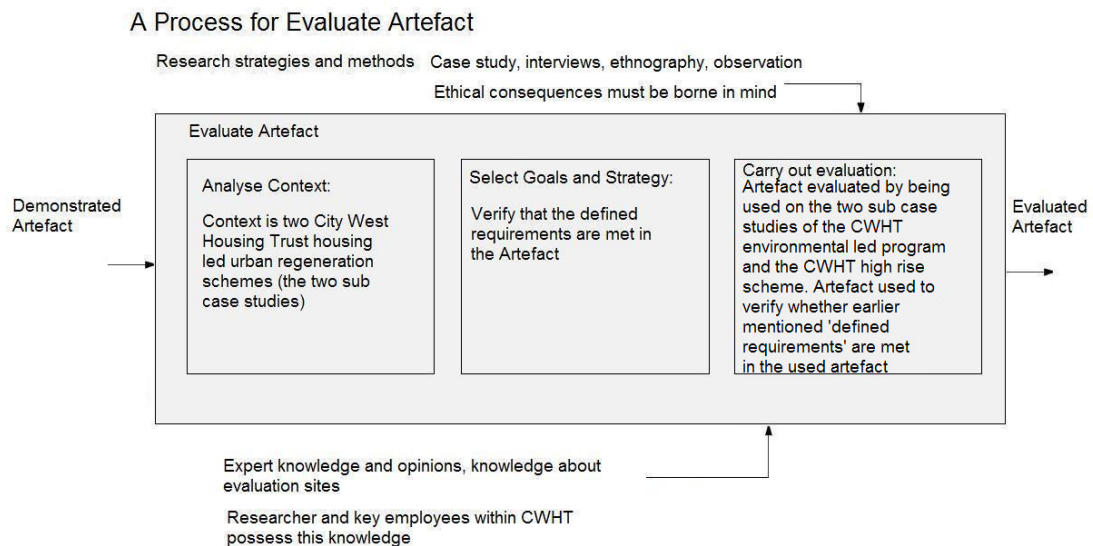


Figure 7.7: The author’s adaptation of the specific research element for “A Process for Evaluate Artefact”, as shown in Johannesson and Perjons (2012)

A single case study strategy has been chosen, with two sub case studies; i.e. two extant housing projects – an environmental-led programme and a high rise housing scheme, which have been assessed in order to monetise their social and environmental value. This demonstrates how the novel artefact can successfully describe and analyse a range of externalities related to the sustainable value generated by social housing regeneration schemes, whilst looking more deeply into the economic sustainability of a scheme and in addition, by introducing the concept of time.

7.2.5.1. The Environmental-Led programme

By utilising the information gained from the first round of interviews carried out with CWHT key employees (the scoping interviews), the second part of each interviewee's transcript contained questions relating to specific information pertaining to it that could be utilised within the prospective completed impact map of the artefact. The thinking behind this was so that both the sub case study schemes used in this study could be used to carry out an actual evaluation through the usage of the new artefact.

During 2014/15, CWHT delivered high-specification environmental improvements to 476 customer homes. These improved the physical appearance of neighbourhoods, enhanced property security, and provided off-street parking. Figures 7.8 and 7.9 show photos of before and after the works:



Figure 7.8: City West Housing Trust environmental-led programme before works



Figure 7.9: City West Housing Trust environmental-led programme after works

The questions within the transcript were set up to mirror the columns within the impact map of the artefact, with the information provided by the initial scoping

interviews to be used to form assessments on the socio-environmental impact of both the environmental-led programme and the high rise scheme.

However, in accordance with the new artefact, these monetary values will also be presented within the new 'stage 6' to show the inputs and impacts per stakeholder together with an accompanying line graph per stakeholder showing the pay back period. In addition, the same is carried out for the scheme as a whole.

If the completed impact map of the environmental-led scheme is followed through the stages, from left to right, we can see the following:

The stakeholders:

Involved stakeholders listed by interviewees within the said scoping interviews included City West Housing Trust customers, private owners on the estate (the estate within which works were carried out), CWHT customers' families, friends or visitors to the estates, the community/ public in general, Salford City Council highways department, the involved architect with the scheme, utility companies, contractors, CWHT and its staff, police teams who deal with low level issues such as parking issues and the NHS.

Stakeholder details are inputted into Stage 1. Also inputted into Stage 1 are any intended or unintended changes resulting from the said scheme.

Interviewees came up with different changes that they thought were applicable which were then subsequently entered into the impact map. Such intended or unintended changes involved per stakeholder included:

- City West Housing Trust Customers:

Improved security
Improved parking provision and increased safety
Aesthetics improved including better and more uniformed appearance/ environment
Happiness/ well being/ pride/ quality of life/ customer satisfaction
Safety including traffic safety
Lower maintenance levels
Fewer arguments over parking

- Private Owners on the estate:

Improved parking provision
Improved aesthetics of area/ better environment
Value of property
Potential improvement of ASB/ Crime
Improved well being/ pride/ quality of life
Traffic safety improvement

- CWHT customers' families, friends or visitors to the estate

Improved parking provision and congestion reduction
Improved aesthetics of area
Reduction in crime
Traffic safety improvement
Regeneration impact to local area

- Community/ public in general

Improved parking provision and congestion reduction
Improved aesthetics of area

Reduction in crime
Traffic safety improvement
Regeneration impact to local area

- Salford City Council highways department

Improvements to pavements (dropped kerbs)

- Architect

Architect drew up plans which were integral to the scheme

- Utility companies

Utility information supplied pre scheme

- Contractors

Contractors' staff working directly on the scheme

- CWHT and its staff

Increased value of stock
Sustainability and regeneration impact
Fewer complaints
Lower maintenance costs
Reduction in crime and ASB
Better void turnover and thereby, rental income
Customers take more ownership/ care more
Investment into area by CWHT through environmental scheme
Staff involvement and related costs

- Police team dealing with such aspects as parking issues

Fewer issues to deal with by organisations such as the Police

- NHS

Health benefits brought about by the scheme for the local population

Once stage 1 is complete, then the evaluation moves onto stage 2.

Stage two involves the inputting of information belonging to categories such as inputs (which can be time or money for example), and also outputs and outcomes.

For the environmental-led scheme, inputs included the price of the scheme itself by way of cost value (£3,200,000), followed by £50,000 worth of CWHT officers' staff involvement costs.

The input costs in total are then calculated as £3,250,000.

Summaries of activities carried out in numbers, also inputted within stage 2 of the impact map include the 467 properties subject to works being carried out, and the 300 driveways that were installed.

Stage 3 involves the inputting of numbers to mark the quantified change and in addition to this, appropriate indicator or proxy values. Such examples of the calculations within this stage include:

- The extrapolated total of 111 people (from raw data of 26 people out of 111, extrapolated up to a total of 496, used as a conservative total of one person affected per property) who described positive security change in customer interviews carried out by CWHT multiplied by the proxy entitled “savings from reduced burglaries per incident” (GVE, 2017) which results in a total of £1,361 multiplied by 111 which equals a total impact of £151,071.
- The 300 cars taken off the road and thereby improving the safety aspect of the neighbourhood multiplied by the proxy “living in a safe area” (£650 per person per year – [HACT, 2018])
- A conservative amount of 10% of persons finding that the environmental scheme made them happier than previously about their surrounding environment (48 multiplied by the proxy value of “good neighbourhood” - £499.38 per person per year – [HACT, 2018]).

The impact map then calculates the total impacts in monetary form, as has previously been carried out by SROI and SuROI. This then created a total impact value (taking into account depreciative values) of £10,991,052.30 which produced a net present value figure, after input costs are subtracted, of £7,741,052.29.

The total impact ratio for the scheme was then calculated as: £1:£3.38.

This translates to there being £3.38 worth of socio-environmental impact for every £1 spent on the environmental-led scheme at CWHT.

The figures are then manipulated as part of the new ‘stage 6’ via formulas to provide input and impact values per individual stakeholder. A drop off of 3.5% is calculated as part of the formulas inputted to be taken off the impact total per stakeholder for each year. The corresponding tables with their accompanying line graphs showing the pay back period relating to different amounts of capital investment for each separate stakeholder (and the scheme as a whole) are additionally shown below in Figures 7.10 to 7.15:

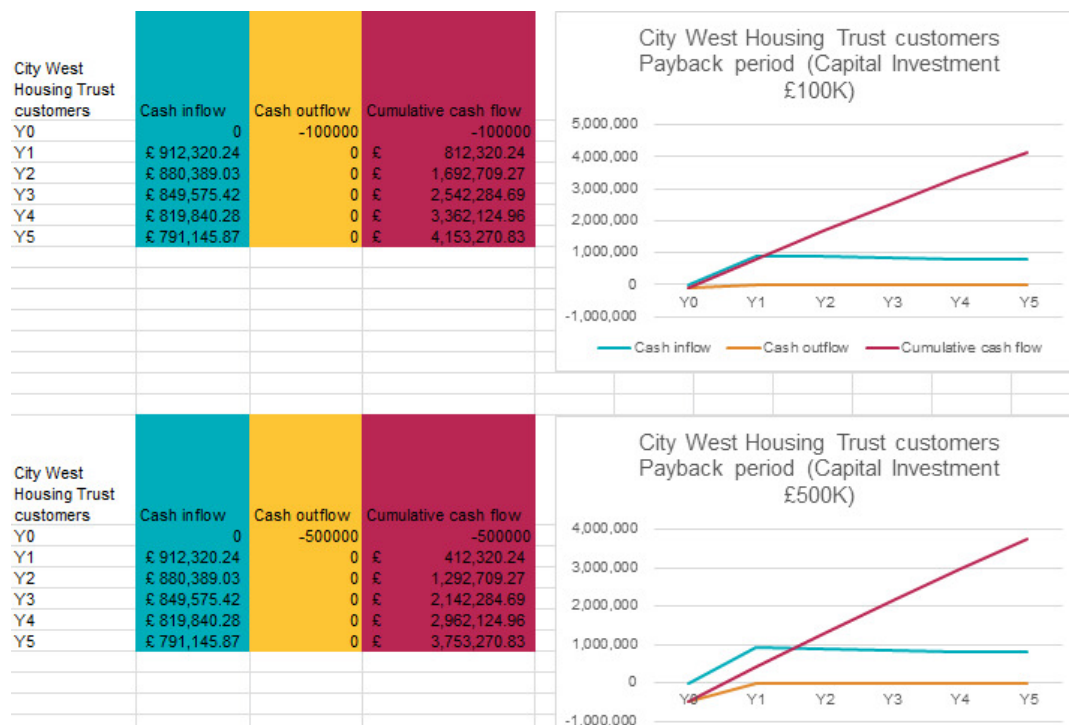


Figure 7.10: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘City West Housing Trust customers’

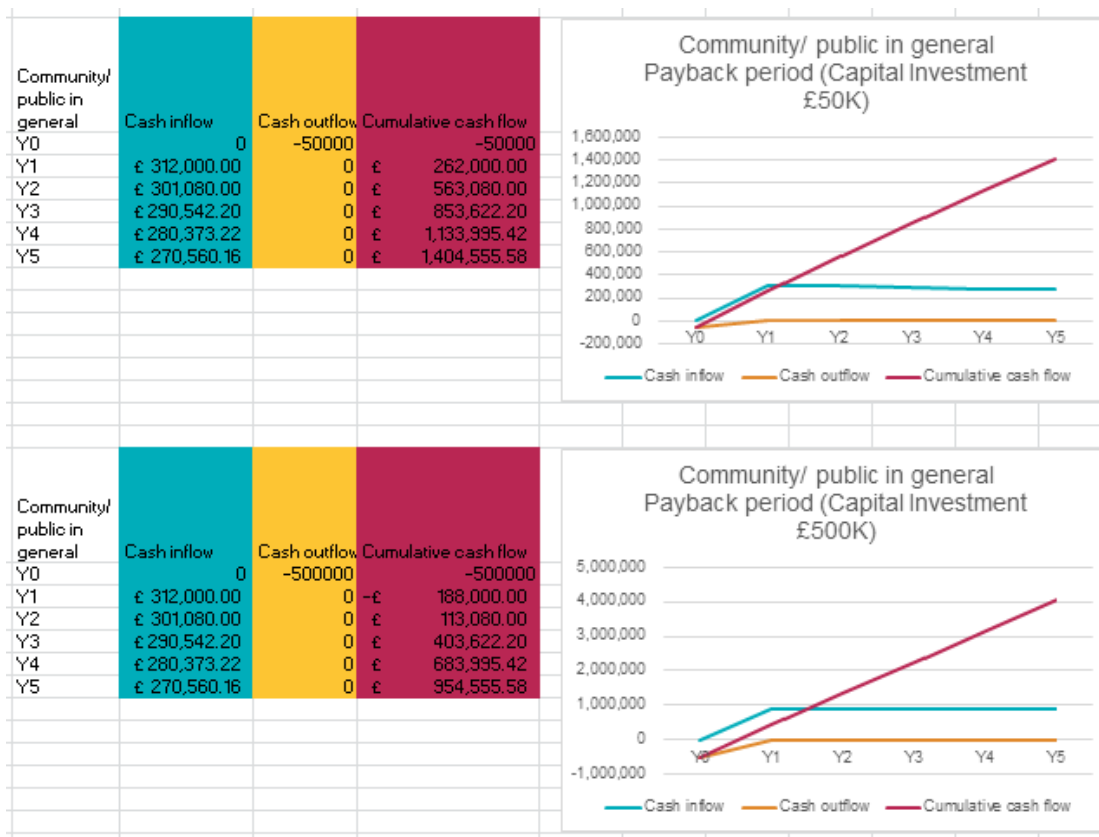


Figure 7.11: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Community/ public in general’

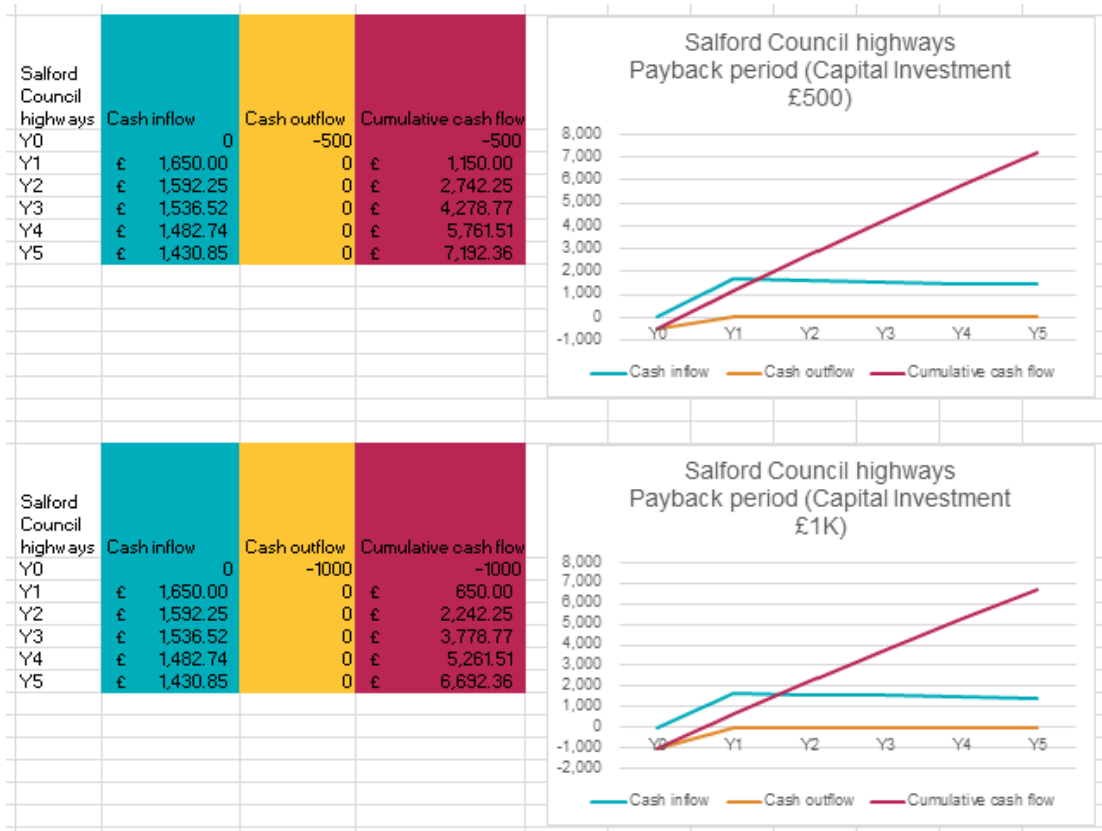


Figure 7.12: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Salford Council highways’

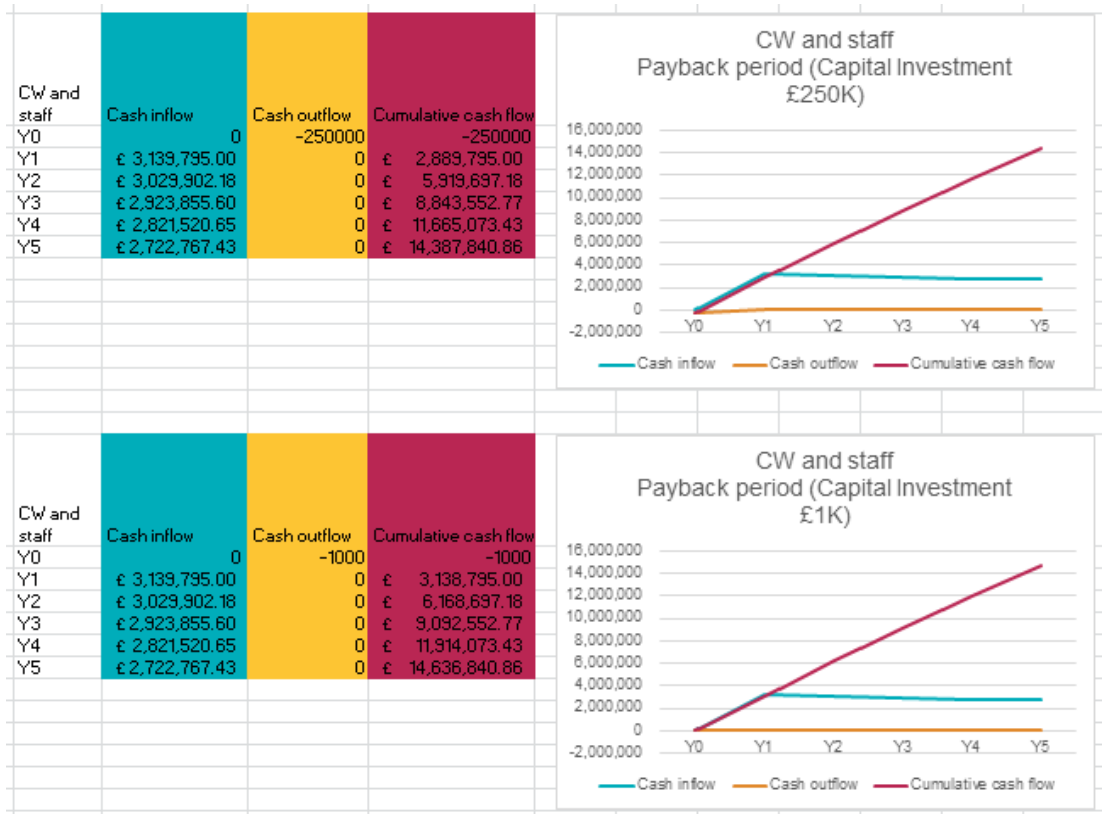


Figure 7.13: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘CW and staff’

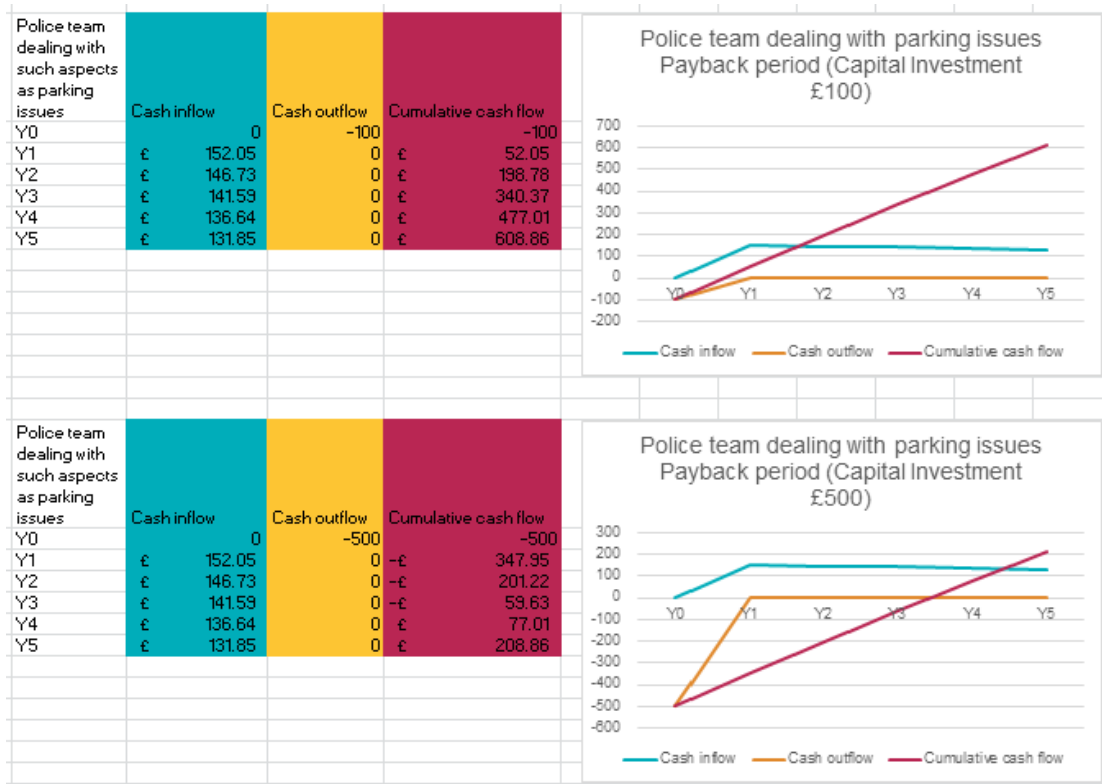


Figure 7.14: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Police team dealing with parking issues’

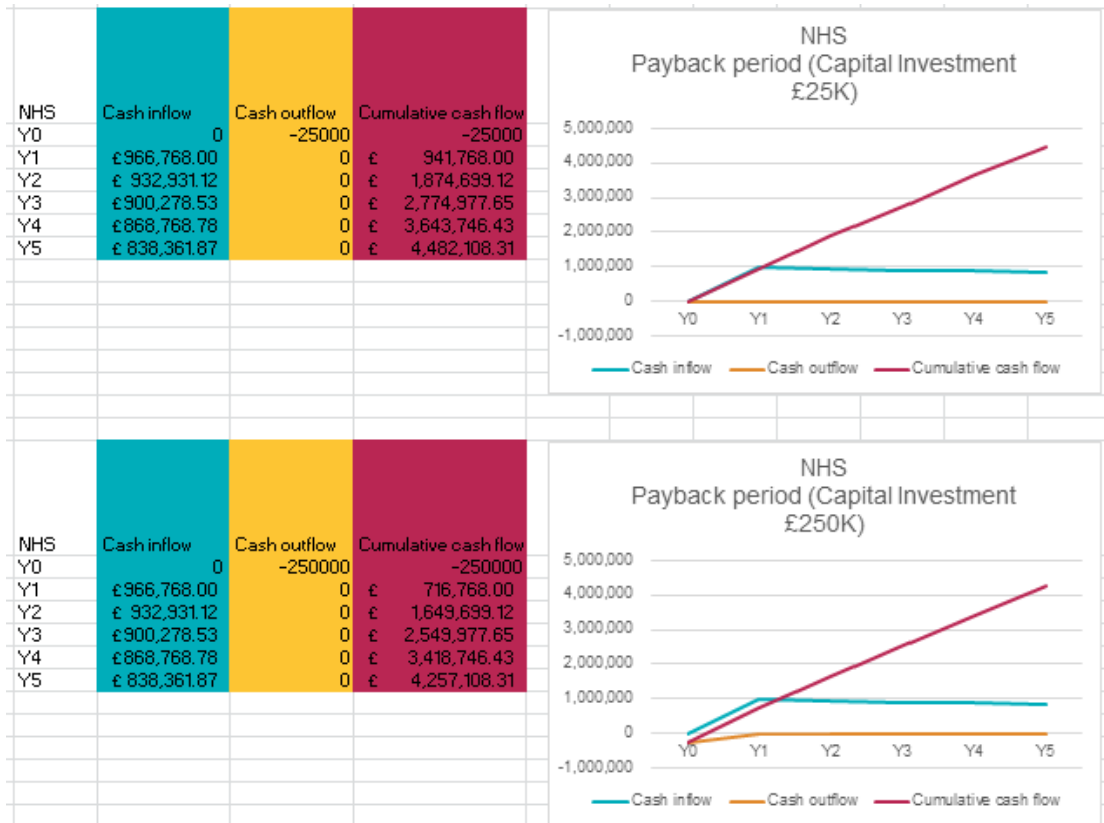


Figure 7.15: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘NHS’

The above mini tables and line graphs are presented as per below within the actual live artefact:

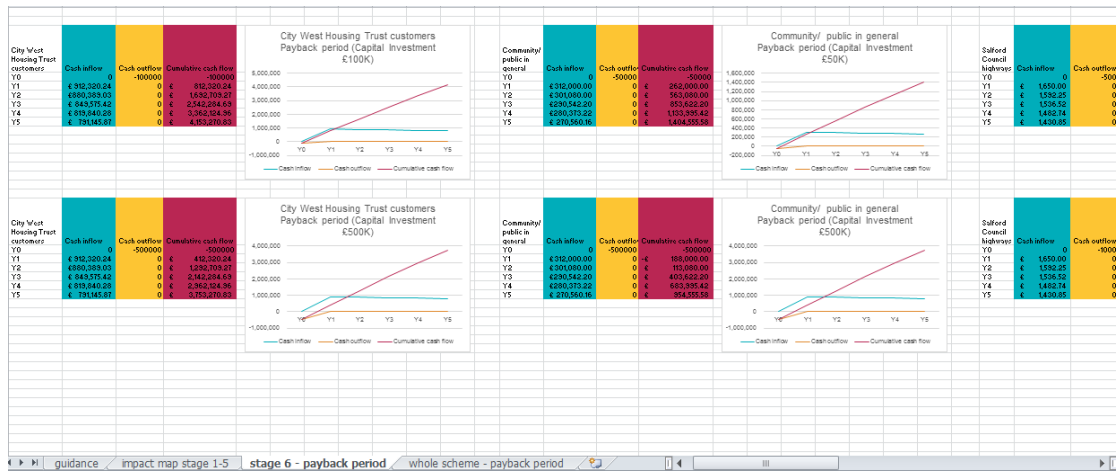


Figure 7.16: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – live artefact screenshot

The final tab within the spreadsheet, entitled ‘scheme summary’ presents a mini table and line graph for the scheme as a whole:

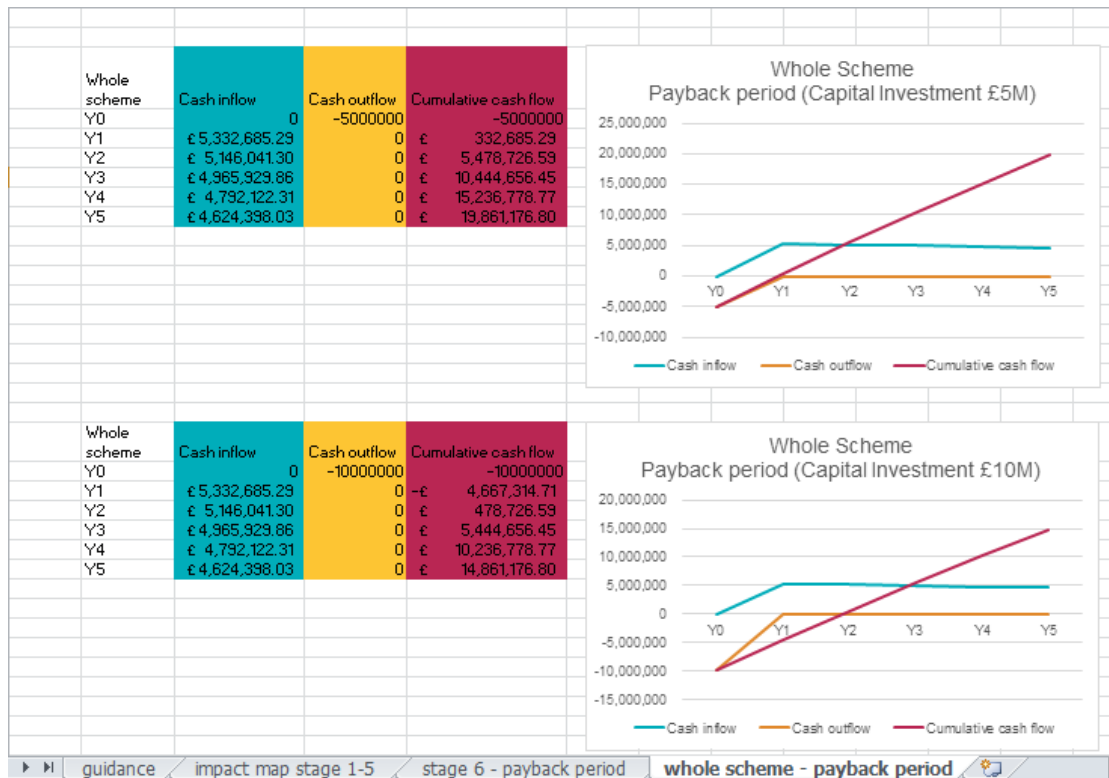


Figure 7.17: Tables and accompanying pay back period line graphs for the scheme as a whole

As can be seen from the above impact calculations, the environmental-led scheme has been calculated at offering a total of £5,332,685.29 worth of social and environmental value, which then drops off by 3.5% every year. Different amounts of capital investment can be added and tested out to gauge the respective pay back periods.

7.2.5.2. The High Rise scheme

CWHT has invested £43.2m to improve 666 high rise flats across nine blocks in Eccles, Salford. Improvements include thermal cladding, enclosed conservatory balconies, self-cleaning windows and new lifts, whilst internal improvements include remodelling to provide open plan living spaces as well as new kitchens, bathrooms, security doors and heating and ventilation systems. Figures 7.18 and 7.19 show before and after photos of the high rise blocks:



Figure 7.18: City West Housing Trust high rise blocks before works



Figure 7.19: City West Housing Trust high rise blocks after works

The CWHT high rise scheme was described as having eight involved stakeholders according to responses within the initial scoping interviews.

The stakeholders listed were as follows:

City West Housing Trust customers, customers' families, local residents/ community/ general public, Salford Council including planning, building control and area regeneration, CWHT, local businesses, leaseholders and the NHS.

Intended and unintended changes for each individual stakeholder were recounted as being the following:

- City West Housing Trust customers

No repairs needed (including bin chute costs)
Better security and safety
Lower ASB/ Crime
Blocks attract better people
Improvement aesthetically
Improved pride/ feel good factor

Community/Social life improved
More desirable place to live
Affordability improved
Quality of life improved
Improved health
Relief from property related anxiety and embarrassment

- Customers' families

Less crime/ASB/ better security
Aesthetic improvement
Better living standards
Cost savings for customers impacts potentially on their families also

- Local residents/ community/ general public

Aesthetically improved
Less ASB/ crime
More pride
Better community spirit
More desirable place to live
Historic perception of area changed positively

- Salford Council including planning, building control and area regeneration

More demand within local community for housing, related goods and services and potentially, council tax and/or infrastructure

- CWHT

Reduction in staff costs re crime
More in demand properties and therefore rent
Cyclical and call out maintenance less
More customer ownership
Cost savings for customers impacts on ability to pay rent

- Local businesses

Locals have more disposable income
Area attracts more people to purchase goods

- Leaseholders

Changes to City West customers will apply to leaseholders

- NHS

NHS benefits from investment in local area, and local population

Once stage 1 is complete, then the evaluation again moves onto stage 2.

Stage two involves the inputting of information belonging to categories such as inputs (which can be time or money for example), and also outputs and outcomes.

The cost input into the high rise scheme is the cost of the scheme and included staff costs (£43,200,000).

Associated and relevant output figures include the quantity of 666 high rise flats involved in the scheme, whilst the sought after outcomes reflect the intended and unintended changes.

Stage 3 incorporates such calculations as the number of high rise flats affected (666) by a suitable proxy or indicator, in the same way as was carried out for the environmental-led scheme.

For example, regarding the improvement/ change of no repairs being needed as a consequence of the improvement works carried out, a calculation of the cost for an average day to day repair (£158.56 according to the CWHT Performance Department) was multiplied by the 666 flats to give the impact value of £105,600.96.

Similarly, the impact calculation involving the perception that the neighbourhood had improved, included an extrapolated total of 404 persons (figures extrapolated from interviews from the customer base) multiplied by a relevant proxy value of £1,747 per person for “good neighbourhood”, which originates from the HACT database.

The impact map then calculates the total impacts in monetary form, as has previously been carried out by SROI and SuROI. This then created a total impact value (taking into account depreciative values and minus the input costs) of £38,270,658.85.

The total impact ratio for the scheme was then calculated as: £1:£1.89.

This translates to there being £1.89 worth of socio-environmental impact for every £1 spent on the high rise scheme at CWHT.

The figures are then manipulated as part of the new ‘stage 6’ via formulas to provide input and impact values per individual stakeholder. A drop off of 3.5% is calculated as part of the formulas inputted to be taken off the impact total per stakeholder for

each year. Tables and an accompanying line graph showing the pay back period for each separate stakeholder (and the scheme as a whole) are additionally shown:

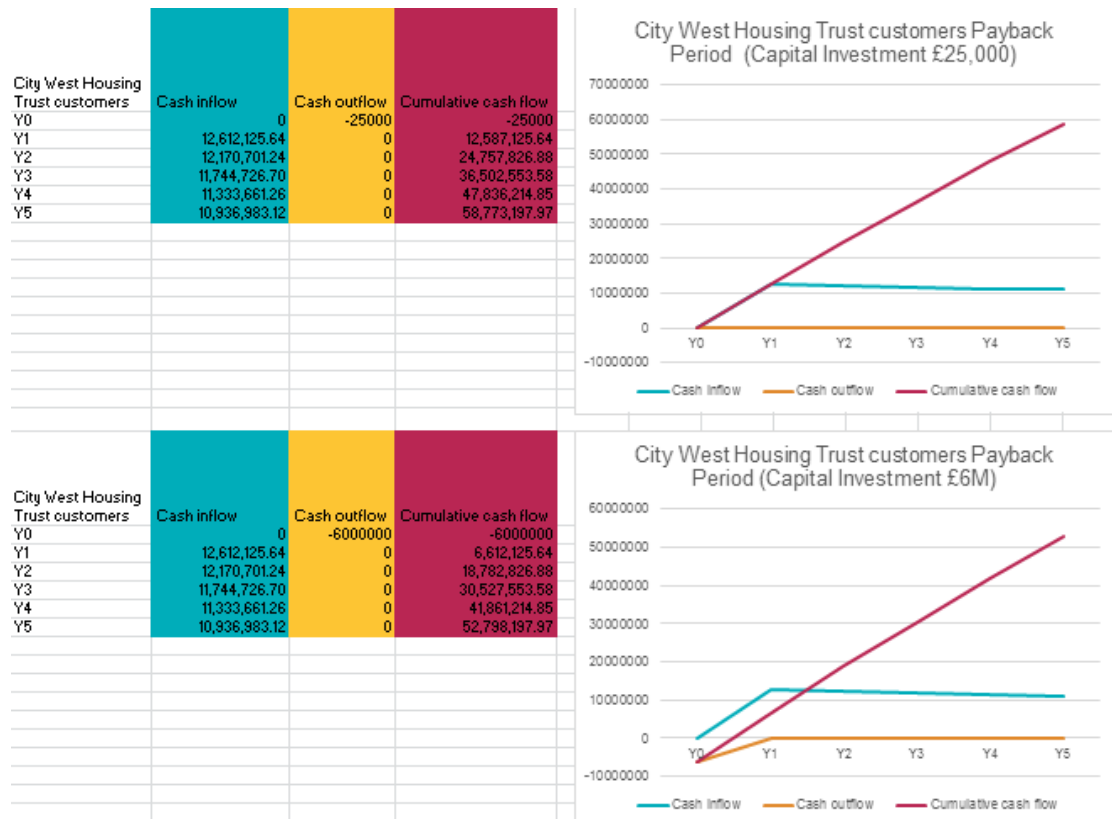


Figure 7.20: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘City West Housing Trust customers’

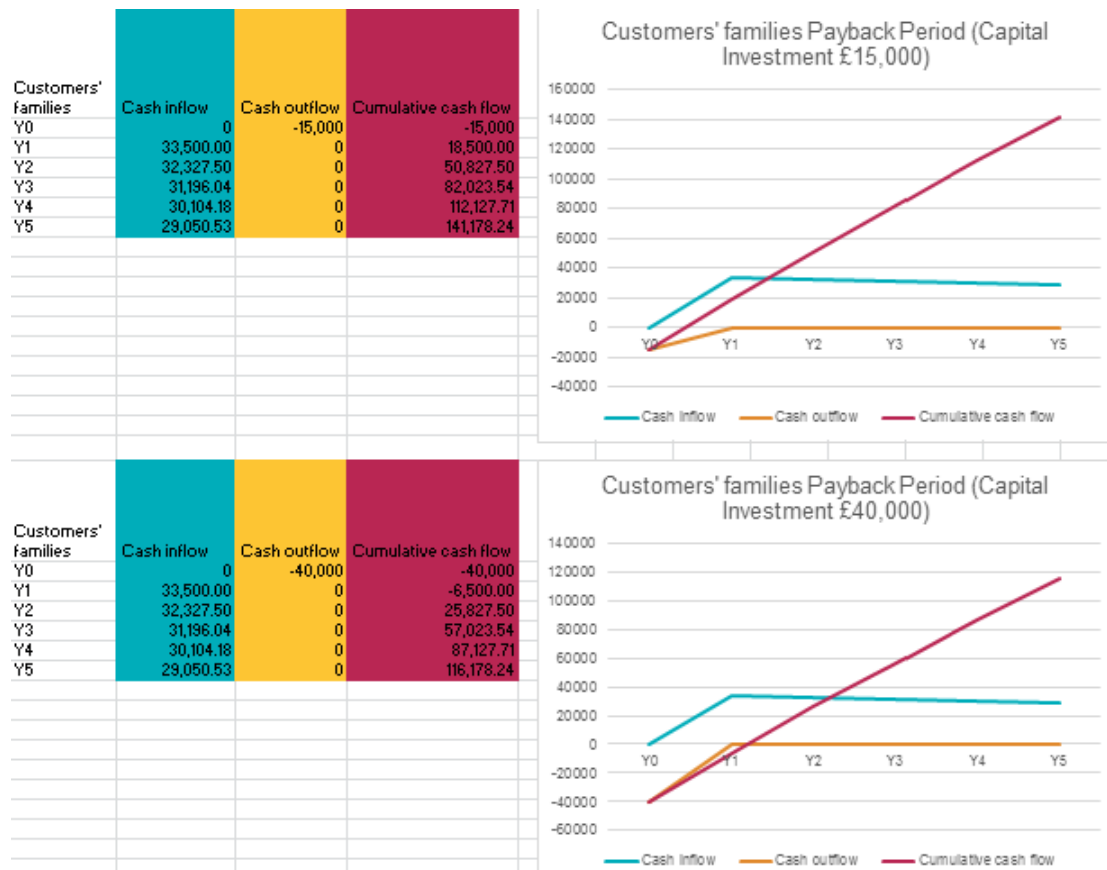


Figure 7.21: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Customers’ families’

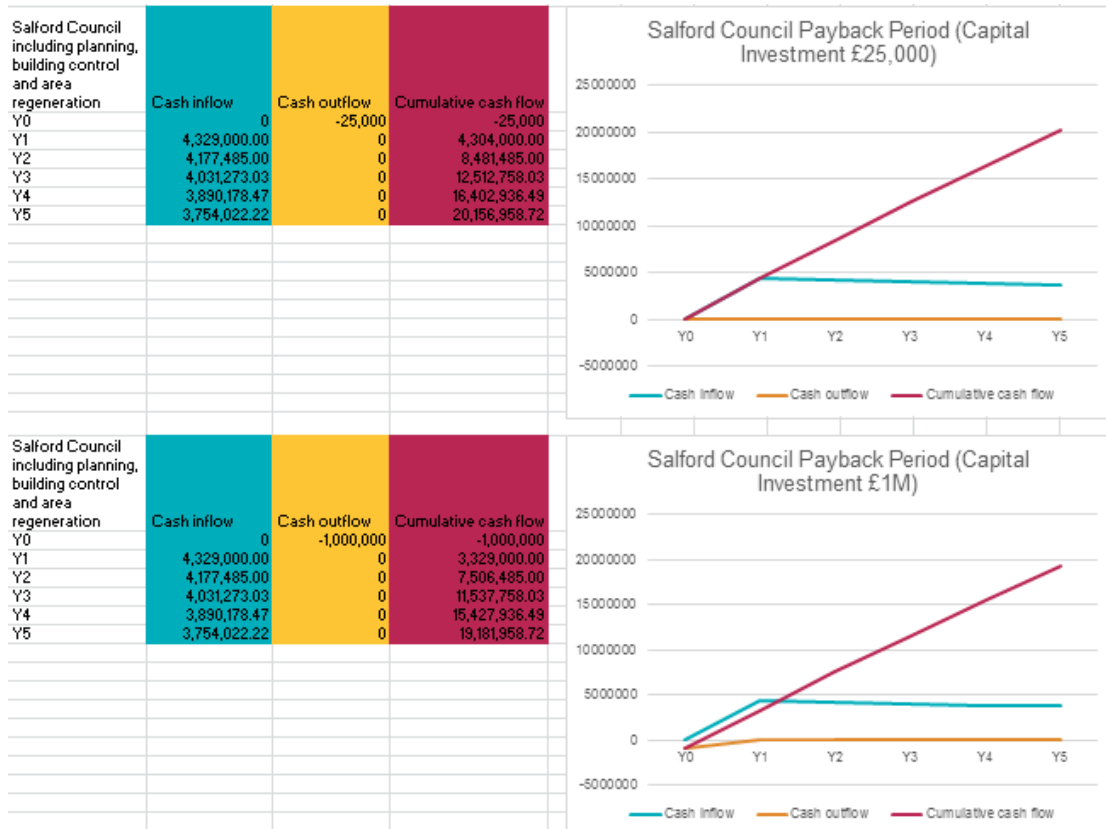


Figure 7.22: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Salford Council’

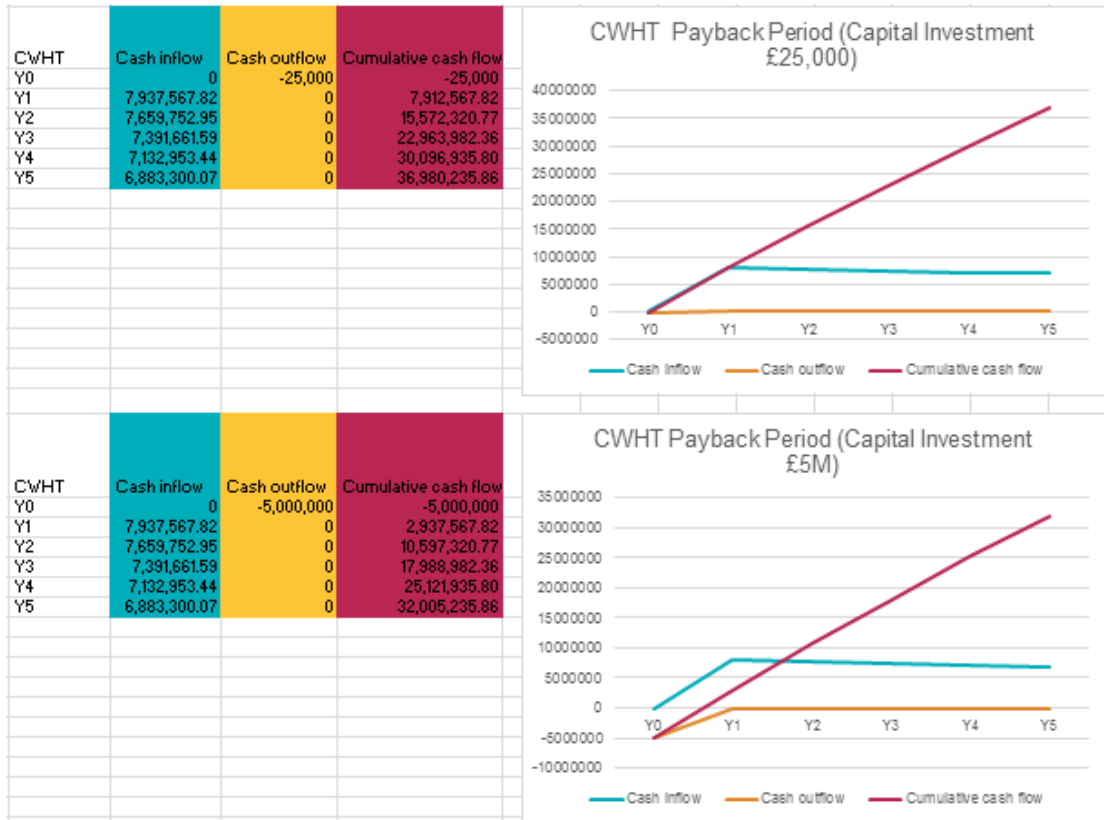


Figure 7.23: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘CWHT’

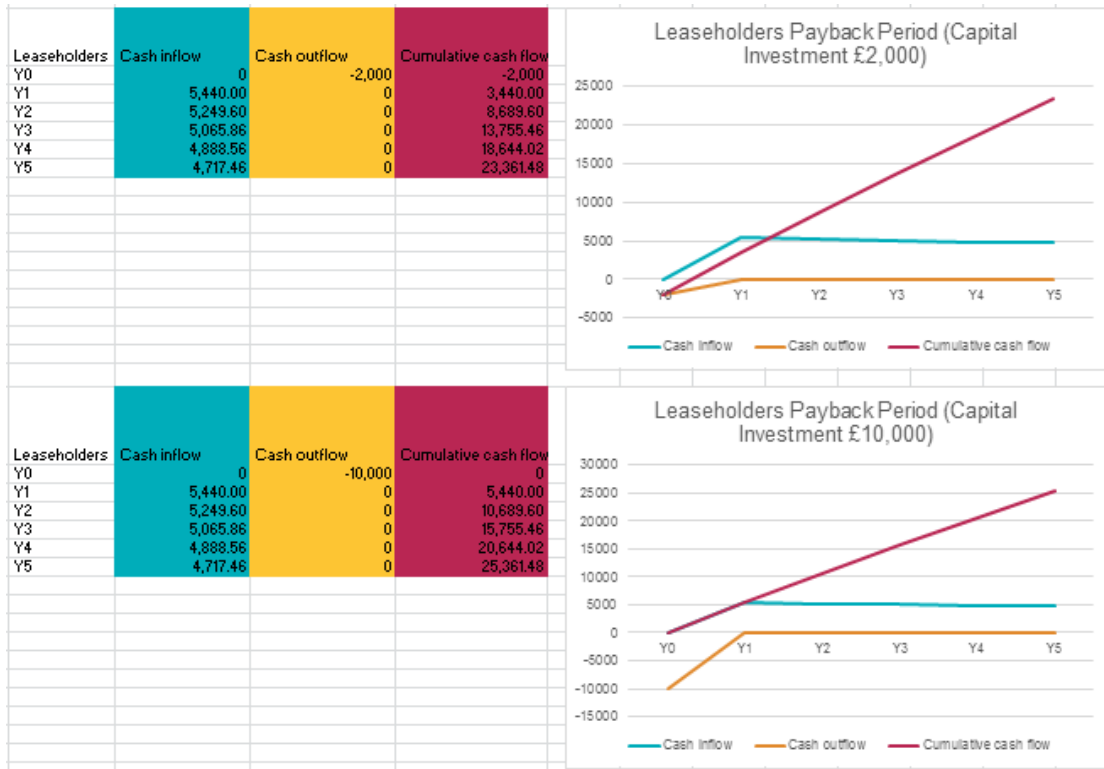


Figure 7.24: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘Leaseholders’

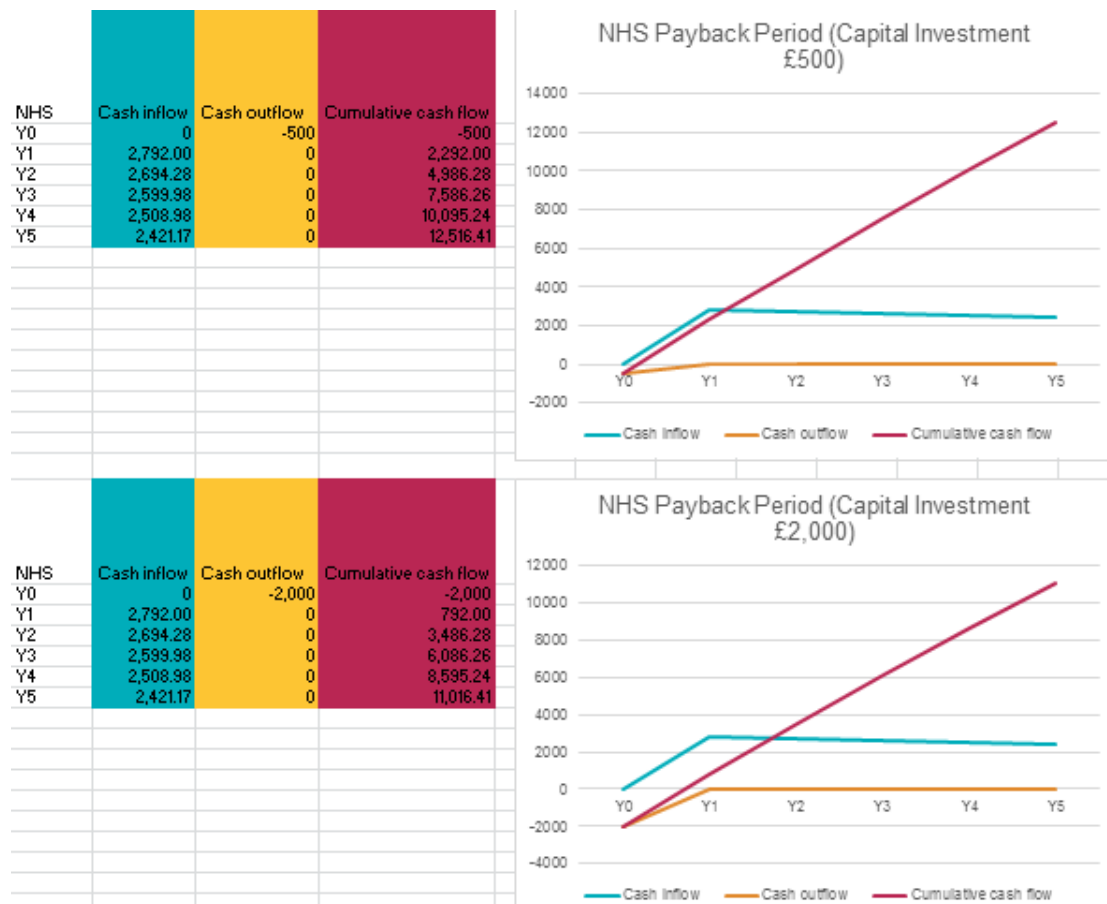


Figure 7.25: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – stakeholder of ‘NHS’

Again, the live artefact, this time for the high rise scheme, can be seen within the screenshot below:



Figure 7.26: Tables and accompanying pay back period line graphs for each individually involved stakeholder with different capital investment amounts – live artefact screenshot

Lastly, the mini table and line graph for the high rise scheme as a whole can be seen below:

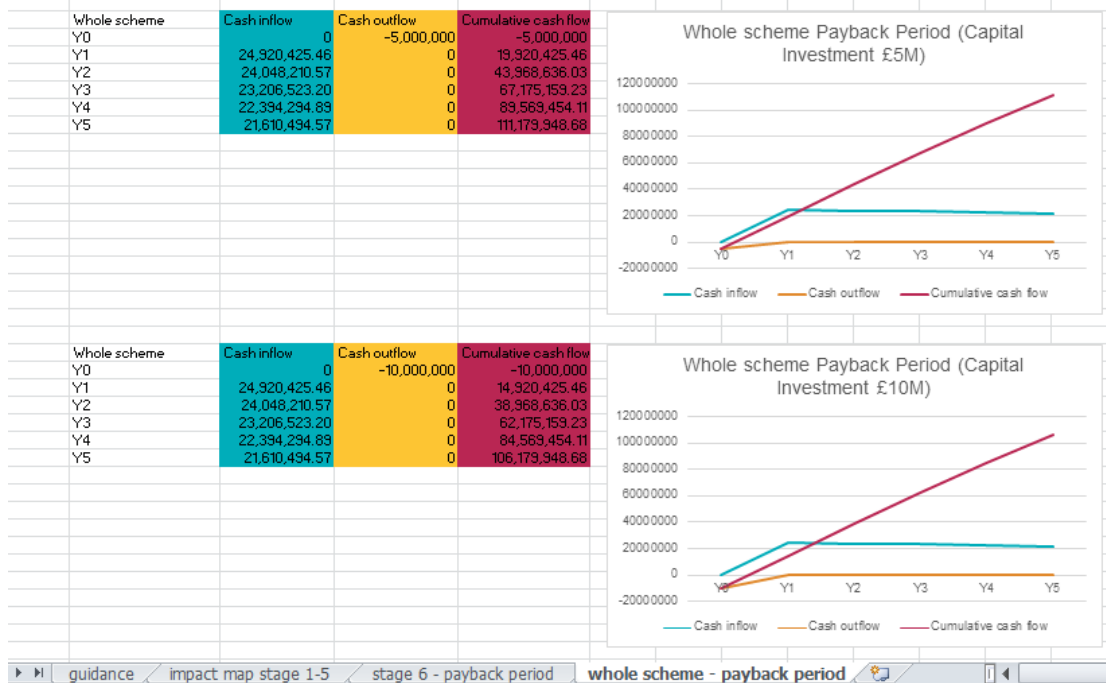


Figure 7.27: Tables and accompanying pay back period line graphs for the scheme as a whole

Both artefacts have been included on A3 size paper within the appendices of this thesis so that all calculations and calculative processes can be seen in depth.

7.2.6. Open ended interview findings from the demonstration and validation of the new artefact

Open ended interviews were carried out as part of the demonstration and validation of the SuHousingImpact artefact. There were ten interviews carried out with CWHT staff. This was fewer than was carried out within the scoping survey interview stage due to employees of the company leaving the organisation or moving on to different areas within the company where they were not necessarily as easily accessible.

However in addition to the ten CWHT interviews, a focus group involving the researcher, four CWHT staff and a RICS representative was carried out whilst additionally current employees or representatives of Salford City Council, Regenda Homes, the Royal Institution of Chartered Surveyors, Salix Homes, Villages Housing Association and Stockport Homes were interviewed, together with one former employee of Irwell Valley Housing Association.

The aim of this stage of the research was to make sure that the artefact was shown to and also used by professionals within the field, and not just those employed by

CWHT but to a wider audience of relevant professionals and, in a range of different contexts.

Emails were sent out to some forty plus housing associations within the North West of England with most not replying. The contacts of the researcher were very useful in arranging the additional external interviews.

Within the open ended interviews and focus group context, again coding of the transcripts was carried out in the same way as for the preceding scoping surveys. The different concepts created according to the involved codes were as follows:

- **ALTERATIONS**
- **DATA QUALITY**
- **EXPLANATION OF TERMS**
- **GUIDANCE NEEDED**
- **INDICATOR ISSUES**
- **INPUT OUTPUT BALANCE**
- **JUSTIFY OUTCOMES**
- **MAINTENANCE**
- **POSITIVE**
- **TIMEFRAME OF IMPACTS**
- **USABILITY**

These codes can be seen below within the NVivo software:

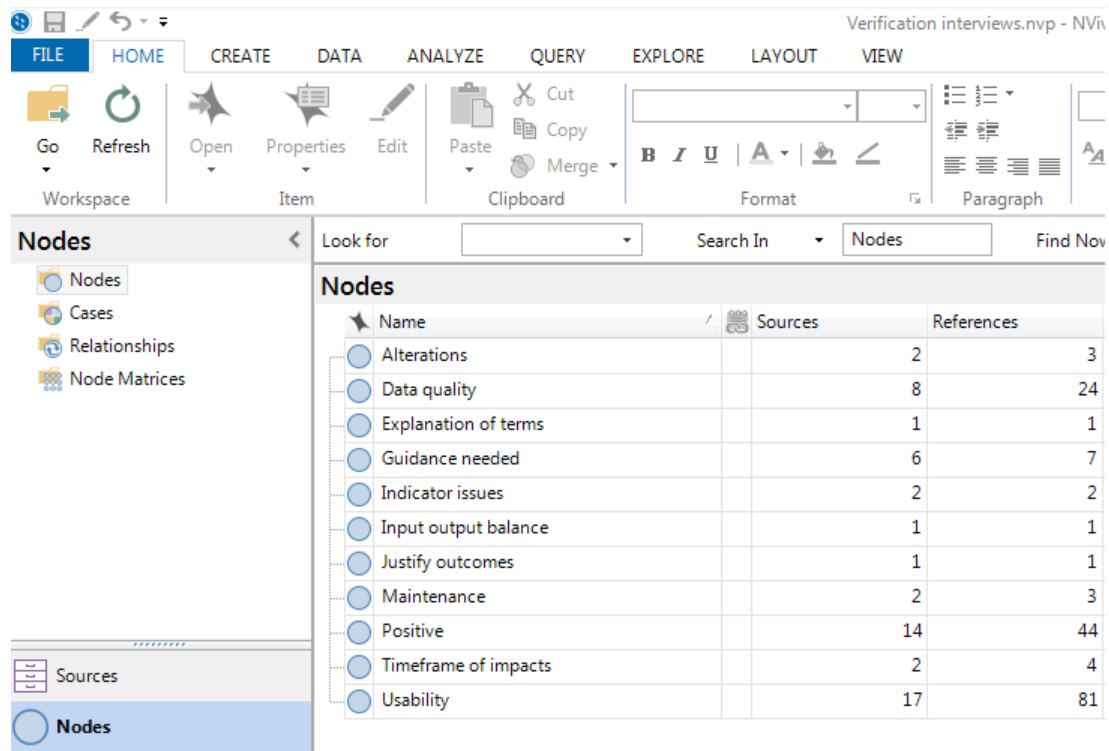


Figure 7.28: Codes stemming from open ended interviews with both CWHT staff and external organisations, and from the focus group

If we look at the most cited codes within the NVivo screen above, it can be seen that eighty one references relate to the fact that the artefact demonstrates an amount of usability to it, whilst a further forty four references relate to the artefact having positive comments uttered about it by interviewees. The amount of references referring to these two categories would suggest that there is a perceived level of usability to the artefact and that the artefact has been welcomed when demonstrated to relevant practitioners.

However in addition, twenty four references relate to potential issues regarding data quality. It is this area that needs further research.

We can look at the quotes in more detail regarding the three leading categories:

In terms of **usability**, it is not surprising that the created artefact has been termed in this way if the comments of the previous scoping interviews have been taken on board. The previous interviews provided all the necessary information to the researcher to enable him to refine SuROI in such a way as to make it particularly useful for the practical context relating to CWHT employees in the housing sector:

“Really useful potentially”

“We need to use this”

“Everything’s in there that we need”

“Its something that we would use yeah [sic] definitely”

However, the code of ‘usability’ is not only used to describe how interviewees see the artefact in a positive light, in terms of its potential to be useful and have usefulness, but also in just what way it can be used. Opinions highlighted include the evaluative and also predictive capabilities of the artefact:

“You can use it evaluatively and predictively also which is good”

In addition, interviewees also highlighted that the artefact can be used strategically (*“we can strategically use this to pretty much decide where we’re going to do work,*

based on where has the greatest impact”; “we could choose to carry out certain schemes tailored to certain aspects of the social or environmental spectrum, in order to enable a specific community, previously suffering from a particular social problem, to have a greater impact in that specific area”), for evidence-based proof (“this would provide an evidence-based proof that comes in handy for the kinds of report I write”), or for management purposes (“you could use this as like a predictive or management kind of tool”).

Also asserted was a potential usage for prioritisation or decision making purposes, to manipulate the status quo to ensure that the kinds of impact wanted by an organisation are actually realised in reality (*“we could prioritise work depending on what this tool spews out”; “we need money to go where it needs to be and not where it is easy”; “if we wanted a certain amount of social/ environmental return from a scheme then we could use this to get that”; “you could state how much social and environmental return you wanted from a particular scheme in say percentage and then work back to make sure you got it”*) for modelling purposes (*“we could say input data and use it to predict scenarios”*) for publicity purposes (*“in a way also it’s a sales tool”*) or to be used alongside existing tools (*“this could go well with our NPV”; “I can see this as being part of the suite of tools that you might use”*).

The pay back periods within the artefact are referred to as being useful, (*“if you’ve got those pay back periods you can make informed business decisions on a scheme by scheme basis”*) but with a caveat included (*“the pay back period will come in handy. However, not breaking even might not be a reason to [not] invest”*), as are the

identification of potential winners and losers involved in a scheme (*“you can look at what you can do to balance the two out a little bit, potentially”*).

The **positive** code simply involves positive comments about the artefact such as

“I think this is a really useful tool to use” and *“I like the way its split up into stakeholders”*.

This is comforting to know but fairly basic in terms of analytical input.

The **data quality** code is an interesting area which involves the main area of concern brought about amongst the second set of interviewees. Such comments came under the following categories:

➤ Indicators/ proxies

It is important that good quality indicators and proxies are used from reputable databases such as the New Economics Foundation (NEF), the Housing Associations’ Charitable Trust (HACT) or The Economics of Ecosystems and Biodiversity (TEEB) database:

“My other point is that making sure the figures are right from the indicators and proxies is my main concern”

➤ Numerical multiplier values

The correct multiplier values need to be agreed before entering figures that could potentially skew the socio-environmental impact values. Also, depending on perceptions, values can be different. In the example below, would the value used be ‘300 driveways installed’ whether or not a customer uses the said driveway to get a car off the road, or would the value in question only take into account the amount of cars that have moved from being parked on the pavement to now being parked in the alternative location of the installed driveway?

“The right questions need to be asked of your customer base don’t they [...] you can lead people into giving you a value so you’ve got to be careful how you word these things”; “You could also argue that because we’ve installed 300 driveways, those properties are now automatically more lettable and therefore have a value of this. Regardless of customers”.

This can then lead to issues within the next category:

➤ Potential manipulation of the data

“You could potentially manipulate this data by choosing one perception over another”

➤ Opinions or subjectivity

An issue with intangible impacts is that in order to put a price on them, the price has been formed by a monetary perception on worth or value. This inherently involves a

degree of subjectivity from one person to another. Databases like HACT then average values out.

It was raised by interviewees that subjectivity needs to be at a minimum in order to keep the reliability of the data at a high level:

“If it’s subjective, one person might be putting in something completely different to another. Then it just becomes whatever I want it to be”; “Once it becomes defined in terms of user values and perception, then I think we’ve got something great here”; “It’s the subjectivity of people’s opinions that needs to be ironed out. If you said for example that the value should always be between this and this...you’ve constrained it then to a sort of top point and a bottom point”; “It can be really subjective though can’t it - which could be an issue. I mean, what I think and what you or someone else thinks could be totally different”.

➤ Following the SROI guidelines

Following the SROI guidelines is important. The guidelines have been produced whilst being in use with the monetisation of intangible data over many years and are an excellent source of guidance and control over inputted values:

“I mean, people might have slightly different perceptions and opinions on inputting data but as long as they are following the SROI guidelines then that should be sufficient”.

➤ No leading

If interviewees are lead when carrying out primary data or if the values to be inputted into the impact map are produced by people who have been lead to a figure that is grossly out of synch, then again figures have the potential to be skewed:

“you can lead people into giving you a value”; “we’ve got to be really smart about the questions we ask though to make sure we all agree on them and that they aren’t leading any responses”.

➤ Databases – good or bad?

There were some responses during the interviews that suggested that some interviewees had a disputed amount of faith in the HACT database values. Databases such as HACT have evolved over long periods of time and have thousands of responses creating their values. However this does appear to be a perception:

“My feeling with the HACT indicators is that they might be slightly inflated”; “I’ve dealt with the HACT model previously but the problem I’ve got with it is that sometimes I look at the values and think “I’m not sure I really believe those values””

however in terms of a counterbalance, an alternative response within the transcripts highlights how *“the issue with putting quantities on intangible outcomes, is,... that’s the whole point isn’t it really that you gain those values through perceptions”* and that *“if you’re using the same figures all the time and these are the most up to date databases, until the figures and databases get updated, improved, enlarged, refined, then it’s the way it is isn’t it really?”* whilst the databases in some areas get praise for not leading *“some of these databases are so good because when questions are asked, they aren’t lead in any way really are they?...There’s no bias involved in responses”.*

➤ Rubbish in equals rubbish out

As can be the case with many artefacts, if the inputted data is poor, then it is highly likely that the output data will be poor and vice versa. It is up to the user to ensure that the data inputted into the artefact is of the correct quality. Some quotes relating to this concept from the transcripts include:

“As long as the data we put into it is good enough”

“If you put rubbish information in you get rubbish out so it’d be important to guard against that”

7.2.7. Iterative artefact amendments

The open ended interviews were also used to take on board any feedback of comments brought about by way of iterative amendments to the proposed artefact in order to make it better. Issues raised include:

- Employing a short paragraph or equivalent to introduce the artefact

“Could we have just a short paragraph to introduce it in some way just very briefly”

- Inserting small comments boxes to explain title headers

“OK I would perhaps insert a small comment box to explain what you mean by each title header...to explain what it is”

- A first tab to be included with various detail within it

“I’d also put in a first tab and state why this would be completed, who would complete it, define what is meant by the stages, who completes each stage and when”

- Clarify the amount used for the drop off value

“I’d also say that it might be a good idea to put something within the drop off column to clarify what you’re using for your drop off amount”

➤ Guidance on impact values

“If you could put some guidance along these lines then hopefully that should help in terms of making sure that what one person chooses as impact values doesn’t turn out to be of significant difference [than] that of another person”

➤ Widened columns

“Can the columns be widened to accommodate big figures as usually we’re looking, certainly with our major schemes, at having millions of pounds inputted into this spreadsheet and many noughts at the end of figures”

➤ Tying in amount of years’ duration with stage 6 line graphs

“What about possibly tying in the amount of years within the line graphs into the duration that is entered into”

All the above were taken on board and acted on, apart from the above concept – the tying in of years’ duration within the line graphs. This is because the artefact has been created to seamlessly fit in with the impact map of SuROI and its predecessor SROI. These two methods both use only five year duration periods. Future research or future refinement of this artefact could potentially look into the benefits or potential issues with linking duration periods in this way.

7.2.8. Top ten frequent words by open ended interview

We can further analyse the open ended interviews by tapping into the technology available as part of the NVivo qualitative data software. For each interview carried

out, the top ten words cited per interview are presented in table format, together with a 'word cloud' and 'tree map' of the same most regularly occurring words. These presentations of information can be seen within the appendices of the thesis.

7.2.9. Indicator and proxy issues

As was alluded to earlier in the chapter, during the course of some of the open ended interviews, it was made clear by the interviewees that a particular area which needed highlighting was potential issues regarding the misuse of indicators and proxies being used to generate value.

If we list the codes assigned to the open ended interviews and focus group used for the demonstration and validation of the artefact, it can be seen that the following codes were assigned:

**ALTERATIONS
DATA QUALITY
EXPLANATION OF TERMS
GUIDANCE NEEDED
INDICATOR ISSUES
INPUT OUTPUT BALANCE
JUSTIFY OUTCOMES
MAINTENANCE
POSITIVE
TIMEFRAME OF IMPACTS
USABILITY**

All discussed items were taken on board and used to refine the artefact until all interviewees were satisfied that the artefact met what they expected of an artefact. However a theme that it was felt needed exploring after the validation interview stage

was an area that is somewhat out of control of the artefact in question, but is nonetheless very important. This is the quality of the inputted data in terms of the relevant indicators, proxies and values.

If we look at the code of 'data quality' we can look into the most frequent terms used to describe the key areas and then run queries via NVivo to gauge the feelings of the interviewees towards 'data quality'. The indicator issues code only covers such aspects as where to locate the indicators, however the question of data quality is an area deemed suitable for further research. Some key words were highlighted from relevant areas of the text and further analysis run. Key words are highlighted in bold:

CW Employee 'I': *"As long as the **data** we put into it is good enough"*

CW Employee 'J': *"My other point is that making sure the **figures** are right from the **indicators** and **proxies** is my main concern but that's not the tool, that's the **information** and **data** that's going into it"*

CW/ RICS Focus Group: *"the right **questions** need to be asked of your customer base don't they. For example if we take the item below, the improved parking provision and the installation of the driveways, if for example you stated "do you feel that your car is more secure now you can park them [sic] on a driveway", you can **lead** people into giving you a value so you've got to be careful how you word these things haven't you"*

*"you could potentially **manipulate** this **data** by choosing one perception over another"*

*"I mean, people might have slightly different **perceptions** and **opinions** on inputting data but as long as they are following the SROI guidelines then that should be sufficient"*

*"We've got to be really smart about the questions we ask though to make sure we all agree on them and that they aren't **leading** any responses"*

*“Which I suppose looking at this now is why some of these databases are so good because when questions are asked, they aren’t lead in any way really are they? They don’t relate to a specific scheme, they give a **neutral value** which can then be used safe in the knowledge that there’s no **bias** involved in responses”*

*“where I think you need potential buy in is when you allow **personal and subjective opinions** to be allowed on the data going in, there might be a necessity for boundaries, proven parameters or guidance of some kind that says that the value shouldn’t be above X or below Y”*

*“If it’s **subjective**, one person might put something in completely different to another. Then it just becomes whatever I want it to be”*

*“Once it becomes defined in terms of user **values** and **perception**, then I think we’ve got something great here”*

*“Maybe we can be more **specific** in our customer questions. Maybe we can put a process in place where we all agree on what values we’re going to enter for a scheme as a department first?”*

*“It’s the **subjectivity** of people’s opinion that needs to be ironed out. If you said for example that the value should always be between this and this...you’ve constrained it then to a sort of top point and a bottom point”*

*“Obviously anything is only as good as the **data** that goes into it. I think where you want to be is if you just gave that to someone or ten different people and said “there you go”, that they’d come up with roughly the same results”*

*“But then again if you’re using the same **figures** all the time and these are the most up to date **databases**, until the figures and databases get updated, improved, enlarged, refined, then it’s the way it is isn’t it really?”*

*“But then again, when you’re speaking about what we’re looking for, which is trying to get as much factual information into this impact map as possible, the issue with putting quantities on intangible outcomes, is,...that’s the whole point isn’t it really that you gain those values through **perceptions**. So its all, to an extent an educational perceptual value”*

RICS:

*“Of course its only as good as the **data** you put in it, like anything though isn't it”*

Salford City Council:

*“Also it's a classic isn't it, if you put rubbish in you'll get rubbish out and the opposite so its up to the user to make sure that the correct **information** goes in isn't it”*

Salix Homes:

*“It can be really **subjective** though can't it – which could be an issue. I mean, what I think and what you or someone else thinks could be totally different”*

*“I've dealt with the HACT model previously but the problem I've got with it is that sometimes I look at the **values** and think “I'm not sure I really believe those values””*

*“I think that there is a social and environmental **impact**, of course there is, but my feeling with the HACT **indicators** is that they might be slightly inflated”*

*“There's a **subjective** element here and that's what makes it hard for me”*

Stockport Homes:

*“If you could advise us on the location of relevant **proxies** etc. too that'd be good”*

Villages Housing Association:

*“Also if you put rubbish **information** in you get rubbish out so it'd be important to guard against that”*

The table below shows the amount of references relating to ‘data quality’ for each open ended interview that contained references towards it. All other interviews contain no references towards this. As can be seen, it was the Focus Group and the interview with Salix Homes that generated the most references within this area of concern.

| Name | In Folder | References | Coverage |
|--|-----------|------------|----------|
| CW EMPLOYEE I - VERIFICATION OF ART | Internals | 1 | 2.34% |
| CW EMPLOYEE J - VERIFICATION OF ART | Internals | 1 | 4.51% |
| FOCUS GROUP - VERIFICATION OF ARTEFACT | Internals | 14 | 20.16% |
| RICS - VERIFICATION OF ARTEFACT | Internals | 1 | 3.09% |
| SALFORD CITY COUNCIL - VERIFICATION | Internals | 1 | 1.87% |
| SALIX HOMES - VERIFICATION OF ARTEFACT | Internals | 4 | 5.41% |
| STOCKPORT HOMES - VERIFICATION OF | Internals | 1 | 2.34% |
| VILLAGES - VERIFICATION OF ARTEFACT | Internals | 1 | 2.42% |

Figure 7.29: Data quality node frequency within the validation interviews

Further analysis can be carried out through NVivo software to show all phrases interlinked with the key terms above. The text search queries run on the above terms, can be used to paint a picture of what precedes the word in question, and what follows it within given sentences where the key terms above were raised. This shows the level of concern amongst interviewees and can be seen within the appendices of the thesis.

Despite most interviews carried out not raising the data quality issue and even in the interviews where this was raised, the word count analyses earlier depicted, including word clouds and tree maps didn't do enough to highlight this issue in terms of numerical quantities or frequencies of words mentioned within each interview, there

is enough concern mentioned in great depth in the Focus Group and Salix Homes interview for this to be highlighted.

In terms of what can be done about this, guidance and reference from Social Value International (2015) points out the following issues of general importance which would be useful background reading for any prospective user of the artefact:

- Rigour

Rigour can be established by carrying out “representative samples, and in some cases, statistical analyses are required to ensure that an appropriate selection of stakeholders are involved in defining the value of a change, which accurately reflects the worth for all appropriate stakeholders”

- Sensitivity analysis

The carrying out of a sensitivity analysis is an additional way of assessing the risk of different decisions made when valuing social outcomes. If it turns out that a small alteration in value is affecting a result in a significant way, there may be a need for further stakeholder engagement, and/or triangulation with other relevant data

- Financial valuing also has risk involved

Accounting for financial value accepts certain levels of risk in return for evidence which enables investors to make informed decisions. In the same way, accounting for

social value also accepts evidence that is fit for purpose, and has sufficient precision for improved decision-making

- Triangulation

Engagement with additional stakeholders and any existing evidence, can help to triangulate findings

- Not a new practice

The assigning of monetary value to social performance is not a new practice – it is already used by insurance providers, and public policy makers

- Stakeholder accounts

“It is important to understand the relative worth of different changes in people’s lives from the perspective of those with direct experience. Therefore, if approaches are used that are reliant on secondary evidence, and do not directly involve those people or organisations, or the sample size is relatively small, we increase the risk that we will make sub-optimal decisions”

- Standards can be used

Standards such as ‘Assurance Engagements Other Than Audits or Reviews of Historical Financial Information’ (ISAE 3000) can be used. In the UK, this is the Assurance standard used by FTSE 100 companies to gain Assurance over their corporate social responsibility and sustainability data

(Taken from SVI, 2015)

- Data sets such as HACT, despite being described during the open ended interviews in a negative light are backed up by an academically rigorous methodology. The included data are broken down into various subgroups which can more accurately reflect stakeholders. A tool such as the ‘Value Game’ could also be potentially consulted. This is a tool which enables engagement with stakeholders to see which changes they value most - a benefit of this is that it is possible to gain a lot of useful information through dialogue which isn't specifically to do with valuation - e.g. any unintended positive or negatives occurring.

Any required changes gathered as a result of feedback and/or any practical failings were then carried out, in accordance with the feedback received, and changes made continually until all stakeholders were happy with the artefact. This process continued until all were in agreement that the artefact had been developed to such a stage where all were happy with it. On the receiving of feedback which is thought to either

highlight failings, or be of added value to the artefact, the DSR process goes back to ‘design and develop artefact’ and then moves on again to ‘demonstrate artefact’.

At this stage of the DSR process, it has been verified that all defined requirements are met in the artefact.

7.3. Summary

This chapter has covered the case study example of City West Housing Trust, Salford, UK as a medium by which the artefact can be both validated and evaluated. Two sub case studies were used for its evaluation – an environmental-led programme and a high rise scheme.

In addition, all stages relating to the Design Science Methodology were again covered, this time however outlining the coding of the semi structured interviews used at the start of the process, before also outlining the coding which came from the focus group and open ended interviews within the validation stage of the artefact. The development of the artefact was also covered. It was described how the original concepts that make up the artefact arose from within the original scoping interviews carried out with key employees of City West Housing Trust within the early stages of the Design Science process and how the further information received during this stage of interviews formed the basis of the figures and information to be inputted into the new artefact for both sub case study schemes, in order to run the tool as part of an evaluation of the two schemes. The validation of the artefact was also covered. This

was carried out through a focus group comprising of CWHT employees and a representative of RICS whilst additionally, open ended interviews were carried out with key employees of City West Housing Trust and representatives of other housing sector organisations which carry out housing-led urban regeneration. Feedback was received and taken on board.

The artefact was described and the key involved stages outlined. The accompanying mini tables and line graphs to show per stakeholder impacts and pay back period analyses were shown, as was the equivalent for the two schemes overall.

The two sub case studies show that there are several major theoretical and practical findings which demonstrate the value of the SuHousingImpact artefact:

- SuHousingImpact can be used successfully as an evaluation tool within the housing sector
- SuHousingImpact evaluates sustainable value generated by housing-led regeneration schemes through a quantifiable and evidence-based methodology, including the measurement of previously intangible social and environmental impacts. Impacts are produced by the tool, not only in a holistic way, evaluating a scheme as a whole, but through the provision of impact values for each separate stakeholder

- The application of the artefact in terms of offsetting economic costs onto potential wider stakeholders: This is done by showing which stakeholders gain and lose, and by the cash flow amount involved, allowing for potential donations to alleviate financial issues from stakeholders who gain, thus reinforcing the economic component of the triple bottom line and so increasing sustainability
- In addition to the provision of an increased level of sustainability, the tool can be used to ensure less wasting of money on schemes and, most importantly, ways to plug the gap created by the recently experienced economic shortfall which is impacting on housing associations, tenants and communities alike
- The stakeholder mapping process used to identify such potential wider stakeholders has been shown to be able to be carried out quantitatively, conversely to the usual qualitative manner, in light of the concept of New Public Management
- The payback period analyses show when varying financial contributions will be paid back, in order that organisations or stakeholders in effect ‘get their money back’
- SuHousingImpact better fulfils sustainability criteria in terms of all three aspects of the triple bottom line in comparison to tools that have gone before

- SuHousingImpact contributes in a more sustainable way to the UN's SDG 11
- The tool can be used as a strategic decision making or management tool
- The tool is able to be used to evaluate historical housing-led urban regeneration schemes, but can also be used in a predictive way, on future schemes, or indeed could be used on any stakeholder led scheme within any domain
- By using SuHousingImpact, schemes can be planned or carried out in a targeted and strategic manner
- The tool enables the gauging of what is received in terms of impact, from a given outlay of money invested in a scheme
- The tool can be used for evidence-based proof of sustainable impacts
- The tool can be used for management purposes
- The tool has potential usage for prioritisation or decision making purposes
- The tool can be used to manipulate the status quo to ensure that the kinds of impact wanted by an organisation are actually realised in reality

- The tool can be used for modelling purposes, for publicity purposes and can be used alongside existing tools

The case study “results” showed that the socio-environmental impact value for the environmental-led scheme was £1:£3.38 with the impact value for the high rise scheme being £1:£1.89.

It was shown that different capital investment sums can be inputted into the relevant per stakeholder line graphs in order to gauge when the prospective pay back periods might be. Such capital investment sums are compared to the monetised socio-environmental impacts in monetised form and could be used to offload potential regeneration scheme costs onto potential wider stakeholders who benefit from the said scheme(s).

CHAPTER EIGHT: DISCUSSION AND CONCLUSIONS

8.1. Introduction

This research has looked at the domains of urban regeneration, sustainable development, evaluation, Social Return on Investment, Sustainable Return on Investment and Design Science Methodology.

It has focussed on the necessity for an evaluation method which takes into account hidden socio-environmental impacts of housing-led urban regeneration schemes in order to more efficiently be able to gauge the sustainability of a given scheme. It has been suggested that SuROI could be utilised in this context due to its ability to quantify previously intangible socio-environmental benefits.

However, in order to more fully marry up with the UN's SDG11, and in order to take into account a continued financial sustainability, this existing tool has been refined through the Design Science Methodology by tapping into the concept of stakeholder analysis. The qualitative stakeholder analysis has been combined with the more quantitative SuROI. This has created a new artefact which is able to provide per stakeholder impact values. In addition to this, the concept of time has been introduced via pay back period analyses. Consequently a new artefact has been created, that of the SuHousingImpact tool.

This chapter highlights the conclusions of the research. It begins with a description of the research objectives outlined at the beginning of the thesis, which have been subsequently achieved. A synopsis of the main research findings is then provided, together with the contributions within the thesis to existing knowledge.

The chapter then outlines and discusses the study's limitations before recommendations for future research are outlined and a final summary is provided.

8.2. Research objectives

This section discusses how the objectives for the research have been achieved.

The first objective was to discuss the methods which evaluate the success of housing schemes in regeneration areas and to thereafter produce a tool which provides an effective way of assessing different aspects of housing-led urban regeneration schemes. The discussion of methods which evaluate the success of housing schemes in regeneration areas has been carried out through the literature review, and especially within Section 3.6 where a critical review of the following methods, mainly related to governmental schemes, were reviewed: (1) EGRUP Guidance, (2) City Challenge, (3) Single Regeneration Budget, (4) New Deal for Communities, (5) Urban Development Corporations, (6) Enterprise Zones, complemented by the following methods: (7) Hemphill Framework, (8) Sustainable Urban Renewal Project Assessment Model, (9)

UK Government 'Green Book' and (10) Royal Institution of Chartered Surveyors (RICS) 'Red Book'.

In terms of the second part of the above first objective, a tool has indeed been produced which provides an effective way of assessing different aspects of housing-led urban regeneration schemes quantitatively – that of the new artefact created within this research – the SuHousingImpact tool. This tool, as described in Chapter Six of this thesis, is a refined version of SuROI. Not only does the new artefact assess different aspects of housing-led urban regeneration schemes quantitatively, but additionally adds more to this, by producing per stakeholder impacts and it additionally introduced the concept of time, something of importance within the field of urban regeneration, as cited by Roberts (2006) in Section 4.9.1: “it is unlikely that all elements of a sustainable development programme will be delivered at a single point in time”.

The second objective of the research was to carry out a gap analysis between a more historical evaluation method and the method on which the new tool is based, to clarify the need for such a tool. The evaluation of the Single Regeneration Budget was used as a comparator to show, as part of a gap analysis carried out, that SuROI picks up more hidden social and environmental benefits and spillovers than previous, more 'historical' evaluations, such as the SRB. In order to carry this out, the examples of the two sub case studies (in their first showing within the thesis) were utilised. The results showed that SuROI did indeed unveil more socio-environmental impacts than more historical evaluation approaches, such as the SRB evaluative approach.

The third objective was to develop the tool through a single case study methodology by using two real historical sub-case studies from City West Housing Trust's stock in West Salford, UK. As can be seen within Chapter Seven of this thesis, this has indeed been carried out.

The final objective was to verify the tool through a focus group and with open ended interviews with experts in the field, which, as described in Sections 7.2.4 and 7.2.6, has been carried out.

8.3. Synopsis of the main research findings

The main research findings include the following:

1) The tool enables the gauging of full sustainable impact, from a given outlay of money invested in a housing-led urban regeneration scheme, through an evidence-based proof

The tool uses the foundations of SuROI to show quantitative sustainable impact values. These values are created through a thorough liaison with involved stakeholders; stakeholders who are actively involved and affected by a scheme in question, and who are most likely to be able to thoroughly recount change and impact as part of the involved fieldwork. Also, the usage of relevant indicators and proxies from previously mentioned databases (see Sections 7.2.6 and 7.2.9) are used to give an overall sustainable value, in quantitative format.

As mentioned in Sections 1.4, 6.2 and 7.2.1, the evidence-based and quantitative approach used within the artefact means that all aspects pertaining to the triple bottom line, even previously intangible and more difficult to measure ones (Conejos, Langston and Smith, 2013), are able to be measured. The quantification of the impacts results in a ratio which compares the amount of money invested to the resulting impact, both on a per stakeholder basis and for a scheme as a whole.

As stated by Bichard (2016), the notion of an evidence-based proof through the monetisation of the detrimental or the added sustainable value of development schemes “has not featured to date in the literature”. Such monetisation reduces complex information into data that can be easily compared and valued (Lingane and Olsen, 2004; Conejos, Langston and Smith, 2013).

The monetisation technique facilitates “the comparison of otherwise incommensurable benefits across different activities” and allows the measurement of “what matters” to end users through a comprehensive method that is both “robust and replicable” (Watson and Whitley, 2016).

2) SuROI can be used within a housing sector context

As discussed in Sections 1.4 and 2.6 of the thesis, while environmental and social spillovers are largely disregarded because of a gap in previous evaluation tools, by implementing a more holistic and comprehensive methodology such as SuROI to the housing sector, this can be extremely beneficial in being able to capture those

previously hidden benefits. This is evidenced within Section 3.7, during the comparison of the evaluation of the SRB with SuROI where such hidden benefits were clearly seen to be unveiled with SuROI, whereas they were not with the evaluation of the SRB.

3) SuROI can be refined through the Design Science Methodology to create a new artefact

As discussed in Sections 1.5 and 5.6 and more generally within Chapters 5 and 7, the Design Science Methodology which enables the invention or building “of new, innovative artefacts for solving problems or achieving improvements” (Iivari and Venable, 2009), which uses the “research for practice” stance (Chynoweth, 2013), which seeks a solution to a real world problem of interest to practice and stems from a problem solving paradigm which seeks to create innovations (Hevner et al., 2004), can be used to refine existing SuROI to create the SuHousingImpact tool.

4) The resulting artefact can be used to better fulfil sustainability criteria in terms of all three aspects of the triple bottom line and contribute in a more sustainable way to the UN’s SDG 11

As discussed in Sections 1.1, 2.2, 2.4, 2.6, 2.10 and 6.2, the resulting SuHousingImpact artefact can better fulfil sustainability criteria which links into the UN’s SDG 11. As Section 2.5 states, it is argued that any regeneration project that fails to evaluate each of the well-established sustainability pillars will not achieve its sustainable development and regeneration objectives (Winston, 2009; CLG, 2008).

The economic climate and its effect on housing associations covered in Chapter 1 is a serious challenge to the achievement of the SDGs, since failures in ensuring sufficient support to the housing sector would result in hindering a main pillar of the New Urban Agenda. By actively seeking out and discussing the financial benefits that are coming the way of the not yet involved stakeholder (whose socio-environmental spillovers can be measured through the artefact), it is possible to prevent schemes being affected by current economic cuts, and subsequently ensuring that there are adequate resources to match the ambition of sustainable development (Roberts, 2000), and the UN's SDGs, in particular Goal 11 of the SDGs, by offsetting budgetary cuts through striking agreements with those stakeholders who benefit.

The raising of consensus (and financial support) across as many stakeholders as possible regarding the need for wider interventions relating to a crucial pillar of the SDGs, which is, the allowing of each person the dignity of a decent home, can be carried out by unveiling the larger and long term impacts on respective budgets. This can be evidenced within Chapter Six, where each separate stakeholder involved in a housing-led urban regeneration scheme and inputted into the new artefact as part of the evaluation of a scheme, now has the overall monetary calculations available on a per stakeholder basis. This can provide information useful in terms of the offloading of costs onto potential wider stakeholders to ensure a higher rate of financial sustainability, subsequently being capable of turning a cost into a profit. As discussed in Section 6.3.6, by doing this, the economic problems prevalent at the moment and being felt by many housing associations may be minimised, thus increasing the chances of future financial sustainability. As discussed in Section 4.9, this aspect of the new artefact could potentially act as a negotiating tool in the quest for more

investment into housing-led urban regeneration schemes, thus ensuring financial sustainability going forward.

5) The artefact is a better fit than SuROI with regard to the era of ‘New Public Management’

As discussed in Section 1.6, 4.9, 6.2 and evidenced within Chapter Six, SuROI assumes that there is one large public domain whereas in practice this is not the case. New Public Management correctly assumes that there are competing agencies where the behaviour of the differing agencies’ management is changing. Currently it is the case through New Public Management that each separate stakeholder has its own budget and each separate stakeholder such as the NHS, is fighting for as much money as it itself can get hold of, and probably looks at its own needs before thinking about needs belonging to other competing stakeholders. As discussed in Section 6.3.6, the notion of sustainability has been actively and widely promoted within sustainable regeneration projects, but apparently with limited sustainability benefits for the different intended beneficiaries involved (Van Bueren and De Jong, 2007).

Therefore, rather than thinking in terms of overall ‘public’ benefit, it is important to rely on quantifiable methods showing benefits and costs for those different and involved public actors and beneficiaries. This would potentially be able to show how a specific intervention reflects on each separate stakeholder’s budget line. These interconnections have been evidenced in Section 2.6, whereby a thorough understanding of the mutual interconnections provided by good quality housing and its related impacts may influence the willingness to fill some of the current gaps in resources for housing provision (Dean, Trillo and Bichard, 2017a).

The 'SuHousingImpact' tool gauges the quantifiable amount of impact for each stakeholder involved in a housing-led urban regeneration scheme and would show in monetary units whether or not each stakeholder gains or loses from a given project, and additionally, by the cash flow amount involved, thereby marrying up with the concept of 'New Public Management'. Because SuROI does not have this facility or carry out this function, the artefact is a better fit with regard to the era of 'New Public Management'.

In addition, and in line with the New Public Management concept, as stated in Section 4.7, if cross co-operation were to be possible amongst stakeholders, this, as promoted as part of the artefact of this thesis, could be a particularly useful concept with regard to public policies, theoretically and with specific reference to housing.

6) The stakeholder mapping process used to identify potential wider stakeholders has been shown to be able to be carried out quantitatively, conversely to the usual qualitative manner, in light of the concept of New Public Management

As part of the new 'stage 6' of the artefact (Section 6.3.6), each individually involved stakeholder is presented with a socio-environmental impact ratio. This ratio shows exactly how much a given stakeholder gains or loses from a scheme in question.

Because of this, the stakeholder mapping process can be shown to have been carried out in a quantitative manner. This directly links into the concept of New Public Management, where, typically, each involved stakeholder relating to a scheme has their own budget to work with. With the separated ratio values, this makes a scheme's

impact far more relatable to involved stakeholders, and far more useful when dealing with different budgets, than when compared to an overall scheme value.

In addition to the above, the quantification of the stakeholder mapping process reduces the weaknesses inherently present in such analyses, with the quantitative approach outlined being utilised to reduce the subjectivity of the stakeholder mapping process; the quantified outcomes clearly highlighting the cited “desired outcomes” of Bryson (2004) (see Section 4.9); whilst this thesis also suggests that because the interest and influence of stakeholders and how much a particular stakeholder stands to gain, or lose from a given project is quantified, Reed et al., (2009)’s point regarding the need to show extendable matrices that show interest and influence of stakeholders is fulfilled.

7) The artefact introduces the concept of time, which SuROI doesn’t – this leads to the tool being used as a strategic, management or governance based tool, whilst additionally ensuring continued economic sustainability

The new artefact is not only an evaluative tool, as SuROI is, but can be used as a strategic management or governance tool, as evidenced through Chapter Six and Dean, Trillo and Bichard (2017a), cited in Section 2.6. It does this through being able to use the concept of time, via pay back period analysis, to gauge whether to invest and indeed what type(s) of investment to carry out. Also, as discussed in Section 6.3.6 and indeed evidenced in Chapter Six, this is a very useful concept for strategic decision making, management or governance. Using these calculations, which have never before featured as part of a SuROI process, it would be able to prioritise schemes based on how quickly the pay back periods come along or alternatively it

would be able to potentially cancel plans for any schemes which take too long to break even and it would additionally be able to be used to target certain groups of stakeholders that housing associations or housing-led urban regeneration facilitators wish to target as part of a scheme; either such stakeholders who previously have not benefitted from any such schemes or stakeholders who are currently benefitting from schemes at a cost to the housing association and who could potentially supplement such costs, again thus ensuring continued economic sustainability.

8) The tool can be used to ensure less wasting of money on schemes and can be used to plug the gap created by the recently experienced economic shortfall which is impacting on housing associations, tenants and communities alike

Previously, as mentioned in Section 4.1, there has been a “lack of effective tools and robust methodologies capable of capturing the full social value generated by the housing association sector” (Fujiwara and HACT, 2013). Usage of the SuHousingImpact artefact ensures less wasting of money and fewer poor decisions being carried out, through its provision of a full sustainable evaluation of socio-environmental impact.

As mentioned in Sections 1.4, 6.2 and 7.2.1, the evidence-based and quantitative approach used within the artefact means that all aspects, even previously intangible and more difficult to measure ones (Conejos, Langston and Smith, 2013), are now able to be measured. As described in Section 5.7, this translates to there being the maximum amount of information available on social and environmental benefits “of central concern to individuals and communities” (Vardakoulias, 2013). With this amount of information now being available to decision makers in the housing sector field, this, in turn, means that it is more difficult, theoretically, to waste money

through poor investments. This being contrary to previous decision making processes, and covered within Section 5.7, where money has been spent on areas which then does not in turn make any difference to an area socially or environmentally.

The tool additionally plugs the gap created by the recently created economic shortfall by involving more financial contributions from actual or/and potential stakeholders.

As Sections 5.7, 6.2, 7.2.1 and 7.3 state, because the tool actively identifies the full range of stakeholders benefitting from a scheme in question and quantifies the respective costs and benefits pertaining to each stakeholder, in a way that previous tools have failed to carry out, stakeholders have an evidence-based proof of how they benefit. Such an evidence-based approach being presented to stakeholders showing clearly what is received by way of benefits is a much more reliable way of enabling an understanding of impact. Through the evidence-based method, stakeholders are able to realise that positive impacts resulting from a particular scheme can far outweigh the cost of a potential financial contribution towards the economic sustainability of the said scheme, thus enabling all parties to continue to benefit. In a particular scheme's absence, costs incurred may outweigh the previous benefits, making it economically worse off for both the scheme facilitator and stakeholder(s) in question. This aspect of SuHousingImpact can ensure that Roberts (2000)'s point regarding the necessity for adequate resources to match the ambition of sustainable development, is covered.

9) The tool is able to be used to evaluate historical housing-led urban regeneration schemes, but can also be used in a predictive way, on future schemes, or indeed could be used on any stakeholder led scheme within any domain

The SuHousingImpact artefact can evaluate in both an ex post and an ex ante manner.

As has been seen within Chapter Seven of this thesis, historical schemes from the past can be assessed.

However, the artefact can also be used in a predictive way, assessing potential impacts of schemes yet to be unveiled. This can be carried out because of the amount of valuation data the method taps into. Indeed, the guide for SROI, on which the tool is heavily based, states that SROI can be carried out ex ante, as a forecasting or predictive method (Nicholls et al., 2012). As is stated in Section 4.2.9, the tool is useful in terms of predicting or defining what is wanted from potential future contracts, whilst stakeholder data collected infield can be used to not only evaluate social and environmental change caused by previously completed projects, but also to predict future change from planned projects (Section 4.1). As noted earlier, it is also prudent to again mention that the artefact focuses on the potential to look in far greater depth at future economic sustainability than has previously been covered within SuROI (Section 6.2). Additionally, the tool has significant potential for future research because, as mentioned within Section 7.3, as the tool is stakeholder focused and stakeholder led, it can be applied to any stakeholder related scheme. This includes other subject areas and domains such as “health care or sport facilities, by exploring a variety of different stakeholders and respective benefits and burdens and testing their

willingness to be subsequently engaged in the production of public goods” (Dean, Trillo and Bichard, 2017b).

10) Through the artefact’s aforementioned use as a strategic decision making or management tool, schemes can be planned in, prioritised or carried out in a targeted and strategic manner

As has been highlighted for SROI, on which the artefact is based, in Section 4.2.9, the “monetised indicators can help management analyse what might happen if they change their strategy, as well as allowing them to evaluate the suitability of that strategy in generating social [or environmental] returns, or whether there may be better means of using their resources” (Maughan, 2012).

However, in addition to the above, through the new stage 6 of the artefact, as stated within Section 3.7, the various pay back period calculations ensure that SuHousingImpact can be used as part of a strategic decision making, management or governance tool.

To this end, and as recounted in Section 6.3.6, it would be able to plan in or prioritise schemes based on how quickly respective pay back periods come along or alternatively it would be possible to potentially cancel plans for any schemes which take too long to break even.

The tool would additionally be able to be used to target certain groups of stakeholders that housing associations or housing-led urban regeneration facilitators wish to target

as part of a scheme through the per stakeholder impact ratios; either such stakeholders who previously have not benefitted from any such schemes or stakeholders who are currently benefitting from schemes at a cost to the housing association and who could potentially supplement such costs thus ensuring continued economic sustainability.

As interviewees highlighted within Section 7.2.6, the tool could be used to make logical decisions on where to start work, and in what order, based on where has the greatest impact, or a specific scheme could be chosen to be unveiled which is tailored to certain aspects of the social or environmental spectrum, in order to enable a specific community, previously suffering from a particular social or environmental problem, to have a greater impact in that specific area.

As mentioned again in Section 7.2.6, potential future works could be prioritised depending on what kinds of impact the housing-led urban regeneration facilitator/organisation in question wants to see within a designated area. As mentioned within the interviews, it is also possible to work backwards from the kinds of impact wanted, towards what scheme factors would produce such an impact. This could lead to works specifications being sustainability focussed.

11) The tool can be used for modelling purposes, for publicity purposes and can also be used alongside existing tools

The tool can be used to model different scenarios, for example, showing various different plans, eventualities or scheme impacts - this acting as a way to model and compare results of different scheme ideas.

As interviewees stated within Section 7.2.6, data could be inputted into the tool to be used to predict varying scenarios. Through this, the impacts potentially being generated by a potential future scheme being put up before, for example, a local authority, regulatory body or potential funder, can be shown as part of the publicity process for such a scheme, in order to promote, advertise or sell the scheme in question to the local authority, regulatory body or potential funder in question.

Through the different stakeholder values generated within the new stage 6 of the artefact, the sustainable value that, for example, a local authority, were to get back from a potential scheme idea, is able to be generated. Also if donations to schemes were being sought, pay back periods could be used to convince funders to fund. This is where SuROI would fail, SuROI only providing a holistic overall scheme value.

The SuHousingImpact tool can also be used alongside existing tools as a further proof of impacts, useful to be shown as part of any publicity or funding seeking process.

8.4. Contributions to existing knowledge

The contributions to existing knowledge are as follows:

The novel contributions of this research include:

- The usage of the SuROI approach within housing-led urban regeneration schemes
- Stakeholder mapping, which currently remains at a qualitative level, can be carried out quantitatively, in light of the concept of New Public Management
- A refinement of the already existing SuROI approach by using Design Science Methodology to create a new ‘SuHousingImpact’ tool
- The refinement of SuROI by using Design Science Methodology in creating the new ‘SuHousingImpact’ tool which is able to calculate the social and environmental impacts for each individually involved stakeholder within a scheme
- The refinement of SuROI by using Design Science Methodology and creating the new ‘SuHousingImpact’ tool which is able to determine pay back periods for both each individual stakeholder involved in a scheme, and also for the scheme as a whole, thus introducing the concept of time.

8.5. Limitations of the study

The limitations of the study include:

- 1) The limitations of the PhD timeframe
- 2) The two schemes used as the sub case studies were the only two schemes that had reliable recorded stakeholder feedback on them within City West Housing Trust. If further schemes with such a level of reliably recorded information were available, it may have been possible to use further sub case study examples within the research
- 3) Judgement and discretion when selecting indicators and proxies is required, as covered in Section 7.2.9 and also within Section 8.6 below. There is some criticism of official databases (such as HACT for example) within the literature (Higham et al., 2017) and within the interviews carried out in this research. However this is outside of the scope of this PhD and may cover work which could act as an entire PhD in itself.

8.6. Recommendations for future research

As discussed in Section 7.2.7, the potential future tying in of years' duration of a scheme within the 'stage 6' line graphs may be possible as part of any future research. This is because the artefact has been created to seamlessly fit in with the impact map of SuROI and its predecessor SROI. These two methods both use only five year

duration periods. Future research or future refinement of this artefact could potentially look into the benefits or potential issues with linking duration periods in this way.

In addition, and as discussed within Section 7.2.9, within Section 8.5 above and within Higham et al., (2017), the data issues regarding relevant indicators and proxies would potentially be worth looking at in terms of future research. The focus group responses within this research in particular highlighted what Higham et al., (2017) had already affirmed in their recent study, namely that although datasets are improving, there are still some issues with either their reliability or perceived reliability. However, regarding the feedback from the focus group, by way of concerns regarding some data that can be inputted into the artefact, stopping the post positive perspective should lead us to conclude that the evaluator should be driven by more evaluation data sources, but not at the point where the data is spoiled. Therefore an element of balance must be used.

Further research could also explore the application of the method to different sectors, such as health care or sports facilities, by exploring a variety of different stakeholders and respective benefits and burdens and testing their willingness to be subsequently engaged in the production of public goods (Dean, Trillo and Bichard, 2017b).

8.7. Final summary

Despite there having been many evaluation methods utilised within the field of housing-led urban regeneration schemes, there remained a gap in the knowledge base; this gap being namely that no tailored tool existed to quantitatively measure the hidden or previously intangible social and environmental benefits that typically result from a housing-led urban regeneration scheme. In addition, there would appear to be the need to re-orient existing assessment methods towards a more strategic and long term sustainability suitable to engage potential stakeholders to provide financial sustainability going forward.

This research has filled this gap within the knowledge base. In the artefact created as part of this piece of research, there now exists a tool which can make visible previously intangible and previously invisible socio-environmental spillovers that typically result from housing-led urban regeneration schemes.

However, in addition, the new artefact created, the SuHousingImpact tool, also ensures continued financial sustainability going forward, particularly useful within the current economic climate. In addition, the introduction of the concept of time into the equation also enables prospective users to be able to not only fully evaluate schemes, but in addition to be able to use the said tool as a strategic management or governance tool.

It is the researcher's hope that this tool enables housing-led urban regeneration to ultimately become more sustainable and for the built environment to become something of which we can all be proud of. Something which is so important to every single one of us.

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APPENDICES

APPENDIX A: CURRENT AND POTENTIAL FUTURE STAKEHOLDERS OF CITY WEST HOUSING TRUST:

CURRENT STAKEHOLDERS OF CITY WEST

| Stakeholder | Role played in the process | Opportunities for improvements |
|-------------|--|---|
| Tenants | Inhabit housing stock, pay rent to company. Their everyday lives directly affected by company policies and practices | Ensure that regeneration of the housing stock is carried out to a high enough standard so that repeated investment is not necessary. Ensure that the stock supports customers in terms of their needs, energy efficiency and ensure that the house they live in is not detrimental to their health. Ensure that |

| | | |
|--------------|---|--|
| | | they are happy in the given property so they become long term inhabitants, which translates into long term rent for CWHT and long term benefits for the tenant |
| Leaseholders | Inhabit stock but do not pay rent. They do however pay for communal repairs. Their everyday lives directly affected by company policies and practices | See above, except only external works, not internal works are carried out to leasehold properties. However by improving what would typically be a surrounding block within which a leaseholder property normally sits, this would improve sellability for the leaseholder and a feel good factor about where they live |
| Staff | Perform day to day work, actively delivering the company ethos, strategies and | Work in a way where costs in terms of regenerating and maintaining the housing stock are reduced |

| | | |
|-------------|---|---|
| | procedures | over the longer term by more efficient ways of working |
| Contractors | Carry out physical improvement or maintenance work to the company's housing stock | Set out guidelines for contractors' works which promote more sustainability and value for money. Reduce need for contractors and their charges through more sustainable housing |
| Councillors | Attempt to solve problems or concerns raised by local people by lobbying or liaising with the company for designated solutions. Can act as an outlet for the company in terms of positive or negative publicity | Reduce amount of concerns raised by local people through councillors |
| MPs | Attempt to solve problems or concerns raised by local people | Reduce amount of concerns raised by local people through MPs |

| | | |
|------------------------------------|--|---|
| | <p>by lobbying or liaising with the company for designated solutions.</p> <p>Can act as an outlet for the company in terms of positive or negative publicity</p> | |
| Local Government – Salford Council | Act as a local partner in delivering, can be a source of funding | Reduce costs that the council incur by promoting more sustainable housing |
| National Government | Set policy for company to follow. Can be source of funding | Reduce costs that the Government incurs by promoting more sustainable housing. Through achieving higher levels of quality, perhaps having access to more funding opportunities than currently |
| Other organisations within group | Other organisations within the group structure that CWHT falls under share skillsets, knowledge | Promote above ideas within group structure |

| | | |
|-----------------|--|--|
| | and manpower | |
| Suppliers | Supply physical products used to deliver solutions or works | Either deal with suppliers who promote a more sustainable product or cut down on the need for suppliers through products that have a longer life span and higher levels of value for money |
| Lenders | Lend money in order that the company has the financial power to survive, invest and strategically grow | Reduce the necessity for the amount of lending and borrowing through more efficient regeneration and investment |
| HCA | Regulatory authority | Set best practice levels in terms of compliance with regulatory authority |
| Owner occupiers | Directly or indirectly affected within the neighbourhood by CWHT, their tenants, policies and properties | Reduce maintenance or disrepair claims, posed as a consequence of poor maintenance of stock |
| Community | Provides the platform on which CWHT | Affect people's lives within the community |

| | | |
|--|---|---|
| | policies can affect people's lives | positively |
| Police | Maintain order within CW neighbourhoods | Reduce the workload of the police through educational programmes with CW tenants |
| Residents' groups | Lobby CWHT for the best possible deal for them and their neighbourhoods, both now and in the future | Liaise more with residents' groups in order that their needs are taken account of at all stages of any regeneration process |
| Attendees of employment/ skills programmes | Learn skillsets directly relating to the type of work carried out by staff of CWHT | Promote such programmes within local community and to CW tenants who are unemployed in order to give them skillsets that will gain them employment, which translates to becoming a more sustainable tenancy |

POTENTIAL STAKEHOLDERS OF CITY WEST

| Stakeholder | Role played in the process | Opportunities for improvements |
|----------------------------------|---|---|
| Social care organisations | Provide housing and services tailored to helping and caring for vulnerable people | Create more accommodation where tenants' needs are taken into account. Consequently promotes better well being and longer more sustainable tenancy for CW |
| Education and health authorities | Work to improve education and health of the population | Work in partnership with such an authority, thus improving health and education of tenants within CW housing. Translates into lower costs for NHS, more income tax for government and potentially lower crime rates and less housing benefit/ jobseekers allowance being paid out |

| | | |
|---------------------------------------|---|---|
| Energy companies | Provide energy to residential, public and commercial property | Reduces costs to tenants giving them more disposable income to spend with CW or on their physical and mental well being |
| Other funders | Provide other income streams | Tap into other funding streams |
| Third sector organisations | Provide a platform for voluntary work | Create future partnerships with such agencies in order to carry out such work as cleaning up communities, thus making areas better places to live and work or help with tenants' problems that affect their tenancies and ability to sustain them |
| Development/ building companies | Develop and or build new property on acquired or available land | Build new homes in order to satisfy the current demand for housing |
| Estate agents | Provide a professional lettings service for | Liaise with other lettings agencies who can promote |

| | | |
|----------------------------|--|--|
| | property | CW properties at a rate which is more in tandem with value for money |
| Universities | Possess intelligence within the field of housing which can be used to the benefit of the housing sector for theoretical or/ and practical purposes | Link up to date academic knowledge with everyday regeneration or/ and housing activity to make CWHT processes more efficient, value for money and/ or sustainable |
| Other housing associations | Can provide knowledge, staff, links, growth | Form new partnerships with other housing associations thus growing the group structure under which CWHT is a member and replicating the above items to a wider region and to more people |

**APPENDIX B: ETHICAL APPROVAL INFORMATION INCLUDING
PARTICIPANT INFORMATION SHEET AND PARTICIPANT CONSENT
FORM(S)**

Participant Information sheet – General study information

The information sheet provides a brief outline of the study and includes information on: the purpose of the study, your role, behaviour and responsibility of the researcher, use of the research findings and the voluntary nature of your involvement.

Before you decide whether or not to proceed, it is important for you to understand why the research is being done and what your role will involve. Please take time to read the following information carefully. Ask questions if anything you read is not clear or would like more information.

What is the purpose of the study?

This research contributes to the completion of a PhD thesis at the University of Salford. The aim of the study is to create a tool used to measure the hidden and intangible social and environmental benefits of a housing-led urban regeneration scheme.

This research contributes towards stage 1 of the study. This involves the demonstration of the tool to key employees of City West Housing Trust.

The research involves two stages: Stage One will demonstrate the tool to key employees of City West Housing Trust.

Stage Two will involve working with other partner organisations, customers and tenants of City West Housing Trust to undertake sustainable return on investment (SuROI) (Bichard, 2015) as a tool to quantify hidden social and environmental benefits through the use of financial proxies.

Why have I been invited to take part?

This research forms part of Stage One. You have been identified by Kevin Dean as a key employee within City West Housing Trust who is in a position to provide feedback and opinion on the tool created as part of the research process.

Do I have to take part in the research?

Participation in the research is entirely voluntary. You have been identified as a stakeholder by Kevin Dean. For the purpose of the study it is important that the research includes feedback on the tool being produced as part of the PhD.

All participants are asked to sign a consent form prior to taking part; this acknowledges that you understand the information provided and agree to participate in the research as identified above. You have the right to withdraw from the research at any point and for any reason. If you have any further questions please contact the researcher in the first instance or the named supervisor.

What will the participation involve?

You may be invited to contribute to group discussions, participate in interviews or complete questionnaires. You may also receive occasional emails or other forms of communication from the researcher.

Will the research be recorded/audio-taped?

Interviews/discussions are audiotaped. This is to help the researcher focus on the interview rather than taking notes. Any recordings will only be used for the purpose of the research and destroyed after the material has been transcribed. If you would prefer not to be recorded, please inform the researcher. If this is a group discussion you may be asked to return to provide feedback independently.

How will the research data be used?

Data will be used in the completion of the PhD thesis and as such the data may be discussed with the research supervisor. The findings may also be used for publicly accessible reports, journal articles, presentations or other outputs. Any names of individuals or organisations will be anonymised (i.e. you will be given a pseudonym – false name), organisations / groups will be referred to by their broad area of activity and size.

What if I have a complaint or need to discuss any concern I have about the study?

Please do not hesitate in raising any concerns with either the researcher directly involved, with the research supervisor Dr Claudia Trillo or with the department ethics contact at the University of Salford. Full contact details are provided at the end of this information sheet.

Behaviour and responsibility of the researcher.

Every effort will be made to ensure the research does not disrupt the working environment in any way. The researcher will maintain a professional business manner and ensure confidentiality and data protection is maintained throughout the study.

What are the data protection procedures for my information?

Procedures for handling, processing, storage, destruction and publication of the data matches the requirements of the Data Protection Act 1998. This includes:

All individual/organisation participant research data, such questionnaires/interviews will be anonymised through the use of codes/pseudonyms, known only to the researcher.

A master list identifying participants to the research codes data will be held on a password protected computer accessed only by the researcher.

Hard paper/taped data will be stored in a locked cabinet, within a locked office, accessed only by the researcher.

Any electronic data will be stored on a password protected computer known only by the researcher.

Contact details

| | | |
|--|--|--|
| Researcher: Kevin Dean Institution: University of Salford Email: kevin.dean@forviva.co.uk | Supervisor: Dr Claudia Trillo Institution: University of Salford Email:c.trillo2@salford.ac.uk | School of the Built Environment (SoBE) Ethics contact: Nathalie Audren-Howarth Email: S&TResearchEthics@salford.ac.uk |
|--|--|--|

RESEARCH PARTICIPANT CONSENT FORM

| | |
|---|--------------|
| Researcher(s) KEVIN DEAN | |
| Researcher: KEVIN DEAN University of Salford Contact: | Date: |
| Area of research | |
| <i>This research explores the creation of a tool used to measure hidden and intangible social and environmental benefits of housing-led urban regeneration schemes. It involves the demonstration of the tool to key employees of City West Housing Trust and interviews with those employees and wider stakeholders and partner organisations.</i> | |

Please read and complete this form carefully. If you do not understand anything and would like more information, please ask. If you are willing to participate in this study, please tick to indicate you understand and/or agree with the following:

| | |
|--|--------------------------|
| I understand that I have been asked to participate in a focus group / interview as outlined in the ' Participant Information Sheet ' and confirm that I have had the opportunity to ask questions and gain satisfactory answers. | <input type="checkbox"/> |
| I understand I will be given a pseudonym (false name) and that my actual name will neither be used in transcriptions and reports, nor given to anyone else. | <input type="checkbox"/> |
| I agree to the interview/ focus group being recorded and understand that the recording will be used for the purpose of transcription. | <input type="checkbox"/> |
| I understand that only the researcher and supervisor involved in this study will listen to the recording and agree to it being transcribed. | <input type="checkbox"/> |
| I understand that I can refuse to answer any question without providing a reason. | <input type="checkbox"/> |
| I understand that the approximate duration of the interview will be 25-45 minutes in length. | <input type="checkbox"/> |
| I understand that findings, including verbatim extracts (actual comments) from interviews, are likely to be used in the PhD thesis, presentations, reports and articles or other outputs which will be in the public domain but that these will be anonymised. | <input type="checkbox"/> |
| I understand that I am free at any time to withdraw from this research activity and will inform the researcher, Kevin Dean if I wish to do so. | <input type="checkbox"/> |
| I understand that in giving my consent it is for the duration of the research | <input type="checkbox"/> |

unless I withdraw my consent.

I understand that data from the research will be kept securely and treated in accordance with data protection laws.



Declaration of Consent

“I freely and voluntarily consent to be a participant in the research project outlined above.”

Name: _____ Date: _____

Signature: _____

A copy of the participant consent form and the participant information sheet should be retained by you. The signed consent form will be stored securely by the researcher.

APPENDIX C: INTERVIEW TRANSCRIPTS

Initial scoping interview transcripts:



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO “DEMONSTRATE ARTEFACT”

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and

Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

| | |
|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

22 years

2) In what capacity and for which organisations?

Neighbourhood officer

Audit Commission – investigated repairs and maintenance on behalf of the government

City West Housing Trust – look at service improvement, policy, procedures, every department in the business

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Standard to the sector because the emphasis is often on contract management, ie planning, then delivery, then that's it, at the end of the project.

We evaluate it in terms of, we have to carry out works, to a budget, and meet certain standards, but in terms of what difference that makes, we're not so good at that. City West does it because we do social accounting but its not standard elsewhere.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes, I've heard of New Economics Foundation, SROI and HACT.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

Advantage: Even if you can't assess the impact, it still makes you look at what you did and what it cost, so at least you have the context. So even if there was no methodology out there, you could make a common sense decision on that, so you need to assess the inputs, the outputs and the outcomes.

Disadvantages: Only as good as your data collection. In order to get data collected you invariably have to get other people to collect it for you and their knowledge probably won't be as good as your knowledge.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Boundaries not secure, no where to put cars, general appearance looks run down, can't maintain or won't maintain privets. No one wants to live there. No uniformity.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, people visiting them, agencies who have to deal with parking issues

b) Who had an effect on City West Housing Trust?

Same

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Usually we don't do this for the contractor because its included in the cost of the contract, all the other costs are part of the social accounting.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Part of social accounting

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

All on social account. We costed this property by property.

12) Can you describe the situation after the regeneration scheme was carried out?

Uniformity to the area, looked maintained and looked after.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Nothing more than what has already been said.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Parking issues may have now been solved which may have solved previous neighbourhood arguments between customers? Satisfaction with the neighbourhood may have increased?

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Yes, questions were asked such as “rating for neighbourhood” and a question on the customers’ feelings of vehicle security. Two standardised questions which are on the open accounts. We also asked open questions which we feel are very valuable.

16) How long did the changes last and when did they start to come about?

Would last 15-20 years? And don’t know.

17) Do you think any of the outlined changes would have happened without the regeneration scheme’s intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme’s intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Don't know.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Because it's a fixed asset I don't think that there would be a drop off. So the feelings will be experienced by the next person. The new people wouldn't see a change, but they wouldn't see the negativity of what was there before either.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
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| | |

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3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Standard to the sector because the emphasis is often on contract management, ie planning, then delivery, then that's it, at the end of the project.

We evaluate it in terms of, we have to carry out works, to a budget, and meet certain standards, but in terms of what difference that makes, we're not so good at that. City West does it because we do social accounting but its not standard elsewhere.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes, I've heard of New Economics Foundation, SROI and HACT.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

Advantage: Even if you can't assess the impact, it still makes you look at what you did and what it cost, so at least you have the context. So even if there was no methodology out there, you could make a common sense decision on that, so you need to assess the inputs, the outputs and the outcomes.

Disadvantages: Only as good as your data collection. In order to get data collected you invariably have to get other people to collect it for you and their knowledge probably won't be as good as your knowledge.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

High maintenance costs, high turnover, ASB, low demand, because of low demand we start letting the properties out to people who are not there for the long term – vicious circle. Dominant buildings which looked poor, an eyesore and brought the area down. Lifts always broken. High voids, no rent.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, Government, Banks, customers' families, local authority, planning, legal teams for right of access etc.

b) Who had an effect on City West Housing Trust?

Customers

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

All on the accounts – see me later

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Part of social accounting – but only Ladywell Green and Barton Village

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

We did number of units. I think it was 666 flats that we looked at.

12) Can you describe the situation after the regeneration scheme was carried out?

People use their homes more now as a home, they invite people round, they cook in it more, they previously didn't do this. So this positively affected their social life and it brings the community together. There is now sustainable in demand accommodation

that is giving us rent but is also providing quality homes for people who need them in Salford. Appearance is improved greatly.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

To meet decent homes standard. Good quality housing with modern facilities. Sustainable asset.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Improving pride and social side of tenants' living. Making Salford a more desirable place to live.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

SAP rating. Monitoring of fuel bills. HACT – neighbourhood as a good or bad place to live. Measurement of metrics for customers' health.

16) How long did the changes last and when did they start to come about?

On social accounts.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

Not in its current social housing format no. It might have been converted to private flats but we won't ever know.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Tenants and residents groups maybe?

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Don't know.

Thank you for your time

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

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| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

8 years

2) In what capacity and for which organisations?

Liaison Officer, Area Liaison Co-ordinator, Project Manager, Programme Manager

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

There are opportunities to explore and evaluate them but because of time constraints and parameters changing, its not always possible to do this. Because everything is fast paced, we don't always have time to sit down and assess the positives and negatives of a job, but when we do, we do it quite well. It would be nice to have a little more time. We have had lessons learned workshops with people involved in the projects. This is broken down into pre-construction, design and development, operational –

what worked well, what should be changed, then all this is fed into the process to make it a continual learning curve. We do informal versions and formal versions of this and an issue with that is that on the informal occasions the information is not always captured as comprehensively as when formal workshops are undertaken.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

As a concept, no. I've done impact assessments before where this kind of thing has been picked up.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

It quantifies what the project has achieved and whether the project has achieved what we set out to deliver. It puts perspective on the impact that the financial spenders had, the staff time, morale. When you can see on paper what has been delivered I think that lifts people's spirits and provides more momentum and motivation for the next project. Being able to justify that the project achieved its aims is a big part.

Disadvantages – possible if things haven't gone well and if some of the evaluation is quite negative. This could have the opposite effect.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Barton Village was carried out with customers fully moved out during works and then moved back in again. Ladywell Green – wasn't the case. Structural repairs, remodelling to change the feel, made them open plan, problems with water ingress

which needed addressing, there was the eco side of things – they weren't cost effective. The insulation needed addressing, the damp problems.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, local residents, councillors, SCC, environmental officers, staff members.

b) Who had an effect on City West Housing Trust?

Planners, conservation officers, local residents and customers. Customers have shaped what we have done ie with spec and contractor selection and products we use. We had to look at heritage re St Mary's Church – sandstone had to blend in. Trees – some had TPOs on them.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

A labour intensive project – both when decanted and when not. Overall contract duration started off as 14-15 months. As lessons learned got fed in, efficiencies and time cutting came in – lead to 10 months. 2 programme officers (CW), 2 project managers, programme manager, 2 surveyors and a clerk of works. Contractor staff and site delivery team, and their liaison also. Also staff time on decanting customers, involves emptying the block, finding alternative properties, organise utility switchovers, pack their removals, organise the removals. Then you need a constant link with the customers. 6 years and we are now on our last tower (12th tower).

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Roughly – Barton Village were around £3.8/9m

College Croft – approx £6.7

Charter House - £9.7

Ladywell Green – I'll have to check that and get back to you

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

In terms of products: the ecopod systems on the 12 towers – new balcony systems, insulated render/ cladding. Full bathrooms/ kitchens. Envirovent ventilation systems.

New soil and vent pipes. New boosted cold water systems. New CCTV. New colour video door entry systems. Externally we have access equipment like fog barrier entry.

Units:

119 on Charter House

70 in Southway

58 in all 4 Barton Village blocks

58 in Mees

88 in the Ladywell Green blocks

86 in College

84 in Kemball

12) Can you describe the situation after the regeneration scheme was carried out?

Skyline of Eccles has changed very positively. Community spirit has improved dramatically. Sense of pride. People misused the balconies etc. and they don't do that any more. Customers now coming to us, citing issues if fellow residents weren't keeping the look of the blocks. Things being raised that were never being raised before.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Sustainability of the block was one of the main intentions. To give those blocks another 30 years and to continue to provide those properties as social housing properties. To uplift the aesthetics of the area and the local community and to change the historic perception of what the block was in terms of the type of tenants in there, the associated reputation. We've tried to deal with any inherent problems with customers as part of the process ie rent issues or tenancy issues, ASB issues – these have been picked up as part of the project. That customer was then signposted to other agencies ie debt management etc. Quite holistic.

So as a result of our continued interaction we have managed to change how they were living and their lifestyle. Lettability also.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Change in perception. When liaising with customers as part of the discussion process for the works, any issues raised were put to bed before any works got off the ground.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Just customer satisfaction surveys.

16) How long did the changes last and when did they start to come about?

Changes were instant and they are still there. 30 year projection on the whole.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

A lot of other teams that fed into the support of the projects – the independent living team for the sheltered blocks, the rents team (notified them when we were accessing), legal (for difficult customers), neighbourhood management (ASB/ breaches of tenancy).

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Not aware of any.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO “DEMONSTRATE ARTEFACT”

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

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This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will

be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

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| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

17 years

2) In what capacity and for which organisations?

Manchester Metropolitan University –Architectural technician
 Salford Council – Surveyor, Project Manager
 NPHL – Team Leader planned works
 City West – Head of Investment, AD of Asset Management

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good. Having networked, our social accounting is probably more robust than most. A lot within the sector don't do anything in terms of looking at the less tangible benefits of delivering investment.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

We want our tenants to be able to pay their rent. For them to do that, they need to be able to afford to live in their properties. We can make the affordability of those properties more sustainable by the investment we undertake.

So for example in terms of fuel poverty, the corporate strands are factored into our investment programme.

So, one of those may be health and wellbeing, which is something that is important to our customers and not something which you might feel is easy to measure, however we've put things in place to try and get quantifiable outputs on the back of our investment programmes. We know that our carbon footprint on those blocks are significantly reduced, we know, remotely through the BMS systems what some are paying for their heating systems, and we knew this with our work with Cambridge University what customers were paying before we did the work. Traditionally, other providers would probably look at "what do we need to spend on the block as a minimum" just to fulfil statutory obligations, and not to consider the impact of doing something which may give a customer more or less disposable income whereby they may or may not be able to pay the rent and then on the back of that, property turnover might get higher, so it impacts on you and the customer so we're all about tackling both sides.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

1950s estates which would have traditionally had privets or soft landscaping to divide the boundaries. Households wouldn't have had a car, so as time has gone on, those people don't maintain hedges and privets like they used to. There doesn't seem to be the same fondness of looking after gardens. It was looking tatty and unmanageable for some customers.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers

b) Who had an effect on City West Housing Trust?

Customers, statutory bodies such as utilities, building control, planning

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Surveyor and a proportion of planning input, delivery manager input, finance, marketing. In terms of contractor time its difficult to quantify. We could tell you the cost but it's a bit of a guess. Ask Wes Cooper.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Don't know. Speak to Wes Cooper.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

You could find out the numbers from the plans.

12) Can you describe the situation after the regeneration scheme was carried out?

Improved kerbside appeal, in terms of void turnover its not decreased because it was never bad anyway, but it has improved people's wellbeing because they are living in a better environment and we have also found that the repair requests tend to go up on the back of investment, which can sound counterproductive but its because people take more ownership of their properties and start to really care about the environment that they live in.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

See above.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

We measured lots of PIs in terms of customer satisfaction, health and safety, right first time, works completed in time. In terms of quality, its 100% post inspection. Then the business as a whole has a customer inspectorate and customer metrics in terms of 3rd party customer feedback. Chris Speed to advise on these.

16) How long did the changes last and when did they start to come about?

Changes will last forever or for duration of installation – 30 year lifecycle and came about as soon as the investment was delivered.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

No.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

The asset deteriorates but it's offset by the rental recovery to future investment.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

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Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

17 years

2) In what capacity and for which organisations?

Manchester Metropolitan University –Architectural technician

Salford Council – Surveyor, Project Manager

NPHL – Team Leader planned works

City West – Head of Investment, AD of Asset Management

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good. Having networked, our social accounting is probably more robust than most. A lot within the sector don't do anything in terms of looking at the less tangible benefits of delivering investment.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

We want our tenants to be able to pay their rent. For them to do that, they need to be able to afford to live in their properties. We can make the affordability of those properties more sustainable by the investment we undertake.

So for example in terms of fuel poverty, the corporate strands are factored into our investment programme.

So, one of those may be health and wellbeing, which is something that is important to our customers and not something which you might feel is easy to measure, however we've put things in place to try and get quantifiable outputs on the back of our investment programmes. We know that our carbon footprint on those blocks are significantly reduced, we know, remotely through the BMS systems what some are paying for their heating systems, and we knew this with our work with Cambridge University what customers were paying before we did the work. Traditionally, other providers would probably look at "what do we need to spend on the block as a minimum" just to fulfil statutory obligations, and not to consider the impact of doing something which may give a customer more or less disposable income whereby they may or may not be able to pay the rent and then on the back of that, property turnover might get higher, so it impacts on you and the customer so we're all about tackling both sides.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Circa 1950s blocks, reinforced concrete frames, brick infill panels, or reinforced concrete with concrete infill panels (ie Charter House - exception). They were all in a poor state of repair, there were design issues, water was tracking back onto the ring beam and into the structural elements of the building. They were damp, cold, UV values were very high. Windows ill fitting, let a lot of weather in. Heating systems were economy 7 type heating systems which took an hour to warm up.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, local authority, separately elected members to the local authority

b) Who had an effect on City West Housing Trust?

Same

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Contractor side is difficult to measure. In terms of staff time, capital schemes attract a 9 (ish) % fee, so speak to finance and get the contract values. Of that 9%, 6% is staffing, so use 6% against say a £9m scheme would give you £600,000, then you can start to quantify the amount of staff. The 6% will include marketing, finance, not just the asset management staff.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Speak to Wes Cooper.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Per flat then get numbers off Andy Crosby.

Per flat: A new block heating system, supplemented with a solar array (PV), they have buffer vessels also to store energy in the plant room, new windows, new balcony

systems, at least 5 new windows. We've got 5 types of blocks – all BV blocks are the same. So you'd be able to count them up. All had EWI cladding (square meterage with Nic Bott), all had associated communal areas work also.

12) Can you describe the situation after the regeneration scheme was carried out?

Thermally efficient blocks, cheaper to run from a customer perspective (contribution of more efficient heating systems, solar contribution and insulation), knock on to that is that they are more affordable and so sustainable as they aren't spending their money on heat loss – they are able to spend it on, in theory, their rent. More sustainable to let and to manage.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

The changes to your asset, and to the affordability of the property.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

I prefer to see them as indirect changes – they would be aesthetically it lifts the area, people take more ownership and then they become better tenants, it gives them pride in where they live, creates a sense of ownership, becomes a home rather than a property and you're more likely to look after it. Then there is the wider social impact such as from a community perspective. A lot of investment and development in the area, but that's very difficult to quantify.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

We used the information from the Cambridge study, which was the thermal mapping of the blocks, we used energy usage data, customer profiling which shaped how we delivered it to lessen the impact to the customer, stock asset data also (age of components, the lifecycles) we used some BRE information on the general degradation of the blocks.

16) How long did the changes last and when did they start to come about?

Changes will last for 30 year lifecycle and came about as soon as the investment was delivered.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Staff, customers, local authority, contractors, consultants, architects, structural engineers, M and E engineers, local businesses (especially Southway), local elected bodies.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Yes and they are detailed within the NPVs (ie what's going into that asset and what's going out of that asset).

Thank you for your time

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO “DEMONSTRATE ARTEFACT”

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| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

6.5 years

2) In what capacity and for which organisations?

City West Housing Trust Area Liaison Officer
 Planning Officer

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good. They are improving. We are currently refining the net present value tool for the stock which will be studied prior to delivery of a scheme. The NPV gives the value of the stock to show where we should be channelling investment to get the best return. An entirely financial evaluation.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Mixture of poorly maintained fences, hedges, limited off road parking

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Residents – CW customers and neighbouring private residents

b) Who had an effect on City West Housing Trust?

SCC, utility and communication companies

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

A lot of CW staff: full time surveyor, liaison officer, back office admin – paperwork and phone calls from customers.

Contractor: Site managers, ops, liaison, QS, back office staff.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Don't know. Speak to Les Warham.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

See plans.

12) Can you describe the situation after the regeneration scheme was carried out?

Aesthetically improved, reduction on cars being parked on the road, increased value of stock, customer satisfaction increased, given pride.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Improved traffic conditions, pride in gardens, more care taken, increased value.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No. But - one of the main goals was to get cars off the road though, and we can possibly learn by doing a traffic study – cars before versus cars after etc.

16) How long did the changes last and when did they start to come about?

N/A

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Contractors, subcontractors, SCC.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Products will have a lifespan – maybe in 50 years' time, because of the quality of the specification used. Cyclical works will take place every 7 years depending on budgets available. But I think the off street parking increases the value of the assets.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

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|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |
| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

6 years 8 months

2) In what capacity and for which organisations?

Admin support for delivery within City West Housing Trust
Programme Officer on High Rise team

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good. We do this by lessons learned and customer satisfaction. There is room for improvement though. I think there should also be a focus on the staff satisfaction side rather than purely customer led.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

12 blocks. In dire need of investment, poor energy efficiency also

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Local businesses, leaseholders, shop owners, public, councillors, MPs, tenant groups

b) Who had an effect on City West Housing Trust?

Same

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

General hours. The hours were flexible. Minimum amount 36 hours per week. Maximum of 8am-10pm depending on impacts and liaison with external companies.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Don't know

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

118 units in Charter House. So 118 boilers. £800 per boiler.

Windows, doors, kitchens, bathrooms, plastering.

Average spend guess at £8,000 per flat.

Communal areas, rewiring, new lights, render, insulation – full refurb.

12) Can you describe the situation after the regeneration scheme was carried out?

Difference to customers' lives, makes area look better, more efficient in terms of energy which impacts on customers' bills, warmer, not wasting money, look better, fewer voids turnovers, feel good factor. Landscape looks different.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

As above, and energy consumption/ loss – cost savings. Lead to 50% savings on bills.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Too hot at times. Education has been necessary on how to ventilate property and how to program heating properly.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

KPIs – length of time in property, quality of handover, accepted first time, no accesses.

16) How long did the changes last and when did they start to come about?

Scheme started in 2010. Hoping it will last for a long time due to high specification.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

CW project team, delivery team, architects, Urban Vision, Forrest, United Living, neighbourhoods.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

No. The products are expected to last on average 30 years.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

5.5 years

2) In what capacity and for which organisations?

Lead Surveyor

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good. You've got Promaster and the planning team who look at what needs doing.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Inconsistent boundary treatments which made the place look very dilapidated, security issues leading to ASB, issues with parking

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, private owners/ landlords, members of public passing through the area

b) Who had an effect on City West Housing Trust?

Customers

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Full time surveyor, full time liaison officer, 25% of lead surveyor's time

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

£3.2m

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Don't know

12) Can you describe the situation after the regeneration scheme was carried out?

Improvement to the area

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Improved aesthetics and off road parking

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No

16) How long did the changes last and when did they start to come about?

Changes came about once scheme was completed and are still lasting

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Neighbourhood team.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

No.

Thank you for your time



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| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

10 years

2) In what capacity and for which organisations?

Building Surveyor, Salford City Council, New Prospect, City West.

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Not been involved in any evaluation.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Poor state of repair, customers in fuel poverty, lack of security, customers that didn't take a lot of pride in properties.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, architects, planning, Urban Vision, main contractor, subcontractors and suppliers.

b) Who had an effect on City West Housing Trust?

Planning, architects, fire service.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Any input would cover the planning stages and delivery stages, and snagging also. Would be massive but I don't know how to quantify that. Its over a timespan of about 6 years.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Speak to Nicola Bott or Mark Phythian or Garry Vaughan's team.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Nicola or employees of CW within the planning team might have that information.

12) Can you describe the situation after the regeneration scheme was carried out?

Major repairs, customers taking more pride in their residence, less fuel poverty, better security, improved environment.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Reducing fuel poverty and improving customers' lives.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Not aware of anything.

16) How long did the changes last and when did they start to come about?

Changes were immediate as the scheme finished. Nicola will have longevity information.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Some funding regarding the insulation of the building. See Jonathan Newton.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Not aware of any.

Thank you for your time



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Kevin Dean

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| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

Since 1996

2) In what capacity and for which organisations?

Tameside Housing Trust, Manchester Council's architects department, Salford Housing Dept
Surveyor, Asset Manager, Commercial Manager, Best Value

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Initially there wasn't any obvious toolkit or game plan or approach. There hasn't been anything in terms of guidance. Bad.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Little or no investment of this type previously.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Staff and customers

b) Who had an effect on City West Housing Trust?

Architects

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Environmental liaison officers (full time), Les and Graham (part time in terms of the scheme), surveying staff, preparation work started across all neighbourhoods 18-24 months in advance. Architect's time.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

We can find that out through accounts yes – Wes Cooper.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

This information is available on the respective plans.

12) Can you describe the situation after the regeneration scheme was carried out?

Streetscene looks improved. Cars on drives instead of congesting the roads. Improved from a sustainability perspective.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Reduction of crime, traffic safety, potential better void turnover (?) better rental income (?)

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No but Elaine Sams has looked into some form of evaluation on this.

16) How long did the changes last and when did they start to come about?

Changes will last indefinitely but might not come about for a few years because the schemes are relatively new. However the high specification would mean a minimum of a 30 year lifespan.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

Possible reduction in responsive repairs – boundaries and paving and party line boundaries.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Customers, procurement team, housing management and youth panel.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Yes it will have a natural deterioration over time. But because of the spec, hopefully this won't be seen for 30 years.

Thank you for your time

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

2 years

2) In what capacity and for which organisations?

Planning and Delivery Surveyor for City West Housing Trust

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

They are good but they are limited. Customer satisfaction surveys don't always give truthful answers. If there was ever a negative experience then that tends to take precedence.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

A lot of the frontages to the properties were tired. Rotten, damaged fencing. Looked in need of TLC. Looked untidy and aesthetically poor.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, general public.

b) Who had an effect on City West Housing Trust?

Architects, contractors.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

A lot of time from staff and contractors. This involved responding to enquiries or complaints, addressing problems with the programme with the contractor, being behind or ahead, issues with weather, access issues.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Don't know. See Les Warham.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

See Dave Lowe.

12) Can you describe the situation after the regeneration scheme was carried out?

A uniformity across the estates regarding the frontages. Smartness and freshness – improved aesthetics.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Quality of life, nicer views, ease of access, ease of use, lower maintenance.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No.

16) How long did the changes last and when did they start to come about?

Immediate and ongoing.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

No one else.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

No. Lots of longevity in the scheme where there will come a point where the scheme pays for itself.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

2.5 years

2) In what capacity and for which organisations?

Planning and Delivery Surveyor for City West Housing Trust

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

From a financial perspective they were good, but from a sustainability perspective not very good because there were no tools in place to assess that.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

The estates hadn't been maintained well, with poor boundary lines and also mixed up boundary finishes – privets, fences etc. which were generally unmaintained.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Contractors, tenants, visitors to the estate and friends and family of tenants and community in general.

b) Who had an effect on City West Housing Trust?

Same.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Planning and Regeneration Surveyor, Customer liaison officer, team leader, asset manager. From contractor, tenant liaison officer, 2 site managers and a contracts manager in the background as well working Mon-Fri 8-5.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

£3.2m.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

New walls, new drives, landscaping to gardens and new fences roundabout 350 properties on the first part of the scheme then a further 150 on the second.

12) Can you describe the situation after the regeneration scheme was carried out?

Improved appearance of the estates generally, improved parking situations because tenants had off road parking rather than having to park on the road.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Same as 12.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No.

16) How long did the changes last and when did they start to come about?

Changes are still ongoing. Appearance is still good and the parking situation is still good. Came about as soon as the works finished.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Aside from the main stakeholders – no.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

It will need ongoing maintenance but other than that, no.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

6 years

2) In what capacity and for which organisations?

Electrical Surveyor and Electrical Manager at New Prospect Housing Ltd
City West Housing Trust – Regeneration Surveyor and Project Manager

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Good especially on high rise because before another block is started, you have your lessons learned where bad aspects are picked up on and you can put those right.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Properties were in poor condition, suffered from damp, cyclical maintenance was high, call out repairs were high, living standards for customers was poor, old electric storage heaters were too dear to run, so customers didn't put them on, which lead to condensation and other problems within the properties in terms of damp, community spirit non existent.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, local community (on high rise a community centre was built during the regeneration of the blocks)

b) Who had an effect on City West Housing Trust?

Customers (in consultation), architects, planning, design consultants, principal contractor

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Design consultants, architects, plus attendance at monthly progress meetings as deemed necessary, principal contractor full time on site, high rise team (surveyors, customer support) full time.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Barton Village was its own scheme
Ladywell Green
Kemball
College Croft
Southway

Les Warham has all this detail.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Dave Lowe has this info.

But basically this consisted of:

New liquid plastic roofing

External insulation, cladding and render

New windows including communal areas

Communal areas full decoration

Full rewire

Plumbing

Rainwater goods

Soil and vent pipes

Concrete repairs repaired

Within properties themselves, complete refurb from rewire, new kitchen, new bathroom, new ventilation system, new heating system and full decoration.

Also communals: new communal front and rear doors, installation of CCTV system, installation of door entry system, installation of fire alarm system and external landscaping.

12) Can you describe the situation after the regeneration scheme was carried out?

Community spirit high, minimum repairs, less maintenance costs on cyclical and few call out costs.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Insulation and cladding – heating design of it being a rooftop plant heating system which involves the communal feeding of all the properties. Each property has a billing platform and a payment card where they are paying for heat and hot water at point of use and from all figures (plus see Jonathan Newton) there is evidence of energy efficiency and reduction of heating costs.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Speak to Jonathan and Les – Yes.

16) How long did the changes last and when did they start to come about?

Changes are ongoing and came about as soon as the job was complete.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

The cyclical maintenance repairs were on hold.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Architects, designers, mechanical and electrical designers, heating designers, information gleaned from customer forums from the customers themselves, input of CW staff.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Jonathan and Les will give you information on that. 30 year lifecycle also.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

| | |
|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

8 years

2) In what capacity and for which organisations?

City West Housing Trust – planning officer and planning manager
 ForViva – planning manager

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

There are methods to evaluate schemes but this is mainly whilst schemes are progressing and to evaluate contractors' performance. There is nothing to tangibly measure how successful a scheme has been. So far because we have simply been following the decent homes standard, once we fit x amount of kitchens (for example) that is then seen as a success. Whilst schemes are going on we have KPIs to monitor how contractors are performing. There are customer satisfaction surveys but what

happens after these are carried out I don't know. I also don't know whether these feed into or affect any future schemes. I don't believe we have changed anything based on these surveys. I think they may well be a contractor performance managing tool rather than being used to measure the success of the scheme. I don't think we carry out "lessons learned" enough. I think there should be a 1 or 2 year post scheme monitoring of some kind going forward to see how successful schemes have been. We have issues actually where kitchens are failing after 2 years, which was discovered by accident rather than design, and I think we should be capturing this information – which we don't currently.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

The estates typically had never had such a scheme carried out on it, even in previous guises, City West Housing Trust, New Prospect Housing Ltd, Salford Council. There were also significant parking issues there and one of the objectives was to get vehicles off the road so we supplied a lot of on plot parking.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, owner occupiers and other properties within the estate.

b) Who had an effect on City West Housing Trust?

Highways services, customers, planning and local councillors.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

See Les Warham.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

See Les Warham.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

You can pick up the numbers from the various spreadsheets – but the works involved items such as walls, gates, fencing, landscaping, flagging, driveway installation.

12) Can you describe the situation after the regeneration scheme was carried out?

Cleaner, tidier looking estates, majority of customers were satisfied, less parking issues. Some issues with customers maintaining and cutting lawns afterwards.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Parking improvements, congestion reduction, better appearance – plus see question 12 answer above.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No.

16) How long did the changes last and when did they start to come about?

Changes are ongoing and should last indefinitely.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

No one else in terms of monetary contributions. But there were customer consultations which affected the schemes, including the plans being signed off. Architect's designs, planning team knowledge of areas we were going to hit first, councillor inputs and neighbourhoods had an input as well.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Material depreciation but it wouldn't have an effect on the scheme. Finance could advise on calculations.

Thank you for your time

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

| | |
|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

3 years

2) In what capacity and for which organisations?

City West Housing Trust – liaison officer and programme officer on high rise team

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Neither good nor bad. I don't get involved in evaluation but we do on a day to day working level carry out lessons learned and exit strategies for when we are going onto the next block but I won't be involved in the completed exit strategy because I'm moving job roles soon.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

No

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

N/A

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust High Rise Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

High rise blocks were in disrepair. All blocks needed structural repairs completing. They all had a lot of asbestos present within the blocks. Old plumbing and heating systems which were creating fuel poverty for our customers. Poor insulation was adding to the fuel poverty. Internals within the flats didn't meet decent homes standard. Security and safety were lacking.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, local businesses, local community eg church, SCC.

b) Who had an effect on City West Housing Trust?

SCC, Planning, UV, principal contractors, architects, customers in blocks and also in surrounding areas.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

2 project officers, 2 project managers, programme officer, surveyor (all these work full time)

Principal contractor and all hours put in by them.

Man hours are on the monthly reports – see Paul Bell (Forrest) or Nic Bott.

UV – work they put in also, architect's work also. This includes up front work and in situ work.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Nic Bott or Mark Phythian can supply this.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Dave Lowe can supply this. But on average we have 95 properties per block. Within the actual properties we have a new soil and vent pipe fitted, new boosted cold water, complete re-wire, kitchen, bathroom, underdrawing of ceilings to make them lower, door replacements if needed, decoration, flooring and carpets and blinds to all properties.

Communal wise, floorings and decoration, complete lift replacements or upgrades, new windows, underdrawn all ceilings, new fire systems, new cameras, ecopod (linked to heating), roof works to top of block, structural works, new safety and security doors, recycle centres, new electrics.

12) Can you describe the situation after the regeneration scheme was carried out?

Increased customer involvement with activities brought about during schemes (like customer steering groups) carried on afterwards, better community for customers to live in. Also helped a lot with fuel poverty – people have gone from hot air [expensive system to use] to only approx £20 per 6 months. More pride in where customers live. Reduced maintenance costs – because we now use generic specifications we know

what needs fitting and where. 30 year business plan now in operation for high rise schemes also.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Insulation/ heating – new systems and boilers and insulation and rendering have created excellent cost savings for customers – see Jonathan Newton. Also creation of recycle centres. This has cut down costs for bin chutes which typically get blocked. Also we now tie in with SCC recycling policy. We are consequently helping SCC with their policy also. Reduction in crime – safer security doors/ cameras, feels safer. Composite doors also. Looks better and more uniformed.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Community spirit and social networks within the blocks which have developed. Coffee mornings set up are being continued. Bowling events previously poorly attended are now well attended.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Don't know.

16) How long did the changes last and when did they start to come about?

Changes come about as we are doing the work but also as we completed it. How long they last – 30 year business plan. Social side of things though – hopefully last forever.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No. It would have just carried on but customers would have probably had less pride as deterioration worsened.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

The block would have had cyclical maintenance including painting, yearly lift checks, yearly electrical checks. These haven't needed to be done. We were not down to fit doors which would have been fitted as part of maintenance but they were actually done in the end.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Architect, planning, principal contractor, customers – held events – got to choose aspects and give feedback on plans. This lead to some changes.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

Don't know.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

| | |
|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

Since July 1978.

2) In what capacity and for which organisations?

City of Salford 1978-2000s Electrician/ Electrical Inspector/ Electrical Surveyor
 2000s-2008 NPHL – Electrical Surveyor
 2008-present City West Housing Trust – Lead Surveyor/ Planned Works Team
 Leader and Investment and Delivery Manager

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

Neither good nor bad. We don't know at present whether what is happening is as a direct result of the regeneration works or not. I don't think there are any targets or measures. If for example we see lettability increase on the estate in question, we don't

actually know whether that is a result of the regeneration works or not currently. It might be or it might not be. Nothing currently scientific.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes but we don't use anything quantifiable currently.

We are tending to do stuff which seems to be the general wish of our customers but whether this has any environmental or social benefit or not, we don't know. We need something more than what we've got to go off so far.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

Drawbacks – time and cost of evaluating that information.

If the data is good and the costs are not prohibitive then it would be worth doing.

The benefits would be that you can say “this has a definite benefit”. We could use this if we are looking to gain funding. We could use actual figures to back our argument up with. This provides a lot more weight than simply comments from customers. But if it takes a lot of time then it might not be worth it as time is money.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

Mix of as built boundary treatments, narrow roads which were generally 1930s-1950s estates, before large scale use of motor vehicles. The estates weren't designed for the amount of vehicles we have nowadays. Walls were designed for pedestrian access so people knocked them down so they could park on the lawn, they were parking on the pavement, there was a bit of a mish-mash of things with no design element. The first thing we did was employ an architect to give us a consistent look to the estate. The

look was dated, there were gates that were falling off, that were beyond economic repair, hedges that were overgrown and not cut. It needed something doing to it to make it look better. Also no-one could park their cars which made lettability more difficult.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers, other residents of the estate, local authority, utility companies, contractors.

b) Who had an effect on City West Housing Trust?

The same.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

Full time surveyor on there, part time area delivery co-ordinator, part time engagement. Foreman, liaison, QS, operatives, health and safety input. Minimal director input.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Can get this from the I and R sheet.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Spreadsheets available with this information or alternatively Savills?

12) Can you describe the situation after the regeneration scheme was carried out?

Fewer cars on the road, more security, consistency in look, less prone to flooding due to subsidence, dropped kerbs provide some parking protection (can't park on dropped kerb), looks newer and neater.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

See above.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

Some people weren't delighted with the landscaping finish. Some negativity from people who didn't have it done ie owner occupiers. Maybe not long enough to quantify that at the moment?

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

Only thing I can think of is the customer satisfaction questionnaire which asked about the customers' opinions of the "overall effect". Elaine Sams has this.

16) How long did the changes last and when did they start to come about?

Lasted so far...

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No. Some customers might have done such works themselves but highly unlikely.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

Maybe other schemes have potentially been put on the backburner by us choosing this scheme as the one to be done?

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

No.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

We've used really robust products so that there is longevity so we have designed out a lot of the deterioration.

Thank you for your time



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**INTERVIEWS WITH KEY STAFF OF CITY WEST HOUSING TRUST TO
“DEMONSTRATE ARTEFACT”**

Why are we carrying out this interview?

We are carrying out this interview to gain feedback and insight from key employees of City West Housing Trust’s Asset Management Department.

Historically, there have been many methods used to evaluate housing-led urban regeneration schemes. However, none so far have used a tool which provides an effective way of assessing schemes quantitatively. The way the researcher is attempting to solve this issue, is to quantify the hidden social and environmental benefits of a scheme by looking into the Sustainable Return on Investment (SuROI) from the scheme. This is quantified by using Social Return on Investment (SROI) and Ecosystem Services Analysis (ESA). (Interviewer explains these terms if necessary to interviewee).

This interview will involve a demonstration of the tool and opinion, insight and feedback on it will be utilised to correct any failings that the tool might have and will be used to modify the tool until feedback is received from all key employees involved in the interviews.

The tool to be developed can be seen in pictorial format below:

| | |
|--|---|
| HIDDEN SOCIAL/ ENVIRONMENTAL BENEFITS OF SCHEME (SROI/ ESA) | |
| | |
| BUDGET COSTS | POTENTIAL STAKEHOLDERS AND COSTS SAVED |
| | |

Questions

PART ONE: GENERAL QUESTIONS

1) How long you have worked in Asset Management/ Investment and Regeneration?

16 years

2) In what capacity and for which organisations?

Programme and Monitoring officer – Year 2000.

2005 – present day: Planning Manager.

Organisations include: Salford Housing, New Prospect Housing, City West Housing Trust and ForViva

3) Do you think that the methods available to City West to evaluate schemes currently are good, bad or neither good nor bad? Please explain why.

The only method used that I know of is that of the customer satisfaction survey.

4) Have you ever been introduced to the notion of quantifying intangible social and environmental benefits before?

Yes but this has not really been used within CW previously. We have a Net Present Value module which sits on the Asset Management database. This is a facility for social and neighbourhood indicators. NPV has not been used for any decision making in the past. This is because all decisions have been made through necessity due to offer document promises needing to be delivered whatever the scenarios are. We didn't previously need to quantify why we were doing the schemes. But going forward we will use this module, which has a social impact score against each neighbourhood.

5) If the answer to question 4 is yes, what are the advantages/ disadvantages of using this technique for evaluative purposes?

If it was purely monetary values that we used to identify schemes, its not going to give a true reflection on the social impact of the refurbishment scheme. We'd look at anti social behaviour work with neighbourhoods, housing management, see how we could improve the street scene and hopefully improve the neighbourhood as a result of the work that we carry out.

PART TWO: SPECIFIC CASE RELATED QUESTIONS

Part two of the interview is starting to focus on a specific housing-led urban regeneration scheme that you have been directly involved in as part of your work at City West Housing Trust.

6) Can I please ask what the name of the **chosen scheme** is and what it involved?

The City West Housing Trust Environmental Scheme.

7) Can you describe the situation prior to the regeneration scheme being carried out?

The properties needed a "lift" and there was no off street parking.

8) Who were the stakeholders involved in the scheme, in terms of:

a) Who did City West Housing Trust have an affect on?

Customers and private home owners.

b) Who had an effect on City West Housing Trust?

Highways, planners, local councillors, architects, utility companies.

9) What input on human resources (in terms of staff time, contractor time etc.) was necessary on the regeneration scheme in question?

A lot of staff time, which also involved looking into finding out underground services information. At least 6/7 officers at CWHT. You could probably find out how long the contractors were out on site for also.

10) What amount of monetary investment (in £) was necessary for the regeneration scheme in question?

Les Warham has this cost. The cost was £300,000 for the Chatley Road scheme.

11) What were the typical activity type(s)/ type(s) of outputs, together with their numerical quantity? (For example: how many new boilers were installed, how many double glazed units were fitted)...

Boundary treatment, walls, gates, timber fences, and where applicable – off street parking, new paving. The plans show how many properties have had what. Also, off street parking was installed by cutting into grass verges on Chatley Road, where driveways couldn't be installed on some properties.

12) Can you describe the situation after the regeneration scheme was carried out?

Street vastly improved. Doesn't appear to be any parking issues due to the improved off street parking and the parking areas provided.

13) Were any intended changes brought about as a consequence of the regeneration scheme? If so, what were those changes?

Parking provisions and improving the parking on the street. Aesthetics also.

14) Were any unintended changes brought about as a consequence of such regeneration? If so, what were those changes?

No.

15) Did City West Housing Trust utilise any metrics to monitor the changes and the impacts?

No. Only customer satisfaction surveys and I don't know where they go or what we do with them.

16) How long did the changes last and when did they start to come about?

Came about as soon as the scheme was completed and I'd expect the changes to last indefinitely. The kind of work we've done is not something that's likely to deteriorate and we have used really high quality materials, not only for the boundaries but for the parking areas. It's not something I'd expect us to have to revisit again.

17) Do you think any of the outlined changes would have happened without the regeneration scheme's intervention? (Referred to as Deadweight)

No.

18) Do you think that any other activity was displaced as part of the regeneration scheme's intervention? (Referred to as Displacement)

No.

19) Can you advise if anyone else contributed to the changes outlined and if so who they were?

Architects and environmental officers were responsible for getting customer buy in and for getting the plans and drawings signed off. And for agreeing the designs with the customers.

20) Is there a financial deterioration or drop off of the changes over time and if so what would these be?

We've used really robust products so these should last well in excess of 30 years.

Thank you for your time

APPENDIX C: Focus group verification and other verification interview transcripts



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

DISCUSSIONS WITH KEY STAFF OF CITY WEST HOUSING TRUST FOR VALIDATION AND VERIFICATION OF THE ARTEFACT

Why are we carrying out these discussions?

This discussion with several key employees of City West Housing Trust’s Asset Management Department serves as a further demonstration of the refined tool, refined from prior feedback and opinion from prior interviews. Any final and further failings that the tool might have will be used to fine tune the tool until feedback is received from all key employees involved in the discussions that shows that they are entirely happy with it. The discussions will be followed by a final focus group to clarify absolutely that there are no issues remaining in terms of tool improvement.

[Before the discussions took place, each City West Housing Trust key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

Transcript:

Researcher: Thanks for coming to this focus group everyone. We aren't expecting a fire drill today so if the fire alarm goes off, please make your way to the nearest fire exit, which is outside on the left. Toilets are just outside and again, turn left.

I wanted to get everyone together today so that we can all bounce our different opinions on the tool off each other and try and have a frank discussion on the subject. You have by now all seen the tool in question and you know all about what it sets out to do in terms of the measurement of socio-environmental impact and also the new stage 6 that has been added by myself which provides a per stakeholder input versus impact table and accompanying pay back period analyses in graph form.

So, you can see here the impact map, which is a spreadsheet and you can see how the inputs and outputs/ outcomes are able to be inputted for a given scheme. This leads to an overall impact and then the divided values. The tool can be used as an evaluation tool or as a strategic management tool.

Focus Group: Can you zoom in a slight bit on the big screen please?

Researcher: Certainly.

Focus Group: So, this is the environmental scheme is it, used as an example?

Researcher: Yes that's right.

So if we look at the impact map on the screen and we take one stakeholder, such as City West Housing Trust customers for example, some of the intended and

unintended changes that could be said to be brought about such as improved aesthetics, improved parking, better and more uniformed appearance, better security etc.

Focus Group: That's an example of defensible space isn't it regarding the environmental scheme's security and layout?

Researcher: Yes that thinking went into the plans.

Focus Group: So, if we just look at the customers, the values that go in within that section, are just the values relating to that stakeholder – are we right in thinking that?

Researcher: That's it.

Focus Group: OK so the inputs cover the amount of properties affected, number of driveways. That's fine.

However where do you get the indicators/ proxies from that appear further along?

Researcher: They would be found from databases such as those found from HACT, the GVE, the NEF for example.

Focus Group: Right OK. I know that Elaine Sams uses HACT a lot.

What about the values then – if we look at crime is that stating that its £12,274 per person per year.

Researcher: Yes but the value will drop off over time.

Focus Group: Right yes OK. Would you have had to be worried about crime previously for that value to go on?

Researcher: Yes there has to be a change, an impact. If it doesn't change then it doesn't get put in. In this example, 23% of persons stated that there had been a positive change regarding security.

Focus Group: Right got you. OK. So if you had 500 people, in this example you'd multiply 0.23 of 500 by the £12,274 to get the impact. Right.

Also, the right questions need to be asked of your customer base don't they. For example if we take the item below, the improved parking provision and the installation of the driveways, if for example you stated "do you feel that your car is more secure now you can park them on a driveway", you can lead people into giving you a value so you've got to be careful how you word these things haven't you?

Researcher: Absolutely yes, like lots of other areas too, when you're trying to gauge responses from staff or customers or the public in general, you have to be neutral and non leading.

Focus Group: Yes but another way of looking at this is of course that there is no doubt here that we have installed 300 driveways and therefore we have taken 300 cars off the road or certainly the capacity to take 300 cars off the road. So the 300 is right for me because otherwise there's no point in us actually doing the work to that level of quantity!

Plus, if we were being brutally honest here, the reason that this scheme came about and the reason this scheme was brought together was because people were saying on this estate that it was a concern that all these cars were on the road. Also it doesn't really matter for us now whether a current tenant uses a driveway or whether that usage comes in the future. It still is 300 capacity from this scheme and that futureproofs from now until many years into the future.

We could also add to this that because we've installed 300 driveways, those properties are now automatically more lettable and therefore have a value of this. Regardless of customers.

So you could potentially manipulate this data by choosing one perception over another. What are the guidelines?

Researcher: Well the guidelines are the same as used in SROI so, it advises you to involve customers, be transparent, don't overclaim...

Focus Group: OK I mean that's fine now I think we've talked through that enough haven't we. I mean, people might have slightly different perceptions and opinions on inputting data but as long as they are following the SROI guidelines then that should be sufficient. OK let's move on because I'd quite like to see the pay back periods....

Researcher: OK so the impact map shows the overall impact, in ratio format, and then the impact is split per stakeholder...

Focus Group: So just a quick point about the overall ratio, we could use that ratio to choose scheme A to be carried out over scheme B because one scheme provides a ratio of 3:1 rather than one of say 2:1 which might be the case with another scheme... so we'd be better doing X over Y because it has a better output...

Researcher: That's correct.

Focus Group: We've got to be really smart about the questions we ask though to make sure we all agree on them and that they aren't leading any responses.

Which I suppose looking at this now is why some of these databases are so good because when questions are asked, they aren't lead in any way really are they? They don't relate to a specific scheme, they give a neutral value which can then be used safe in the knowledge that there's no bias involved in responses...

Researcher: Exactly right.

OK so stage 6 is where the pay back period comes in.

Focus Group: So these first three stakeholders, obviously, there's no input at all from customers etc. is there, however when we move along, say when we get to us, the staff, the company, then obviously the input is the cost of the scheme etc?

Researcher: Yes absolutely.

Focus Group: OK so yes looking at all these, we gain only slightly, but we've got the massive cost outlay, compared to say customers with no cost outlay, who gain massively. Right, yeah, as you'd expect really I suppose, thinking about it.

We can see in the guidance that for one reason or another, the impacts are only measured out over 5 years, fair enough. But what about maybe linking the years to the lifecycle of a product?

Researcher: Yes that could potentially be future research within this area I feel.

Focus Group: We could introduce follow up interviews to a) prove the longevity of the benefits but also b) to continue to provide information to feed into this you know.

Researcher: However what I would add to this is that an impact after year five really is not counted as an impact then, it just becomes the norm. It's like having a new PVC front door – at first it's a change, an improvement, there's an impact, but then it's just part of the everyday fabric by year 5. So in year 30, that would drop off even more to a negligible value.

Focus Group: Right so yeah [sic] its probably a fair point then to do it over five [years].

Researcher: So the last thing that is involved is the scheme summary by way of the pay back period of the scheme.

Focus group: OK so you'd always want the impact line above the input line.

Researcher: Ideally yes.

Focus Group: Regarding the depreciative value though. Can I dispute that because although I realise that things fall away slightly, people wouldn't be unhappy would they? Wouldn't it just flat line out?

Researcher: The graph simply follows the figures within the table which takes a depreciative value off year by year - that is what then causes the line of the graph to continue to go down slightly.

Focus Group: I think the consensus here is that we like this and we'll use it. We don't have anything like this. But where I think you need potential buy in is when you allow personal and subjective opinions to be allowed on the data going in, there might be a necessity for boundaries, proven parameters or guidance of some kind that says that the value shouldn't be above X or below Y.

If it's subjective, one person might put something in completely different to another. Then it just becomes whatever I want it to be. I think it's a great system to prove in an evidence-based way the impacts you've been highlighting, but I think that could need potentially looking at further in the future.

Once it becomes defined in terms of user values and perception, then I think we've got something great here.

Maybe we can be more specific in our customer questions. Maybe we can put a process in place where we all agree on what values we're going to enter for a scheme as a department first?

So for example in terms of the values for cars taken off the road, would we input how many cars can be taken off the road as a consequence of our work, is it how many actual cars have been taken off the road, is it what customers tell us has happened? If this is more specific and less ambiguous then we're sorted I think.

It's the subjectivity of people's opinion that needs to be ironed out. If you said for example that the value should always be between this and this...you've constrained it then to a sort of top point and a bottom point.

Obviously anything is only as good as the data that goes into it. I think where you want to be is if you just gave that to someone or ten different people and said "there you go", that they'd come up with roughly the same results.

But then again if you're using the same figures all the time and these are the most up to date databases, until the figures and databases get updated, improved, enlarged, refined, then it's the way it is isn't it really?

As long as you use the same figures across the board that's fine. Maybe an accompanying reference guide could be supplied regarding this?

Just to get consistent application really, irrespective of who uses it. Maybe some caveats can be put in?

We just feel that its important for there to be no ambiguity in there really. Is there a way of maybe using a standard deviation on the figures etc?

But then again, when you're speaking about what we're looking for, which is trying to get as much factual information into this impact map as possible, the issue with putting quantities on intangible outcomes, is,...that's the whole point isn't it really that you gain those values through perceptions. So its all, to an extent an educational perceptual value?

But maybe controlling the risk of excessive inputs.

I think in conclusion that given [that] we're into the outcomes business, we need to use this. Also I think this could go well with our NPV [Net Present Value] data.

We can then start to make better social and environmental decisions regarding schemes than we do currently.

I think also that to use it regularly, its got to be a very easy way to pull your base data, otherwise, we're into the realms of "we can only afford to spend so much time on this" you know. It needs to be user friendly and also I suppose with this the more used it gets the more user friendly it becomes.

Really I'd like this to be able to be used by say a surveyor as he/ she was going round doing surveys for example.

So say you had a small kitchen scheme, you'd have to tailor your questions to each scheme and obviously each scheme wouldn't have the same kinds of impacts or outcomes.

Researcher: Yes that's right. You'd tailor all your stakeholders and figures accordingly to the scheme in question. This can be used with anything that has stakeholder involvement.

Focus Group: We must say though that it's particularly interesting and has provided food for thought. For sure.

We could actually use this and say, look, given all these calculations on the capital investment that we've done, our £10m for the period of 3-5 years, for example, has turned into quantifiable money of £30m. Given that we're into outcomes I think it could be good.

We can then see what's more valuable, and do that.

In a way also it's a sales tool. The value of what we do. We could also choose to carry out certain schemes tailored to certain aspects of the social or environmental spectrum, in order to enable a specific community, previously suffering from a particular social problem, to have a greater impact in that specific area. And use this to evaluate or predict for that too.

You know, that estate is suffering typically from X, that other estate is suffering from typically Y etc. By putting that money there we might have a bigger monetary value.

You'd then, I'm thinking, expect that customers' perception of the change, in those areas, to be higher, for that aspect of social or environmental impact.

Tackling the things that do need to be done in effect, or that customers feel need to be done.

As opposed to us just rocking up there and saying "let's just do X etc. for no reason other than we feel like working there instead of there".

You could use this to decision make in this area and choose future schemes according to what the biggest impacts are and where they are.



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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FOR VALIDATION AND VERIFICATION OF THE ARTEFACT**

Why are we carrying out these discussions?

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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

CWHT Employee 'A': Looks good. We have to justify everything we do now so this will come in useful. We have to look at outcomes and justify everything.

CWHT Employee 'B': In its simplest form if you mentioned the high rise, where do the figures come from?

Researcher: The figures come from databases which contain relevant proxies and indicators for the outcomes and the involved costs are the inputs.

CWHT Employee 'A': The only thing I'd say is if we're doing further work its useful but what if we're not doing any more work?

Researcher: Well, if you're not doing any work then you'd have nothing to measure!

CWHT Employee 'B': You could use it to move onto others...

CWHT Employee 'A': If like us, you've now finished the high rise refurbishment, then you wouldn't need this wouldn't you?

You could have all this data and you wouldn't need it?

Researcher: You would need it to gauge how well the impacts have been on already existing schemes and also as a lead in for any other work carried out...

CWHT Employee 'A': So, based on the information in there and the outcomes that you've got, how does the high rise compare? Do we get positive feedback?

Researcher: Yes it's a positive impact. I'll send you the impact map.

CWHT Employee 'A' and 'B': Thanks.

CWHT Employee 'B': We could also perhaps go block by block or even use it as a precursor for the Villages blocks that we will be working on soon...

Similarly if we brought another company into our current group structure we could use this.

And because we're more experienced now I'd hope that the impacts get better!

CWHT Employee 'B': What things have you got in place for say negative impact. So if you've got that tool in place on say, another scheme and it's negative...is that when you sit down and decide on whether to go ahead, repeat the work or omit it etc?

I suppose there's an issue also with this if your costs are so very high that despite there being a strong social/ environmental impact, those monetary impacts get dwarfed by the excessive inputs? So this all has to be taken into account.

Researcher: Yes absolutely.

CWHT Employee 'B': Are we looking to bring this tool into ForViva then as it'd be interesting to see what results come out of it...

Researcher: Yes Asset Management have shown a big interest in it.

CWHT Employee 'B': We really need someone to lead on this kind of stuff because I have to admit its just something that we've never done. And it'd be interesting to look at the impacts.

We could use this for the upcoming sprinkler scheme. The decision making process involved with this has been long and drawn out. As you know, the board has now made the decision to go for the sprinklers, but something like this could have helped that decision making process along somewhat.

Yes looks really good. We need to get using it now.

Researcher: OK is there anything else you'd like to add?

CWHT Employee 'B': No that's great. Really useful potentially.

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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Key Employee of City West Housing Trust 'C': It looks good. So you go along the lines and move through the stages.

Researcher: Yes that's right.

Key employee: And it creates the numerical impacts – the change basically...?

Researcher: Yes exactly.

Key employee: And I like how for consistency purposes it's a monetary value. So the indicators and proxies can be searched from relevant databases etc?

Researcher: Yes absolutely.

Key employee: Its very good. We need to use this. Can you carry some scenarios out using this for us going forward?

Researcher: Yes certainly.

Key employee: Just to see what the end result is you know?

Researcher: Yes OK no problem at all.

Key employee: What I'd say is could we have just a short paragraph to introduce it in some way just very briefly?

Researcher: Yes OK right. Thanks for that.

Key employee: We need to start using this and getting the before and after figures. It'd be really useful for our Asset Management strategy going forward. Could it just be explained what an indicator is and what a proxy is etc?

Researcher: No problem yes I can look at that.

Key employee: It's good. Everything's in there that we need so that's great. It shows you what goes where stage by stage, cell by cell which is also good.

You can use it evaluatively and predictively also which is good.

Researcher: Yes you can that's right. Would you like to add anything else?

Key employee: No that's great. Thanks.

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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Key Employee of City West Housing Trust 'D': OK first thing is do you get like [sic] a figure from this- x amount of pounds?

Researcher: Yes that's exactly right.

Key employee: Also would your stakeholder be an individual or a group of individuals.

Researcher: It could be either and both.

Key employee: Right OK. And regarding the stakeholder graphs and tables at the end I like how it shows who wins and loses because it's rarely us who wins!

I'm not normally a lover of Excel but I think its good because we can strategically use this to pretty much decide where we're going to do work, based on where has the greatest impact.

I think its good and what I'm thinking now is I'm wondering whether I can extrapolate parts of this for say reports that I have to produce as this would provide an evidence-based proof that comes in handy for the kinds of report I write.

I also think its good how you get your "answer" in terms of the quantified impact but you can also in effect see the "working out" in the form of what goes before that within the parameter of the impact map.

I like it. It looks pretty in depth.

Researcher: OK thanks. Have you got anything else you'd like to add?

Key employee: No I think that's it. Its pretty straightforward, you just follow the process. Thanks. Well done.

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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Key Employee of City West Housing Trust 'E': I think its quite good if its going to be used that is. I mean, I'm currently working on aspects of community development and we can't undertake any projects unless we carry out all the prior social research which historically just hasn't been the case with Asset Management unfortunately. I think this is a really useful tool to use.

For example the way I could use this would be to carry out a survey on survey monkey to carry out say a fencing scheme; you could link in with me on this because we do regular surveys on people's opinions, what they think of the neighbourhoods and stuff so if a neighbourhood was constantly scoring low, it'd probably be more beneficial then to go and do the fencing in that area, than say in an area where work is perhaps planned, but where its maybe not quite as important to the customer.

Then you'd get a high stakeholder impact. The issue you have here is that customers who need fencing put a higher value on fencing than those who don't have an issue in this area if you understand what I mean?

Its like, me and my colleagues regularly get complaints regarding this type of stuff. We could use your tool to actually target areas to get the work that would mostly benefit them, rather than just sticking your finger up in the air, licking it and seeing which way the wind is blowing which is the way its tended to be done in the past as you know.

You're actually then targeting the areas that have the biggest social impact and not just the biggest impact on your assets. So you could use this as like a predictive or management kind of tool.

I think its really good.

Researcher: OK thank you. Can you tell me more about your social impact work? As I think that ties in nicely with this?

Key employee: Any project that I do, before anything gets carried out, it has to have [a] clear line of outcomes, [a] clear line of outputs, and it has to show how they [sic] would affect people living in that area so I have to prove there's a need for it.

We only look at the social return though, not the environmental as you do and obviously not the kind of things that are being carried out in stage 6 as you call it.

We could link in with this on a lot of future environmental schemes.

Researcher: OK thanks for your help. Would you like to add anything else?

Key employee: Only like I said that we could prioritise work depending on what this tool spews out. We're then doing what needs doing in the correct places.

We need to box smarter with Asset Management. We need money to go where it needs to be and not where its easy, like if a board member lives in an area for example. Its about us spending wisely. If you need any testers also let me know.

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Transcript:

Researcher: I'd like to say thank you again for agreeing to meet with me. After you've now had chance to assess the tool I sent over, can I ask what you think of the SuHousingImpact tool and can I ask whether you have anything by way of feedback?

City West Housing Trust Key Employee 'F': OK so my first thoughts are that we already know most of the time what the inputs are – we can already monetise that. So am I right here that the purpose of this is that we monetise the outcomes so we can say yes, we've put in £50,000 worth of investment into this, and the benefit we get from it, is £75,000 and therefore we've gained?

Researcher: Yes, that's it.

Key employee: OK well obviously this is a useful tool because other than that its all very subjective isn't it as to how you value some sort of social impact. Erm [sic], you're really saying that yes its great but we don't always know what the value is. I mean sometimes it can be a very long process can't it before you see a return?

It makes sense otherwise there's no way of weighing up whether anything is worth doing apart from hear say and a hunch really so yes I can see how that can work.

For me also it's a question of indicators – so where do you get them from again.

Researcher: So they would be available from reliable database sources such as HACT, TEEB, NEF. You'd also of course put your own primary data in there too.

Key employee: OK great. My only other concern really is how much work this would take to run and maintain and to populate all the cells and put all the values in...once its in there obviously that's fine and you've then got your inputs and your outputs. Then you might say should we just stick to a hunch about things or justify it. But you can't rely on a hunch – you have to justify things so I've kind of answered my own question there!

Also is there a possibility of this being on a different interface because it could be perceived as being complex at times. I'd use it for sure but I'd want it to progress to more of an online thing such as Promaster or Mi-Housing for example where it'd be a simpler and more user friendly interface?

I think some people wouldn't go hunting for indicators for example.

Researcher: So an online web platform/ interface with say drop down menus for the indicators...?

Key employee: Yeah something like that. I mean obviously we need a tool like this and I'm happy with the Excel format but I think to maybe take it to the next level it could maybe be like that? Online possibly in that format?

I mean the purpose of something like this is what we get from it. If something is easier to use, you could use the argument that its maybe too simplistic and would thereby give too simplistic a figure in response to the calculations!

Researcher: OK thanks for that feedback – very useful to hear.

Is there anything else you'd like to cover?

Key employee: No that's it. Great idea now lets see it in action! Try if you can to see if its possible to get it online maybe? If not then maybe that could be done as a phase 2 of the work? Thanks for asking me.

Researcher: OK thank you for your time.



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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Key Employee of City West Housing Trust 'G': I think its good. It looks to give us everything we have been wanting.

Looking at it, this could be used prior to a scheme couldn't it?

Researcher: Yes, it could be used before and/ or after a scheme.

Key employee: The pay back period will come in handy. However, not breaking even might not be a reason to invest, if we feel the need for something is there, but this can show us the way whereas currently we have nothing.

Also, with this I think, if we wanted a certain amount of social/ environmental return from a scheme then we could use this to get that.

Researcher: Work back in effect do you mean?

Key employee: Yes work back. What about taking into account of impact values for neighbourhoods in and around the scheme. You could do that also could you through your primary data?

Researcher: Yes you could make sure that your primary data, plus your indicators and proxies were neighbourhood specific to a particular neighbourhood and work it that way.

Key employee: OK great.

The only other thing I'd say is that we don't want something that gives us an administrative nightmare but if it was fairly straightforward to use and the indicators and proxies were accessible and reliable then this would be something we could really use.

It'd be good on a web platform of some kind, you know like Promaster?

Researcher: Yes well this is the main tool in its purist form but also there is going to be a web based tool so yes everything you've just stated will be the case.

Key employee: OK yes in that case that's great. We'd use it. We've got nothing like this currently so it'd be a help to us.

Sometimes in this same way you know we've asked our customers what they'd be willing to pay. Obviously some of them couldn't care less about the neighbourhood so when we go to them and ask them, the information we get is poor because its perceptive.

Researcher: Yes these databases with the indicators and proxies are constantly being updated and constantly improving, also if you take say the HACT database, they ask general questions not related to a scheme and there have been many responses from many people over many years to create these values so they are more reliable and getting more reliable all the time.

Key employee: Yes right well that's fine then. I mean, I personally would want the area around where I live to look good and I'd pay for that to be the case, whereas its not a one size fits all approach with willingness to pay, because some people just wouldn't care about that sort of thing. So the databases that have been around for a while and have a lot of responses would be good to tap into. It gives us something reliable at least. Currently we've got nothing!

Also if we don't capture something we don't know what it's worth. So we really want to put a push on this sort of stuff now. We want to have some representativeness to our customer base so we'd be looking to carry out some primary data too to add to this.

Researcher: That's the best way to get the most reliable results. Great.

OK thanks again for your help.



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Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Key Employee of City West Housing Trust 'H': I think its good and by the look of it, it relates closely to SROI.

Researcher: Yes, and SuROI too.

Key employee: Yes the Erik Bichard toolkit? Yes, I like the way its split up into stakeholders. That's something we have currently but we could use. The five years is the same for impact I see.

Researcher: Yes we've a suggestion with that. That it might be an idea to extend the five year span to the graphs.

Key employee: Well, I disagree with that. I've been working with social value for a while now, a few years. And if the timespan is too long, you need to reinvest anyway. I know what you mean regarding it tying up with durations put in the 'duration' column, but something else you've got to bear in mind is that things become the norm after a while. So fair enough if something has a really positive impact in the few years, or even first five years as this states, quite rightly, but at the end of the five years, to be honest the value tends to plateau. If you have an example of when wooden front doors were changed to UPVC doors for example, after the first five years let's say, people having a plastic front door becomes the norm. Whereas initially it was an impact. Do you see what I mean?

Researcher: OK thanks. Anything else?

Key employee: OK you have the drop off and depreciation etc. involved, that's good. Of course you can agree the depreciation rate with relevant partners or clients on this. Good. It's a judgement call you know, the depreciation stuff. As long as you can explain the rationale.

You could also use this tool for modelling purposes you know. So we could say input data and use it to predict scenarios. Yes that could be very useful. Another thing you could do with this as well you know is to work back. You could state how much social and environmental return you wanted from a particular scheme in say percentage and then work back to make sure you got it? This potentially is quite exciting because it gives us more control. We're not guessing. Obviously the data going in needs to be good but you could say that for anything. We can use this. Definitely.

Also we did a recent scheme called "don't keep it under your hat" where customers came to us with business ideas and we gave them money towards the pursuing of that business idea. We don't really know what we got back from something like this. We also don't know how much they got back out of it! So again, useful.

So there are reports for the whole scheme and individuals?

Researcher: Yes that's correct.

Key employee: Yes the five year monitoring for separate stakeholders is good. We have another scheme run with the Prince's Trust where we pay the Fire Service to deliver training. Its a 12 week programme. Quite a few of those involved are actually our customers, so they pay rent, we hope that this brings their character on and they start to respect the community more etc. We could use this for that because currently we have nothing to measure impact with stuff like this.

If we look at the GM procurement pledge also – how much CW spends that stays in the locality – we're interested in, say, if a contractor gets £1m – we're happy that that money stays in the locality. So we could be able to measure things like this.

You could use this to model up.

Researcher: OK that's great thanks. Is there anything else you'd like to add?

Key employee: Yes let me just take another look at it... OK I would perhaps insert a small comment box to explain what you mean by each title header...to explain what it is.

I'd also put in a first tab and state why this would be completed, who would complete it, define what is meant by the stages, who completes each stage and when.

I'd also be looking at say quality assurance, how to check that the data is accurate, so you could have a project team looking at this periodically every couple of years say.

Other than that I'm looking forward to using this!

Researcher: Excellent. Anything else to add?

Key employee: No that's it.

Researcher: OK thanks for participating.



“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

DISCUSSIONS WITH KEY STAFF OF CITY WEST HOUSING TRUST FOR VALIDATION AND VERIFICATION OF THE ARTEFACT

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[Before the discussions took place, each City West Housing Trust key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

Transcript:

Researcher: OK, you have had a chance to look at the tool. What do you think? Can you give me any feedback to help refine the tool, make it better? Tell me all the things that you think are both good and bad about it.

Key Employee of City West Housing Trust 'I': Well, as you know, we've had outcome logic training and this is better than any of that!
What can I say other than its clear, colour co-ordinated, split up stage by stage which I like and its simple. Its also more comprehensive than I thought these things were.

As long as the data we put into it is good enough then this is a must for us.

Researcher: Great. Anything else you'd like to add that's good, bad, anything?

Key employee: No, I'm happy with this. I've got no issues with it at all. Nothing more to add. We need to use this on next financial year's schemes because as you know we struggle to measure the impacts on customers and wider society.

Researcher: OK thank you for your help!



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Transcript:

Researcher: Hi. You have had a chance to look at the tool. What do you think? Can you give me any feedback to help refine the tool, make it better? Tell me all the things that you think are both good and bad about it.

City West Housing Trust Key Employee 'J': Well its much better than anything we've had up to now. At first it seems a bit complicated but when you follow the instructions its actually pretty straight forward.

Researcher: OK – is there anything you feel could be fine tuned to make this better? Or does it miss the point in certain areas?

Key employee: What I would say is that its mostly clear but can I ask about outcome (1) and (2) in column K. What does this mean?

Researcher: This means that outcome (1) is within the period of activity and outcome (2) is afterwards as stated in the grey cell. Its as simple as that.

Key employee: OK thanks. Another thing is – can the columns be widened to accommodate big figures as usually we're looking, certainly with our major schemes, at having millions of pounds inputted into this spreadsheet and many noughts at the end of figures.

Researcher: Yes, so you'd just extend the width to accommodate the numbers. Once this is done, everything is fine.

Key employee: I'd also say that it might be a good idea to put something within the drop off column to clarify what you're using for your drop off amount?

Researcher: OK thanks I will take that on board. Anything else?

Key employee: How does it automatically build a graph on with each new stakeholder?

Researcher: That's done via the formulas.

Key employee: Right OK. Formulas are not my strong point! Well, it's actually really easy to use and everything is done for you. Looking at the stakeholder pay back period graphs, the theory is that if the graph goes down you wouldn't carry out the scheme right?

Researcher: Not unless you wanted to run at a loss!

Key employee: Right, yeah, I see. What about possibly tying in the amount of years within the line graphs into the duration that is entered into column J? What about say more than 5 years? 30 would be good for our schemes? A graph for that duration would be good? That way it would enable us to see even further into the future?

Researcher: OK thanks for that I will look into this.

Key employee: My only other point is that making sure the figures are right from the indicators and proxies is my main concern but that's not the tool, that's the information and data that's going into it. I'd definitely use it (the tool). In fact we've got a lot of schemes we need to run this on virtually straight away!

A last thing I'd say is how do we quantify customers' impact?

Researcher: Again, it would be via the indicators and proxies that you wanted to show what they brought to the table. It'd be good to carry out some interviews with a sample of customers and tenants to try and gauge this. This needs to be used with primary data too.

Key employee: Right OK.



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[Before the discussions took place, each key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

[Note: this interview was conducted with an external organisation – Salford City Council]

Transcript:

Researcher: Good afternoon. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Salford City Council: Good afternoon. Firstly can we ask where the indicators and proxy values are from that go into the spreadsheet.

Researcher: Yes, they can be accessed typically from databases such as the Housing Associations' Charitable Trust (HACT) or such databases as the Global Value Exchange or the New Economics Foundation, plus the TEEB database which covers environmental data. This data can be coupled with your own primary data also. The more data that goes in (that is accurate) the better.

Salford City Council: Who at the University have you been working with?

Researcher: Prof Erik Bichard and Dr Claudia Trillo.

Salford City Council: OK great. I presume with this in terms of identifying the winners and the losers, you can also look at what you can do to balance the two out a little bit, potentially.

Researcher: Absolutely.

Salford City Council: OK so you'd get guidance with this wouldn't you, with drop down boxes etc., and you've got the guidance within the first tab.

It sounds straight forward. Regarding the calculations can you tell me more about that.

Researcher: Yes so the impact or change would come about from the amount of change for a given indicator or proxy and that multiplication would then provide the end impact value.

Salford City Council: Right yes. We have looked at trying to do stuff like this. We've got figures but we don't really actually know... it's been quite difficult to measure them.

We tried to do some work with Keepmoat for example to do this exact sort of stuff we're talking about but I don't think we ever got anything finished on that.

Could this be used for PFI refurbishment programmes? I mean I take it you could apply this to any regeneration project presumably...

Researcher: Yes its designed for housing-led regeneration and indeed any scheme which has involved stakeholders. So pretty much anything really.

Salford City Council: So anything where you can get value for it, you can actually use it to look at outcomes and what those outcomes should be.

It's what the value is that's a tricky one also, and also something that everyone agrees to. In an ideal world, we'd all use the same measuring tool...

Also it's a classic isn't it, if you put rubbish in you'll get rubbish out and the opposite so its up to the user to make sure that the correct information goes in isn't it.

Does it take into account crime stats and that sort of thing and also things that affect the environment and that sort of stuff...

Researcher: Yes so for example you could get hold of crime stats and find a relevant proxy and through the multiplication find the monetised impact value.

Salford City Council: Which crime statistics would you tend to use for that?

Researcher: Where possible, Government statistics. They are approved and verified. You could also combine that with your own primary data by way of interviewing or surveying the people within your designated regeneration zone.

Salford City Council: OK so the perception of crime, yes that's one which we've looked at previously. It's important because it doesn't matter what's going on out there, if people feel its dangerous or whatever, its irrelevant whether crime's dropped.

It would be interesting to see, using information we have got, to run figures through this for our own schemes.

I'm quite interested in the environmental stuff as that's something that we've looked at. Because it's not just about bricks and mortar although that's important, its also about the environment.

Is there anything we could put in relating to that?

Researcher: Yes you could look to include data relating to the amount of green space, amount of trees on a basic level..., CO2 emissions for example...

Salford City Council: Right OK... you see I've been trying to get hold of data such as that, so that's interesting...

We can use that more theoretically on the kind of heating we put into regeneration schemes also for example...

I'm sure we'd be more than happy to share some data that is able to be shared and use this going forward yes...

Is there any cause to go out and speak to people, to carry out interviews and questionnaires for example or do you just go on stats etc?

Researcher: No you need to use this really with primary data and also the indicators and proxies go alongside and together with that.

Salford City Council: Right OK. In the last few years we've carried out many questionnaires and surveys about what residents think and feel so we'd already have that. We've got customer satisfaction and stuff like that.

Would this previous stuff be valid to use and put in?

Researcher: Yes they'd be valid to put in and use provided they were carried out correctly and in a non biased and non leading way for example.

Salford City Council: Yes they were, they were pretty standard text book questions really.

Obviously if you wanted to take this further on we could maybe be looking at the kinds of questions we should be asking for example, to get the required information.

The main difficulty I'd say is that you never get two regeneration projects that are the same; I know you can monitor people's satisfaction against money spent, you can say you've had better value for money in this area due to better satisfaction, but there are just so many different variables to consider and the fact that no two areas are the same.

Researcher: Yes every scheme is different but for me with this it does present a consistency in approach in terms of the monetisation of values which provides a more consistent approach than previously.

Salford City Council: So the monetary values, would that take into account the grant for the PFI and money spent on our new builds and recent social housing schemes that have been taken on in the last couple of years as well...

Researcher: Yes you could put those input costs in.

Salford City Council: I'd like to use this just to get an insight into what we may or may not have achieved. Or we can just pick a specific area.

Maybe from the point of view on local area employment.

I mean, going back to the environmental stuff, the environmental stuff is quite important for us, but I think that sometimes there are some people who haven't quite got that side of it and possibly because they couldn't see what was coming out of that... and we always felt that was an important factor, so if I can...

We had an environmental plan, an annual plan, but I don't know how easy the data would be to use, but, having said that we could look at it. Everything from reduced CO2, trying to think about the way that, where you might put the information in, in terms of outputs, outcomes etc. I'm quite interested though to see how it all works.

Right I can send some stuff in future on employment, training and that sort of thing too.

I might have to do some work to work out which bits go where!

I'm thinking we can maybe use this regarding our work in Charlestown.

I think another interesting point with this is that although on some schemes that we've run we think they for example have been successful, there are maybe some areas that haven't quite gone as well as we'd hoped, and something like this can then capture that. Like you say the winners and losers. Interesting.

When I was doing studies in urban regeneration, the Sydney Opera House was mentioned as having initially been described as a failure because of simply costs. It

had gone over budget for example. They clearly weren't taking into account all these other streams of impact like this does!

Ok thanks that's great.

Researcher: Is there anything else that you'd like to add?

Salford City Council: No that's great. Glad it's going well and see you soon. We'll send some stuff through soon.

Researcher: Thanks for your time.

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

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[Before the discussions took place, each key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

[Note: this interview was conducted with an external organisation – Regenda Homes]

Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Regenda: It looks really good. Its something that we would use yeah [sic] definitely. Just looking at some of the detail on the stages – this is the hardest thing when you're doing regeneration work and we've discussed this many a time in our team meetings – measuring the impact. Measuring outputs is a little different isn't it. We've got four people into employment this week and we've done this this and this. But measuring the impact on a community, on a person, is much harder.

So I think this would be useful.

Have you trialled this on your schemes yet?

Researcher: Yes I've used this on three of our schemes and the results look good so far.

Regenda: I'm just thinking also that we've actually got a boundary improvement treatment coming up. So half of our estate has had new brick walls built, and the other half is starting imminently.

Hopefully this year.

Researcher: Well, that's quite funny because one of the schemes I've used from our side to run this tool on is an environmental scheme also.

Regenda: Ah right OK. If I go back to my boss and say that this is a workable tool and we can measure stuff off this, then we'll be using this for sure because its something that's definitely needed.

So its for any sort of regeneration work?

Researcher: It's for housing-led regeneration yes but it could really be used with any scheme that offers socio-environmental impact and which involves stakeholders.

Regenda: So you'd use the indicators etc. alongside primary data as well?

Researcher: Yes ideally with a combination of primary data and the proxies/ indicators.

Regenda: What I like is that through something like this you're getting some sort of outcome and impact finally. Its almost proof isn't it as to whether things work or don't work. I think it looks and sounds fantastic and I think its something that we could use, yes definitely.

What this does also is really drilling down to the detail, which is great, because I like to see this sort of stuff.

I think it'd be a really good measurement tool. We're constantly trying to establish measurements and impacts. There's also stuff around health and wellbeing that we like to tap into that's a little bit wobbly at the moment because basically we're saying that we know all the work that we're doing in this community and all the resources that we're putting into it are making a difference, and we know its making a difference for people, for lives and making them more resilient, but how do we measure that; how do we measure that Mr Jones is feeling better than he did last year because of what we've done, because he's engaged in the local chess club; because he gets out a little bit more, how do we measure his actual feeling.

So something like this would be fantastic for us.

Researcher: Great. Is there anything else you'd like to mention or me to cover?

Regenda: No that's great. Nice to meet you. Look forward to using it in the near future.



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[Note: this interview was conducted with an external representative – from the RICS]

Transcript:

Researcher: I'd like to say thank you again for agreeing to meet with me. After you've now had chance to assess the tool I sent over, can I ask what you think of the SuHousingImpact tool and can I ask whether you have anything by way of feedback?

RICS: I think it's a fantastic idea. It should produce some very interesting data.

In terms of how we evaluate, we use the red book and there's a vast amount on our web site. But it does tend to be economically based.

I'd be interested to see something like this completed and carried out in practice. I'd certainly be interested to see how this develops and see what the various pay back periods are.

It can also be used to make decisions can't it.

So it works from left to right, through the various stages...

Researcher: Yes exactly. And then all information is inputted, following the spreadsheet across.

RICS: Of course its only as good as the data you put in it, like anything though isn't it?

Researcher: Yes of course, but like you say, that can be levied at anything.

RICS: I think its fantastic and I can't believe that no one has come up with something like this previously. I'd definitely use it, because if you've got those pay back periods you can make informed business decisions on a scheme by scheme basis and from a professional surveyor's point of view, that would enable me to give more informed advice for my clients.

Researcher: OK thank you. Do you have any further comments to make?

RICS: No, for me it would just be a matter of using it now!

Researcher: OK thanks for your time.

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[Note: this interview was conducted with an external organisation – Salix Homes]

Transcript:

Researcher: Good Morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Salix Homes: Morning. OK yes. Your 'stage 6', can you just go through that.

Researcher: Yes certainly. The overall sustainable impact produced by the first five stages of the spreadsheet, within stage 6, is split into per stakeholder values. So the impacts versus the inputs are created and the results put into graphical format, which can also then show the potential pay back period of a scheme for each individual stakeholder – and for the scheme as a whole.

Salix Homes: OK and regarding the deadweight values etc. – what value is used for that?

Researcher: This typically uses 3.5%.

Salix Homes: Right OK. Firstly I've never seen anything like this before and this is definitely an area where I think we need to improve. We do use NPV net present value which takes into account some environmental data. But nothing like this.

Researcher: So, the more information that can go into this impact map the better, so there might well be useful data within your NPV that can work in tandem with this quite well.

Salix Homes: OK so once this has all been refined and is good to go etc. I think it'd be good for us to run some of our own figures through this and see what comes out. To test it and also get used to it.

Researcher: OK yes no problem.

Salix Homes: One question would be – where do you get the indicator/ proxy information from?

Researcher: You'd get that from relevant databases such as the Housing Association Charitable Trust (HACT), an online database called the Global Value Exchange (GVE) or the New Economics Foundation (NEF), or the TEEB database from the environmental side of things. Datasets such as these provide all the relevant monetary values that can be used.

Salix Homes: Right OK we'll look into those datasets further then. And I'm assuming that the more data comes about, the better the datasets will be...

Researcher: That's right yes. This is a new field and so the datasets are always being updated and improved.

Salix Homes: Yes OK I mean you have to start somewhere don't you...

OK so in the inputs range its just the inputs and the impact area is within the next stages where the indicators and proxies come in, OK right.

So, the amount of change will typically be what, say the amount of people, properties affected etc?

Researcher: Yes that's it.

Salix Homes: So you can add the impacts together as well.

Researcher: Yes that's right. So all the various outcomes and impacts are all added together to create the overall impact for the scheme as a whole.

Salix Homes: So because the outcomes are open to interpretation, things need to be well thought out.

Researcher: Yes, it needs to be well thought out, but ultimately there are only so many logical things you can claim to be happening within a given scheme. There will potentially be many outcomes though.

Salix Homes: Right OK. It can be really subjective though can't it – which could be an issue. I mean, what I think and what you or someone else thinks could be totally different.

Researcher: It's only as good as the data that goes in, but the indicators you use should be logical. The proxies that are used should be related to the said indicator, so you have to be sensible about what you're claiming for – and you have to make sure that you're not over claiming. If this is done, then there shouldn't be a problem.

Salix Homes: If you could put some guidance along these lines then hopefully that should help in terms of making sure that what one person chooses as impact values doesn't turn out to be of significant difference than that of another person.

Researcher: OK I can take that on board, thanks.

Salix Homes: I have to say, I think it looks really good in principle. It'd be good if we can use this on a few schemes. We've got some coming up soon that we can maybe use it on.

If we can get stuff ironed out such as the guidance then I think it'd be something really useful for us to use.

Currently we can't really say how much we feel we're going to get back in terms of these kinds of impact per person, per scheme, per stakeholder etc. so yes really good.

So it could be worth spending X amount of money more to get X or Y amount of social or environmental value back. That's something else we could use it for potentially.

The stakeholder section means that we can use this as a strategic tool also which would come in handy I have to say.

[An additional Salix Homes employee comes into the room at this stage]

Researcher: Hi, nice to meet you. [Researcher outlines tool]

Salix Homes: Hi. OK well we know that historically social and environmental impacts are very hard to measure. They need to be built in in some way. I like the idea of looking at this stuff.

I've dealt with the HACT model previously but the problem I've got with it is that sometimes I look at the values and think "I'm not sure I really believe those values".

I think that there is a social and environmental impact, of course there is, but my feeling with the HACT indicators is that they might be slightly inflated.

I also think that customers don't understand the concept of social and environmental [impact] at all, and its necessary to educate them on that really.

You can also add, whether you've actually created £50,000 in somebody's pocket, no you haven't have you?

Researcher: Regarding this point, the monetisation is used as a way to describe the value. It's a common method of doing this that easily enables comparison.

Saix Homes: There's a subjective element here and that's what makes it hard for me.

Researcher: I think that this is subjective, but its important to get values onto these kinds of impacts because we've seen far too many urban regeneration schemes fail due to them not looking at the sustainability of the scheme. Many areas which are failing within five to ten years of a scheme being started and that is because of the lack of a sustainable approach. And we need to change this. Something like this can do that.

Salix Homes: Yes I would agree with that. Is it predictive at the moment?

Researcher: It can be both evaluative and predictive.

Salix Homes: Right OK. I can see this as being part of the suite of tools that you might use. So you've got your stock condition survey to start with, that's your simplest starting point, then you've got other elements that you would layer on top just to decide where we're going to invest after that.

I also think that it'd be good to try this out on both types – on schemes that have been done and also on future ones also.

Also we get social value stuff through procurement don't we – we are looking at how we measure our own social value at the moment. We're quite good at this at a procurement level but they are quite prescribed about the amount of social value that goes in. And what that does is only enable the minimum to be carried out. Also I think that we don't do enough environmental.

Also regarding the GM Procurement Group I think there are a few organisations who don't necessarily agree with being told to deliver a prescribed amount of social value.

I think this would be useful alongside what we've got already. I mean I find actually gauging whether a tenant is able to be moved out of fuel poverty by virtue of improvements we make to their property, this saving them money, quite hard to measure. This could potentially help I think.

My issue with the HACT stuff is that I like to see real evidence. But I do think that this is a good project and that we could use this. We definitely don't do enough evaluation after projects.

I mean we do customer satisfaction surveys, but we're not appraising the scheme are we really, we're just saying "are you satisfied", that's not really enough is it...

This would probably give us what we want. We're looking at something which says more than "you're just getting new kitchens and bathrooms". What we want is in the long run more sustainable communities, like everyone. But at the moment our model only uses turnover, relets, satisfaction, ASB, that's it.

Because we go down to property level, we can't get crime at property level.

I think what you want with this also, is the schemes that are going to be chosen, to be chosen because of the return they are deemed to deliver, and something like this could potentially do that. You want your contractors to know about this stuff too.

I also think, such as with Procure Plus, its almost like a race to the bottom because contractors just carry out the bare prescribed minimum in terms of social value and impact. With something like this you could create almost a race to the top.

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FOR VALIDATION AND VERIFICATION OF THE ARTEFACT**

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This discussion with several key employees of City West Housing Trust’s Asset Management Department serves as a further demonstration of the refined tool, refined from prior feedback and opinion from prior interviews. Any final and further failings that the tool might have will be used to fine tune the tool until feedback is received from all key employees involved in the discussions that shows that they are entirely happy with it. The discussions will be followed by a final focus group to clarify absolutely that there are no issues remaining in terms of tool improvement.

[Before the discussions took place, each key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

[Note: this interview was conducted with an external organisation – Villages Housing Association]

Transcript:

Researcher: I'd like to say thank you again for agreeing to meet with me. After you've now had chance to assess the tool I sent over, can I ask what you think of the SuHousingImpact tool and can I ask whether you have anything by way of feedback?

Villages Housing Trust key employee: OK so it's a spreadsheet and there's different stages involved. My first question would be what takes you from one stage to the other.

Researcher: OK the first thing I'd say would be that there's nothing that takes you from one stage to the other, you would follow the stages though from left to right.

Villages Housing Trust key employee: So if we take our recent painting scheme we've done, we could use stakeholders such as ourselves, our customers, contractors etc., we can enter that the change is that fences get painted; what do they invest, well the customers invested zero but we invested the amount of money put into the scheme, so next we'd put down the amount of properties that got painted, right I see, then you'd enter everything along and it then creates the impact value in stage four; it then takes off the depreciation values and creates and calculates the final impact total. Right I see.

So I'd say that the depreciation section is a good idea. It guards against over claiming? So it relates to the SROI principles also?

Researcher: Yes absolutely it does.

Villages Housing Trust key employee: OK great – so stage six splits the values for the stakeholders. OK I like that. So all your schemes at City West can go into this then?

Researcher: Well yes we're going to use this going forward because we simply can't measure full impacts quantitatively as things stand at the moment and with the Social Value Act coming in recently, this sort of stuff is becoming increasingly important especially in the housing sector.

Villages Housing Trust key employee: Absolutely yes... So you could use this to predict also couldn't you?

Researcher: Yes you can, as a management tool.

Villages Housing Trust key employee: Strategically yes. Could we use this going forward also?

Researcher: Yes absolutely,... its good that you'd want to use it!

Villages Housing Trust key employee: Have you thought of maybe doing this as a web based tool?

Researcher: I've had some feedback relating to that so yes its got me thinking.

Villages Housing Trust key employee: Also if you put rubbish information in you get rubbish out so it'd be important to guard against that.

Researcher: Yes absolutely, that's why first hand primary data that's directly relevant is so important in addition to the indicators and proxies, but also its important that the indicators and proxies are approved and reliable too.

Villages Housing Trust key employee: Yes absolutely.

Researcher: Is there anything else that you'd like to add? Anything further in terms of feedback?

Villages Housing Trust key employee: No that's great. Look forward to using this in the future!

Researcher: OK thank you and thanks again for your help.

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**DISCUSSIONS WITH KEY STAFF OF CITY WEST HOUSING TRUST
FOR VALIDATION AND VERIFICATION OF THE ARTEFACT**

Why are we carrying out these discussions?

This discussion with several key employees of City West Housing Trust’s Asset Management Department serves as a further demonstration of the refined tool, refined from prior feedback and opinion from prior interviews. Any final and further failings that the tool might have will be used to fine tune the tool until feedback is received from all key employees involved in the discussions that shows that they are entirely happy with it. The discussions will be followed by a final focus group to clarify absolutely that there are no issues remaining in terms of tool improvement.

[Before the discussions took place, each key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

[Note: this interview was conducted with an external organisation – Stockport Homes]

Transcript:

Researcher: Good morning. OK you have had a chance to look at the tool. Can I ask what you think of it and whether you have anything by way of feedback?

Stockport Homes: OK so this can be used on any form of regeneration scheme in effect.

Researcher: Yes, anything really where there is stakeholder involvement.

Stockport Homes: OK so how many stakeholders would you tend to have?

Researcher: Just as many as you feel are a part of the scheme. It'll differ from scheme to scheme.

Stockport Homes: OK right so customers, contractor, us and planning or local authority etc.

So you can put commentary to describe the changes, but numbers where it specifically asks for numbers. Like for example the cost of the scheme obviously. Right.

OK so all these are formulated so all the impacts are calculated for you.

Researcher: Yes all the formulas are built in.

Stockport Homes: OK great and it also takes off the deadweight etc., depreciation. OK so I've had a brief play around on this with some figures but also we'd like to ideally use this and test this out on a few of our own schemes. Then for me, by repeating using the impact map it'd make it easier and easier every time we used it. If you could advise us on the location of relevant proxies etc. too that'd be good.

Researcher: Yes OK no problem.

Stockport Homes: Also we're getting into social value more and more now at Stockport Homes and this is potentially something that we can look at using. We'd need some guidance to accompany it though. Is that on the first tab? Ah right yes so there's already some guidance there. Right OK.

We also have contractors that have to work to provide a certain amount of social value as well. That's what I'm thinking of,... that we could use this with them too.

It'd also be useful in putting a project together. To run the figures and see what comes out. That can then be used to guide the decision making process going forward.

Researcher: OK great. Is there anything else you'd like to add in any way?

Stockport Homes: No that's great. Look forward to using this on a few simple schemes and letting you know how it goes. I'll give you my contact details and then if it's OK I can pass it around other staff members too and we can discuss it further soon.

Researcher: OK that's great. Thanks again for your time. Really appreciate it.

“Towards a tool to gauge the success levels of housing-led urban regeneration schemes”

Kevin Dean

**DISCUSSIONS WITH KEY STAFF OF CITY WEST HOUSING TRUST
FOR VALIDATION AND VERIFICATION OF THE ARTEFACT**

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[Before the discussions took place, each City West Housing Trust key employee was supplied with the artefact and a set of basic instructions for using it, with accompanying screen shots]

[Note: this interview was conducted with an external organisation – Irwell Valley Housing Association]

Transcript:

Researcher: Good afternoon and thank you for agreeing to meet me. Can I ask what you think of the SuHousingImpact tool and can I ask whether you have anything by way of feedback?

Irwell Valley: Yes absolutely. Well we like the tool. It is complex and we can see that its based loosely on SROI but is obviously very much more on point than we feel a basic SROI is.

We like the pay back periods – very useful in today’s climate and also the winners and losers is a unique concept I think because normally people are only concerned with a scheme as a greater whole and forget that sometimes that greater whole covers up the fact that some stakeholders actually lose out. This covers that – which is pretty unique we feel.

Researcher: Great. Do you have any other feedback in any other ways that can be taken on board?

Irwell Valley: Yes I think some brief comments on it to aid understanding in some of the title cells would be useful? Don’t know whether that can be added? Then when you hover over the area in question you get an explanation. The user would get confidence from that then. The fact it can also be used to see not only how much impact a scheme creates but whether its worth doing in the first place is good.

Researcher: Yes absolutely.

Irwell Valley: Other than that great. No further issues.

Researcher: OK thank you for your time.

APPENDIX D: APPLICATION OF SUHOUSINGIMPACT TO THE TWO SCHEMES

TWO MICROSOFT EXCEL SPREADSHEET PRINT OUTS ATTACHED

APPENDIX E: NVIVO ANALYSIS

Interview 1: City West Employee ‘A’ and ‘B’

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| employee | 8 | 14 | 3.97 |
| researcher | 10 | 8 | 2.27 |
| tool | 4 | 8 | 2.27 |
| discussions | 11 | 5 | 1.42 |
| need | 4 | 5 | 1.42 |
| now | 3 | 5 | 1.42 |
| work | 4 | 5 | 1.42 |
| come | 4 | 4 | 1.13 |
| feedback | 8 | 4 | 1.13 |
| get | 3 | 4 | 1.13 |



| | | | | | | | | | | | | | | | | |
|------------|-------------|----------|---------|----------|----------|--------|---------|---------|--------|--------|---------|---------|-------|---------|--------|-------|
| employee | discussions | come | housing | yes | involved | really | absolu | costs | gauge | group | inputs | interes | it'd | justify | | |
| | need | feedback | impact | also | like | rise | another | emplo | lead | prior | proces | refined | schem | schem | | |
| | | get | impacts | city | look | trust | anythi | enviro | looks | social | whether | acc | acc | add | adm | he |
| researcher | now | good | key | decision | outcome | useful | artefac | everyt | making | some | along | bette | big | block | board | bring |
| | | | | | | | asset | figures | manag | using | ask | carrie | curre | dear | decide | dem |
| tool | work | high | use | got | place | west | block | final | negati | well | base | carry | data | dep | disc | done |
| | | | | | | | | | | | basic | chan | data | desp | draw | dwar |

Interview 2: City West Employee 'C'

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| key | 3 | 13 | 5.42 |
| employee | 8 | 10 | 4.17 |
| researcher | 10 | 9 | 3.75 |
| yes | 3 | 8 | 3.33 |
| good | 4 | 6 | 2.50 |
| tool | 4 | 6 | 2.50 |
| discussions | 11 | 5 | 2.08 |
| housing | 7 | 5 | 2.08 |
| city | 4 | 4 | 1.67 |
| just | 4 | 4 | 1.67 |



| | | | | | | | | | | | | | | | | |
|------------|------|-------------|----------|-------|----------|----------|---------|---------|-----------|-------------|--------|--------|--------|-------|-------|-------|
| key | yes | discussions | trust | right | artefact | forward | prior | use | way | accommodate | along | ask | basic | | | |
| | | | | | asset | going | problem | basic | clarify | consist | creat | data | dean | dem | depa | |
| | | housing | west | using | cell | great | refined | briefly | discu | exact | expla | failin | figure | fine | focus | |
| employee | good | | | | absolute | employee | like | shows | carry | end | gaug | instru | issue | it'd | kevin | know |
| | | city | feedback | | also | etc | look | stage | certainly | entire | gettin | interv | ed | looks | might | more |
| researcher | tool | just | need | | anything | final | manage | thanks | change | evalua | goes | introd | levels | morn | nume | opini |
| | | | | | | | | | change | every | group | involv | es | move | parag | place |

Interview 3: City West Employee ‘D’

| Word | Length | Count | Weighted Percentage (%) |
|-------------|--------|-------|-------------------------|
| key | 3 | 8 | 3.57 |
| tool | 4 | 6 | 2.68 |
| discussions | 11 | 5 | 2.23 |
| employee | 8 | 5 | 2.23 |
| housing | 7 | 5 | 2.23 |
| think | 5 | 5 | 2.23 |
| city | 4 | 4 | 1.79 |
| good | 4 | 4 | 1.79 |
| like | 4 | 4 | 1.79 |
| researcher | 10 | 4 | 1.79 |



| | | | | | | | | | | | | | | | |
|-------------|----------|------------|----------|----------|--------|---------|--------|---------|--------|--------|----------|----------|---------|---------|----------|
| key | employee | city | trust | impact | employ | refined | thanks | amou | comes | dean | decided | demon | depart | depth | discu |
| | | | | | | | | answe | done | exactl | excel | extrap | failing | figure | fine |
| | | good | | pretty | final | right | whethe | ask | effect | first | goes | going | got | graphs | greate |
| tool | housing | | west | | get | shows | | asset | either | focus | handy | instruct | intervi | involve | issues |
| | | like | | anything | | | wins | basic | else | follow | happy | just | levels | look | looks |
| | think | | also | | group | stakehd | | carry | end | follow | impro | kevin | loses | map | might |
| discussions | | researcher | feedback | artefact | | | absolu | chanc | entire | form | individu | kinds | lover | morn | normally |
| | | | | based | prior | terms | accom | clarify | eviden | gauge | individu | led | mana | much | now |
| | | | | | | | add | | | | | | | | opinion |

Interview 4: City West Employee ‘E’

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| tool | 4 | 10 | 3.00 |
| key | 3 | 7 | 2.10 |
| think | 5 | 6 | 1.80 |
| area | 4 | 5 | 1.50 |
| discussions | 11 | 5 | 1.50 |
| housing | 7 | 5 | 1.50 |
| like | 4 | 5 | 1.50 |
| need | 4 | 5 | 1.50 |
| city | 4 | 4 | 1.20 |
| employee | 8 | 4 | 1.20 |

Interview 5: City West Employee ‘F’

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| housing | 7 | 8 | 2.76 |
| key | 3 | 8 | 2.76 |
| tool | 4 | 8 | 2.76 |
| city | 4 | 7 | 2.41 |
| trust | 5 | 7 | 2.41 |
| west | 4 | 7 | 2.41 |
| discussions | 11 | 5 | 1.72 |
| employee | 8 | 5 | 1.72 |
| researcher | 10 | 5 | 1.72 |
| feedback | 8 | 4 | 1.38 |



| | | | | | | | | | | | | | | | | |
|---------|-------|-------------|----------|--------|----------|---------|---------|----------|--------|-------|--------|--------|--------|-------|-----------|-------|
| housing | city | discussions | yes | like | already | fine | might | questio | things | time | use | useful | value | | | |
| | | | | | also | hear | monetis | refined | way | acco | action | agree | always | answ | apart | |
| | | employee | anything | put | | | | | | argu | benef | calcu | carry | cells | chand | |
| key | trust | | get | really | artefact | inputs | now | simplist | whethe | askir | clarif | data | dear | dem | depadiscu | |
| | | researcher | | | ask | justify | obvious | someth | work | asse | conce | ease | failin | figur | first | focu |
| tool | west | | great | see | employ | know | prior | thank | | asse | cours | else | follov | give | got | grou |
| | | feedback | hunch | | | | | | worth | avai | cove | entire | gaine | hact | idea | imp |
| | | | | 000 | final | mean | purpose | thanks | absolu | basic | data | erm | gaug | happy | | impro |

Interview 6: City West Employee ‘G’

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| key | 3 | 10 | 2.70 |
| tool | 4 | 8 | 2.16 |
| yes | 3 | 8 | 2.16 |
| employee | 8 | 7 | 1.89 |
| researcher | 10 | 7 | 1.89 |
| also | 4 | 5 | 1.35 |
| discussions | 11 | 5 | 1.35 |
| good | 4 | 5 | 1.35 |
| housing | 7 | 5 | 1.35 |
| reliable | 8 | 5 | 1.35 |

| | | | | | | | | | | | | | | | | |
|------------|-------|------|-----------|-------|----------|----------|----------|---------|----------|---------|--------|-------|--------|--------|--------|------|
| key | yes | five | anything | trust | impact | another | involved | add | etc | examp | final | front | happy | idea | | |
| | | | | | look | data | looking | artefac | et | norm | pay | prior | put | really | | |
| | tool | good | discussio | back | | deprecia | mean | busine | locality | refined | stays | stuff | things | think | toward | |
| employee | | | | city | scheme | | | curren | long | see | useful | well | work | year | | |
| | years | know | housing | | | explain | much | | | | | | | | | |
| | | | | else | somethin | | | custom | measu | social | using | able | actu | agre | any | ask |
| researcher | | | | | | feedback | quite | | | | | abs | ass | bear | becd | becd |
| | also | use | like | got | west | first | thanks | emplo | money | state | way | acc | bas | bicha | call | cal |
| | | | | | | | | | | | | acc | bas | box | came | ch |
| | | | | | | | | | | | | | bring | carry | | |

Interview 8: City West Employee ‘I’

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| tool | 4 | 7 | 3.95 |
| key | 3 | 6 | 3.39 |
| city | 4 | 5 | 2.82 |
| discussions | 11 | 5 | 2.82 |
| west | 4 | 5 | 2.82 |
| housing | 7 | 4 | 2.26 |
| employee | 8 | 3 | 1.69 |
| feedback | 8 | 3 | 1.69 |
| good | 4 | 3 | 1.69 |
| researcher | 10 | 3 | 1.69 |

| | | | | | | | | | | | | | | | | | |
|------|------------|------------|----------|----------|---------|----------|----------|---------|----------|----------|-------|-------|-------|-------|-------|------|------|
| key | employee | discussion | point | done | look | within | clarify | final | intervi | looking | make | might | prior | proxi | | | |
| | | | | feedback | outcome | accom | data | formula | refined | thing | think | use | used | via | | | |
| | | good | schemes | | | | drop | forward | run | want | acco | activ | after | also | anoth | | |
| city | researcher | | | figures | thanks | | duration | gauge | | | area | bas | big | bit | boa | bre | |
| | | right | anything | | | amount | | | see | well | asse | brou | cert | cert | char | clea | |
| | | | | fine | trust | artefact | employ | graphs | | | | | | | | | |
| west | tool | | better | | | | ask | even | indicat | stake | years | auto | build | colu | cust | cust | dea |
| | | housing | column | graph | using | | carry | everyth | instruct | straight | | awa | carry | com | defin | dep | disc |
| | | | | | | | | | | absol | bad | cell | cond | dema | | | easy |

Interview 10: City West/ RICS employee Focus Group

| Word | Length | Count | Weighted Percentage (%) ▾ |
|------------|--------|-------|---------------------------|
| focus | 5 | 24 | 1.94 |
| group | 5 | 24 | 1.94 |
| researcher | 10 | 20 | 1.61 |
| scheme | 6 | 19 | 1.53 |
| impact | 6 | 17 | 1.37 |
| value | 5 | 14 | 1.13 |
| just | 4 | 13 | 1.05 |
| example | 7 | 12 | 0.97 |
| right | 5 | 12 | 0.97 |
| think | 5 | 12 | 0.97 |



| | | | | | | | | | | | | | | |
|------------|--------|---------|-----------|--------|--------|---------|---------|---------|---------|--------|----------|---------|--------|----------|
| focus | scheme | example | tool | get | like | data | need | change | looking | outcom | question | regard | see | specific |
| | | | | | | | | discuss | stakeh | drivew | fine | given | housin | impac |
| | | right | also | point | maybe | environ | one | even | years | involv | per | put | ratio | reason |
| group | impact | | | use | now | etc | road | feel | becom | line | slight | thinkin | abs | acc |
| | value | think | really | used | people | figures | year | future | break | look | social | choos | esta | fire |
| researcher | | | customers | | | got | another | input | databa | make | taken | city | going | guidel |
| | just | yes | way | values | cars | might | better | know | differ | obvio | terms | done | graph | key |
| | | | | | | | | | | | | | | map |

| | | | | | | | | | | | | | | | | |
|-------------|----------|-----------|------------|---------|---------|--------|--------|---------|--------|--------|--------|--------|--------|---------|-------|------------|
| tool | valley | great | think | capture | much | see | accon | basic | comp | empl | entire | exam | fail | failing | fine | first |
| | | | | employe | place | using | aftern | carryi | comp | focus | housi | impac | impac | import | impro | instru |
| | use | it'd | used | | | | aid | case | create | follow | intang | keep | kevin | know | led | levels |
| discussions | | | | final | prior | whethe | anyth | cells | dean | gauge | interv | lookin | might | mon | mont | need |
| | feedback | key | absolutely | look | recent | yes | ask | chand | demo | get | involv | lot | nowa | proble | purpd | really |
| irwell | | | also | | | | asset | clarify | depar | group | issues | mana | obvio | receiv | relev | rema |
| | good | researche | artefact | maybe | refined | able | basic | comm | discus | happy | just | memb | opinio | regene | | repeatedly |

Interview 12: Regenda Homes

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| regenda | 7 | 9 | 2.62 |
| tool | 4 | 9 | 2.62 |
| like | 4 | 6 | 1.75 |
| researcher | 10 | 6 | 1.75 |
| discussions | 11 | 5 | 1.46 |
| housing | 7 | 5 | 1.46 |
| something | 9 | 5 | 1.46 |
| think | 5 | 5 | 1.46 |
| work | 4 | 5 | 1.46 |
| also | 4 | 4 | 1.17 |

Interview 13: RICS

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| tool | 4 | 7 | 3.29 |
| discussions | 11 | 5 | 2.35 |
| like | 4 | 5 | 2.35 |
| researcher | 10 | 5 | 2.35 |
| rics | 4 | 5 | 2.35 |
| anything | 8 | 3 | 1.41 |
| feedback | 8 | 3 | 1.41 |
| make | 4 | 3 | 1.41 |
| see | 3 | 3 | 1.41 |
| think | 5 | 3 | 1.41 |



| | | | | | | | | | | | | | | | | |
|-------------|------------|----------|----------|-----------|-------------|----------|---------|---------|--------|---------|--------|--------|---------|-----------|---------|---------|
| tool | researcher | make | ask | decision | institution | refined | survey | used | accom | basic | basis | believ | book | busin | carrie | carry |
| | | | break | even | interest | represe | surveyo | using | across | certain | compl | dean | defini | demo | devel | discus |
| discussions | rics | see | | | | | | | advice | chan | econd | exactl | failing | fine | focus | follow |
| | | | chartere | fantastid | now | royal | terms | various | agreei | clarif | empl | follow | got | group | happy | housir |
| like | feedback | think | course | final | points | scheme | thank | yes | amour | client | enabl | gaug | idea | inputte | instrud | interes |
| | | anything | | | | | | | assess | come | entire | give | impro | interview | just | kevin |
| | artefact | | data | informe | prior | some thi | use | absolu | based | comm | eval | good | infor | involve | key | left |
| | | | | | | | | | | | | | | issues | led | |

Interview 14: Salford City Council

| Word | Length | Count | Weighted Percentage (%) [▽] |
|------------|--------|-------|--------------------------------------|
| city | 4 | 17 | 2.25 |
| council | 7 | 17 | 2.25 |
| salford | 7 | 17 | 2.25 |
| researcher | 10 | 15 | 1.98 |
| yes | 3 | 12 | 1.59 |
| also | 4 | 10 | 1.32 |
| data | 4 | 10 | 1.32 |
| stuff | 5 | 10 | 1.32 |
| use | 3 | 10 | 1.32 |
| example | 7 | 9 | 1.19 |



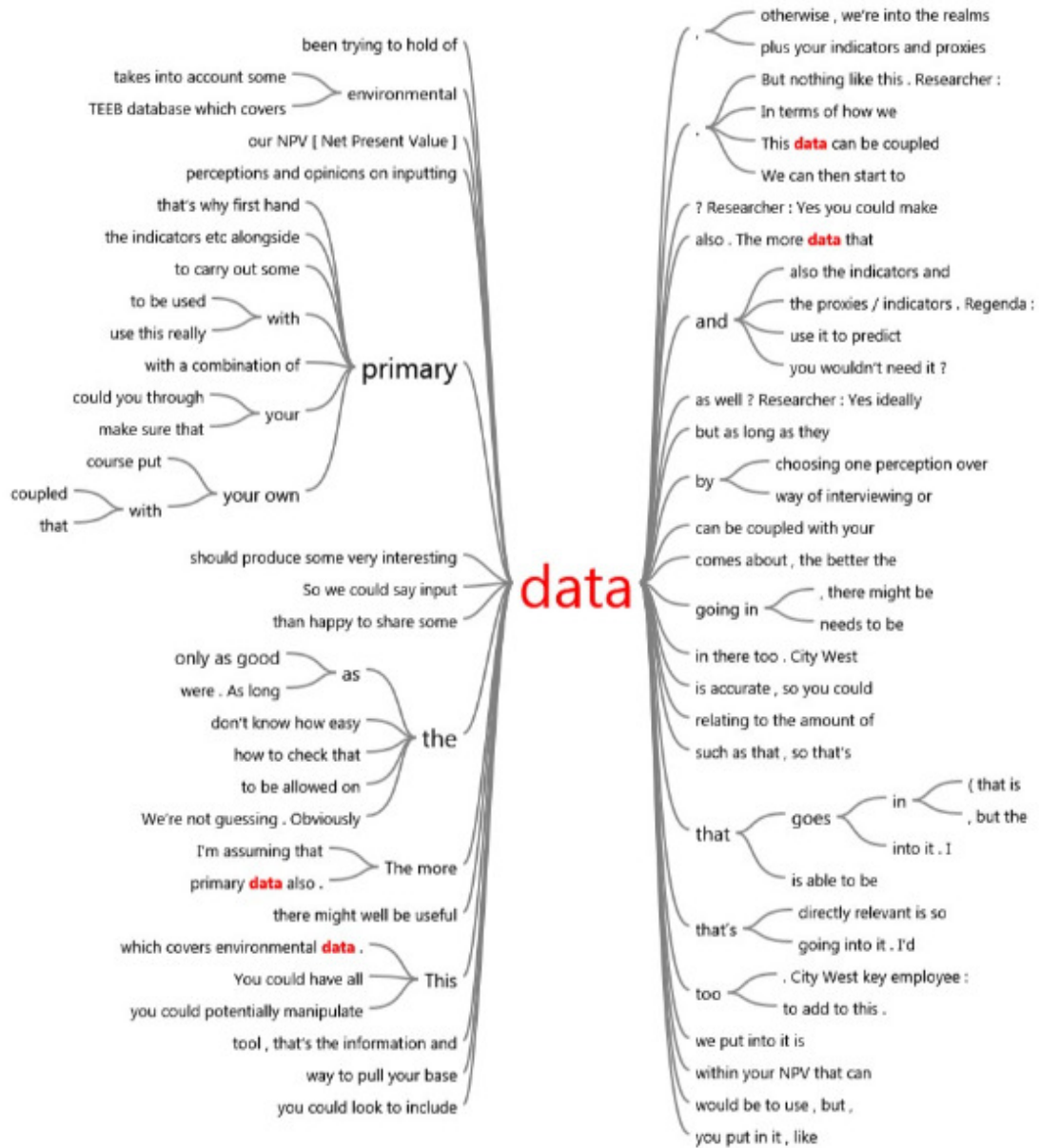
| | | | | | | | | | | | | | | | |
|---------|------------|---------|------------|----------|---------|---------|----------|--------|--------|--------|-----------|--------|----------|--------|--------|
| city | researcher | stuff | like | anything | discuss | scheme | informa | sort | amount | area | better | etc | feedback | great | |
| | | | put | got | environ | see | interest | take | know | proxy | satisfac | someth | stats | trying | |
| council | yes | use | regenerati | quite | just | going | key | terms | looked | two | afternoon | althou | approa | areas | artefa |
| | | | | | | | maybe | way | might | value | ask | cost | data | diffe | emp |
| | also | example | think | value | look | housing | | | money | well | carri | feel | good | hold | indic |
| salford | | | | | | impact | really | work | work | outcor | | | | | |
| | data | get | tool | crime | people | importa | right | accour | primar | actua | co2 | final | happi | involv | losers |

| | | | | | | | | | | | | | | | |
|------------|-------|--------|--------|----------|-----------|---------|------|---------|--------|---------|--------|--------|--------|-------|---------|
| homes | think | value | social | scheme | just | discuss | data | many | quite | stakeho | terms | want | add | anyth | |
| | | | | | something | got | etc | mean | come | help | indica | inputs | level | look | meast |
| | | yes | tool | environm | | | | | else | mom | prescr | proble | procur | prop | refined |
| salix | also | | | | right | stuff | | impacts | hact | might | | | | | |
| | | | | | | | | | enoug | new | regard | sure | sustai | thank | things |
| | | get | use | | | | | scheme | it'd | need | | | | | |
| | good | | | | values | used | | | feedb | outco | run | usefu | actua | agre | almo |
| researcher | | | | | | | | | | | see | | | | |
| | | | | | | within | key | per | going | persc | way | arte | chan | chos | claim |
| | like | really | impact | | amount | well | | | | | stage | | back | com | creat |
| | | | | | | | data | looking | potent | hard | point | whet | bette | com | dat |
| | | | | | | | | | | | subjec | | | | def |

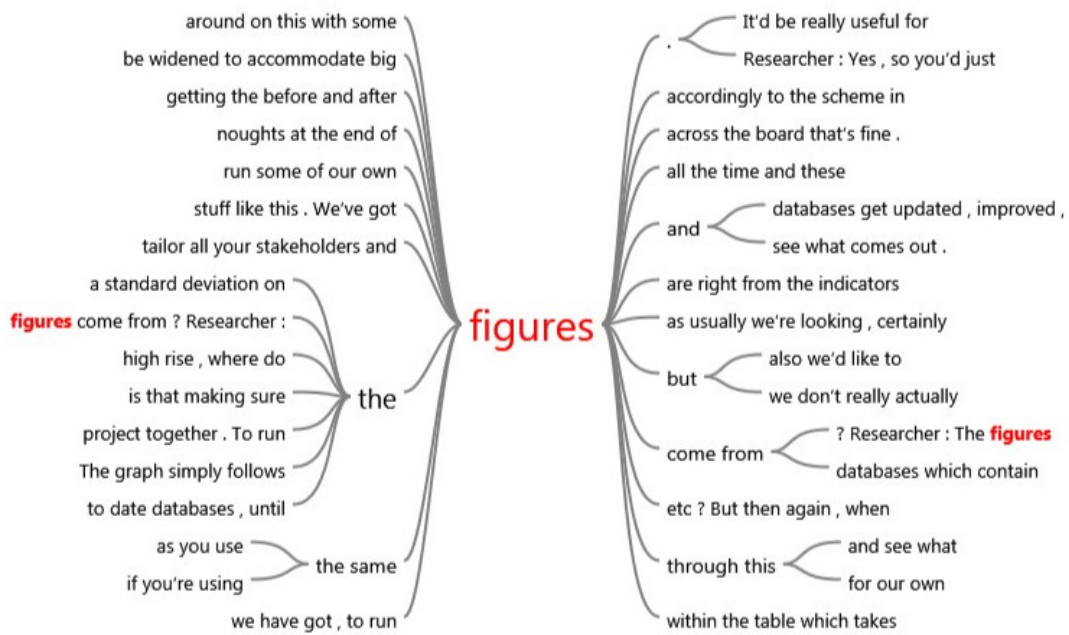
Interview 16: Stockport Homes

| Word | Length | Count | Weighted Percentage (%) ▾ |
|-------------|--------|-------|---------------------------|
| stockport | 9 | 10 | 3.41 |
| homes | 5 | 9 | 3.07 |
| researcher | 10 | 7 | 2.39 |
| tool | 4 | 6 | 2.05 |
| also | 4 | 5 | 1.71 |
| discussions | 11 | 5 | 1.71 |
| scheme | 6 | 5 | 1.71 |
| great | 5 | 4 | 1.37 |
| key | 3 | 4 | 1.37 |
| right | 5 | 4 | 1.37 |

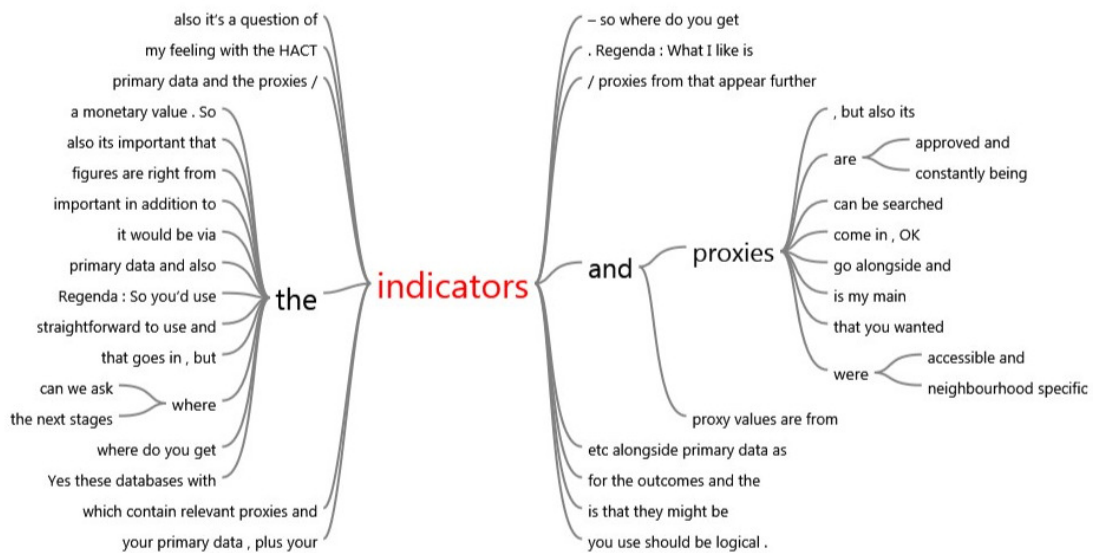
Key word: Data



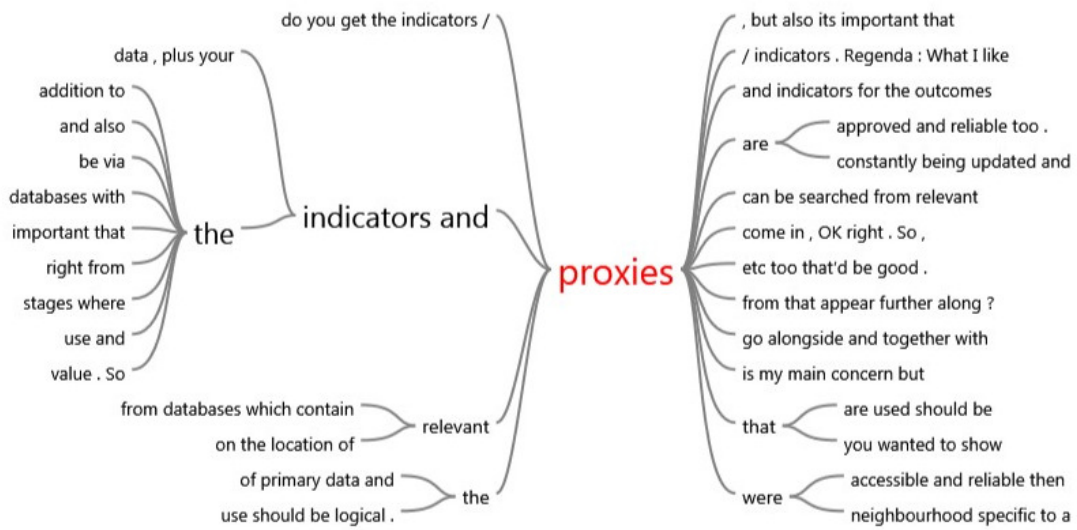
Key word: Figures



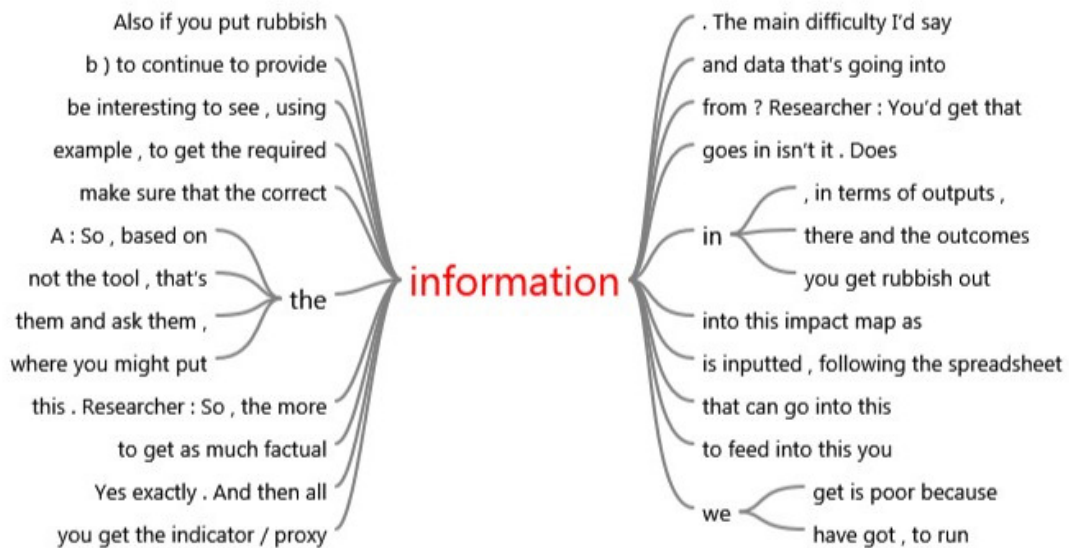
Key word: Indicators



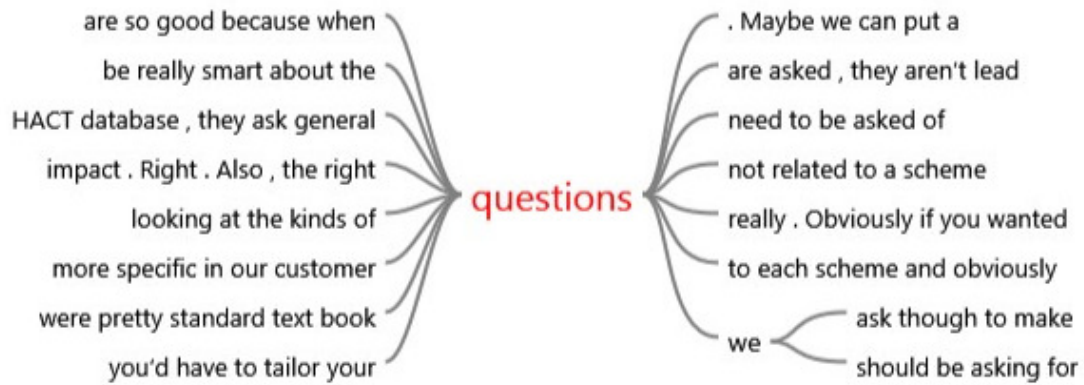
Key word: Proxies



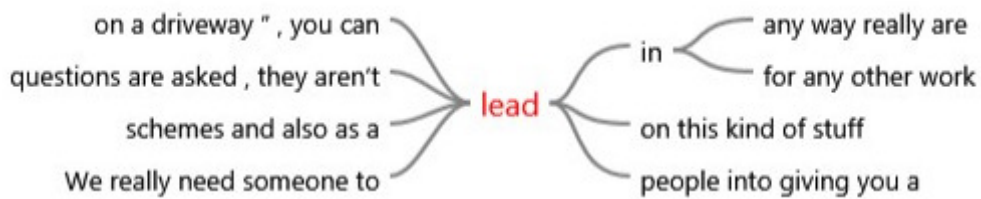
Key word: Information



Key word: Questions



Key word: Lead



Key word: Manipulate

customers . So you could potentially ——— **manipulate** ——— this data by choosing one

Key word: Perceptions



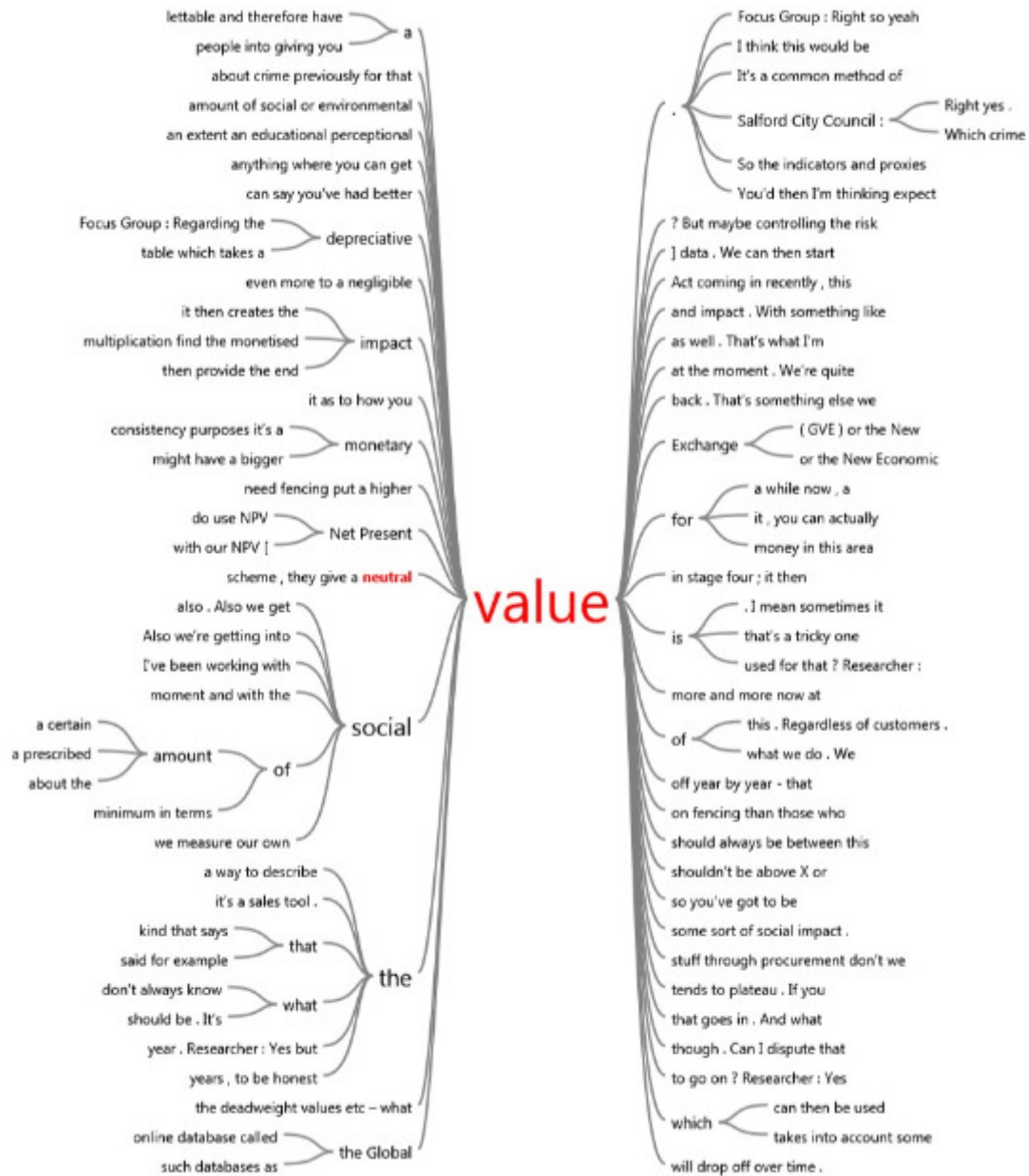
Key word: Opinions



Key word: Leading



Key word: Value



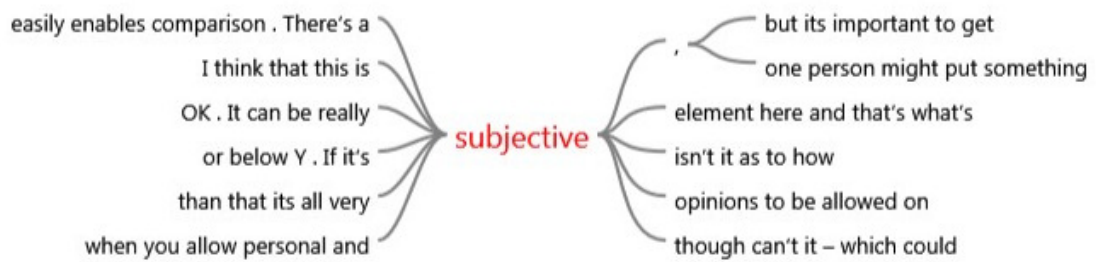
Key word: Bias

the knowledge that there's no **bias** involved in responses ... Researcher : Exactly

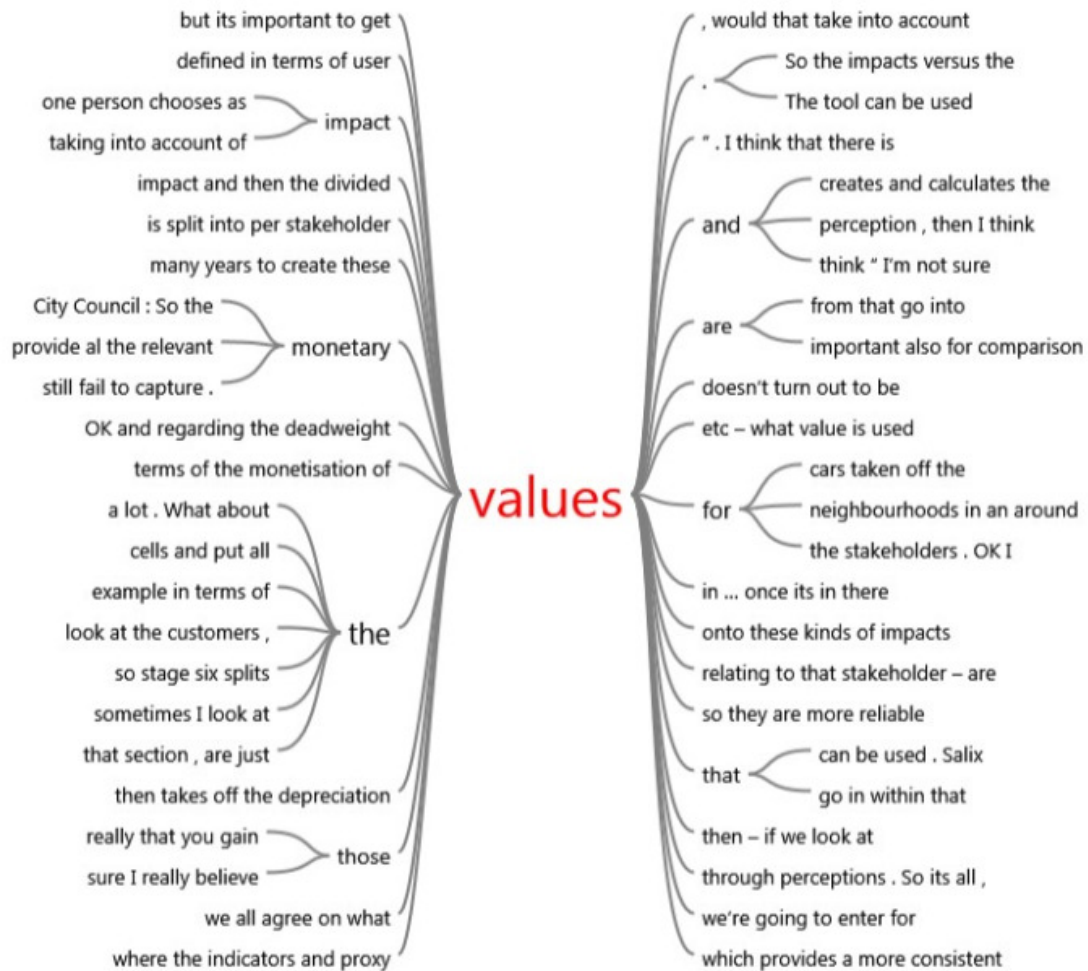
Key word: Personal

in is when you allow **personal** and subjective opinions to be

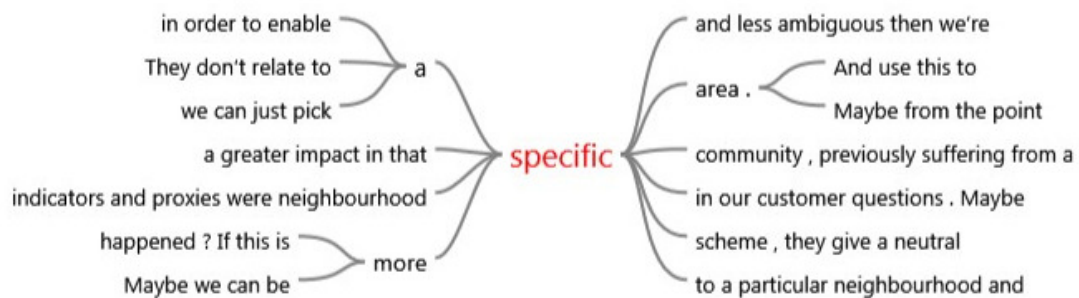
Key word: Subjective



Key word: Values



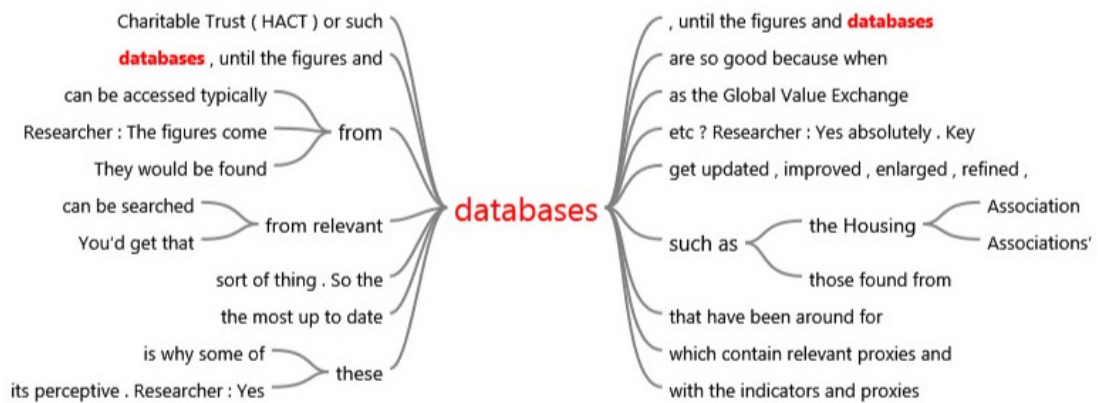
Key word: Specific



Key word: Subjectivity

sorted I think . It's the **subjectivity** of people's opinion that needs

Key word: Databases



Key word: Impact

