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Designing a performance management information system to bridge trust: An action research case study

by

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Abstract

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Performance Management Programmes (PMP) are often fraught with complexities which could strain trust relations between employees and managers, thus inhibiting an organisation from achieving its strategic goals. Important elements of trust such as transparency, consistency and open communication are key ingredients to forming and maintaining trust between employees and organisational leaders. Information Systems (IS) that are designed effectively can play a critical bridging role in establishing trust.

The purpose of this dissertation is to demonstrate how a continuous design approach of a Performance Management Information System (PMIS) is fostering improvements in trust in the performance reward programme and trust relations between employees and leaders at a South African Private Bank. This longitudinal case study used an action research approach underpinned by an interpretive research paradigm to understand the complex trust-related issues in the case organisation. These insights informed the design of a PMIS to foster greater trust in the overall PMP. The study assumes that trust is a social practice and therefore drew on recent advances in Giddens's theory of modernity to develop a trust framework in order to conduct the action research study. The study demonstrates how the five stages of action research in conjunction with the trust framework are applied in the continuous design and development of PMIS. Through in-depth interviews, documents and thematic analysis, a contextually rich and descriptive case study is presented. The action research study presents the initial design and development phase of the new PMIS, the implementation and user adoption phase, as well as the continuous design and development of additional PMIS capabilities to support employees, line managers and executives increased understanding of the drivers of performance.

The findings show the value of using a dynamic trust framework to focus IS practitioners attention on social practices relevant to designing a PMIS. The study demonstrates how the organisation is transitioning Human Resource Management (HRM) and Human Resource Information Systems

(HRIS) from treating employees as passive recipients of HRM to active participants and encouraging employee engagement. Furthermore the study extends the limited research and evidence on employee compensation programme effectiveness facilitated by a PMIS by creating greater fairness and transparency in the reward distribution processes, clarity of communication and trust formation. A set of prescriptive design principles that is consistent with the concept of affordance and the design for socio-technical systems is presented to assist in improving organisational practice and fostering trust. To ensure that the performance reward programme remains trusted and relevant, it is recommended that future interventions by practitioners should focus on including trust enhancing PMIS affordances that support employees, line managers and executives. Future research should further consider the adoption of a dynamic trust framework to improve other IS designs which entail complex social practices.

Declaration

I declare that

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is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Stefan Brandt

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

AI	Artificial intelligence
ASR	Annual salary review
AST	Adaptive structuration theory
BI	Business intelligence
BRS	Business requirements specification
CAR	Canonical action research
CEB	Corporate Executive Board
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CPM	Cyclical process model
CRM	Client relationship management
ERP	Enterprise resource planning
HR	Human resources
HRIS	Human resource information system
HRM	Human resource management
IOS	Interorganisational system
IS	Information system
IT	Information technology
KPI	Key performance indicator
MIS	Management information system
OBB	Outperformance based bonus
PA	Performance appraisal
PM	Performance management
PMIS	Performance management information system
PMP	Performance management programme
PMS	Performance management system
PMSE	Performance management system effectiveness
PMSF	Performance management system fairness
PRP	Performance related pay
QDA	Qualitative data analysis

RCA   Research client agreement

ROA   Return on assets

SET   Social exchange theory

SME   Subject matter expert

SSM   Soft System Methodology

SST   Strong structuration theory

STS   Socio-technical systems

TAM   Technology acceptance model

TCF   Treat customers fairly

TQM   Total quality management

Chapter 1 – Introduction

1.1   Background to the research

Since the 2008 global sub-prime lending crises, clients and investors have lost trust in financial services organisations, their business models, and ethics. The fallout from 2008 sub-prime lending crises led to financial services organisations collapsing, for example Lehman Brothers, bailouts through recapitalisation for example AIG, and even the nationalisation of some large financial services organisations, such as Northern Rock in the United Kingdom (Capgemini & RBC Wealth Management, 2012; The Economist, 2013). Due to social, economic, and political pressures various regulatory changes were implemented and the global economy slowly recovered, but in 2014 South Africa experienced a similar event with the collapse of African Bank. In 2016, a foreign exchange trader at Deutche Bank was exposed in a $10 billion trading scandal and Wells Fargo employees for opening 3.5 million phony accounts, wrongly charging overdraft and unneeded vehicle insurance fees (Caesar, 2016; Donnelly, 2016; Merle & Long, 2018). In the 2008 financial crises and the African Bank, Deutche Bank and Wells Fargo examples, greed and short-term incentive rewards programmes that were not focused on sustainability were the source of destroying client and investor trust as well as shareholder value. Remuneration and rewards programmes came under the spotlight and the limitations of short-term incentive rewards programmes and the undesired behaviour they promoted became a focus area for shareholder activists and financial journalists. Consequently, many financial services organisations reviewed their remuneration and rewards programmes with the objective to link rewards programmes to sustainable profit growth and to re-establish trust with clients.

The context and unit of analysis for this research study is the Private Banking division of a large South African financial services organisation, and the transformation the organisation went through in reaction to the impact of the 2008 global financial crisis and subsequent events caused by greed, and which resulted in a breakdown in trust, by implementing a new performance management and rewards programme that is mutually beneficial to the interests of clients, shareholders and employees. The transformation entailed transitioning from a commission-type bonus and management discretion bonus programme to a rewards programme that is based on the sustainable profit the organisation earns over a multiyear period and adopting key performance measures that include risk management, customer retention and entrenchment. The change in the employee performance management and rewards programme required significant organisational changes in both culture, practices, and processes.

The purpose of the research study is to demonstrate the collaborative design process of a Performance Management Programme (PMP) and Performance Management Information System (PMIS) and how

a PMIS enables trust formation between Private Bankers and line managers by extending Schlichter and Rose's (2013) Structuration and Information System Trust Creation model. I will describe the rationale and the various methods that were applied in designing, building, and implementing the PMP and PMIS. Secondly, I will describe how a prototyping approach in conjunction with tools that the business stakeholders were familiar with were used to ensure there was sufficient time for alignment and internalisation instead of focusing on system development and training. Thirdly, I will discuss the impact of the organisational change. Fourthly, since many people are nervous about the fourth industrial revolution and to what extent computers and Information Systems (IS) might make employees redundant, I will demonstrate the role IS can play in fostering trust, transparency, objectivity, and collaboration.

I also demonstrate how action research supports design and collaboration from a people centric perspective, its application in projects of different size and complexity and the advantage of including prototyping during the action taking stage. Finally, I demonstrate how the PMIS contributed to an improved understanding of the drivers of performance and the continuous evolution of the PMIS to support the organisational, Private Bankers and line managers requirements.

1.2   Problem definition and scope

Performance management and rewards programmes are often a very emotional and subjective matter due to the lack of transparent, objective, and fair measurement processes and systems that can cause distrust and conflict between employees and line management, which can negatively impact on organisational performance. This may lead to conflict between management and employees and creates a culture of "us versus them".

The transformation the case organisation went through in reaction to the impact of the 2008 global financial crisis and subsequent events by changing from a commission type bonus programme to management discretion bonus programme resulted in a breakdown in trust between the Private Bankers and the organisation due to perceptions of subjectivity and favouritism by line managers. The impact was a decline in Private Banker morale and engagement that resulted in an increase in Private Banker resignations. Increased Private Banker staff turnover and the time it takes to recruit and establish a new Private Banker in a client portfolio impacted on client experience and ultimately on organisational performance.

In reaction to the breakdown in trust due to the perceptions of subjectivity and favouritism by line managers and the increase Private Banker resignations the CEO initiated a project focusing on designing a new performance management and rewards programme that is objective, is trusted by Private Bankers and rewards both organisational and individual outperformance. The research study

covers the period from 2015 to 2019 focusing on the design of the new PMP and supporting PMIS, the implementation and adoption of the PMP and PMIS, and finally the continuous evolution of the PMIS due to the improved understanding of the drivers of performance by line managers and Private Bankers.

1.3   Problem significance and motivation

Varma, Budhwar and DeNisi (2008) observe that how best to manage performance and distribute rewards that promote sustainable performance growth remains a challenge for organisations. In addition, they note that in many organisations, employees do not trust that high-performing employees receive recognition and rewards that differ meaningfully from that of average and lower performing employees. According to Gruman and Saks (2011) the source of distrust can be ascribed to limited objective measurements and insufficient communication. However, Schleicher, Baumann, Sullivan, and Yim (2019) note that despite the popularity of performance management (PM) in both research and practice, there are many doubts about the effectiveness of these practices due to insufficient compelling evidence of the effectiveness of PM and considered a weakness in the management of human capital. The reason is because less than a third of employees believe that their organisation's PM processes assist them in improving their performance, and often ranks among the lowest topics in employee satisfaction surveys (Gruman & Saks, 2011). Given the critical role employees play in helping organisations to achieve their strategic goals, it is crucial that managers understand what motivates employees to successfully manage performance (Varma et al., 2008).

However, the danger is that many organisations might think that IS is a "magic bullet" that will provide major benefits and can be implemented with minimal effort to achieve the desired changes (Markus & Benjamin, 1997). The reason for this thinking is that many required changes cannot happen without an IS to enable them, or to unlock the efficiencies intended by the change. But, unfortunately, as many as 75% of organisational change initiatives with IS components fail due to user resistance (Markus, 2004). Levinson (1993) proposes that user resistance arises because there is a too narrow focus on the technology artefact instead of focusing on successfully managing the changes in business processes and the impact these have on the organisational structure.

Successful working relationships consist of an interdependence between people and the different methods they use to achieve personal and organisational goals (Mayer, Davis, & Schoorman, 1995). According to McKnight and Chervany (2000) trust is central to interpersonal and commercial relationships and crucial whenever risk, uncertainty or interdependence exist. Majchrzak, Markus and Wareham (2016) propose that IS researchers who are interested in societal and business change should expand the theories they use to include either theories of explain or theories of solution,

specifying how and why an IS is expected to make a difference to a specific and substantive problem in a specific context.

The focus of this research study is IS and Organisations and aligns with the Department of Information Sciences at the University of Pretoria's research focus area on the effective implementation of BI tools in organisations to improve or sustain competitiveness. The research study utilises social theories with the objective to contribute to the body of knowledge concerned with theories of explaining and theories of solution as proposed by Majchrzak, Markus and Wareham (2016) to extend our understanding of the importance of trust building between IS and business stakeholders and how this contribute to mitigating the risks associated with IS implementations.

1.4 Research questions

In section 1.2 (Problem Definition and Scope) I defined the impact of a breakdown in trust in the performance management and rewards programme as an organisational problem. In section 1.3 (Problem Significance and Motivation) I validated the role and importance of trust in performance management and rewards programmes, how best to measure performance and the high failure rate of organisational change initiatives with an IS component is a significant problem and of interest to HRM and IS researchers.

Sandberg and Alvesson (2011, p. 23) opine on the importance of formulating innovative and grounded research questions that "*could provide an integration of different approaches*" to generate interesting theories. They propose that research questions can be derived through either problematisation due to incomplete literature or gap spotting to extend and complement existing literature or to focus on an under-researched area. Due to my role in the case organisation as a programme manager and my academic interest as a research practitioner that subscribe to the socio-technical school, I support the view of Mumford (2006, p. 320) that "*there can be no theory without practice, and no practice without research*". For this research study I defined research questions with the objective to extend and complement existing literature on an under-researched area to contribute to both academic knowledge and organisational practice.

The following questions need to be answered:

- How does a trust-based framework using structuration and socio-technical concepts inform the design of a PM programme and PMIS?
- How can an action-based research approach inform practitioners in designing a PMIS more effectively?

1.5   Research methodology and theory

Due to the nature of my role in the organisation as a programme manager, I selected action research as the research method to demonstrate the collaborative approach to designing, developing, and implementing a PMP and PMIS. Action research is a change-oriented approach (Cole, Purao, Rossi, & Sein, 2005) that allowed me to study the interplay between humans, technology, information and socio-cultural contexts (McKay & Marshall, 2001), to learn more about how people understand and deal with problems, and to reflect on and internalise the learnings whilst expanding scientific knowledge (Baskerville, 1999a). Furthermore, action research allowed me to actively participate and collaborate to solve practical organisational problems and to enact planned organisational change (Avison, Baskerville, & Myers, 2001; Baskerville & Pries-Heje, 1999; McKay & Marshall, 2001). It is an appropriate research method in projects focusing on improving competence management systems and aligning organisational objectives and HR objectives (Lindgren, Henfridsson, & Schultze, 2004) and focuses on creating a more desirable future with an emphasis on the utility of a future system from a people's perspective (Järvinen, 2007). The iterative process of action research provided me with a structured method to scope projects and to use the results and learnings from one project as the starting point for another project and to support a planned continuous change process using IS in an enabling role.

From a theoretical perspective, I used theory for sensemaking and explaining. As a programme manager and research practitioner in the case organisation, I am presented with problems to solve through projects. During the scoping stage of a project, the source and cause of a problem or phenomena is defined through a process of organisational sensemaking. The objective of organisational sensemaking according to Weick, Sutcliffe and Obstfeld (2005) is to understand the underlying reasons for a problem or phenomena through a process of noticing and bracketing to identify common themes. The themes formed a logical starting point of my literature research to gain an understanding from previous research how different theories explain the reason for phenomena, and frameworks that support the treatment. An example is structuration theory, which is a general theory of social organisation, focusing on the relationship between individuals and society. Although structuration theory is not an IS specific theory, it explains the mutually constitutive duality between structure and agency and that individuals have the capability to transform structures. For this research study I selected the Structuration and Information System Trust Creation model by Schlichter and Rose (2013), because it presents trust as a central theme and provides a processual theory approach to demonstrate the multi-dimensional relationships between constructs in Giddens's account of trust in abstract systems. I extended the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) by adding three additional components: frames, design blind spots and operational malfunction. The extended framework enabled me to focus on both an employee level (micro) and organisation level (macro).

The research study is presented as a single longitudinal explanatory case study, as it allowed me to develop a nuanced view of reality especially from a human behaviour perspective. Secondly, a case study enabled me to gain a better understanding of a phenomena through rich analysis, and thirdly because of the rich descriptive nature of case studies. I used interviews, documents, participant observation and my personal impressions as research instruments to assist in the definition, gathering and analysis of the data. Semi-structured interviews allowed for improvisation during the interview process. I used both observation and participant observation to gather qualitative data during field work. In addition, I used various documents ranging from scoping documents, business case, presentations, training guides, meeting notes and email correspondence. I selected a deductive or "theory-driven" thematic analysis approach to assist me in structuring, coding and analysing the data I gathered. I used the ATLAS.ti application to assist me with the management of the documents for codification and thematic analysis. I followed an iterative process to refine the themes or patterns that surfaced. The objective of the thematic analysis was to compile a report that told a story that could convince the reader of the merit and validity of the analysis.

1.6   Significance of the research study

The research study is significant for IS and HRM researchers and practitioners for a theoretical, methodological, and practical perspective.

1.6.1   Theoretical significance

The study assumed that trust is a social practice and therefore drew on recent advances in Giddens's theory of modernity and extended the theoretical trust framework by Schlichter and Rose (2013) to conduct the action research study. I used structuration theory, which is a general theory of social organisation and although structuration theory is not an IS specific theory, it explains the mutually constitutive duality between structure and agency and that individuals have the capability to transform structures. I selected the theoretical framework by Schlichter and Rose (2013) because it provides explanations of the dynamics of trust in the context of large-scale IS implementations, using constructs derived from Giddens's theory of modernity. According to Gregor's (2006) classification system, I used theory to explain the reason for certain phenomena by presenting an alternative view of the world and to create new understandings.

Schlichter and Rose (2013) note the limitations of a single exploratory case study and suggest additional research studies using a variety of research methods to investigate the generalisability of their theorical framework. Since trust is culturally relative, they also suggest that the framework should be tested in different cultural situations, and that taxonomic theories of trust should be integrated to provide a better deconstruction of the concepts that Giddens encourages. Finally, they

propose providing IS project managers with prescriptive guidance on how to develop and maintain multiple trust relations.

The research study demonstrates the application of the theoretical framework by Schlichter and Rose (2013) in a different cultural and industry situation in various projects using action research as method. The research study demonstrates how the theoretical framework was deconstructed and used during different action research stages and different cycles. Further, it shows the application of affordance design theory in a HRM and IS context to assist in improving organisational practice and fostering trust, by defining a set PM programme and PMIS design principles.

Baskerville and Pries-Heje (1999) note that grounded theory techniques can significantly improve the reliability and rigour of theory, the generalisability of findings and improve the scientific and practical potential of action research. By conducting a contextually rich longitudinal case study, using action research and the theoretical framework by Schlichter and Rose (2013), the research study presents learnings and insights to IS designers and HRM practitioners interested in action research.

1.6.2   Methodological significance

In response to Chandra, Seidel and Gregor's (2015) comments regarding the scarcity of design-oriented knowledge work that prescribes how to build an artefact, the research study demonstrates the process of defining the aspects that will influence the key social constructs of a PM programme, and the enabling set of prescriptive design principles from both a PM programme and PMIS perspective. Due to the socio-technical relationship between users and IS the research study indicates that the starting point for the design of a PMP and PMIS is to first define the themes that will influence the key social constructs of a PMP, for example trust formation, ontological security, and frames. The PM programme design principles provide designers with the context and design knowledge on an abstract level that Maier and Fadel (2009) refer to. The study also demonstrates how the concept of affordance is applied to define the set of prescribed PMIS design principles.

This longitudinal case study uses an action research approach underpinned by an interpretive research paradigm to understand the organisation's complex trust-related issues. The study demonstrates how the five stages of action research in conjunction with the trust framework is applied in the continuous design and development of PMIS. Through in-depth interviews, documents and thematic analysis, a contextually rich and descriptive case study is presented. The action research study presents the initial design and development phase of the new PMIS, the implementation and user adoption phase, and the continuous design and development of additional PMIS capabilities to deepen the understanding of the drivers of performance by employees, line managers and executives.

Methodologically the action reseach case study contributes to design science research from a socio-technical design knowledge and objectives perspective, to the Soft Systems Method (SSM) by demonstrating the learning process and approach to organising and structuring the learning using action research and theoretical framework, and to action research by demonstrating the application and impact of the method on projects of different sizes and complexity.

1.6.3 Practical significance

This research study is relevant, because PM programmes are fraught with complexities that can strain trust relations between employees and managers, thus inhibiting an organisation from achieving its strategic goals. The study extends the limited research and evidence on employee compensation programme effectiveness facilitated by a PMIS by creating greater fairness and transparency in the reward distribution processes, clarity of communication and trust formation.

Orlikowski and Baroudi (1991, p. 11) comment: "*a major goal of information systems research is to have an impact on information systems practice; that is, the findings of information systems research are intended to inform and improve the development and use of information systems in organisations*". The study presents IS and HRM practitioners with a set of prescriptive PM and PMIS design principles that is consistent with the concept of affordance and the design for socio-technical systems to assist in improving organisational practice and fostering trust. Although the focus of the study is a private bank in South Africa, the prescribed design principles are not industry or country specific. The study also demonstrates to IS and HRM practitioners the value of using a dynamic trust framework to focus their attention on social practices relevant to designing a PMIS. The extension of the theoretical trust framework by Schlichter and Rose (2013) provides IS practitioners with the awareness of the human elements and aspects that are critical to establishing and maintaining trust with stakeholders.

The study contributes to HRM practice by demonstrating how the organisation is transitioning HRIS and HRM from treating employees as passive recipients of HRM to active participants and encouraging employee engagement. The result is a continuous design approach of the PMIS and how it is fostering improvements in trust in the performance reward programme and trust relations between employees and leaders at a South African private bank.

From the perspective of an action research practitioner, the study demonstrates the interplay between people, IS artefacts and socio-cultural contexts. In the contextually rich case study context chapter, I offer a balanced view by also presenting projects that that failed, and in the analysis and findings chapter I reflect on the learnings and offer suggestions. I demonstrate to action research practitioners how I used the dynamic trust framework during different action research stages and cycles to learn more about how people understand and deal with problems, to reflect on and internalise the learnings

and to actively participate in a "helping-role" to solve organisational problems. I also demonstrate how action research can be used in different project settings, ranging from the design and development to the implementation and adoption of an IS and the continuous design and development process of adding supporting toolsets.

1.7   Outline of the study

The action research case study is divided into three cycles: the scoping of the new Performance Management Programme (PMP) and design and development of the Performance Management Information System (PMIS), the implementation and adoption of the PMP and PMIS, and the additional toolsets to support the PMP due to increased Private Banker and line manager understanding of the drivers of performance. Each cycle is presented separately to demonstrate the action research process and how one cycle fed into the next cycle. As shown in Figure 1.1, the introduction to research study described the organisation background and the context that led to a breakdown in trust. The first cycle of the action research study focused on the requirements for trust in the new PMP and is typified by the analysis, prototype and reaching agreements activities. The second cycle focused on establishing trust in the PMP and PMIS and is typified by the various implementation adoption activities and addressing resistance to change. The third cycle focused on maintaining trust in the PMP and PMIS by developing additional supporting toolsets that assisted in driving sustainable performance, promote desired behaviours and the operational management of the PMP and PMIS.

Figure 1.1: Overview of the action research study

The research study consists of eight chapters and an appendix. The structure and logical flow of the research study is demonstrated in Figure 1.2.

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

Chapter 2: Performance Management
- What is it?
- Why is it important?
- What needs to be solved?

Chapter 3: Trust
- Defining Trust: overview and topology
- Trust formation and IS
- Variance and process theories
- Giddens structuration and process approach

Chapter 4: Theoretical Framework
- Key constructs and modalities of structuration
- Structuration theory and technology
- Socio-Technical perspective
- Structuration and IS trust creation
- Selection of the theoretical framework for the research study

Chapter 5: Research Methodology
- Rationale for selecting the qualitative interpretive research method
- Motivation for a single longitudinal case study and using action research as method
- Describing the research design and case organisation selection
- Ethical considerations

Chapter 6: Case Study Context
- Rich description of the history, evolution and dynamics of Performance Management in the case organisation

Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 1.2: Research case study outline

Chapter 1 is the introduction to the research study where I introduce the reason for the research study, the research problem and its relevance for IS and HRM researchers and practitioners. I also introduce the research methodology, key concepts, research objectives and supporting questions. Finally, I summarise the theoretical, methodological, and practical significance of the research study.

Chapter 2 is a literature review on performance management to introduce PM and to lay the foundation for the research study by introducing and discussing the key focus areas, concepts and constructs relevant to this research study. The chapter consists of four parts. I discuss the objectives of Strategic Human Resource Management, and the role of HRIS and E-HRM. I introduce PM and discuss how it contributes to organisational performance, different PM practices and techniques with specific focus on the Balanced Scorecard. I also discuss the role and impact of PM on employee engagement, trust, and motivation. I introduce performance related pay (PRP) programmes and its relevance to this research study. The chapter concludes with a discussion on PMIS and an overview of various PM issues.

Chapter 3 is a literature review on trust to introduce the key focus areas, concepts and constructs that are relevant to this research study and consists of three parts. The first part of the literature review focuses on defining trust and examples of different types of trust, an overview of trust from different perspectives and a topology of trust constructs. The second part of the literature review focuses on organisations, people (managers and employees) and IS. I discuss different social theories, how trust is formed and the influence of managerial behaviour. I also discuss different types of trust from an IS perspective, and various trust in technology concepts and constructs. In the third part I discuss the difference between variance theories and process theories and the advantages of selecting process theories for a research study that results in organisational change. Finally, I discuss why Giddens's structuration theory is appropriate for studying the relationship between IS and organisations, how social structures impact social practice and the various uses of structuration theory.

Chapter 4 focuses on defining and selecting the theoretical framework for this research study and consists of four parts. The first part of the chapter focuses on the key constructs and modalities of structuration. In the second part of the chapter, I discuss structuration theory and technology. The third part of the chapter focuses on the relevance and importance of the socio-technical perspective for studying the relationship between IS, people and organisations. Finally, I introduce the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) as the theoretical framework for this research study and rationale for adding three additional components namely frames, design blind spots and operational malfunction.

Chapter 5 introduces the research methodology for the research study. I present the rationale for selecting the qualitative interpretive research method and using theory for explaining from a

theoretical perspective. Secondly, I explain why a single longitudinal explanatory case study strategy using action research as research method is applicable for this research study and how a deductive or "theory-driven" thematic analysis approach will assist me in structuring, coding and analysing the data I gathered. Thirdly, I describe the research design and why I chose a financial services organisation. This chapter also includes the limitations and ethical considerations associated with this type of research study and mitigating steps I took to ensure confidentiality of the participants and the protection of information.

Chapter 6 provides the context for the research study with the objective to provide a rich overview of the history, evolution, and dynamics of the organisation. The chapter is written from my perspective and is based on my experience having been part of the organisation for more than ten years and leading the programme since its inception.

Chapter 7 presents the analysis and findings. I discuss the different action research stages and the influence of structurisation concepts using the proposed trust framework. The action research study is divided into three cycles: the scoping of the new PMP and design and development of the PMIS, the implementation and adoption of the PMP and PMIS, and the additional toolsets to support the PMP due to increased private banker and line manager understanding of the drivers of performance. Each cycle is presented separately to demonstrate the action research process and how one cycle fed into the next cycle.

Chapter 8 is the conclusion of the study and focuses on reviewing, reflecting, and assessing the research study. The chapter consists of five sections. In the first section I review the research objectives and address the research questions. The second section focuses on evaluating the contribution of the research study to the design of PM Programmes and PMIS, as well as the practical, methodological, and theoretical contributions. In the third section I conduct a self-assessment of the action research study using four assessment frameworks to evaluate the rigour and relevance of the research, the quality of the participatory action research study and if the action research study is suitable for inclusion in journals. The fourth section focuses on the limitations of the research study due to my role as an active participant and employee of the organisation in terms of presenting a fresh outlook, the impact of personal bias, the ability to generalise the findings, the ability to evoke action and the repeatability of action research. The fifth and final section provides directions for future research and are categorised into opportunities for future research interventions specifically related to the PMP of the organisation that is the focus of this research study, and research directions for IS designers and HRM practitioners at other organisations and in different industries.

1.8   Conclusion

In this chapter I introduced the research study in terms of the background, problem definition and scope, the problem significance and motivation. I provided an overview of the research objectives and the research questions. I introduced the selected research methodology and the role of theory in the research study. I provided an overview of the theoretical, methodological, and practical significance of the research study and concluded the chapter with an outline of the research study.

In the next chapter I present a literature review focusing on PM by discussing the key focus areas, concepts and constructs that are relevant to this research study.

Chapter 2 – Performance Management

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

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Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 2.1: Research case study outline

2.1   Introduction

The purpose of this literature review is to introduce Performance Management (PM). The objective of the literature review is to lay the foundation for the research study by introducing and discussing the key focus areas, concepts and constructs that are relevant to this research study. Figure 2.2 demonstrates the logical flow of the chapter.
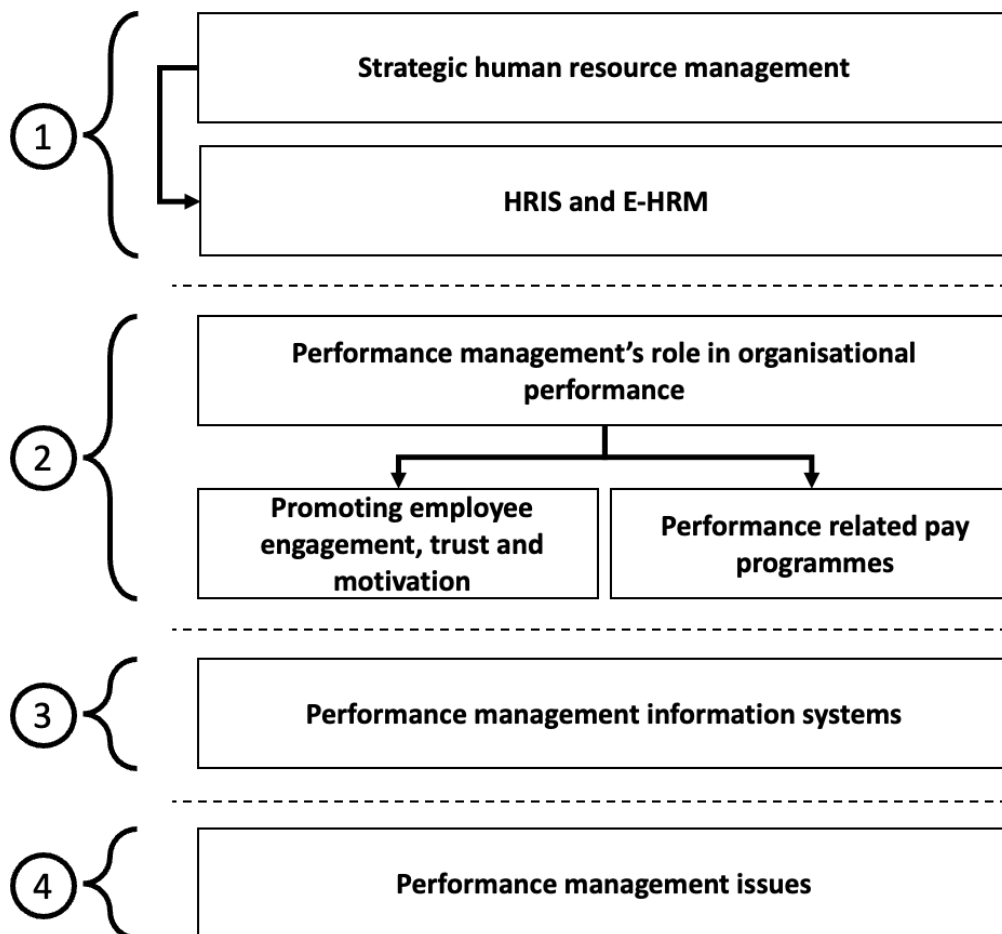
Figure 2.2: Demonstration of performance management chapter content and flow

The first part of the literature review focuses on the objectives of strategic human resource management, the role of Human Resource Information Systems (HRIS) and E-HRM. In the second section I introduce PM and how it contributes to organisational performance. I discuss different PM practices and techniques and specifically focus on the Balanced Scorecard. I also discuss the role and impact of PM on employee engagement, trust, and motivation. Finally, I introduce Performance Related Pay (PRP) programmes and its relevance to this research study. In the third section I discuss PMIS and conclude the chapter with an overview of various PM issues.

In the next section I discuss the objectives of strategic human resource management.

2.2   Strategic human resource management

The attraction and retention of talented, motivated, and engaged employees are critical to the success of organisations. According to Chavan (2009) in an environment with an emphasis on social responsibility and innovation and where constant change is the norm, a key focus for organisations should be the recruitment and retention of high-performing employees. Tansley, Newell and Williams (2001) support this view and suggest that successful organisations are often defined as organisations with an emphasis on leveraging its employees as a source of competitive advantage. For example, knowledge-intensive organisations regularly describe employees as their greatest asset. However, Den Hartog, Boselie and Paauwe (2004) and Varma, Budhwar and DeNisi (2008) observe that how best to manage performance and distribute rewards that promote sustainable performance growth remain a challenge for organisations. Additionally, Tansley and Newell (2007b) note the continuous challenge leadership teams face to retain employees when they are offered a better salary and performance reward. Supporting this, Wirtky, Laumer, Eckhardt, and Weitzel (2016) note that annual surveys have reported for many years that more than a third of all organisations experience difficulties in filling vacant positions due to a lack of suitable candidates.

Traditionally, Human Resource (HR) practitioners spent their effort at the administrative level, followed by the operational level and then the strategy level. However, organisations are increasingly expecting the HR function to provide management solutions that improve both employees' attitudes and behaviours, and increase the return on the investment and effectiveness of human capital (Innocenti, Pilati, & Peluso, 2011; Kumar & Parumasur, 2013). Dery, Hall, Wailes and Wiblen (2013) note the increased proof since the mid 1980s that human resource management (HRM) practices have the potential to significantly contribute to organisational performance and over the last two decades how strategic human resource management has evolved to link employee management policies and practices to organisational objectives and performance (Maley, 2017). Furthermore, Pek-Greer, Wallace and Al-Ansaari (2016) comments on previous research results that demonstrate the positive impact on employee retention where human resource management practices are integrated with high performance work practices. In Table 2.1, Tambe, Cappelli and Yakubovich (2019) define the most common HRM operations and tasks. Meijerink, Bos-Nehles and de Leede (2020) however note the concern that HRM research remains too management-centred as it exclusively addresses managers' initiatives to explain employees' perceptions of and responses to PM, and criticise existing research for treating employees as passive recipients of HRM.

Table 2.1: Common HRM operations and tasks according to Tambe, Cappelli and Yakubovich (2019)

HRM operation	Task
Recruitment	Identifying and attracting suitable candidates (Tambe et al., 2019), by doing workforce planning to forecast future talent demand and recruiting well-resourced employees to ensure sustainable performance (Barkhuizen & Masale, 2022)
Selection	Selecting and appointing the suitable candidates (Tambe et al., 2019), for example talent screening tests, psychometric, numeracy and/or literacy assessments to evaluate the skill set and behavioural attributes of candidates (Wolfswinkel & Enslin, 2020)
On-boarding	Induction and training to enable a new employee to be productive as soon as possible.
Training	Interventions that contribute to improving employee performance (Tambe et al., 2019), for example talent development programmes (Bwowe & Marongwe, 2018)
Performance management	Identifying good, average, and poor performing employees (Tambe et al., 2019), by aligning organisational, team and individual efforts towards the achievement of organisational goals (Bwowe & Marongwe, 2018) and providing managers with information to assist in rewarding good behaviours and sanctioning negative behaviours (Chikwariro, Bussin, & De Braine, 2021).
Advancement	Talent management processes to identify employees suitable for promotions (Tambe et al., 2019), for example experiencing working in different organisations, mentoring and coaching (Bussin, Mohamed-Padayachee, & Serumaga-Zake, 2019).
Retention	Predict which employees are likely to leave and proactively manage retention (Tambe et al., 2019), for example by understanding employees' reasons for staying in the organisation and encouraging high levels of commitment (Pek-Greer et al., 2016).
Employee benefits	Identifying the benefits that resonate with employees and the impact on for example recruitment and retention (Tambe et al., 2019), for example medical aid, retirement fund and employee wellness offerings (Bussin et al., 2019) as well as offering annual leave, childcare leave and flexible work times (Pek-Greer et al., 2016).

The emergence of sophisticated HR-related software solutions attempts to provide HR professionals with the required tools to facilitate organisational transformation and improve their contribution to organisational performance (Dery et al., 2013). In the following section I discuss the role and objectives HRIS and E-HRM.

2.3   HRIS and E-HRM

HRIS is predominately standardised software applications that form part of an enterprise-wide system, as demonstrated in Figure 2.3, and integrate with other operational functions to optimise mundane administration tasks (Kumar & Parumasur, 2013; Tansley & Newell, 2007b; Wirtky et al.,

2016). For example, a HRIS will integrate with the finance system to enable employees to submit travel expense claims, line managers to review and approve or decline and the Finance Department to process payments. The objectives of a HRIS is to enable an organisation to improve efficiency and increase employee and managerial productivity and effectiveness (Kumar & Parumasur, 2013; Tansley & Newell, 2007b; Wirtky et al., 2016).

From a HR practitioner perspective an organisation can elect to use a HRIS simply as an electronic filing system and automating HR operational processes or to enable a more strategic approach to the management of human resources. Examples of operational HR functions and processes are application tracking in recruitment and selection, salary planning, absenteeism analysis, turnover analysis, learning and development, succession planning and expense claims. From a more strategic approach, providing employees with access to their information increases the transparency of HR processes and empowers employees and line managers with a sense of control over their information, their work and working lives, and may contribute to an enhanced sense of fairness, trust formation and job satisfaction (Kumar & Parumasur, 2013; Tansley & Newell, 2007a).
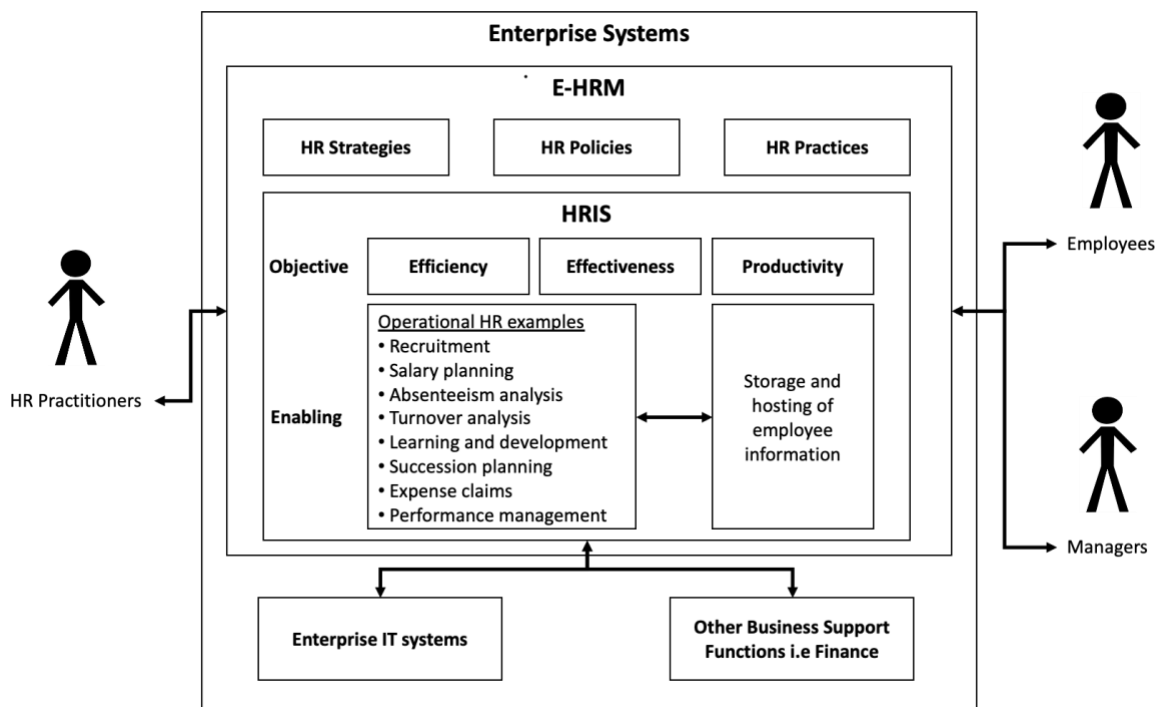
Figure 2.3: HR practitioners, employees, and managers engagement with HRIS and E-HRM

Whilst HRIS refers to the actual IS, E-HRM refers to the IT-enabled HRM strategies, policies and practices in organisations using web-based systems (Parry & Tyson, 2011; Wirtky et al., 2016). While HRIS is directed towards the HR department, the target audience of E-HRM are the employees and management. E-HRM is the technical unlocking of HRIS for all employees of an organisation. E-

HRM systems enables managers, employees and HR practitioners to access employee related information, to conduct analysis, simplify decision making and assist with for example training and development, performance management and remuneration (Alshibly, 2014; Parry & Tyson, 2011). Parry and Battista (2019) propose that the adoption of emerging technologies, for example artificial intelligence (AI), robotics, virtual reality and artificial reality, digital technologies, wearables and blockchain, present an opportunity to significantly change how people work and employees are managed and remunerated. Organisations will need sophisticated data collection technology and analytical performance management capabilities to unlock this opportunity. For example, digital technologies such as MS Teams and Zoom enabled many employees to work remotely during the Covid-19 pandemic, accelerated the adoption of flexible working practices and introduced a focus on how engagement, productivity and performance are defined and measured.

Dery, Hall, Wailes and Wiblen (2013) however note that the available evidence suggests that although in the majority of cases HRIS have contributed to improving organisational performance by improving efficiencies and effectiveness of processes, reducing costs and enhancing transparency, it has not contributed towards the strategic business partner role that organisations are expecting from HR practitioners. Tambe, Cappelli and Yakubovich (2019) ascribe the limited progress and contribution of, for example machine learning and AI, to the complexity of HRM, for example not all employee actions are measured, which limits the types of analyses capabilities. Secondly, machine learning and AI require extremely large data sets to create meaningful insights and behaviour prediction, and the employee-related data of a typical organisation is too small to be reliable. Thirdly are perceptions around fairness and legal constraints, for example whilst research demonstrate that algorithms are reliable to predict repetitive outcomes, complex work have interdependencies and the performance of one employee cannot be isolated from a group. Finally, the perceptions and reaction of employees to machine learning and AI, for example the real-time measurement of all activities using wearables, can create the impression of "big brother is watching over you", micromanagement, lack of privacy and trust.

In the next section I discuss the role of performance management in organisational performance.

2.4   Performance management's role in organisational performance

To remain competitive and relevant, organisations are in a race to continuously improve the quality of the products and services they offer to their clients, through a combination of innovation and optimisation. This has resulted in the development of various management theories, for example Total Quality Management (TQM), Just in Time, Benchmarking, Lean Management, Six Sigma and the Balanced Scorecard (Paranjape, Rossiter, & Pantano, 2006). Key to this continuous improvement and innovation process that the various management theories propose, is the role of employees, HRM

practices and performance management (den Hartog et al., 2004). The objective of performance management is to contribute to organisational performance by maximising employee performance through increasing employee commitment and motivation using PM as a method to set goals (Maake, Harmse, & Schultz, 2021).

It is well documented that many organisations recognise PM as a tool to achieve its tangible financial objectives by motivating certain behaviours and to recognise and reward employee performance (Maley, 2017; Varma et al., 2008). There are various definitions to PM, for example Table 2.2 presents examples from different authors, but common across the definitions it the focus on processes to improve employee and organisational performance. For this research study I elect to use the definition of PM according to Varma, Budhwar and DeNisi (2008). Examples of PM processes are target setting, performance appraisal (PA) and the distribution of rewards (Varma et al., 2008).

Table 2.2: Definitions of performance management

Author	Definition
DeNisi (2000, p. 12)	"The system whereby an organisation assigns some 'score' to indicate the level of performance of a target person or group."
Fletcher (2001, p. 473)	"Activities through which organisations seek to assess employees and develop their competence, enhance performance and distribute rewards."
Den Hartog, Boselie and Paauwe, (2004, p. 558)	"Performance management involves aligning HRM practices so that employee performance and development are enhanced, with the aim of maximising organisational performance."
Varma, Budhwar and DeNisi, (2008, p. 40)	"Range of practices an organization engages in to enhance the performance of a target person or group with the ultimate purpose of improving organizational performance."
Aguinis (2012, p. 2)	"Performance management is a continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organisation."

The Balanced Scorecard, management by objectives, competency evaluation, and multisource feedback are examples of Performance Appraisal (PA) methods (Yang & Klaas, 2011). The concept of PA was developed by the USA military during World War One to identify poor performing soldiers and adopted by USA companies to such an extent that by the 1960s nearly 90% of companies adopted the practice (Cappelli & Tavis, 2016). Due to the limited ability to measure effectiveness, traditional PA processes focused predominantly on financial data, for example value of sales, efficiency inputs, for example sales applications successfully processed, and excluded non-financial dimensions, for example customer retention and satisfaction. The result is that PA has been criticised

for not sufficiently linking performance to strategy and organisational purpose (DeNisi & Murphy, 2017; Kloot & Martin, 2000).

Kaplan and Norton (2005) observe that the traditional performance measures that were relevant during the industrial era are no longer relevant because of the focus on employee skills and competencies. For example traditional performance measures focus on primarily short-term financial metrics and ignored non-financial metrics (Chavan, 2009; Paranjape et al., 2006). Gruman and Saks (2011) note that the traditional approach to PA is suitable when work processes are procedural and easy to monitor. However, modern working conditions, for example remote working that was accelerated by the Covid-19 pandemic and the type of work people do, for example client relationship management, make it difficult for line managers to effectively manage performance. In addition, Varma, Budhwar and DeNisi (2008) note that in many organisations, employees do not trust that high performing employees receive recognition and rewards that differ meaningfully from what average and lower performing employees receive. According to Gruman and Saks (2011) the source of distrust can be ascribed to limited objective measurements and insufficient communication. For example, PA sometimes evaluates employees on criteria that are either irrelevant, or aspects they cannot control, which is then perceived as unfair.

The term PM originated when practitioners began talking about transforming PA from an event, typically twice a year, to a continuous process of managing performance (Schleicher et al., 2018) and can be viewed as a communication system between employee and manager (Maake et al., 2021) to ensure an understanding of the organisational strategy and management expectations. PM comprises essentially of four key aspects: performance planning, mentoring and coaching, reviewing and rewarding (Mphahlele & Dachapalli, 2022). The context in which performance occurs and the PM strategies an organisation select are influenced by various internal and external influences, for example history, purpose, technology, people, and environment (Sharma, Sharma, & Agarwal, 2016). In most organisations the PM process entails face-to-face engagement between the employee and their line manager (Maley, 2017). In an environment of increased remote working and physical disconnectedness, for example Covid-19, the advantage of face-to-face engagement is that non-verbal cues can be evaluated and forms the foundation for building trust.

There are a variety of PM techniques, for example training, feedback during a performance appraisal, goal setting and incentives (Maake et al., 2021). There are also more sophisticated practices, for example Total Quality Management (TQM), Empowerment, Knowledge Management, Autonomous Work Groups, Six Sigma, the Productivity Measurement and Enhancement System and the Balanced Scorecard (Varma et al., 2008). Of the various PM practices, Paranjape, Rossiter and Pantano (2006) note that the Balanced Scorecard by Kaplan and Norton (Kaplan & Norton, 2005), as demonstrated in Figure 2.4 is the least criticised and most widely adopted practice, even though it is difficult to

implement and have a high failure rate. The purpose of the Balanced Scorecard is "*to guide, control and challenge an entire organisation towards realising a shared conception of the future*" (Chavan, 2009, p. 398) by ensuring a focus on not only financial performance, but also client relations, internal business processes and the learning and growth needs of employees (Chavan, 2009).
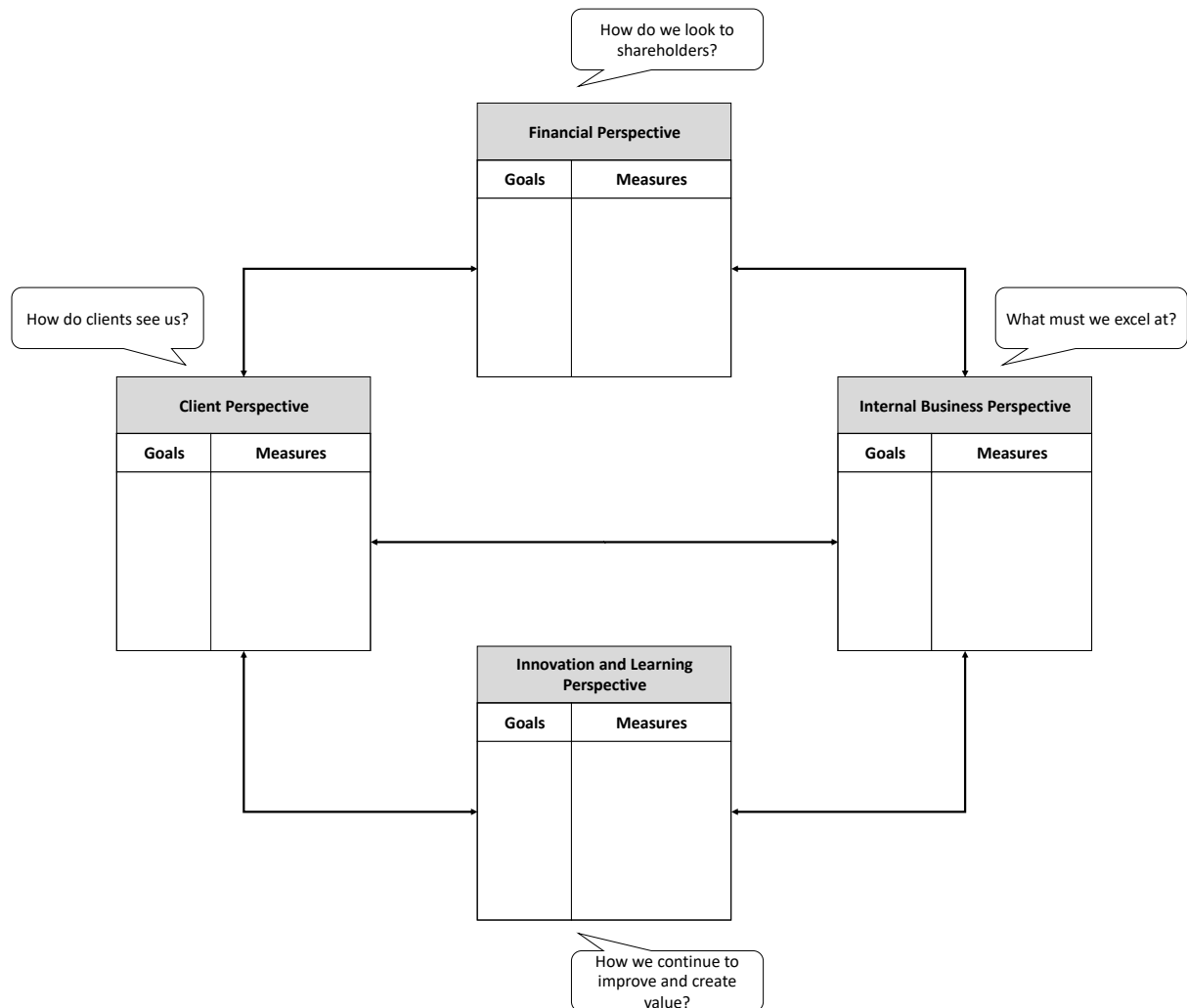
Figure 2.4: Kaplan and Norton (2005) Balanced Scorecard components

The Balanced Scorecard emphasises strategy and vision by focusing on goals, with the objective to align employees to the organisational vision. The financial measures report on the impact of past actions (rear view mirror) and the operational measures focus on actions to be taken (windscreen view) that will impact the future financial performance. The advantage of this approach is that line managers are able to understand the interrelationship between measures (Kaplan & Norton, 1992).

As research began to focus on improving performance, the underlying theoretical models switched from measurement models to motivational models (DeNisi & Murphy, 2017). Gruman and Saks (2011) and Maake, Harmse and Schult (2021) notes that for employees to feel comfortable expressing

themselves and for productive performance engagements that generate positive results, they have to trust that the information is accurate and their line managers will treat them fairly. PM enables employee engagement by allowing employees to participate in setting goals that incorporate their implicit or explicit goals and expectations and for line managers to assist through coaching to achieve their goals (Gruman & Saks, 2011).

Given the critical role employees play in helping organisations achieve their strategic goals, managers are increasingly required to evolve from focusing on managerial administrative tasks to be leaders. It is necessary that managers understand how to promote employee engagement, and to understand what motivates employees (Tseng & Levy, 2019; Varma et al., 2008). However, managers cannot engage in effective PM alone, and it is a mistake to view PM as something managers "do" to employees. Instead, effective PM is the result of interactions between employees and line managers (Pulakos, Hanson, Arad, & Moye, 2015). Supporting this, Gruman and Saks (2011) note that the relationship between line managers and employees has shown to be positively related to employee motivation to improve performance, and managers with high support behaviour have shown to be particularly effective at promoting engagement.

In the next section I discuss promoting employee engagement, trust, and motivation.

2.4.1 Promoting employee engagement, trust, and motivation

Employee engagement as a key element of performance is gaining momentum as a focus area in employee level HRM research. This is a relatively new concept and the factors that produce engagement may differ from those that generate more traditional employee outcomes such as job satisfaction and organisational commitment. Employee engagement refers to employees' dedication to the work they do, by being attentive, connected and focused (Gruman & Saks, 2011; Meijerink et al., 2020). Many researchers have noted the role of employee engagement as a driver of employee performance, productivity, and retention, as well as a driver of organisational financial performance. For example, in a sample of 65 organisations across different industries, the top 25% on an engagement index had a greater return on assets (ROA), profitability, and more than double the shareholder value compared to the bottom 25% (Gruman & Saks, 2011). However, Maake, Harmse and Schultz (2021) comment that 85% of employees globally are energetically disengaged in their work.

Goals are particularly important for promoting employee engagement, as they stimulate energy, focus, and sense of engagement. Typically, employees have a combination of implicit and explicit expectations of an organisation and goals ensure that employees engage in tasks that are aligned to the achievement of an organisation's goals and objectives. Social Exchange Theory (SET) proposes that through engagement the development of trusting, loyal, and mutual commitments between employees

and line managers are created over time and are based on rules of exchange. Rules of exchange usually involve reciprocity, for example, when employees receive a performance bonus that meets their expectations, they will feel obliged to reciprocate through higher levels of engagement. However, if employees feel their expectations have not been met and the organisation does not apply the rules fairly it may result in a reduction of employee engagement (Gruman & Saks, 2011).

Two additional aspects that impact and influence employee engagement are trust and motivation. Engagement cannot exist without trust, because trust is the foundation for employees to feel and act engaged. A supportive management style that is consistent, predictable, fair, clear and nonthreatening establishes trust with employees (Gruman & Saks, 2011). According to Cappelli and Tavis (2016, p. 60): *"From Silicon Valley to New York, and in offices across the world, firms are replacing annual reviews with frequent, informal check-ins between managers and employees"*. Additionally, an effective PMIS that demonstrates transparency and fairness assists with building and maintaining trust. A PMIS enables employees to actively participate in the PM process and is associated with higher perceived fairness, satisfaction and motivation (Gruman & Saks, 2011).

Motivation in turn is the process of allocating one's energy to tasks and the level of effort one exerts. Motivation is a future-oriented concept, because people have to predict the level of satisfaction if the outcome is achieved and how much effort to allocate to the task, which in turn will determine behaviour and engagement (Varma et al., 2008). The link between HRM practices and employee motivation is based on SET that focuses on the motivational factors that influence people's behaviour. According to this theory, people consciously conduct a cost-benefit analysis during any social exchange and will only participate if the benefits exceed the cost (Innocenti et al., 2011; King & Burgess, 2008).

Marley (2017) notes the proven impact of PM on employee intrinsic and extrinsic motivational drivers. Intrinsic motivational drivers focus on self-mastery and self-satisfaction and are typically valued by employees in specialist roles. Extrinsic motivational drivers focus on tangible, extrinsic benefits for example pay for performance, and are typically valued by employees in sales and relationship management roles. However, Marley (2017) also notes that extrinsic rewards, for example pay for performance, have received relatively little attention in the organisational behaviour literature on work motivation. And the little attention extrinsic rewards received focused on cautioning against the potential negative effects of excessive extrinsic forms of motivation. Supporting this, the extensive review by Gupta and Shaw (2014) consisting of a meta-analysis of 40 years of research on financial incentives and performance, yielded only 39 studies. Theys and Barkhuizen (2022) however comment that compensation for work performed remains a critical factor for attracting and retaining talented employees. The also comment that an employee will select an

employer with a less prominent brand offering a better compensation and reward programme above an employer with a prominent brand, but a lower compensation and reward programme.

In the next section I discuss objectives and merits of performance related pay programmes.

2.4.2 Performance related pay programmes

Performance-related pay (PRP) is a compensation method that provides a direct link between performance and financial reward with the objective to motivate employees to increase productivity (Lee, Iijima, & Reade, 2011). PRP can be either results-oriented, for example focusing on sales and contribution to profit, or behaviour-oriented, for example customer satisfaction and retention ratings. Results-oriented measures are more likely to be used for sales and relationship management roles, executives, and roles with objective performance measures (Gerhart & Fang, 2014). Examples of PRP programmes are profit sharing bonuses, share option schemes and sales commissions (Varma et al., 2008).

Gerhart and Fang (2014) note that theories of compensation confirm that incentives influence employee behaviours and performance and according to Bussin, Mohamed-Padayachee and Serumaga-Zake (2019) an equitable rewards distribution system signals management's emphasis on valuing employees. Mark Roberge, chief revenue officer of HubSpot states the following: "*Don't underestimate the power of the compensation plan. You can tweak sales training, redesign marketing materials, attend customer conferences - you name it. Regardless of those efforts, if the majority of your company's revenue is generated by salespeople, properly aligning their compensation plan will have greater impact than anything else will*" (Roberge, 2015 page 74).

PRP programmes have various challenges, for example whilst employee groups, such as sales and relationship management roles have clear performance targets and objective measurements, other employee groups, such as project teams, are more difficult to measure and evaluate. Secondly, while PRP may be suited to the dispositional traits of competitive people, those who have an interpersonal-security orientation tend to be more concerned with self-mastery and collaboration. Thirdly, employees with long tenure are also more likely to resist PRP programmes compared to junior employees who are likely to favour competitive PRP programmes (Lee et al., 2011).

Researchers have also found that PRP can discourage teamwork and promote opportunistic behaviour, for example focusing only on activities with the highest personal reward (Lee et al., 2011). Supporting this, Andris Zoltners, emeritus professor from Northwestern University's Kellogg School and co-founder of ZS Associates says: "*Tracking activity will motivate an increase in quantity but also trigger a decrease in quality*" (McGinn, 2015 page 80). Additionally, research is providing evidence that some compensation practices actually negatively impact sales, for example the practice of raising

a salesperson's annual target if they exceeded it the previous year may decrease a high-performing salesperson's motivation (Chung, 2015).

PM with an overriding pay for performance factor is a powerful tool capable of motivating certain behaviours and driving an organisation's objectives. But, there is a risk that over emphasising extrinsic-behaviours may also result in a loss of trust between the employee, line managers and organisation (Maley, 2017). Cappelli and Tavis (2016) however propose that in certain industries and specific roles, for example sales roles in financial services, it is relevant and appropriate to link pay for performance to individual performance. A general conclusion is that the fair operational management of a PRP system is as important as the system itself (Lee et al., 2011). Supporting this view, Mark Roberge, the chief revenue officer of HubSpot states: "*The ideal plan is contextual—tailored to both the type of business and the stage of growth the company is in*" (Roberge, 2015 page 72), and "*Whenever I considered changing the compensation plan, I always involved the sales team in the redesign*" (Roberge, 2015 page 75).

Since the context of this research study is the Private Banking division of a South African financial services organisation focusing on Private Bankers who are accountable for the relationship management, advice, and sales on a portfolio of clients, a PRP programme based on individual performance is appropriate.

In the next section I discuss issues related to PMIS.

2.5 Performance management information systems

A PMIS signifies more than a list of particular practices aimed at evaluating employees' performance. Rather, it is an integrated process aimed at setting goals, measuring, and reviewing the achieved goals, providing continuous feedback, and rewarding performance. While a PMIS can be designed to achieve various objectives, it is essentially a strategic and tactical tool. From a strategic perspective it assists management in achieving business objectives by aligning employees' goals with organisational goals. From a tactical perspective it provides employees clear signals about what is valued by the organisation and supplies the inputs for performance-based rewards and renumeration and recognition decisions (Sharma et al., 2016).

However, there is a danger that many organisations might think that IS is a "magic bullet" that will provide major benefits and can be implemented with minimal effort to assist with achieving the desired changes (Markus & Benjamin, 1997). Unfortunately, as many as 75% of organisational change initiatives with IS components fail due to user resistance (Markus, 2004). According to the technology acceptance model (TAM), acceptance and usage of a new IS is determined by two beliefs dealing with the perceived usefulness of using the new IS and the perceived ease of use of a new IS.

Perceived usefulness is a measure of the individual's subjective assessment of the utility offered by the new IS in a specific task-related context, whereas perceived ease of use is an indicator of the cognitive effort needed to learn and to utilise the IS. Perceived ease of use is associated with increased trust and increased trust, in turn, is associated with increased perceived usefulness (Gefen, Karahanna, & Straub, 2003).

There has been a gradual evolution from performance appraisal systems to PMIS in practice, and academics and practitioners make extensive use of the term PMS effectiveness (PMSE). PMSE is crucial for organisations to be successful and PMSE is determined by employee perceptions regarding its accuracy and fairness. An effective PMIS is considered as a useful tool to achieve organisational effectiveness. Previous research studies identify various design factors influencing PMSE, for example, ongoing feedback, use of behaviour-based measures, predefined goals, and equitable rewards. The advantage of effective PM is enhanced employee work engagement which is a precursor of performance. PMSE is defined as a combination of the PMIS accuracy and the PMIS perceived fairness (PMSF). PMSE consists of effective goal setting, feedback and control, measurement and review, and reward system, and PMSF the extent to which all these practices are perceived fair and reasonable by employees (Awan, Habib, Akhtar, & Naveed, 2020).

In the next section I discuss various issues related to performance management.

2.6   Performance management issues

Organisations face the challenge of how best to manage performance and the best ways to set goals, evaluate work and distribute rewards in such a way that performance can be improved over time. The way an organisation responds to those challenges may be influenced by the context in which it is operating and the differences in culture, technology, or traditions may make it difficult to directly apply techniques that have worked in one setting, to a different setting. Performance is also multidimensional, which means that managers and employees interpret performance differently in different cultures. Given the critical role employees play in helping organisations to achieve their strategic goals, it is crucial that managers understand what motivates employees to successfully manage performance (Varma et al., 2008).

However, Schleicher, Baumann, Sullivan, and Yim (2019) note that despite the popularity of PA and PM in both research and practice, there are many doubts about the effectiveness of these practices due to insufficient compelling evidence of the effectiveness of PM and are considered a weakness in the management of human capital. The reason is because less than a third of employees believe that their organisation's PM process assists them in improving their performance, and often ranks among the lowest topics in employee satisfaction surveys. PA sometimes evaluates employees on criteria that they have no control over and is perceived as unfair (Gruman & Saks, 2011). For example, Marley

(2017) notes a survey of almost 50,000 organisational respondents by an international consulting firm found that only 13% of employees and managers, and 6% of CEOs, felt that their PA process were useful.

Research by the Corporate Executive Board (CEB) also highlights that various Fortune 1000 organisations, for example GE, Adobe, Gap, Deloitte, Accenture and Microsoft, revamped their PA processes, because the annual review became antiquated. Additionally, a growing body of research shows that rating employees are often counterproductive, because critical feedback often makes employees uncomfortable (Peck, 2016). In a survey Deloitte conducted, more than half the executives (58%) believe that their current performance management approach drives neither employee engagement nor high performance (Buckingham & Goodall, 2015). However, a survey by CEB of nearly 10,000 employees at 30 organisations has shown that organisations who stopped using grades in PA reported a 10% decline in employee performance and 6% decline in employee engagement. The reason for the decline was attributed to managers failing to provide employees with clear performance feedback because they did not have a rating system to assist them (Peck, 2016). Countering this view, David Rock, chief executive of the Neuroleadership Institute and Brian Kropp, HR practice leader at CEB, propose: "*the key to a good review system has less to do with the details like ratings or grades and more to do with being thoughtful about giving people feedback.*" (Peck, 2016 p.2).

Reality is however "*what you measure is what you get*" (Kaplan & Norton, 1992, p. 71) and how to measure remains a difficult area for organisations in terms of selecting and designing the appropriate measures and how to implement and maintain the measures. According to Paranjape, Rossiter and Pantano (2006) if the application of the Balanced Scorecard is too rigid then it can result in over-quantification and measures that might not be appropriate or contradictory which could create operational complexity. Secondly, there is a risk that measures might promote unintended behaviours which could impact negatively on organisational performance. Thirdly is the challenge of how to ensure measures remain relevant when the organisational context change. They futher opine that whilst the Balanced Scorecard is an influential and widely adopted performance measurement system, according to literature and surveys, the implementation is known to be difficult and there is in no tangible evidence that it leads to improved organisational performance.

Sharma, Sharma and Agarwal (2016) accordingly propose that PM cannot be expected to be effective unless employees respond to it in the ways intended. For effectiveness PM must be perceived as fair in terms of the PM process, the distribution of the rewards and communication. As noted earlier, in many organisations employees simply do not trust that high-performing employees will receive performance rewards that differ significantly from what lower performing employees receive due to the lack of objective measurements (Varma et al., 2008). Mcknight, Carter, Thatcher and Clay (2011) observe that employees typically frame their distrusting beliefs in terms of people and not in terms of

IS. Sources of distrust are perceptions of incompetence (lacking ability), malevolence (intention to do harm) and deceit (tendency to provide false information) (Moody, Lowry, & Galletta, 2017). In the next chapter I will focus on trust from an organisation, people (managers and employees) and IS perspective by discussing different social theories, how trust is formed, the influence of managerial behaviour and a topology of trust constructs that is relevant to this research study.

2.7   Conclusion

The purpose of this literature review chapter was to introduce PM and to lay the foundation for the research study by introducing and discussing the key focus areas, concepts and constructs relevant to this research study. I discussed the objectives of Strategic Human Resource Management, the role of HRIS and E-HRM. I introduced PM and discussed how it contributes to organisational performance, different PM practices and techniques and specifically focused on the Balanced Scorecard. I also discussed the role and impact of PM on employee engagement, trust, and motivation, and I introduced PRP programmes and its relevance to this research study. The chapter concludes with a discussion on PMIS and an overview of various PM issues.

In the next chapter I present a literature review focusing on trust by discussing the key focus areas, concepts and constructs that are relevant to this research study.

Chapter 3 – Trust

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

Chapter 2: Performance Management
- What is it?
- Why is it important?
- What needs to be solved?

Chapter 3: Trust
- Defining Trust: overview and topology
- Trust formation and IS
- Variance and process theories
- Giddens structuration and process approach

Chapter 4: Theoretical Framework
- Key constructs and modalities of structuration
- Structuration theory and technology
- Socio-Technical perspective
- Structuration and IS trust creation
- Selection of the theoretical framework for the research study

Chapter 5: Research Methodology
- Rationale for selecting the qualitative interpretive research method
- Motivation for a single longitudinal case study and using action research as method
- Describing the research design and case organisation selection
- Ethical considerations

Chapter 6: Case Study Context
- Rich description of the history, evolution and dynamics of Performance Management in the case organisation

Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 3.1: Research case study outline

3.1   Introduction

In the previous chapter the role and the importance of trust in performance management were introduced. In this chapter I focus on a literature review of trust. Figure 3.2 illustrates the logical flow of the chapter. The objective of the chapter is to lay the foundation for the research study by introducing and discussing the key focus areas, concepts and constructs that are relevant to this research study. The first part of the chapter focuses on defining trust and examples of different types of trust, an overview of trust from different perspectives and a topology of trust constructs. In the second part of the chapter I focus on organisations, people (managers and employees) and IS by discussing different social theories, how trust is formed and the influence of managerial behaviour. I also discuss different types of trust from an IS perspective, and various trust in technology concepts and constructs. In the third part of the chapter I discuss the difference between variance theories and process theories and the advantages of selecting process theories for a research study that results in organisational change. Finally, I discuss why Giddens's structuration theory is appropriate for studying the relationship between IS and organisations, how social structures impact social practice and the various uses of structuration theory.
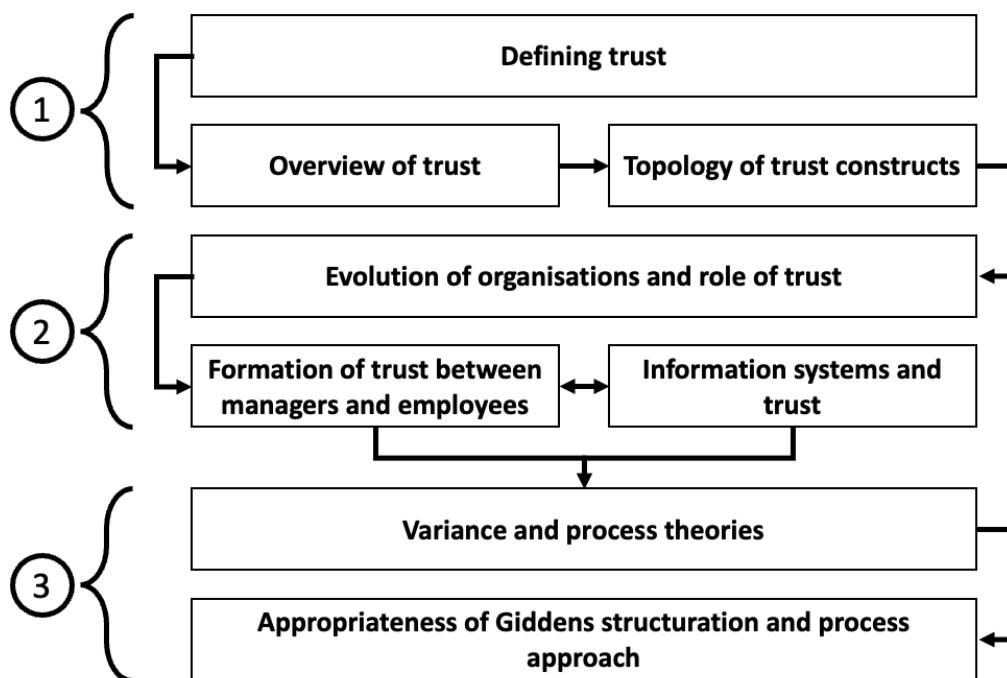
Figure 3.2: Demonstration of trust chapter content and flow

3.2   Defining trust

While IS research recognise the importance of trust in the technology and conceptualised in various ways, both theoretically and operationally and from a psychological and organisational perspective, the sources of user trust in the technology remain unclear (Gefen et al., 2003; Völter, Urbach, &

Padget, 2023). One reason for the confusion is because trust is an ambiguous term, for example, the three unabridged dictionaries (Webster's, Random House, and Oxford) give "trust," on average, 17 definitions, while the terms "cooperation," "confidence," and "predictable" have an average of 4.7 definitions (Mcknight & Chervany, 2001). The primary definition of trust in the Oxford English Dictionary describes it as "…*confidence in or reliance on some quality or attribute of a person or thing, or the truth of a statement*" (Giddens, 1990). Giddens (1990, p34) defines trust as "*confidence in the reliability of a person or [social] system, regarding a given set of outcomes or events, where that confidence expresses a faith in the probity or love of another, or in the correctness of abstract principles or technical knowledge*". Consequently, the term trust is used in various distinct and not always compatible ways within organisational research. At one end of the spectrum are constructions that highlight the social and ethical facets of trust, whilst other constructs emphasise the strategic and calculative dimensions of trust (Kramer, 1999). I elected to adopt Giddens's definition of trust for this research study.

Although disciplinary lenses provide different perspectives, they might also act as blinders because researchers in one discipline might not understand and appreciate the view of trust held in other fields, resulting in diverse definitions. For example, psychologists see trust as a personal trait, sociologists see it as a social structure, and economists see it as an economic-choice mechanism. The other problem is that empirical research drives most definitions of trust, and researchers tend to develop narrow conceptualisations of trust that fit the type of research they do (Mcknight & Chervany, 2001). Examples of various forms of trust illustrated in Figure 3.3 account for some of the clear confusion among researchers, and McKnight and Chervany (2001) suggest that researchers should agree on trust definitions, described in Table 3.1 for two practical reasons. Firstly, common definitions would enable researchers to explain findings across studies, and secondly, consistent definitions enable researchers to communicate clearly with practitioners and provide them with better prescriptions.
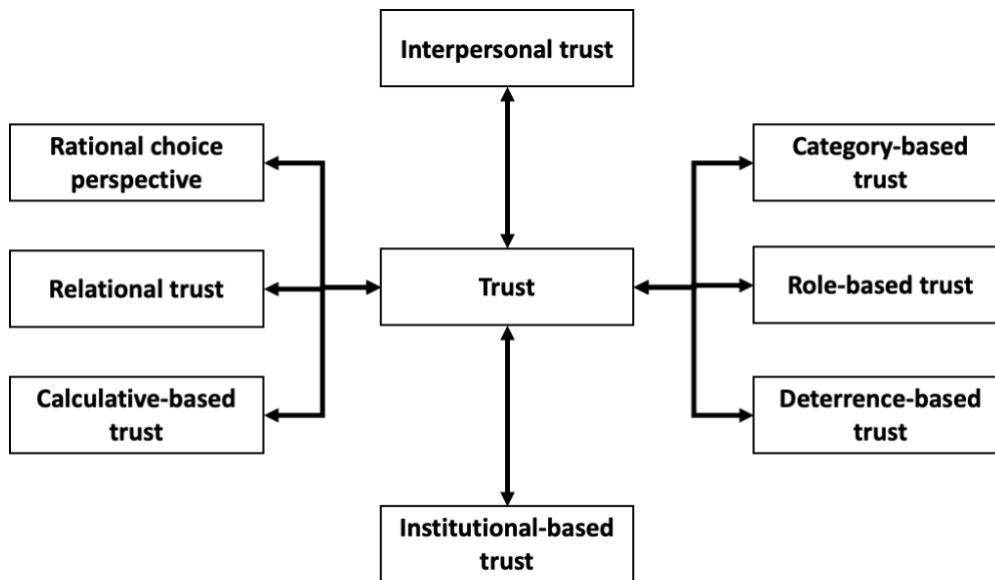
Figure 3.3: Different types of trust

Table 3.1: A description of different types of trust

Type of Trust	Description	
Interpersonal trust	Based on the various definitions of interpersonal trust, researchers propose three shared features. Firstly, the expectation that the trustor will act benevolently. Secondly, a willingness to be vulnerable and risk that the trustor may not fulfil the expectation because one cannot force the trustor to fulfil the expectation. Thirdly, a level of dependency on the trustor (Whitener, Brodt, Korsgaard, & Werner, 1998).	
The rational choice perspective	According to Kramer (1999) the rational choice perspective is possibly the most influential image of trust within organisational science, originating from sociological, economic, and political theory. Individuals are presumed to be motivated to make rational choices that will maximise anticipated gains or minimise anticipated losses. A rational account of trust includes two central elements. The knowledge that assists someone to trust another and the incentives for the trustee to honour that trust for the two key elements rational choice perspective. For example, you will trust somebody if you believe it is in that person's best interest to be trustworthy.	Rational choice and relational perspectives on trust project fundamentally different images of trust and have pushed empirical research in quite different directions (Kramer, 1999).
Relational trust	The trustor gathers the reliability and dependability information from recurring interactions with a trustee over some time (Rousseau, Sitkin, Burt, & Camerer, 1998). Additionally, Kramer (1999) proposes that trust should be conceptualised as both a calculative orientation toward risk and a social orientation toward people and society.	
Calculative-based trust	The assumption is that people are rational, calculative and act in their own best self-interest but will refrain from unscrupulous behaviour out of fear of facing negative consequences. Trust is formed by a rational assessment of a relationship consisting of a costs and benefits evaluation regarding the intentions or competence of the trustee (Gefen et al., 2003; Rousseau et al., 1998).	

Type of Trust	Description
Category-based trust	According to Kramer (1999) trust is based on information regarding a trustee's relationship to a social or organisational grouping. The trustor can bypass the need for personal knowledge when interacting with other members of that grouping. Consequently, individuals may confer depersonalised trust on other group members predicated simply on awareness of their shared group membership.
Role-based trust	Organisational roles serve as proxies for knowledge about the people in a position. For example, a financial manager has an accounting training background and therefore can do financial management (Kramer, 1999).
Deterrence-based trust	Opportunistic behaviours that will breach trust are discouraged when there is the risk of costly sanctions that outweigh the advantages of the opportunistic behaviour (Rousseau et al., 1998).
Institutional-based trust	Institutional-based trust derives from sociology, is situation-specific and cross-personal, which means that one trusts the specific situation regardless of the people in that situation. Institutional-based trust is defined as a belief about conditions and structures rather than a shared reality. In this paradigm, action is not determined by factors within the person but by the environment (Mcknight & Chervany, 2001). The concept of institutional-based trust refers to the phenomenon that people develop trust based on particular organisational arrangements. Institutional-based trust is different and weaker than interpersonal and relational trust because institutional-based trust is based on impersonal structures, for example, guarantees and safety nets (Bachmann & Inkpen, 2011; Gefen et al., 2003).

Regardless of the underlying discipline, from psychology/micro-organisational behaviour to strategy/economics, confident expectations and a willingness to be vulnerable are critical components of all definitions of trust (Rousseau et al., 1998). In its essence, trust deals with the belief that the trustee will fulfil their commitments despite the trustor's dependence and vulnerability and the belief that the trustee will behave in a dependable, ethical, and socially appropriate manner (Gefen et al., 2003). Accordingly, trust can be viewed as an attitude held by the trustor and is derived from the trustor's perceptions, beliefs, and attributions about the trustee, based upon their observations of the trustee's behaviour (Whitener et al., 1998).

In the next section I will provide an overview of trust from different perspectives, and a topology of trust constructs to assist in distinguishing concepts that appear to be the same.

3.3   An overview of trust and topology of trust constructs

Although social scientists have afforded considerable attention to the problem of defining trust, a concise and universally accepted definition has remained elusive (Kramer, 1999) and sometimes researchers use the term trust when they mean other things (Rousseau et al., 1998). Despite the divergence, most trust theorists agree that trust is fundamentally a psychological state (Kramer, 1999). When conceptualised as a psychological state, trust has been defined in terms of several interrelated cognitive processes and orientations (Kramer, 1999), comprising the intention to accept vulnerability

based upon positive expectations of the intentions or behaviour of another (Rousseau et al., 1998), or beliefs about the likelihood that another's future actions will be beneficial, favourable, or at least not detrimental to one's interests (Kramer, 1999). Trust discriminates among persons and institutions that are trustworthy, distrusted, and unknown. Psychologists commonly frame their assessments of trust in terms of attributes of trustors and trustees and focus upon a host of internal cognitions that personal attributes yield. Social psychologists often regard trust as either/or, where one person either completely trusts or completely distrusts another. This static, all-or-nothing view is linked to the predominance in early trust research of laboratory studies focusing on highly structured games, such as the Prisoner's Dilemma game. Sociologists often find trust in socially embedded properties of relationships among people or institutions (Rousseau et al., 1998). A third institutionally focused analysis of trust concerns the economic domain and money in particular (Lewis & Weigert, 1985) and economists tend to view trust as either calculative or institutional (Rousseau et al., 1998). The fundamental reason for the different perspectives is that trust is a highly complex and multidimensional phenomenon, having distinct cognitive, affective, behavioural, and situational manifestations and it is often far too simplistic to ask whether an individual trusts or distrusts another person or organisation (Lewis & Weigert, 1985).

Researchers operationalise trust differently, depending on the focus of their research, and the various forms of trust can account for some of the apparent confusion among researchers. Conceptualising trust in only one form in a given relationship risks missing the rich diversity of trust in organisational settings. Trust may be a "meso" concept, integrating microlevel psychological processes and group dynamics with macrolevel institutional arrangements. Trust is related to dispositions, decisions, behaviours, social networks, and institutions (Rousseau et al., 1998). Although the fundamental elements of trust are comparable across research and theory from different disciplinary vantage points (Rousseau et al., 1998) and the cognitive, affective, and behavioural contents of trust are present in every instance of trust to some extent, their qualitative mix across instances of trust differs. These differences provide the basis for distinguishing different types of trust relationships (Lewis & Weigert, 1985).

The primary function of trust is sociological rather than psychological since individuals would have no occasion or need to trust apart from social relationships and the bases on which trust rests are primarily social. The practical significance of trust lies in the social action it underwrites. From a sociological perspective, trust must be conceived as a property of collective units, not of isolated individuals. Being a collective attribute, trust applies to the relations among people rather than to their psychological states taken individually. Therefore, we may say that trust exists in a social system insofar as the members of that system act according to and are secure in the expected futures constituted by the presence of each other or their symbolic representations (Lewis & Weigert, 1985).

All social relationships involving trust are accompanied by an inherent risk (Bachmann & Inkpen, 2011). Trust morphs to different forms in different relationships which ranges from a calculated weighing of perceived gains and losses to an emotional response based on interpersonal attachment and identification (Rousseau et al., 1998). We cognitively choose whom we will trust in which respects and under which circumstances (Lewis & Weigert, 1985).

The bulk of social science research on trust has been conducted by political scientists studying trust in government and public officials, and by experimental social psychologists studying determinants of trusting behaviour in laboratory settings. Although these groups of researchers have sometimes borrowed from each other theoretically and methodologically, no general paradigm of trust has emerged from their work. Psychologists working from personality theory have conceptualised trust as a psychological construct or trait that individuals develop in varying degrees, depending on their personal experiences and prior socialisation. The focus of research is on individual differences or differences in group averages across time. Methodologically, this research is based on psychometric scaling techniques, the most prominent scale being the Rotter Interpersonal Trust Scale. This scale and its underlying "social learning" theory were developed by J. B. Rotter. Rotter defines trust as the generalised expectancy that the statements of others can be relied on, or promises will be fulfilled. The second major conceptualisation of trust is represented by the behavioural psychologists who study behavioural trust in laboratory experiments, particularly the Prisoner's Dilemma game. They propose a strictly behavioural interpretation of the concept trust by comparing trust with cooperation with others in the game. For example, many studies have shown that cooperation in the Prisoner's Dilemma game increases when players are able to communicate their expectations to each other and when players carry through on their threats and promises (Lewis & Weigert, 1985). The field of organisational behaviour is concerned with the study of organisations as complex social systems. From a psychological perspective, organisational behaviour theory and research examine the antecedents and consequences of human behaviour within organisational settings. Although there has been an impressive proliferation of middle-range theories about trust, an integrative theory of organisational trust has eluded researchers (Kramer, 1999).

There is however agreement that trust is important in a number of ways, for example it enables cooperative behaviour, promotes adaptive organisational forms, reduces harmful conflict, decreases transaction costs and promotes effective responses to crisis (Rousseau et al., 1998). Researchers have argued that trust needs to be conceptualised as a more complex, multidimensional psychological state that includes affective and motivational components. Other influential definitions construe trust as a more general attitude or expectancy about other people and the social systems in which they are embedded (Kramer, 1999).

Trust may be generated through two means: through the regular discharge of obligations and through exchanges over time (Whitener et al., 1998). Trusting behaviour may be motivated primarily by strong positive affect for the object of trust or by rational reasons why the object of trust merits trust, or a combination of both (Lewis & Weigert, 1985). Knowledge-based trust antecedents such as familiarity suggest that trust develops over time with the accumulation of trust-relevant knowledge resulting from experience with the other party. Thus, the development of trust between parties requires time and an interaction history. In general, trust is created when there is familiarity with the parties involved, with what is going on and with why it is happening (Gefen et al., 2003). Familiarity is a precondition for trust as well as distrust (Lewis & Weigert, 1985), because it creates the appropriate context to interpret the behaviour of another party based on past activities or limitations (Gefen et al., 2003). The manifestation of trust on the cognitive level of experience is reached when social actors no longer need or want any further evidence or rational reasons for their confidence in the objects of trust (Lewis & Weigert, 1985).

McKnight and Chervany (2001) propose a typology of trust constructs as essential, because trust is such a broad a concept, and is defined in so many different ways. Firstly, it would create order out of chaos by distinguishing concepts that appear to be the same, as demonstrated in Figure 3.4 and described in Table 3.2. Secondly, a typology would make it easier to compare and communicate results and to create a model of trust types. An analysis of trust definitions identified two broad groupings: conceptual types, and referents. Conceptual types relate to attitudes, beliefs, behaviours, and dispositions, whereas referents relate to trust in something, trust in someone, or trust in a specific characteristic of someone. Conceptual models form the basis for empirical studies and by linking science to the real world, the scientific research can be of greater use in practice.
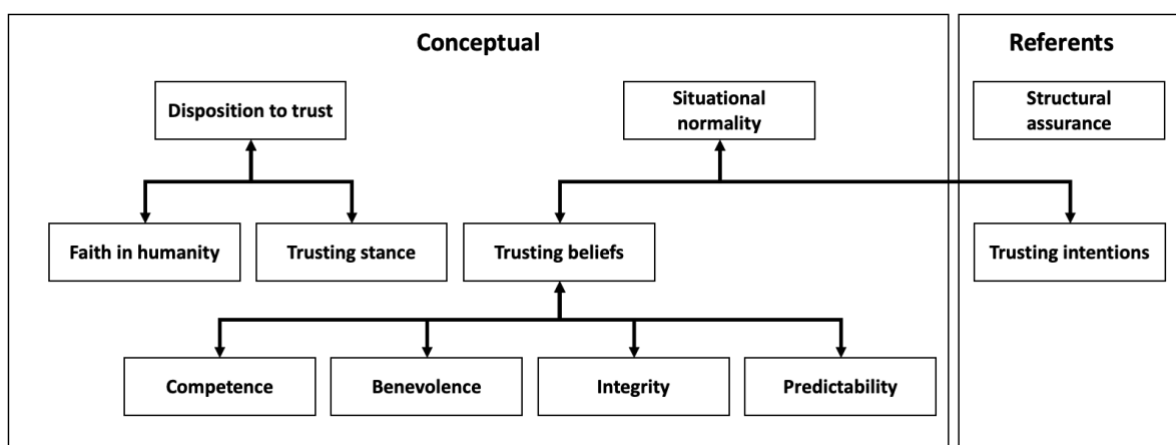
Figure 3.4: Example of a topology of trust constructs adapted from Mcknight and Chervany (2001)

Table 3.2: Example of a topology of trust constructs adapted from Mcknight and Chervany (2001)

Disposition to trust	Disposition to trust refers to a propensity/tendency to depend on someone or something in various situations and based on personal life experience.	**Faith in humanity** refers to underlying assumptions about people and means that one assumes others are usually competent, benevolent, ethical, and predictable.	Faith in humanity and trusting stance constitute a tendency or propensity to trust other people but differ in terms of their assumptions. Because faith in humanity relates to assumptions about the attributes of other people, it is more likely than trusting stance to be an antecedent to trusting beliefs. Trusting stance relates more to trusting intention, since it is a strategy related to trusting others rather than a belief about people.	Conceptual
		Trusting stance means that, regardless of what one assumes about other people generally, one assumes that one will achieve better outcomes by dealing with people as though they were well-meaning and reliable.		
Situational normality	Trusting beliefs and intentions reflect the idea that interactions between people and cognitive-emotional reactions to such interactions determine behaviour. Situational normality refers to the believe that the situation in an undertaking will contribute to success.	**Trusting beliefs** means believing that someone or something has the required abilities, capabilities, and characteristics to do something for you.	**Competence** means that you believe that someone or something has the ability and capability to do what is required.	
			Benevolence refers to the relationship between trustee and trustor, the belief that someone or something cares about your interests and is motivated to act in your interest.	
			Integrity refers to the integrity of the trustee and the belief that someone or something will make good faith agreements, tell the truth, act ethically and fulfil on promises.	
			Predictability means that because someone's or something's actions are consistent, you then believe that you can forecast their behaviour.	
		Trusting intentions means that even though you do not have control over someone or something, you are willing to depend on someone or something to do something for you.		Referents
Structural assurance	Structural assurance refers to the belief that the essential structures that will be conducive to situational success are in place, for example contracts, procedures, and processes.			

In the next section I will discuss the evolution of organisations, the importance of trust, and how trust is formed and maintained though social exchanges.

3.4 The evolution of organisations and role of trust

Classical theorists view an organisation as a machine and do not deem the role people played in the organisation important. The ideal organisational structure is a bureaucracy, and the focus is on planning to optimise efficiencies. The Human Relations Movement challenges the views of the Classical Theorists and the dehumanised impact it has on people. The importance of social needs is recognised and leads towards the notion of a participative democracy. Structural Analysts recognise the role of the environment and an awareness of the interdependencies between the organisation and its environment. The Structural Analysts oppose the Classical Theorists and Human Relations Movement's notion of a singular or optimal way of structuring an organisation and recognise the role of social systems and the impact culture, language, symbolism and unpredictability have on an organisation (van Tonder, 2004). According to Giddens (1990), the development of modern social organisations have created much greater opportunities for people to enjoy a secure and rewarding existence than any type of pre-modern organisational system.

However, Kramer (1999) notes there is substantial evidence that trust in organisations has been declining for several decades as many organisations exploit trust. Lewis and Weigert (1985) suggest a sign that a social system is under severe strain and possibly on the verge of fundamental structural change, is an overall loss of trust in the monetary system, in the legitimacy of political leadership, and in interpersonal trust. Demonstrating this, Bachmann and Inkpen (2011) note that the enduring global financial crisis is in essence a trust crisis that requires solutions for repairing peoples' trust in financial institutions. Institutional-based trust is needed when strategies are developed to rebuild peoples' trust in financial institutions which have colossally failed to live up to peoples' expectations. Bachmann and Inkpen (2011) note that understanding the relationship between trust and organisations is one of the least understood areas within trust research.

In general, when there is social uncertainty as to how others will behave, trust is a prime determinant of what people expect from the situation, both in social interactions and in business interactions. This is especially true in business interactions where people depend upon the other party to fulfil commitments to benefit from the interaction. The prominence of trust in these relationships is explained through social exchange theory (Gefen et al., 2003). Many theories of trust are grounded in social exchange theory, which assumes that trust emerges through the repeated exchange of benefits between two individuals. Social exchange theory helps to explain the dynamics when one individual voluntarily provides a benefit to another, invoking an obligation of the other party to reciprocate by providing some benefit in return (Whitener et al., 1998). Social exchange theory focuses on the

motivational factors that influence people's behaviour. According to this theory, people consciously conduct a cost-benefit analysis during any social exchange and will only participate if the benefits exceed the cost. Motivational factors include, but are not limited to, respect, honour and friendship (King & Burgess, 2008). In essence, social exchange theory views interactions in a similar manner to economic exchange: being composed of costs paid and rewards received. As in an economic exchange, people take part in an activity only if their outcome from it is satisfactory, that is, if their perceived subjective expected rewards exceed their subjective costs or at least satisfy their expectations and exceed their alternative investments. But, unlike an economic exchange, a social exchange deals with situations where there is no explicit or detailed contract binding the parties or when the contract is insufficient to provide a complete legal protection to all the parties involved. Thus, because rewards cannot be guaranteed in a social exchange, trust is essential and determines people's expectations from the relationship (Gefen et al., 2003). Trust provides a useful lens for examining the motivational mechanisms underlying the initiation of trustworthy behaviour, because trust addresses the process of initiating and expanding social exchanges. Furthermore, trust emphasises the exchange process, including its development over time, and that successful social exchanges influence perceptions of risk of nonreciprocating trust. This lens also helps us identify when, under conditions of agency risk, an individual is likely to trust another party and that by habitually discharging one's obligations, trust develops that may mitigate the risk of opportunism inherent in the organisational context (Whitener et al., 1998).

The social capital theory focuses on the role and importance of social networks, relationships, and the contexts they provide within organisations and communities. Social capital, in its simplest form, is defined as the size and type of social network that includes an individual. The theory has three dimensions: rational, cognitive, and structural. The rational dimension focuses on trust, norms, and obligations. The cognitive dimension focuses on language, narratives, and shared dimensions/frames, while the structural dimension focuses on formal structures and informal social networks. Increasing social capital is dependent on a history of successful collaboration to promote the sharing of data and a willingness to change. The result is the development of shared obligations. Developing shared obligations in turn, require the people within a network to speak the same language in terms of the terminology and definitions they use. An important aspect of the social capital theory is that the theory describes a process that develops over time from social interactions. It is probable that an increase in social capital will result in improved social outcomes such as information sharing, collaboration and innovation, which, in turn, will limit resistance and better user adoption to organisational changes (King & Burgess, 2008).

Organisations create social order by providing explicit rules of behaviour and implicit routines and practices (Bachmann & Inkpen, 2011). Agency theorists suggest that contextual factors, such as

organisational characteristics, influence the level of control managers exercise to monitor employees. Trustworthy behaviours are influenced by the level of control and monitoring of employees the organisation requires. The level of control will be influenced by the form of organisational structure and organisational factors for example structure, policies, and culture may inhibit or support the extent to which managers engage in trustworthy behaviours. Culture shapes members' patterns of behaviour and creates an environment in which certain behaviours are encouraged and receive support (Whitener et al., 1998). By institutionalising trust through practices and rules at the organisational level, trust becomes internalised at the individual level (Kramer, 1999). The combination of agency and social exchange theories helps us understand the development of trust by integrating economic factors and social processes as well as addressing the determinants of the behaviour that build trust. From a social exchange theory lens, trustworthy behaviour, such as sharing and delegation of control, may be experienced by employees as a social reward. These theoretical lenses lay the foundation for the antecedents of managerial trustworthy behaviour (Whitener et al., 1998).

According to Mcknight and Chervany (2001) trust is central to interpersonal and commercial relationships because it is crucial wherever risk, uncertainty, or interdependence exist. There is agreement across disciplines on the conditions that must exist for trust to arise. Risk is one condition considered critical in psychological, sociological, and economic conceptualisations of trust, and the second is interdependence, where the interests of one party cannot be achieved without dependence upon another (Rousseau et al., 1998). However, due to the size and degree of social and structural differentiation in most organisations, decision makers find it difficult to accumulate adequate knowledge about all the people they interact with or depend on to develop personalised trust (Kramer, 1999). Gefen, Karahanna and Straub (2003) propose that a key to creating trust in business interactions is to treat the weaker party fairly without taking advantage of its dependency or lack of knowledge. In a business environment this translates, among other things, into providing due process about the procedures and policies that handle the relationship and providing explanations for what is going on. This is important because people subconsciously look for cues as to whether they can trust somebody. The perception of fair play is one of the major forces to build trust in ongoing business interactions.

In the next section I will discuss the relationship between managers and employees, how managerial behaviour influence trust with employees and employees' approach to trust formation.

3.5   Formation of trust between managers and employees

Managers and employees are involved in an economic exchange relationship. Theories of economic exchange, such as agency theory, place little emphasis on trust. However, they do offer explanations for managerial behaviour such as monitoring and control, that are commonplace in organisations and that affect employees' perceptions of trust. Agency theorists describe the structuring of economic

exchange relationships between two parties. A principal-agent relationship exists when one party contracts with another party to perform a task involving delegation of decision making in exchange for compensation. Agency theorists examine how principals and agents attempt to structure the relationship to protect their own interests. This perspective assumes self-interest, meaning that individuals strive to maximise individual utility and that both parties seek to minimise risks associated with the relationship. Agents bear risk as a function of how they are compensated. To the extent that their compensation is based on outcomes that are beyond their control, the risk to them is greater. In contrast, the principal faces the risk of opportunism and incompetence on the part of agents. When employees are contracted to perform a job that the manager cannot directly observe, the manager faces the risk that the employees may shirk their duty. To minimise agency risk, managers generally either monitor employees' behaviour to ensure compliance or base employees' compensation on tasks that align the employees' goals with the organisation (Whitener et al., 1998).

Research on trust development has shown that individuals' perceptions of others' trustworthiness and their willingness to engage in trusting behaviour when interacting with them are largely history-dependent processes. Interactional histories provide people with information to assess the dispositions, intentions, and motives of others, which provide a basis for drawing inferences regarding their trustworthiness and for making predictions about their future behaviour (Kramer, 1999). These assessments can, in the case of interaction-based trust, build on experiences made with a potential trustee in repeated face-to-face encounters (Bachmann & Inkpen, 2011). According to Whitener, Brodt, Korsgaard and Werner (1998) a manager's actions and behaviours provide the foundation for employee trust formation. Managerial trustworthy behaviour can be defined as the actions and interactions performed by managers to generate employees' trust in them. This behaviour occurs in a social and economic exchange context, in which managers initiate and build relationships by engaging in trustworthy behaviour. The categories of managerial behaviour that influence employees' perceptions of managerial trustworthiness are in discussed in Table 3.3.

Table 3.3: Managerial behaviours that promote employee trust

Category	Description
Behavioural consistency	If a manager's behaviour is predictable and consistent then employees become familiar with their behaviour and will be willing to take-on more challenges and experiment with different approaches to their work (Simons, Leroy, & Nishii, 2022; Whitener et al., 1998).
Behavioural integrity	By comparing the consistency between what a manager says and does, employees form an opinion about their integrity, honesty and moral character (Whitener et al., 1998), which will mediate trust and influence their behaviour and performance and impact on employee retention and performance (Simons et al., 2022).

Category	Description
Sharing and delegation of control	Employees value being involved in decision making, because it affirms their importance and value to the organisation. In agency terms, by involving employees in decision making, they can protect their own interests and reduces the risk of opportunism on the part of the manager. From a social exchange theory perspective, when managers share control, they demonstrate significant trust in and respect for their employees and the employees' trust in the manager is likely to increase (Whitener et al., 1998).
Communication	The goal of communication is to share and exchange ideas. The factors that affect employees' perceptions of the trustworthiness of managers are information that is timely and accurate, open, and forthcoming and provide explanations for decisions (Whitener et al., 1998). Additionally, clear and consistent communication about what is expected from employees and the behaviours that are valued and rewarded contribute to practical performance-orientated leadership (Simons et al., 2022).
Demonstration of concern	By displaying thoughtfulness and compassion for employees' needs and interests through actions that are not exploitive and protect employees' interests (Whitener et al., 1998).

Ample evidence exists from both laboratory experiments and field-based research that individuals differ considerably in their general predisposition to trust other people (Kramer, 1999), for example personality-based trust and cognition-based trust. Personality-based trust refers to the tendency to believe or not to believe in others. This form of trust is based on a belief that others are typically well-meaning and reliable. Cognition-based trust refers to how trust is built on first impressions rather than through experiential personal interaction (Gefen et al., 2003). Research suggests further that the predisposition to trust tends to correlate with other dispositional orientations and people's beliefs about human nature (Kramer, 1999). Researchers view trust as a set of specific beliefs dealing primarily with the integrity, benevolence, and ability of another party, and a general belief that another party can be trusted. The distinction between trust as a set of specific beliefs and trust as a general belief has been made primarily in studies dealing with interpersonal interactions such as those occurring within an organisation (Gefen et al., 2003).

In the next section I will discuss how IS can contribute to trust formation, the different stages of how trust in IS is developed, and different IS trust constructs.

3.6 Information systems and trust

Technology and its relationship to organisational structures, processes, and outcomes have long been of interest to organisational researchers. Both technologies and organisations are undergoing dramatic changes in form and function, and new and unprecedented forms and functions are becoming evident. In response, organisational researchers have applied notions of innovation, learning, and improvisation to account for the dynamic and emerging patterns of organising, whilst researchers of technology have also begun to use the notions of innovation, learning, and improvisation to understand the organisational implications of new technologies. This resulted in the development various structurational models of technology that generated numerous insights into the role and influence of technologies in organisations. Human action is a central aspect of these models, in particular, the actions associated with embedding structures within a technology during its development, and the actions associated with appropriating those structures during the use of technology. A number of commentators have urged further theoretical development of a structurational perspective on technology, suggesting that it may have considerable analytic advantages in explaining the consequences associated with the use of new and reconfigurable information technologies (Orlikowski, 2000).

Social theory has a substantial part to play in the development of the discipline of IS, in helping to understand and interact with the societal, organisational and personal contexts without which the technology is meaningless (Rose, 1998). According to social cognitive research, the knowledge a person has about an information domain is the result of experience and interaction that is cognitively structured. These socio-cognitive structures provide the frameworks people use to make sense of their environment, to assist with problem solving and to assist them to fill information gaps (Davidson, 2002). The concept of frames and how it relates to information technology can be traced to Boland (1978) who argues that the misunderstandings between users and analysts are due to the lack of a shared frame in terms of the assumptions, expectations and understanding of the two parties (Lin & Silva, 2005). Shared frames are the knowledge and expectations that groups of individuals share (Gash & Orlikowski, 1991). Frames are the contexts, structures and models that individuals use to make sense of their environment (Orlikowski & Gash, 1994). Frames can also be defined as schemas, the purpose of which is to provide the structure/frame for various concepts to create coherence and meaning (van Tonder, 2004). When a group of people share a frame, they have the same or a similar understanding and their actions will be similar. Each group will use their frames as the general understanding of how to interact with information technology. If there are differences between groups, the result is incongruence of frames (Lin & Silva, 2005). Incongruence occurs when there are differences in the assumptions, knowledge and expectations incorporated in the frame domains of the various social groups (Gash & Orlikowski, 1991).

Kramer (1999) notes the increasing evidence that IS can actually undermine trust and even cause the very behaviours they intend to discourage and the unintended consequences in terms of trust. For example, when people feel coerced into complying with a behaviour, they may resist the behaviour especially when they think monitoring is imperfect, resulting in breeding distrust and resentment in return. An emerging area of organisational research is the relationship between IS and trust (Kramer, 1999). Previous research proposes that as relationships develop, different types of trust also develop. As demonstrated in Figure 3.5, during initial trust formation a trustor makes a judgment without prior experience if the trustee can be trusted and conducts cost versus benefit evaluation, known as calculus-based trust, to decide whether to extend trust. Based on interaction experience, knowledge-based or experiential trust develop enabling the trustor to predict the trustee's behaviour. Knowledge-based or experiential trust is more persistent and will not erode as easily as calculus-based trust, because the trustor is accustomed to the idiosyncrasies of a trustee (Mcknight et al., 2011).
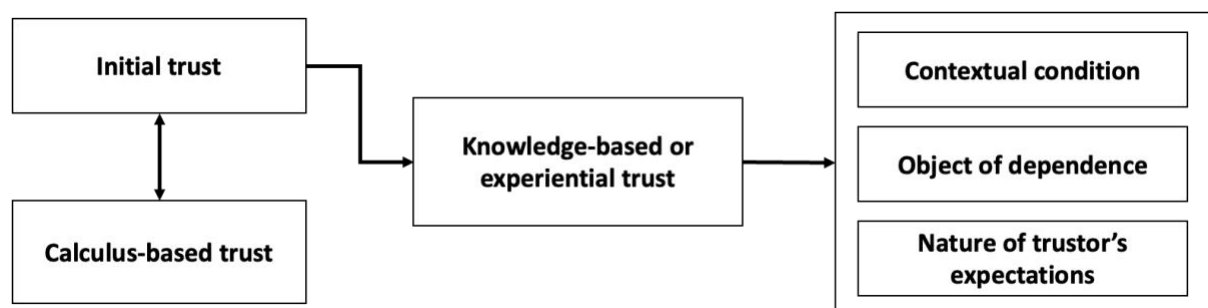
Figure 3.5: Development of different types of trust

Mcknight, Carter, Thatcher and Clay (2011) note that IS trust research have predominantly studied how trust in people affects IS acceptance, and that relatively little research directly studied trust in an IS. In addition, when researchers have conducted IS trust research they use a subset of trust in people attributes, for example ability, benevolence, and integrity. The rationale for this is ascribed to the fact that people find it more natural to afford trust onto people than to afford trust onto IS. However, previous studies investigating user adoption behaviour of IS have demonstrated that knowledge-based trust or experiential trust is a better source to inform adoption behaviour than calculus-based trust (cost versus benefit evaluation). As a result Mcknight, Carter, Thatcher and Clay (2011) propose the need for trust in technology constructs and measures, discussed in Table 3.4.

Table 3.4: A conceptual comparison of trust in people versus trust in technology (Mcknight et al., 2011)

	Context	Trust in People	Trust in Technology
Contextual Condition	Irrespective whether it is people or technology, trust situations feature risk and uncertainty. A trustor does not have control over outcomes because they depend on either people or a technology to fulfil a task.	Relying on a person who may not fulfil their role.	Relying on a technology which may not have the capability to fulfil its role.
Object of Dependence	Trust in people and trust in technology differ in terms of the nature of the object of dependence.	Trusting a person's willingness and competence to do what is expected. For example, a copy editor's competence and willingness to review and to edit a research paper.	Trusting a specific technology's capability and reliability to what is expected. For example, MS Word's ability to reliably identify misspelled words and grammatical errors.
Nature of Trustor's Expectations	The attributes people consider when trusting in people or technology is different.	Competence: one assesses the efficacy of the trustee to fulfil a promise in terms of their ability or power to do something for us.	Functionality: whether the technology provides the required functionality as expected to successfully complete a task.
		Benevolence: hoping that people will care and offer help when required.	Helpfulness: hoping that the help function will provide sufficient guidance and tips on how to complete a task.
		Predictability/Integrity: how reliable people are to do what is expected in a consistent and predictable way.	Reliability: how reliable technology is to continuously do what is expected in a consistent and predictable way.

Mcknight, Carter, Thatcher and Clay (2011) further operationalise trust in technology constructs in Table 3.5 as components of three sets of concepts: the propensity to trust general technology, institution-based trust in technology as a structural concept, and trust in a specific technology. The table also proposes a causal ordering among the trust concepts, for example the propensity to trust general technology directly influences institution-based trust in technology and indirectly structures trust in a specific technology.

Table 3.5: Operationalising technology trust constructs into concepts and sub-concepts (Mcknight et al., 2011)

Concept	Definition	Sub-Concept	Definition/Example
Propensity to trust general technology	The willingness to depend on a technology in various situations as well as different types of technology.	Faith in general technology	The general beliefs about the attributes of technology. For example, people who have higher trust in general technology assume technology is typically reliable, functional and will provide the expected help.
		Trusting stance-general technology	To what extent people believe that technology will provide a positive outcome. For example, people with a higher trusting stance-general technology are more likely to trust technology until proven wrong.
Institution-based trust in technology	The beliefs that people have about a particular class of technologies in a specific setting.	Situational normality	The belief that using a particular class of technologies in a new way is normal and comfortable within a specific setting. For example, because people perceive using spreadsheets to be a normal work activity, they are inclined to using spreadsheets generally for work activities.
		Structural assurance	The belief that there is adequate support when using technology. For example, there are contractual guarantees to replace faulty hardware or software.
Trust in a specific technology	The beliefs that a specific technology, for example MS Excel, will perform as expected.	Functionality	The expectation that a technology has the capacity or capability to complete a required task.
		Helpfulness	The expectation that the assistance support function will be adequate and responsive.
		Reliability	The expectation that a technology will work consistently and predictably according the specification.

In the next section I will discuss the objective of using variance theories versus process theories when conducting research. I will compare the difference between variance theories and process theories, present a review of research theorising IS and trust constructs and reasons why a process theory approach is appropriate for research studies that result in organisational change.

3.7 Variance and process theories

Mohr has coined the term 'variance' to describe how researchers view the world, comprising of independent and dependent variables. Its popularity can be ascribed to the various statistical tools and

techniques available to test theories (Burton-Jones, McLean, & Monod, 2015). Soh and Markus (1995) note that while the variance theories are excellent at explaining by quantifying the extent of definite outcomes, they do not perform well at quantifying and explaining uncertain outcomes. Despite its flexibility, Mohr feels that variance theories are inappropriate to study organisational change, and encourages a process perspective (Burton-Jones et al., 2015). Process theories provide powerful explanations even when causal agents cannot be demonstrated to be sufficient for the outcome to occur, and have demonstrated distinct advantages over variance theories in studies focusing on IS and business value (Soh & Markus, 1995). Process theory is not itself a "theory", but a type of logical meta-model or conceptual framework for theories or for theorising and can facilitate the development of specific theories. In general, process theory focuses on explaining and understanding how particular outcomes emerge from a sequence of actions and events, based on specific inputs. Process theories assist with understanding the "why" as well as "how" processes create the outcomes by providing information about existing processes and micro-processes (Niederman, Müller, & March, 2018). The difference between variance theories and process theories are summarised in Table 3.6.

Table 3.6: Difference between variance theories and process theories adapted from Soh and Markus (1995) and Burton-Jones, McLean and Monod (2015)

	Variance Theories	Process Theories
Outcome	A variable.	A distinct event.
Assumptions	An outcome will occur when the necessary and sufficient conditions are present.	The presence of the necessary and sufficient conditions may not result in an outcome. A probabilistic process with various options is also required.
Role of time	Not relevant, because the necessary and sufficient conditions can occur in any order.	Critical, because the order of the necessary conditions is sequential.
How to read the theory	The cause is necessary and sufficient to produce the effect.	Causation requires the necessary conditions to occur in a specific order, but random events and change can have an impact.
Theoretical concepts	Focuses on properties of entities, often called variables or factors (e.g., 'system quality'). These properties are assumed to have varying values, whether qualitative (e.g., low to high) or quantitative (e.g., 1–7).	Focuses on entities participating in events. If the entities can act, they are referred to as focal actors. For example, a new PMIS and performance management process might make a user concerned about their job security and react differently to how they used to.
Theoretical relationships	Relationships are typically assumed to be unidirectional, for example if x increases then y increases, and constant, for example the effect of x on y always remains the same.	Focuses on accounting for an outcome by referring to a sequence of events. The sequence is typically assumed to be probabilistic rather than deterministic, because it is possible that a different sequence of events might occur.

	Variance Theories	Process Theories
Construction	Concepts and relationships can be assembled in many ways. For example four types of properties: enumerative properties, which are properties an entity always has (e.g., one's age), associative properties, which are properties an entity may have (e.g., one's income), relational properties, which are properties an entity has in relation to other entities (e.g., one's centrality in a group), and statistical properties, which describe an entity's range of values on a property (e.g., one's average monthly income).	Concepts and relationships can be assembled in many ways. For example, researchers can view entities as things that influence events, such as organisations that act, or as things constituted by events, such as organisations constituted by patterns of actions. Likewise, researchers can distinguish routine events from events that start or end processes.

However process theories are still used much less than the variance perspective (Burton-Jones et al., 2015). For example, an analysis by Paré, Bourdeau, Marsan, Nach, and Shuraida (2008) of empirical research published in Management Information Systems Quarterly (MISQ), Information Systems Research (ISR), the European Journal of Information Systems (EJIS) reveals that 91% of the articles adopted a variance perspective. To evaluate the use of variance versus process theories in research focusing on IS and trust, I analysed 21 research papers theorising IS and trust constructs by Schlichter and Rose (2013) in Table 3.7 from the European Journal of Information Systems, Information Systems Journal, Information Systems Research, Journal of Management Information Systems, Journal of the AIS and MIS Quarterly. The rationale for selecting and limiting my review to only the 21 papers from Schlichter and Rose (2013) is because I use the theoretical framework they developed in my research study. Only seven of the research papers use process theory as a perspective and focus on trust and IS partner competence; trust in intermediaries; trust and virtual organisation; trust and control; trust, social capital and collaborative relationships; trust and distrust building processes; trust and IS development. Additionally, I evaluated research papers that referenced Schlichter and Rose (2013) in Table 3.8. I limited the evaluation to only research papers focusing on trust and in this case only two of the six research papers use a process perspective.

Table 3.7: Review of research theorising IS and trust constructs adapted from Schlichter and Rose's (2013) 'basket of six' papers theorising trust

Paper	Objective	Focus	Variance/Process
Van Dissel and Bielli (1998) The merchant of Prato – Revisited: toward a third rationality of information systems. MIS Quarterly, 22, 199–226.	Focuses on collaboration and cooperation as the key to understanding interaction processes.	Trust, social capital and collaborative relationships	Process
Gallivan (2001) Striking a balance between trust and control in a virtual organization: a content analysis of open source software case studies. Information Systems Journal, 11, 277–304.	Proposes a model that runs contrary to the belief that trust is critical for virtual organisations. Content analysis to examine a set of published case studies.	Trust and virtual organisation	Process
Mcknight, Choudhury and Kacmar (2002) Developing and validating trust measures for e-commerce: An integrative typology. Information Systems Research, 13, 334–359.	Proposing and validating measures for a multidisciplinary, multidimensional model of trust in e-commerce.	Perceived risk influencing trust and purchasing decisions	Variance
Gallivan and Depledge (2003) Trust, control and the role of interorganizational systems in electronic partnerships. Information Systems Journal, 13, 159–190.	Examines the assumption that partnership success depends on both trust and control from two perspectives: the initial decision to enter into a partnership, and its ongoing operation. Structured content analysis to create a framework for relating trust and control.	Trust and control	Process
Brown, Poole and Rodgers (2004) Interpersonal traits, complementarity, and trust in virtual collaboration. Journal of Management Information Systems, 20, 115–138.	Develop a model that proposes that interpersonal traits affect the individual's disposition to trust, perceived trustworthiness, communication, and thereby affects willingness to collaborate and the sustainability and productivity of the collaboration.	Interpersonal trust	Variance
Gefen (2004) What makes an ERP implementation relationship worthwhile: linking trust mechanisms and ERP usefulness. Journal of Management Information Systems, 21.1, 236-288.	Examines how trust is built during an ERP implementation, and the relative weight of this trust compared with the perceived qualities of the implemented ERP itself.	Trust and IS vendor relationships	Variance
Ibbott and O'Keefe (2004) Trust, planning and benefits in a global interorganizational system. Information Systems Journal, 14, 131–152.	Action research study describing an example of an interorganisational system (IOS) developed. Using a model to explore the roles and dynamics of trust, planning and benefits.	Trust and IS development	Process

Paper	Objective	Focus	Variance/Process
Jarvenpaa, Shaw and Staples (2004) Toward contextualized theories of trust: the role of trust in global virtual teams. Information Systems Research, 15, 250–267.	Theoretically and empirically examine outcomes of an individual's trust in global virtual teams under differing situations.	Trust attitude and behaviours in virtual teams	Variance
Paul and Mcdaniel (2004) A field study of the effect of interpersonal trust on virtual collaborative relationship performance. MIS Quarterly, 28, 183–227.	Examine the relationship between interpersonal trust and virtual collaborative relationship performance.	Interpersonal trust and virtual collaboration	Variance
Leimeister, Ebner and Krcmar (2005) Design, implementation, and evaluation of trust-supporting components in virtual communities for patients. Journal of Management Information Systems, 21, 101–131.	Describe and evaluate how trust-enabling functionalities can be systematically designed and implemented in a virtual community for cancer patients following a two-step model.	Trust and perceived competence and perceived goodwill	Variance
Dinev, Bellotto, Hart, Russo, Serra and Colautti (2006) Privacy calculus model in e-commerce – a study of Italy and the United States. European Journal of Information Systems, 15, 389–402.	Examine cross-cultural differences and beliefs related to e-commerce use. Empirical test using LISREL structural equation modelling and multigroup analysis.	Cultural beliefs influencing trust	Variance
Komiak and Benbasat (2006) The effects of personalization and familiarity on trust and adoption of recommendation agents. MIS Quarterly, 30, 941–960.	A trust-centred, cognitive and emotional balanced perspective to study the adoption of recommendation agents. Theoretically articulates and empirically examines the effects of perceived personalisation.	Cognitive and emotional trust and IS customisation	Variance
Lim, Sia, Lee, and Benbasat (2006) Do I trust you online, and if so, will I buy? An empirical study of two trust-building strategies. Journal of Management Information Systems, 23, 233–266.	Investigate the effectiveness of various trust-building strategies to influence buying behaviour in online shopping environments. Develop a model of how trust-building strategies could affect trust and the consequences of trust.	Trust-building strategies and purchasing decisions	Variance
Datta and Chatterjee (2008) The economics and psychology of consumer trust in intermediaries in electronic markets: the EM-Trust Framework. European Journal of Information Systems,17, 12–28.	To understand the contextual factors that lead to consumers' need to trust intermediaries. Synthesises perspectives from information economics, transaction cost economics, and literature on institution-based trust to develop the EM-Trust framework.	Trust in intermediaries	Process

Paper	Objective	Focus	Variance/Process
Gefen, Wyss and Lichtenstein (2008) Business familiarity as risk mitigation in software development outsourcing contracts. MIS Quarterly, 32, 531–551.	Examine the role of business familiarity in determining how software development outsourcing projects are managed and priced to address risks. Hypotheses were examined with objective contractual legal data from contracts.	Trust and IS development outsourcing relationships	Variance
Kim, Ferrin and Rao (2008) Trust and satisfaction, two stepping stones for successful E- Commerce relationships: a longitudinal exploration. Information Systems Research, 20, 237–257.	The study synthesises a model of consumer trust and satisfaction in the context of electronic commerce.	Trust and purchasing decisions	Variance
Komiak and Benbasat (2008) A two-process view of trust and distrust building in recommendation agents. Journal of the AIS, 9, 727–747.	Propose a two-process view of trust and distrust building, by empirically testing a process theory.	Trust and distrust building processes	Process
Vance, Elie-Dit-Cosaque and Straub (2008) Examining trust in information technology artifacts: the effects of system quality and culture. Journal of Management Information Systems, 24, 73–100.	Empirically tests a model of trust in IT artefacts.	Trust and culture and IT artefacts	Variance
Zahedi and Song (2008) Dynamics of trust revision: Using health infomediaries. Journal of Management Information Systems, 24, 225–248.	A laboratory experiment exploring the process by which trust evolves over time using.	Evolution of trusting beliefs over time	Variance
Ibrahim and Ribbers (2009) The impacts of competence-trust and openness-trust on interorganizational systems. European Journal of Information Systems, 18, 223–234.	How trust based on partner competence and openness influence the use of IOS-related resources. Using the resource-based view and transaction-cost economics to analyse influences on relationship.	Trust and IS partner competence	Process
Lowry, Zhang, Zhou and Fu (2010) Effects of culture, social presence, and group composition on trust in technology-supported decision-making groups. Information Systems Journal, 20, 297–315.	Examine trust in technology-supported groups from the perspectives of culture, social presence and group composition.	Culture and interpersonal trust	Variance

Table 3.8: Review of literature with a focus on trust that references Schlichter and Rose (2013)

Paper	Objective	Focus	Variance/Process
Schlichter and Persson (2014) Trust in co-sourced software development. In *Proceedings of the Eighth Mediterranean Conference on Information Systems* (pp. 1–14)	A case study of how the co-sourcing relationship and certain work practices between a software company and a supplier can be explained using a dynamic trust lens.	Abstract systems and role dis- and re-embedding mechanisms in trust formation	Process
Bansal, Zahedi and Gefen (2016) Do context and personality matter? Trust and privacy concerns in disclosing private information online. *Information and Management*, *53*(1), 1–21.	Theory building based on the contextualisation of the theory of reasoned action and its synthesis with Prospect theory to provide a new perspective in trust research.	Theory building focusing on trust and inter-related components	Variance
Chesney, Chuah, Dobele and Hoffmann (2017) Information richness and trust in v-commerce: implications for services marketing. *Journal of Services Marketing*, *31*(3), 295–307.	Examine the potential of information-rich virtual worlds to reduce trust risk associated with traditional e-tailing environments.	Informing the design of ecommerce environments that is trusted	Variance
Angeletti, Chatzigiannakis and Vitaletti (2018) Towards an architecture to guarantee both data privacy and utility in the first phases of digital clinical trials. *Sensors (Switzerland)*, *18*(12).	Present the technical requirements and the research challenges to secure the flow and control of personal data.	Trusted party and data Privacy	Process
Cheng, Wu and Chang (2020) Interproject Conflict Management Through Cooperation in an Enterprise System Implementation Program. *Project Management Journal*, *51*(6), 582–598.	Investigate how collaborative problem-solving strategy influences inter-team conflict resolution in the implementation of an enterprise system.	Trust between teams	Variance
Ramadhan, Komaladewi and Mulyana (2021) Online purchase decision model from a trust and ease of use perspective in the online marketplace. *Journal of Business Studies and Mangement Review*, *5*(1), 155–160.	Examine the impact of trust and ease of use through e-commerce in online purchase decision at marketplace online.	Consumers trust considerations in online marketplaces	Variance

Possible reasons why process theories are not popular amongst researchers can be ascribed to the ability and skills required to deal with ambiguity, gaining access to organisations to conduct research, and the duration of the research study (Paré et al., 2008). Additionally, Niederman, Müller, and March (2018) note the various issues practitioners and researchers will need to deal with when selecting a process perspective approach, for example choosing the unit of analysis (a task, a process or a project), describing units of action in instances where activities are likely to start before previous activities are completed, and identifying logical sequences. However, Paré, Bourdeau, Marsan, Nach, and Shuraida (2008) note that due to the high failure rate of IT projects it has become critical to understand and manage organisational impact and by conducting more process theory research our collective learning will expand. From a project management perspective Niederman, Müller, and March (2018) propose the use of process perspective as complementary and useful to theorise phenomena such as user participation and its impact on project success.

In the next section I will discuss why Giddens's structuration theory is appropriate for studying the relationship between IS and organisations, how social structures impact social practice, and the various uses of structuration theory.

3.8   Appropriateness of Giddens's structuration and process approach

Organisations are socially constructed and create social order through rules, routines and practices that are maintained through ongoing interactions (Bachmann & Inkpen, 2011; Barley & Tolbert, 1997). When IS researchers have faced a need to analyse or understand the dynamic aspects of complex social systems, they have traditionally taken advantage of concepts from the social sciences. One familiar approach that attract IS researchers interested in a process perspective is Giddens´ structuration theory, which has been used to address the unintended consequences of actions and the relationship between agency and structure (Jones & Karsten, 2008; Schlichter & Rose, 2009). According to Jones and Karsten (2008) Giddens attempts to distinguish between how the physical world impacts on action and how social structure impacts social practice. Orlikowski (2000) notes that because a structurational perspective is inherently dynamic and grounded in ongoing human action, it has the potential to explain emergence and change in technologies and use. Walsham (2002) proposes that structuration theory provides an appreciation of cultural differences and may assist in demonstrating empathy and an understanding of the norms and values of others. In addition, Jones and Karsten (2008) argue that structuration should be applicable to any aspect of IS research studying the relationship between IS and organisations. Schlichter and Rose (2013) note the important contributions of Giddens's theories to the development of the IS field, for example the duality of the technology model and adaptive structuration theory.

IS implementation projects are known to be problematic and a factor identified as significant for the success of these projects is trust. Although trust is not extensively theorised in structuration theory, it forms an integral part of Giddens's work on modernity. Giddens's theory of modernity is an extension of his earlier work on structuration, and many of the underlying concepts how social practices reproduce themselves. Giddens's theories reconcile micro and macro styles of social theory, making them suitable for organisational analysis. Giddens distinguishes between trust in persons and trust in abstract systems (Schlichter & Rose, 2013). Consequently, Schlichter and Rose (2013) propose that Giddens's account of the role of trust in sustaining abstract systems is suitable for theorising and the emergent process in the context of socially created transformative human activity. According to Jones and Karsten (2008) structuration theory illustrates how IS researchers can use social theory as a starting point to analyse problems. They suggest that studies developing and applying an IS-specific version of structuration, should use structuration as a starting point instead as a source of specific guidance. For example, in Table 3.9 Rose (1998) demonstrates the various uses of structuration theory.

Table 3.9: The various uses of structuration theory proposed by Rose (1998)

Purpose	Description
To theorise	To help understand the relationship between IT and organisations, for example the duality of technology, technological imperative model, strategic choice model and using structuration theory with other theories, for example Adaptive Structuration Theory (AST).
	The duality of technology investigates the interaction between people and social structure during IS development. The technological imperative model sees technology as an objective determinant of organisational and work dimensions, for example structure and work satisfaction. The strategic choice model suggests that technology is the product of human agency and is frequently associated with how technology can empower people.
To analyse	By applying theory to investigate a problem, explain a phenomena or analyse a situation.
To operationalise	Providing practitioners guidance by distilling theory and analysis into frameworks that inform development and implementation practice.

3.9   Conclusion

In this chapter I laid the foundation for the research study by introducing and discussing the key focus areas, concepts and constructs that are relevant to this research study relating to trust. I defined trust, provided an overview of trust from different perspectives, and presented a topology of trust constructs. I then focussed on organisations, people (managers and employees) and IS by discussing different social theories, how trust is formed and the influence of managerial behaviour. I also discussed different types of trust from an IS perspective, and various trust in technology concepts and constructs. Further, I discussed the difference between variance theories and process theories and the

advantages of selecting process theories for a research study that result in organisational change. Finally, I discussed why Giddens's structuration theory is appropriate for studying the relationship between IS and organisations, how social structures impact social practice and the various uses of structuration theory.

In the next chapter I will introduce and discuss various theoretical frameworks based on Giddens structuration theory and the theoretical framework I selected for this research study.

Chapter 4 – Theoretical Framework

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

Chapter 2: Performance Management
- What is it?
- Why is it important?
- What needs to be solved?

Chapter 3: Trust
- Defining Trust: overview and topology
- Trust formation and IS
- Variance and process theories
- Giddens structuration and process approach

Chapter 4: Theoretical Framework
- Key constructs and modalities of structuration
- Structuration theory and technology
- Socio-Technical perspective
- Structuration and IS trust creation
- Selection of the theoretical framework for the research study

Chapter 5: Research Methodology
- Rationale for selecting the qualitative interpretive research method
- Motivation for a single longitudinal case study and using action research as method
- Describing the research design and case organisation selection
- Ethical considerations

Chapter 6: Case Study Context
- Rich description of the history, evolution and dynamics of Performance Management in the case organisation

Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 4.1: Research case study outline

4.1   Introduction

In the previous two chapters I introduced performance management and trust that form the basis of this research study. I also discussed why Giddens's structuration theory is appropriate for studying the relationship between IS and organisations, how social structures impact social practice and the various uses of structuration theory. In this chapter I focus on defining and selecting the theoretical framework for this research study. Figure 4.2 demonstrates the logical flow of the chapter. The first part of the chapter focuses on the key constructs and modalities of structuration. In the second part of the chapter, I discuss structuration theory and technology. The third part of the chapter focuses on the relevance and importance of the socio-technical perspective for studying the relationship between IS, people and organisations. Finally, I introduce the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) as the theoretical framework for this research study and the rationale for adding three additional components namely frames, design blind spots, and operational malfunction.
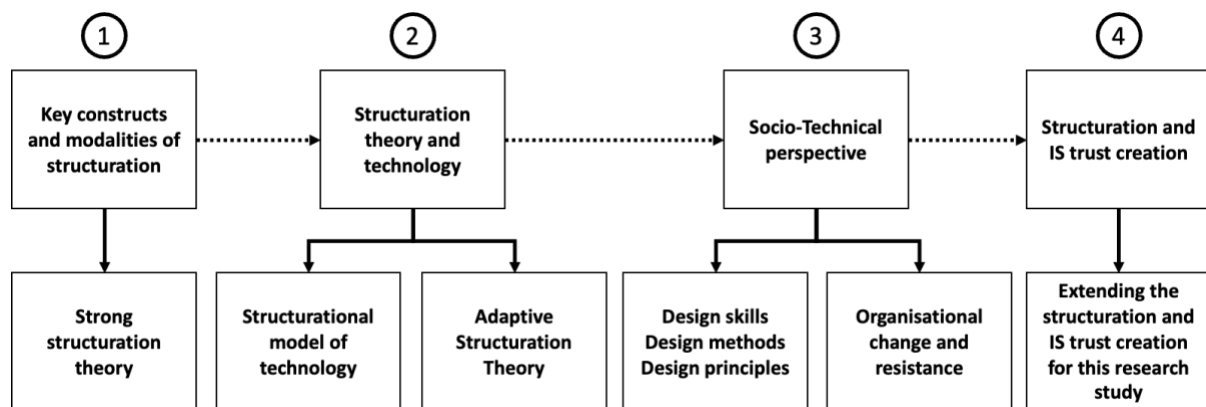
Figure 4.2: Demonstration of the chapter content and flow

4.2   Key constructs and the modalities of structuration theory

Giddens describes two dominant schools of sociological enquiry: those concerned with structure, and those concerned with agency. Structuralists explain social behaviour by focusing on how structural forces constrain and influence people to do things in specific ways. Whereas traditions concerned with agency, such as hermeneutics and phenomenology, focus on people and their ability to determine and enable social structure (Rose, 1998). The goal of structuration is to avoid the dualistic treatment of action and structure by theorising the two as a mutually constitutive duality (Jones & Karsten, 2008). Giddens proposes the duality of structure and that the structural properties of social systems are created by human action, which then forms the basis in determining future human action (Walsham, 2002). Human action can be seen on the one hand to create the institutional properties of social systems, yet on the other hand it can be seen to be created by institutional properties

(Orlikowski & Robey, 1991). Giddens disagrees with the non-rational elements of Freud's "unconscious" and dismisses it in favour of his own three-level model of consciousness, consisting of discursive consciousness, practical consciousness, and unconscious cognition. Giddens emphasises human knowledgeability and the way in which people reflexively monitor their own actions, that of others, and consequences, both intended and unintended (Walsham, 2002).

Giddens offers a grand social theory at a meta-level that incorporates many of the issues that concern social scientists. The theory is designed to be self-contained and all-inclusive (Rose, 1998) and the primary objective is the establishment of an ontology of human society to explain the relationship between individuals and society (Jones & Karsten, 2008). In Table 4.1 the key constructs are described in more detail.

Table 4.1: Key constructs of structuration

Key Constructs	General description of structuration theory
Agency	Giddens views agency as voluntaristic because people are autonomous beings with the capacity and freedom to make decisions that influence structure, except in circumstances where they are forced against their will to do something (Jones & Karsten, 2008).
Structure	Structure is an abstract attribute of social systems that require people to sanction and interpret its dimensions through continuous interaction. Structure is not tangible and it is located in a specific time and space (Orlikowski & Robey, 1991). Structure is a set of rules and resources that facilitate social action through three modalities: facilities, norms, and interpretive schemes. People are seen as being knowledgeable and reflexive and use their knowledge and experience in conjunction with norms and available resources to determine social action that create and recreate structure (Orlikowski, 1992, 2000). Social structure is both a method and result of the reproduction of practices (Jones, Orlikowski, & Munir, 2004). Social structure is not independent of agency, nor is agency independent of structure. Structure is both enabling and constraining, because people reference existing social structures in their actions to produce and reproduce social structure (Jones & Karsten, 2008).
Time and space	Giddens views the temporality of time as intersecting in three distinct ways: your life on a daily basis, your lifespan from birth to death, and the existence of social institutions (Jones & Karsten, 2008). Phenomena related to your daily life and the existence of social institutions are created through routines and repetition and people have the ability to make changes to influence an outcome. Phenomena related to your lifespan is however inevitable and you do not have the ability to influence the outcome. Space is also seen to be closely linked to time (Jones et al., 2004).
Routines	The continuous process to create and recreate structure result in the establishment of routines. Routines in turn create predictability and contribute to people's ontological security which forms the basis of their personal identity. Routines also contribute to sustaining social institutions through social integration and system integration. Social integration is enabled through face-to-face engagements, and system integration is enabled by the relationship between social systems. In modern societies social relations are dis-embedded from a local context and not constrained by time and space. Examples of dis-embedding mechanisms are symbolic tokens, for example money, and expert systems, for example the professional expertise of a doctor or engineer in which people place trust (Jones & Karsten, 2008).

Giddens expands the view that social action and social structure coexist and proposes that human interaction is composed of structures of meaning, power, and moral sanctions, as demonstrated in Figure 4.3, and that any interaction can be analysed in terms of this. He identifies three dimensions of structure, which he terms signification, domination, and legitimation, and these dimensions interact with human actions of meaning, power, and moral sanctions through modalities of, respectively, interpretive schemes, resources and norms, described in Table 4.2. The three modalities determine how the institutional properties of social systems mediate deliberate human action and how human action constitutes social structure. The linkage between social structure and human action is referred to as the process of structuration (Orlikowski & Robey, 1991).
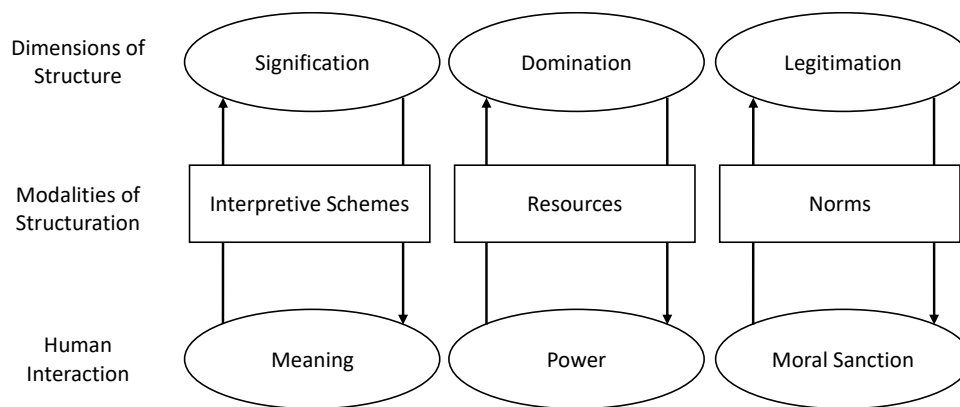
Figure 4.3: The interaction of human action and dimensions of structure with modalities of structuration (Orlikowski & Robey, 1991)

Table 4.2: Modalities of structuration (Orlikowski & Robey, 1991)

Modality	Description
Interpretive schemes	Interpretive schemes enable shared meanings and provide mutual knowledge for people to reference when they interact and communicate with each other. In addition, interpretive schemes consist of structures of signification that provide the rules that enable and inform the interaction and communication process, but can also constrain the communication process from an institutional perspective (Orlikowski & Robey, 1991). Rules can be either rules of social life that are based on general social practices (respect your elders), or formulated rules for example rules of a game (tennis) or organisational rules (office hours) (Jones & Karsten, 2008).

Modality	Description
Resources	Resources are the entities through which intentions are realised, goals are achieved, and power is exerted (Orlikowski & Robey, 1991). Resources can be either allocative or authoritative. Allocative resources are objects, goods or material phenomena and entail the ability to control and transform. Authoritative resources refers to people and the ability to control and transform (Jones & Karsten, 2008). Power is defined as the ability of people to transform their social or material world to achieve desired outcomes through using the resources they have domination over (Orlikowski & Robey, 1991). However, because human agency is voluntaristic it is important to note that power is not a type of act that can be forced onto someone regardless of the severity of sanction (unless it is against their will, for example being threatened or drugged) or a commodity (for example something you have ownership over), but rather a capability that relies on the compliance of others and manifests in action by them (Jones et al., 2004; Jones & Karsten, 2008).
Norms	Norms define and support established structures of legitimation. Norms are the rules or conventions that direct and shape acceptable and legitimate behaviour. It is based on codes and sanctions that result from continuous interactions between people, and by balancing the rights and obligations of people. Cultural perspectives of legitimate behaviour directs human action and embed norms through traditions, rituals and social practices (Orlikowski & Robey, 1991).

Conversely, Jack and Kholeif (2007) propose fundamental areas of underdevelopment in Giddens's work such as the relationship between agents, structures and external pressures, eliciting significant debate about the central tenet of the duality of structure. For example, Sewell (1992) criticises Giddens's definition of structure as "*frustratingly underspecified*" and "*I do not think that the concept of structure he elaborates there or elsewhere is sufficiently clear or robust to serve as the foundation of a theoretical system*" (Sewell Jr, 1992, p5). Critics also suggest that Giddens's ideas operate at too high a level and the lack of empirical examples in his own work not only offers few clues of how to conduct research in specific empirical settings, it also fails to provide a basis for developing a critical stance for developing normative models of how things should be, as opposed to of how they are (Jones et al., 2004; Rose, 1998). From an IS perspective Giddens is criticised for his limited attention to technology and for the few explicit IT references when he starts to discuss modernity (Jones et al., 2004). According to Decanctis and Poole (1994) the limitations of structuration models have been their limited consideration of the structural potential of IS and their exclusive focus on institutional levels of analysis. Additionally, Jones, Orlikowski and Munir (2004) note that Giddens's anti-objectivist stance, the virtual nature of structure and that only people can create structure based on their experience and knowledge, is possibly the most significant challenge and limitation from an IS perspective.

In the next section I discuss how Strong Structuration Theory addresses the limitations and criticism towards Giddens's structuration theory.

4.3 Strong structuration theory

Strong structuration theory (SST) integrates the criticism of Giddens's structuration theory in an attempt to address his abstract philosophical concepts and ontology-in-general approach by proposing a robust ontology-in-situ that enables empirical research (Greenhalgh & Stones, 2010; Jack & Kholeif, 2007). SST proposes that structure and action are enacted in actual situations, through the why, where and what of daily life, and by understanding the unique dispositions and practices of people (Jack & Kholeif, 2007). SST modifies structuration theory's duality of structure concept into a quadripartite cycle, demonstrated in Figure 4.4 and described in Table 4.3. The four components are external structures, internal structures, active agency, and outcomes. The quadripartite study of structuration involves looking for empirical evidence to investigate and test concepts and explain the relationship between the concepts in different situations (Greenhalgh & Stones, 2010). A key aspect of SST is the meso-level ontological concept that enables a researcher to analyse action and structure on a more granular level, for example a division or department in an organisation. A second aspect is the definition of position-practices that describes social positions in organisations and the link between structure and agency (Jack & Kholeif, 2007). SST focuses on how people use their internal structures (conjunctural-specific knowledge and their general disposition) when deciding on appropriate action. SST references three theories linked to social psychology: phenomenology, ethnomethodology, and symbolic interactionism to study active agency (Greenhalgh & Stones, 2010).
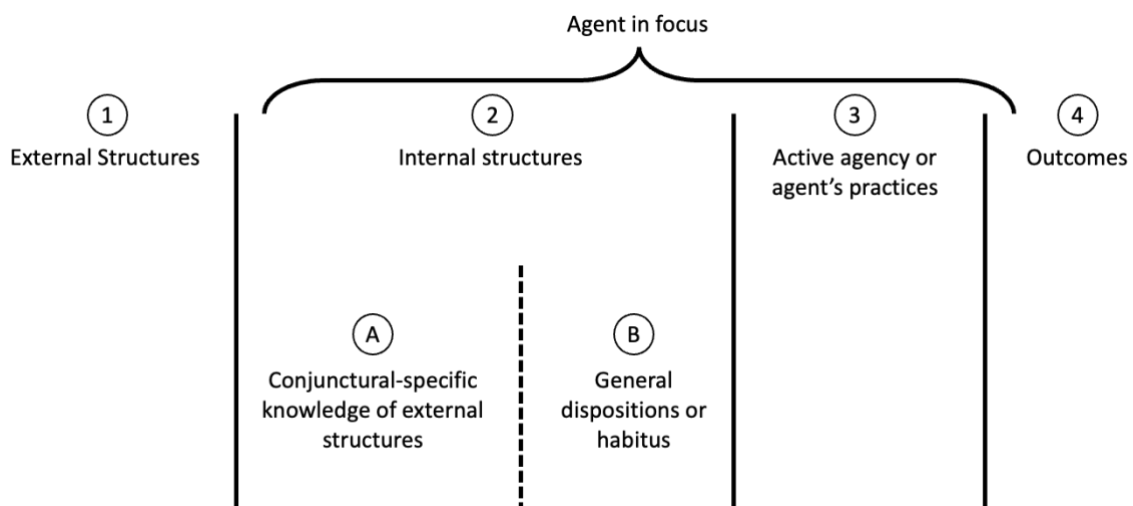
Figure 4.4: The quadripartite nature of structuration (Jack & Kholeif, 2007)

Table 4.3: Description of the quadripartite nature of structuration

Component	Description
1 External structures	External structures create the social conditions that may enable or limit action and may be the result of the intended or unintended consequences of actions. External structures operate autonomous and independently of agent desires and are enacted through position-practices. Position-practices form the link between structure and agency (Jack & Kholeif, 2007). Moore and McPhail (2016) further note that position-practice consist of four inter-related elements: praxis, positioning, capabilities, and trust. Praxis are the activities people perform to achieve their objectives. Positioning provides people with identity, rights, and responsibilities to perform activities. Capabilities are the ability to use established practices and anticipate new practices to perform activities. Trust can be either trusting specific people or trusting an expert system. For example, the role of a line manager is defined within an organisational hierarchy, with specific rights and responsibilities, that enable and limit the actions they may take, using their capabilities and the trust afforded to them to achieve a desired objective.
2 Internal structures	**A.** Conjunctural-specific knowledge is accumulated over time and determined by how people interpret external structures, roles and positions and the knowledge how to act appropriately (Greenhalgh & Stones, 2010; Jack & Kholeif, 2007). **B.** General disposition is shaped by social practices and education and refer to people's principles and orientations, their attitudes, and aspirations. General disposition influences people's interpretation of external structures and can change over time (Greenhalgh & Stones, 2010; Moore & McPhail, 2016).
3 Active agency	Active agency is the interaction between external structures, internal structures, action and outcomes and the moment of structuration (Jack & Kholeif, 2007; Moore & McPhail, 2016). How people perceive and understand a phenomenon based on their previous experiences (phenomenology), the reasoning methods they use based on their tacit knowledge (ethnomethodology) and how they understand and react to what other people do (symbolic interactionism) influence active agency. The result is that how people will act in a specific situation cannot be predicted because it is influenced by their structures of signification, legitimation and domination (Greenhalgh & Stones, 2010).
4 Outcomes	Outcomes are created through active agency with intended or unintended results that either maintain or alter structure (Jack & Kholeif, 2007).

According to Greenhalgh and Stones (2010) SST proposes that due to socio-technical complexities the conceptual and methodological disciplines are interrelated. They do however note that although SST provides a framework for fieldwork and analysis of the duality of structure and agency, it excludes how a technology artefact evolves over time in a recursive relationship.

In the next section I discuss structuration from a technology perspective in structuring social operations by introducing the structurational model of technology and Adaptive Structuration Theory (AST) as examples.

4.4   Structuration and technology

Orlikowski and Robey (1991) and Jones, Orlikowski and Munir (2004) examine the increasing role of technology in structuring social operations, how knowledge is distributed, resources are allocated, and new routines are created. They posit that although Giddens does not explicitly discuss technology in his formulation of structuration theory, technology is an important component of social systems and structuration theory. Jones and Karsten (2008) propose that Giddens's view that agency is voluntarist, structure is virtual and enacted by knowledgeable agents, makes structuration theory relevant for IS researchers. The also propose that technology not only enables structures but are also continuously structured by people. In support DeSanctis and Poole (1994) suggest that structuration models are relevant to IS research because these models focus on more than just the behavioural aspects of technology usage. Structuration models assist IS researchers to demonstrate and explain the interaction between social processes and technology usage that can result in various outcomes using the same technology.

Orlikowski (2000) contends that due to the influence of social constructivism on structuration models of technology, the notion of how people use technology artefacts is based on the structures inscribed in the technology artefact. Additionally, although the models assist in explaining the different outcomes associated with the use of technologies in different situations, the models do not sufficiently explain how technology and its use continuously change. As a result, Orlikowski (2000) suggests the need for additional theoretical development that focuses on the consequences of using technology artefacts and proposes that human actions during the development and ongoing usage of technology artefacts create and embed structures in technology artefacts. Jones and Karsten (2008) support this view and suggest that instead of viewing employees as passive participants and a system as dictating only one way of working through rules that are inscribed in a technology artefact, that employees are active participants, and have the ability to determine their actions and select how they want to use a technology artefact to do their work. For example, how employees select to use a technology artefact is not only determined by the properties of the technology artefact, but it is also based on their skills and knowledge obtained through training and communication, and their assumptions and expectations of how the technology artefact can assist them to do their work. Additionally, the organisational context, their previous experiences using technology in both work and social settings as well as social and cultural customs will influence how people select to use a technology artefact. The combination of the above results in creating meaning, habits, norms and knowledge and the structured use of a technology artefact, which in turn creates the rules, structures and routines how to use other technology artefacts (Orlikowski, 2000).

Orlikowski and Robey (1991) create the structurational model of technology, demonstrated in Figure 4.5, that positions information technology as key to the process of structuration and creation of social

reality. The model demonstrates the duality of technology: technology is created by people for people to use. Secondly, it shows that technology can influence how people do things and the continuous interaction between people and technology results in changes to technology and structures over time with intended and unintended consequences. Thirdly, it shows the relationship between organisational properties and people and how structures of signification, domination and legitimation are created. The model identifies four influences that is described in Table 4.4 that function constantly and concurrently among organisations, people and technology (Jones et al., 2004; Orlikowski & Robey, 1991).

Organisation

D

Information Technology

C

A

B
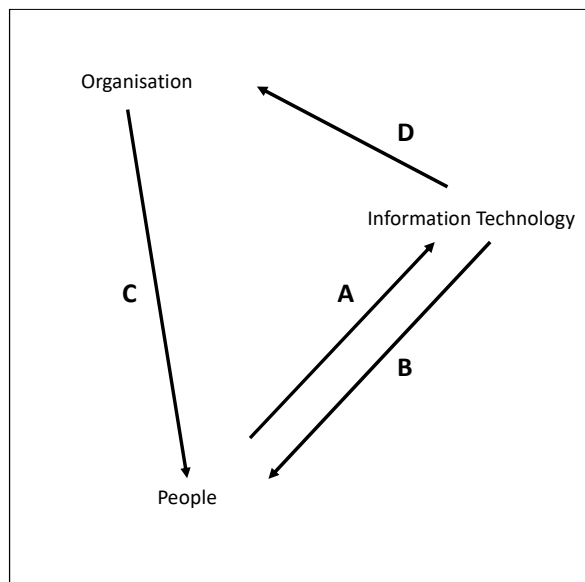
People

Figure 4.5: Structurational model of information technology by Orlikowski and Robey (1991)

Table 4.4: Type and nature of influence that function constantly and concurrently among organisations, people, and technology

Arrow	Type of Influence	Nature of the influence
A	The creation of an information technology artefact by people and for people to use.	An information technology artefact is designed, created, and maintained by people based on assumptions, requirements and a specific social and historical context. An information technology artefact's relevance and continuous use is ensured though continuous maintenance and enhancements by people (Orlikowski & Robey, 1991).
B	The enabling, facilitating, or constraining role of an information technology artefact on people.	The ability of an information technology artefact to enable, facilitate or constrain action is dependent on people using the information technology artefact to perform an activity. However, an information technology artefact cannot determine social practices because people have agency and can select not to use the information technology artefact or use it in a different way than intended (Orlikowski & Robey, 1991).

Arrow	Type of Influence	Nature of the influence
C	The influence of organisational conditions how an information technology artefact is designed, used, or not used.	People do not operate in isolation and are influenced by various organisational properties for example expertise, power and culture (Orlikowski & Robey, 1991). From an organisational perspective culture is defined as the shared symbols, norms and values (Walsham, 2002). Additionally, when people use an information technology artefact they reference knowledge from previous experiences, resources and norms to create the structures of signification, domination and legitimation (Orlikowski & Robey, 1991).
D	The organisational consequences of using an information technology artefact.	Using an information technology artefact to create the structures of signification, domination and legitimation results in opportunities to either maintain organisational structures status quo, resist or transform structures (Orlikowski & Robey, 1991).

According to this perspective structure cannot be embedded in a technology artefact, as it would result in dualism instead of duality. By embedding structure in a technology artefact, it proposes that the technology artefact functions independently and separated from people and practice, versus the notion that the activities that a technology artefact is used for and how knowledgeable people use a technology artefact influence social practices, continuously recreate structure and shape the technology artefact (Orlikowski, 2000). Figure 4.6 demonstrates the relationship between Giddens's modalities of structuration and information technology and how people use their knowledge, the available resources, and accepted norms, with the assistance of information technology to do their work. Furthermore, it shows that the modalities of structuration do not function in isolation but are influenced by the organisational context which in turn shapes how technology is designed and used in an organisation (Orlikowski & Robey, 1991).
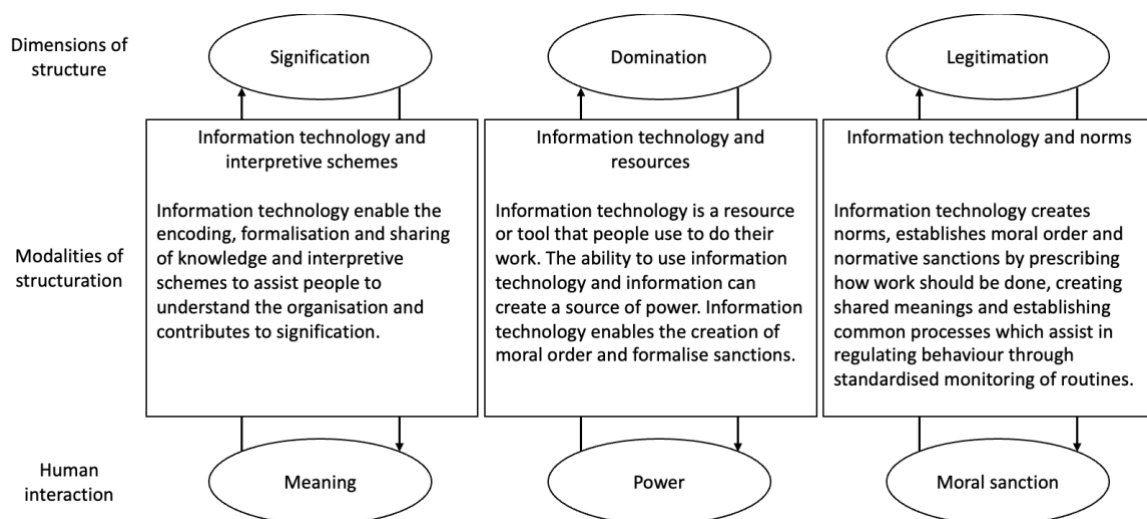
Figure 4.6: Linking information technology to Giddens's modalities of structuration Orlikowski and Robey (1991)

The adoption of this perspective has resulted in the creation of different structuration models of technology that assist IS researchers to understand the role and impact of IT on people and in organisational transformation (Orlikowski, 2000). For example, Adaptive Structuration Theory (AST) addresses the weak consideration of IT in structuration models focusing on technology-triggered change and researchers focusing predominantly on the organisational level using interpretive research methods (Jones et al., 2004). AST focuses on social structures, rules and resources provided by IT and organisations as the basis for action by people. AST broadens structuration models focusing on technology-triggered change and the relationship between IT and social processes by providing researchers with a general approach and a model. The general approach assists researchers to study how people organise themselves in groups, which is important in terms of potential outcomes and organisational change (DeSanctis & Poole, 1994). The model assists in describing the interaction between IT, social structures and action through dependent and independent variables using an input-process-output framework (Pinsonneault & Pozzebon, 2001). Two key principles of AST are that social structures determine how people plan and work, and that IS designers use certain elements of social structures to create structures and rules in an IS that enable and constrain the activities people can do. Although AST is criticised for the notion that structures are embedded in technology and other independent bases of structure, it is credited for explaining the structural potential of IT (DeSanctis & Poole, 1994; Jones et al., 2004). The typical research and analysis methods are causal models, hypotheses testing, laboratory experiments and statistical techniques that measure the inputs and output variables using scales (Pinsonneault & Pozzebon, 2001).

A common theme across structuration models is the objective to understand and to explain the interplay and balance between social and technical structures. In the next section I discuss the social-technical system perspective and introduce the key skills, design methods and design principles. I also discuss the role of the Socio-Technical Systems (STS) as foundation for organisational change, various organisational change perspectives and resistance to change.

4.5   The socio-technical systems perspective

The socio-technical pioneers oppose the notion of mundane and repetitive work that ignore the opportunity for personal development. They promote the ideal to revolutionise the way people work and live by optimising the skills and knowledge of people through the use of technology. To achieve this ideal, practitioners continuously focus on jointly optimising social and technical systems to humanise work and make work more democratic, for example the practice of profit sharing with employees by organisations (Mumford, 2000, 2006). The STS movement is associated with the human relations school of management. It has a general systems worldview that posits that a system consists of interrelated components that operate collectively, and that a system is part of a bigger system or subsystems. For example, an organisation, its people, the work people do and the

information technology that people use constitute a system, which in turn constitutes a subsystem in a country's economy, while a country is a subsystem of the global economy. A key principle of STS is that information technology and social systems are interrelated, and neither is deterministic. For example, the social and technical components of a system or other systems have the ability to create new outcomes, for example the introduction of new information technology can create new ways to do work, or changes in how people want to work can result in the need for new information technology. Other systems in turn can influence how people work and the information technology they need (Winter, Berente, Howison, & Butler, 2014). For example, the global impact of the Covid-19 pandemic resulted in most professional people working remotely and adopting Zoom and MS Teams to remain connected to other employees, families and friends. New ways of work also result in new ways of how to measure engagement and performance. To successfully design new IS and ensure IS designers consider both social and technical aspects, IS designers need certain skills, use appropriate methods, and be guided by design principles, demonstrated in Figure 4.7.

Design Skills	Design Methods	Design Principles
Mumford (2000)	Checkland and Poulter (2010)	Clegg (2000)
Capability Competence Coordination	To analyse, design, develop and implement solutions.	To improve both organisational performance and overall well-being of employees by recognising the interdependence of the social and technical components
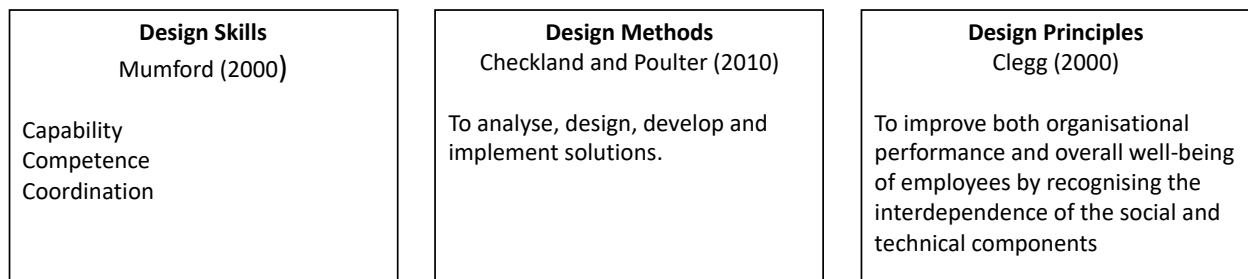
Figure 4.7: The three components IS designers require for IS design, development, and implementation

Mumford (2000) proposes three important skills that IS designers require from a STS perspective: capability, competence, and coordination. Capability refers to the knowledge, capacity, and power of a designer. Competence refers to the problem-solving ability and skills of a designer, and coordination is the ability to collaborate and work with various stakeholders. IS designers also need design methods to assist them in analysing, designing, developing, and implementing solutions, for example Checkland's Soft System Methodology (SSM). Checkland and Poulter (2010, p.191) describe SSM as: "*an approach for tackling problematical, messy situations of all kinds. It is an action-oriented process of inquiry into problematic situations in which users learn their way from finding out about the situation, to taking action to improve it. The learning emerges via an organised process in which the situation is explored using a set of models of purposeful action*". The two main ideas behind SSM are the creation of a learning process, and the organising and structuring of the learning to solve problematical situations. The SSM method is appropriate for social research to study a situation, group or an organisation through action research and applicable to both small and large organisations (Checkland & Poulter, 2010). Finally, IS designers need design principles to ensure they recognise the

interdependence of the social and technical components when designing a new IS that not only improves organisational performance and productivity, but also improves the overall well-being of employees (Clegg, 2000). Cherns (1976) originally defines nine socio-technical design principles, which he has updated ten years later and which Clegg (2000) uses as a basis to create a set of 19 design principles to cater for the rate of technological change by either expanding or modifying Cherns' principles and adding add new design principles. The design principles are categorised as either meta, content or process principles, and can also be used as an evaluation framework.

Winter, Berente, Howison and Butler (2014) opine that although IS research normally focuses on the use of IT in organisations, a substantial percentage of IS research uses STS as a foundation. For example, the notion of participatory design through end-user involvement to collectively optimise work activities and the enabling IT is based on the STS approach. To support their view they refer to the model by Bostrom and Heinen (1977), demonstrated in Figure 4.8, that proposes that the interplay between organisational structure, people, tasks and IT collectively result in an optimal outcome and continuous organisational change. The nature of organisational change can be gradual or punctuated, the impact may be minor or significant and the need for change can have various influences. Table 4.5 provides an overview of different types of organisational change perspectives and the interaction and interpretation between a social system and IT to create technologies-in-practice that is embedded in an organisation.
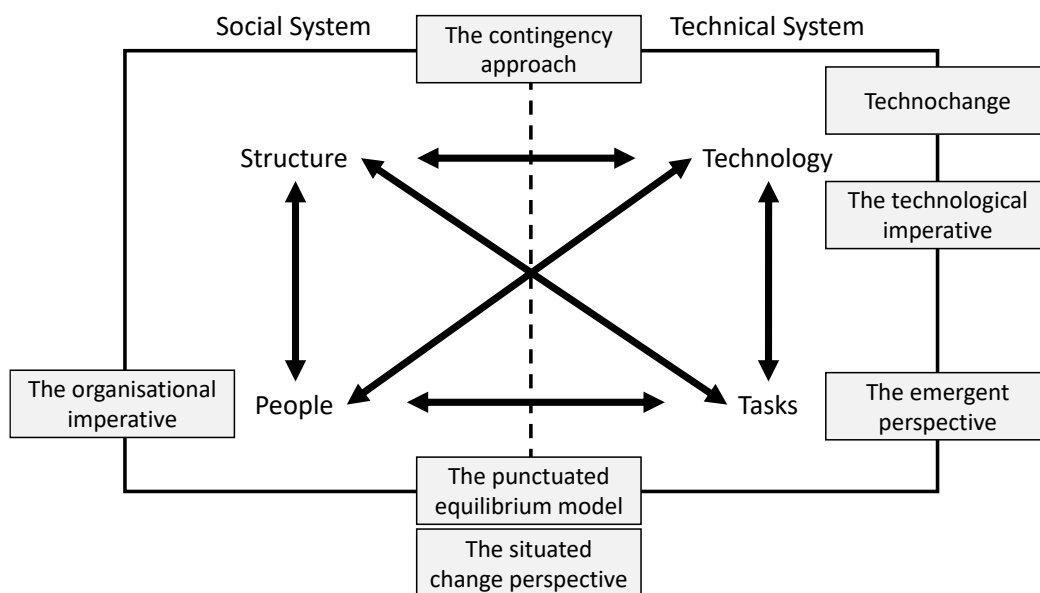
Figure 4.8: Adaptation of the model by Bostrom and Heinen (1977) demonstrating the interaction of four components between social and technical systems and different types of organisational change perspectives

Table 4.5: Different types of organisational change perspectives and the role of information technology

Type of Change	Description
The technological imperative	The technological imperative views IT as the driver of change and creates predictable changes over which management have little influence (Orlikowski, 1996). According to this perspective, IT has the ability to determine or constrain individual and organisational behaviour (Markus & Robey, 1988).
Technochange	Markus (2004) defines technochange as technology-driven organisational change. Technochange occurs frequently because many organisational changes need IS to enable processes and integrate cross-functional areas. Whereas those embracing the technological imperative view IT as the driver of change which management have little influence over. Those who see the change as being technochange recognise the need of management to effect organisational changes through the implementation of IT.
The organisational imperative	The organisational imperative assumes that people have significant control over the IT options and decisions they make, as well as the resulting impact and consequences. An additional assumption is that system designers can successfully address both technical and social concerns. IT is seen as a means to an end to enable the information needs and options available to managers (Markus & Robey, 1988).
The emergent perspective	The emergent perspective posits that the application and impact of IT is the result that emerge from the social interactions between technology and people (Markus & Robey, 1988). This perspective opposes the notion that change can be 'frozen' and the view that it is the result of a linear sequence of events within a specified period, on the basis of uncertainty in the external environment organisations operate in. The emergent perspective proposes small-scale incremental changes on a continuous basis to align an organisation with its environment (Macredie & Sandom, 1999).
The punctuated equilibrium model	The punctuated equilibrium model opposes the gradualist models that view change as slow, incremental and cumulative (Orlikowski, 1996). Although change at an aggregate level may seem continuous, the punctuated equilibrium model views change as the sum of discrete adaptive activities carried out in a rapid, episodic and radical fashion (Tyre & Orlikowski, 1994). The model views the organisational state as predominately stable and that change only occurs as the result of a significant environmental or internal event, for example new IT or industry regulation (Orlikowski, 1996).
The contingency approach	According to this approach, neither the planned nor the emergent perspective is better. Changes in environmental factors necessitate change and the role of IT is often to enable the organisational changes (Macredie & Sandom, 1999). The specific organisational context determines how an organisation deals with the changes and the change processes, the role of IT within the organisation and the actions of influential groups in terms of their adoption and support of IT (Orlikowski, 1993).

Type of Change	Description
The situated change perspective	The situated change perspective views change as a continuous improvisation process consisting of accommodations, adaptations, and alterations. The situated change perspective complements the planned change, the technological imperative and the punctuated equilibrium models. Every change creates the opportunity for new process failures and innovations that result in adaptation and variations. Situated change is grounded in the assumption of action, and this continuous cycle does not have a start or end. Some changes may be deliberate, whilst other may be emergent due to process failures that were not anticipated (Orlikowski, 1996).
	The improvisational model for change developed by Orlikowski and Hofman (1997) proposes that change is a constant dynamic with which modern organisations have to deal with. The improvisational model for change assumes that the implementation of IT creates a continuous process of change and that it is not possible to anticipate the on-going changes. This continuous process of change can be categorised into anticipated, emergent and opportunity based changes and builds on Mintzberg's definition of deliberate and emergent strategies. Anticipated change is the planned change impact, whereas emergent change is the result from experimentation, learning and innovation and one cannot plan it. Opportunity based changes, on the other hand, are deliberate changes that result in response to an unexpected event. The implementation of IT will result in certain anticipated changes, but over time, as people learn more about the system and start experimenting with it, the result will be certain emergent changes.

Clegg (2000) however opines on the limited impact of socio-technical principles and concepts on improving working conditions, creating well-designed jobs and not being extensively used by IS designers in practice to jointly design and optimise both social and technical systems. He ascribes this to the fact that too much of the IT investment focuses on the technical aspects and then designing the social system around IT, regularly excluding the users of IT from the design and development process of new IT systems. Additionally, most organisations do not have an integrated organisational and technical change approach, consequently organisations often fail to realise the intended benefits from the investment in IT, user adoption and resistance issues. According to Benjamin and Levinson (1993), an important reason why many organisations fail to realise the benefits from their investments in IT is because organisations focus too little on the organisational culture. Secondly, organisations fail to successfully manage the changes in business processes and the impact on the organisational structures and social systems. From a structuration theory perspective, Pinsonneault and Pozzebon (2001) propose that organisational change is the result of people interacting with organisational structures. Lewin (1947) argues that social systems consist of two opposing forces, those in favour of change and those resisting change, preferring to maintain the status quo. Kotter and Schlesinger (1979) identify four reasons why people resist change, discussed in Table 4.6, and according to Shang and Su (2004) resistance is often the result of management decisions and how employees perceive the changes will influence their work environment. Shang and Su (2004) identify three types of resistance behaviours and the resulting negative impact, as discussed in Table 4.7. According to Kim and Kankanhalli (2009), user resistance to organisational change through the implementation of information technology can be defined as a negative reaction or opposition to the perceived change.

Table 4.6: Four reasons people resist change according to Kotter and Schlesinger (1979)

Reason for Resistance	Description
Parochial self-interest	People fear they will lose something and only focus on what is in their best interest.
Misunderstanding and a lack of trust	Not only do people not understand the implications of the change, but there is also a lack of trust between initiator of the change and the employees affected.
Differences in the impact assessment calculation	Managers presume that not only do they have all the relevant and correct information, but that this information will also correspond with the information employees have.
Low tolerances for change	People have a limited capacity to absorb change and each person has a different limit. When change is too radical or the limit is exceeded too often, it will result in resistance, even if people agree with the rationale and objective of the change. Often, the resistance is also a result of people's fear that they will not be able to develop the required skills to adapt to the change.

Table 4.7: Type of resistance behaviours according to Shang and Su (2004)

Resistance Type	Resistance Behaviour
Non-destructive	When people refuse to use a system
Proactively-destructive	When people use a system, but sabotage the system through deliberate and careless mistakes.
Passively-destructive	When people make very little effort to improve their skills and refuse to cooperate with others.

Orlikowski and Robey (1991) opine that by focusing only on the structural properties of IS, organisations risk not recognising the impact and role of IS in organisational change and transformation. In support Barret, Sahay and Walsham (2001) propose that IS researchers should explore the role of trust and the intended and unintended consequences by expanding the existing structurational perspectives on technology and specifically the notions of structure and user appropriation.

In the next section I discuss structuration and IS trust creation and introduce the Structuration and Information System Trust Creation model create by Schlichter and Rose (2013).

4.6   Structuration and information system trust creation

Schlichter and Rose note in their various writings that trust is recognised as a critical success factor in IS implementation projects and that IS literature have demonstrated the benefits of trust by promoting collaboration and commitment in reducing IS project failure rates. They also note the impact of

mistrust and the additional effort in terms of relationship building that is required to re-establish trust. However, they observe that most of the IS literature focus on point-in-time studies, with few longitudinal process studies, and little use of process theories as a method for explaining the dynamic nature of trust in IS projects (Rose & Schlichter, 2013; Schlichter & Rose, 2009, 2013). In response Schlichter and Rose (2013) have created the Structuration and Information System Trust Creation model using Giddens's (1990) views of abstract systems and the dynamic role of trust in sustaining abstract systems as a basis for their model.

Whilst Giddens does not specifically discuss IS and trust is not comprehensively discussed in structuration theory, trust forms a vital part in Giddens's work on modernity and its influence on sustaining abstract systems in modern societies. According to Giddens (1990) abstract systems enable people to function in situations of uncertainty, with limited experience or knowledge and where social interactions are not constrained by time and space. For example, electronic banking systems enable people to purchase products or services and receive payments via e-commerce platforms any time of the day from anywhere in the world. By providing the technical infrastructure, processes and expertise, a banking system is not only an object of trust but can also display trust, because besides trusting that banking systems process transactions correctly and safely store money, their design in terms of security and protection can promote trust in their IS artefacts. Based on this, Schlichter and Rose (2013) draw a parallel between abstract systems and complex IS that require technical infrastructure, processes and expertise, for example ERP systems and healthcare IS.

Figure 4.9 demonstrates and Table 4.8 describes the multi-dimensional relationships between constructs in Giddens' account of trust in abstract systems. The objective of the model is to assist IS researchers and practitioners to view trust as dynamic and how various structuration constructs influence the establishment, maintenance, breakdown, and restoration of trust in IS projects over time. From a STS perspective, the model leans towards the social aspects that influence trust by focusing on the relationship and impact of different types of engagements between an IS project team, IS users, stakeholders, and the IS artefact. For example, trust in an abstract system is based on and affected by individuals and groups ontological security. By offering different types of access points (dis-embedding and re-embedding) for interaction with the abstract system and allowing time-space distanciation, individuals and groups are able to conduct chronic reflection which will impact on their trust of the abstract system. The model does not prescribe a sequence how the model should be used, but an awareness of the role and inter-relationship of the constructs and impact on trust that IS researchers and practitioners should consider.
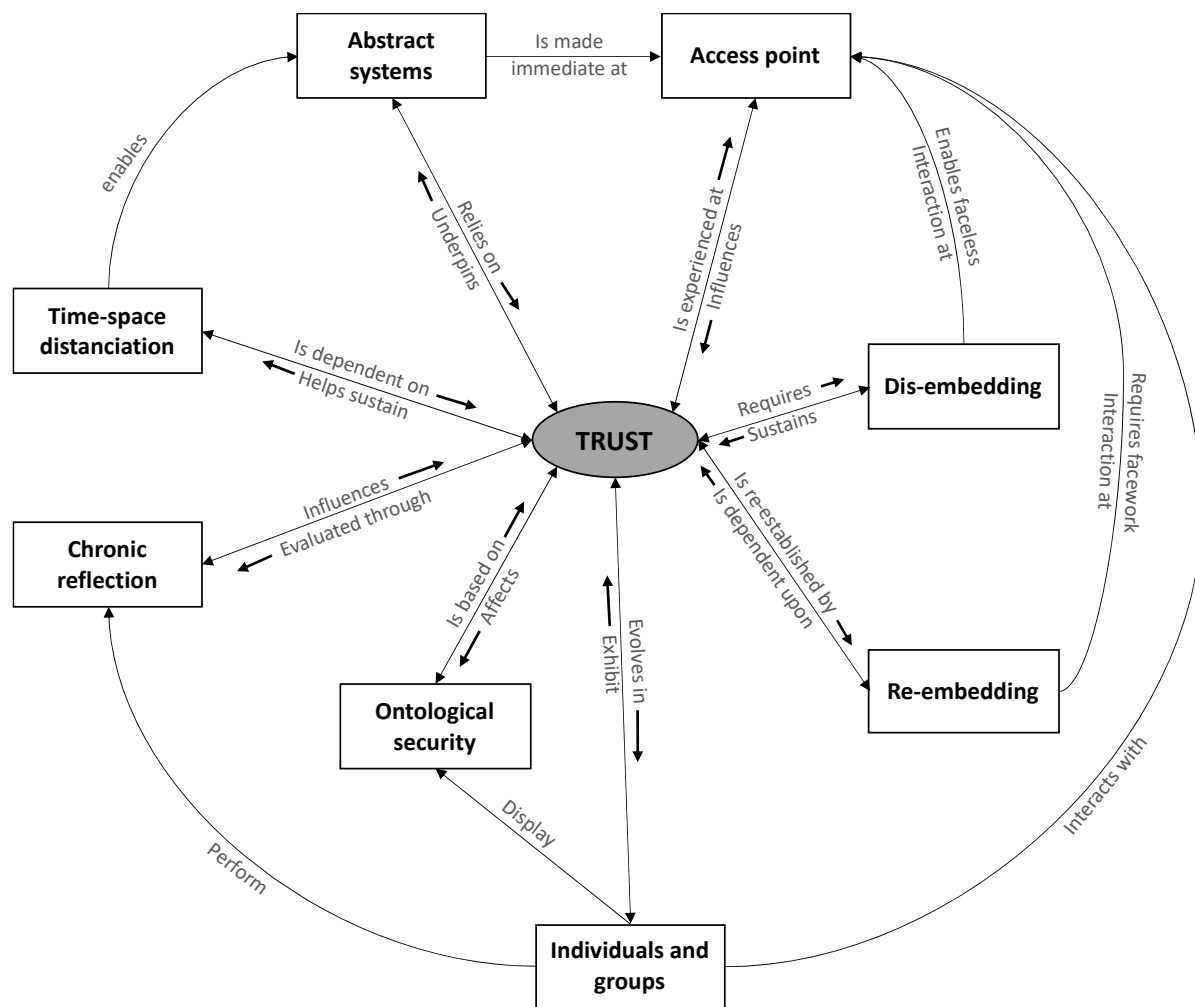
Figure 4.9: Schlichter and Rose's (2013) Structuration and Information System Trust Creation model

Table 4.8: The multi-dimensional relationships between structuration constructs and trust (Schlichter & Rose, 2013)

Construct	Description
Abstract system	An abstract system is a dis-embedding mechanism that provides security and guarantees to its users and enables the time-space distanciation of relationships.
Time–space distanciation	Trust in an abstract system enables a social system to operate without physical co-presence and independent from time and space.
Trust	Trust in an abstract system is an emergent process, where past experiences and perceptions form the basis for future perceptions, expectations, and interactions. Trust in an abstract system is also reciprocal, where trust does not only have an impact on interactions, but the experience from encounters also has an impact on trust.
Access point	People engage with an abstract system and the designers at access points through either facework or faceless interactions. Facework interaction entail physical interaction with the designers or experts, whereas faceless interaction entail interaction with an IS that form part of an abstract system.

Construct	Description
Chronic reflexion	People continuously evaluate and reflect on their experience with an abstract system and the impact it has on them from a social and activity perspective. Negative experiences will result in a re-evaluation and reduction in trust.
Dis-embedding and re-embedding	Abstract systems enable the process of dis-embedding across time and space through IS by removing the dependency on physical presence for context and interaction but is dependent on trust. Trust is however conditional and not absolute, because through chronic reflection people continuously evaluate their situation and the consequences of actions. The impact is the need to re-embed IS users and other stakeholders' trust through facework interactions at access points with the IS designers and experts to discuss concerns and verify understanding to re-situate the abstract system and IS.
Ontological security	Ontological security and trust are influenced by the experiences that IS users and stakeholders have with the abstract system, IS and IS designers and the impact this has on their self-identity and the continuity of established social practices.

Whilst the advantages of the Schlichter and Rose's (2013) Structuration and Information System Trust Creation model is a processual theory approach that adopts a social stance and how to establish and restore trust, a limitation is the limited focus on the impact of IS design, IS quality and different frames of reference on IS trust creation. From a STS perspective, the model assists IS practitioners to be cognisant of how the various structuration constructs impact and relate to trust formation and actively manage the formation and maintenance of trust, instead of expending effort on activities to restore trust.

In the next section I discuss the purpose, selection, and extension of the theoretical framework for this research study by evaluating SST, the Structurational Model of Information Technology, AST and Structuration and Information System Trust Creation model.

4.7   Selection and extension of the theoretical framework

The objectives of an appropriate theoretical framework for this research study are two-fold, firstly a framework that will support the primary research focus and secondly, a framework that will assist in addressing specific limitations and criticisms raised by other researchers. In terms of primary focus the appropriate theoretical framework will use trust as a central theme. In terms of addressing specific limitations and criticisms, the appropriate theoretical framework will firstly assist with the exclusive focus on institutional levels of analysis, secondly it will expand the predominantly European and American societies-based research, and thirdly, to empirically apply the ideas developed by Giddens and specifying how institutions and actions are related and evolve over time. Selecting the theoretical framework for this research study has entailed reviewing four different structuration models, described in Table 4.9 in terms of application and relevance to the objectives of the research study.

Table 4.9: Model Summary and Application

Model	Summary	Application
Strong structuration theory (Stones 2005)	• Distils the criticism, debate and enhancements of structuration theory. • Seeks to move beyond the abstract philosophical concepts and explore empirical applications.	• Proposes how empirical research may be carried out using a reinforced version of the ontology offered by Giddens. • A meso-level ontological concept to assist a researcher to analyse action and structure in relative terms.
Structurational Model of Information Technology (Orlikowski & Robey, 1991)	• Technology is both shaped by and shapes human action (the duality of technology). • The ongoing and dynamic interaction between people and technology.	• The nature and influence of human agency in technological development and use. • The critical role of humans in shaping the consequences of technology use in organisations.
Adaptive structuration theory (DeSanctis & Poole, 1994)	• Extends current structuration models of technology-triggered change to consider the mutual influence of technology and social processes. • Provides a general approach to the study of how groups organise themselves. • A model that describes the interplay between information technologies, social structures, and human interaction.	• Causal models and hypotheses testing, laboratory experiments and statistical techniques of data analysis are illustrative of the deterministic logic of this perspective. • To make sense of the interaction between IT and human action.
Structuration and Information System Trust Creation model (Schlichter & Rose, 2013)	• Trust as a critical success factor in IS implementation projects. • Role of trust in modernity. • Influences of trust in co-operation and commitment among actors. • Trust in an implementation project is multi-directional. • Adopts a social stance because of the many stakeholder groups.	• A processual theory approach. • Demonstrating the multi-dimensional relationships between constructs in Giddens's account of trust in abstract systems. • Trust is placed in a relationship with other concepts, producing outcomes that are emergent.

Although AST assists in describing the interplay between information technologies, social structures and human interaction, the application focuses on causal models and hypotheses testing, laboratory experiments and statistical techniques of data analysis. The Structuration Model of Information Technology focuses on the nature and influence of human agency in technological development and use, and the critical role of people in shaping the consequences of technology use in organisations, but the role of trust is not a core component. The advantage of SST is the guidance of how empirical research may be conducted and a meso-level ontological concept to assist a researcher to analyse action and structure in relative terms, but similar to the Structuration Model of Information Technology the role of trust is not a core component. I selected the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) because it presents trust as a central theme and provides a processual theory approach to demonstrate the multi-dimensional relationships

between constructs in Giddens's account of trust in abstract systems. To assist in addressing specific limitations and criticisms raised by other researchers, I propose extending The Structuration and Information System Trust Creation model by Schlichter and Rose (2013) by adding three additional components: frames, design blind spots, and operational malfunction, illustrated in Figure 4.10. I will also use the extended framework to enable the focus on both an employee level (micro) and organisation level (macro), and to assist with the analysis of the relationship between trust and actions and how trust evolve and is sustained over time.

Frames	**Design Blind Spots**	**Operational Malfunction**
Determines how people make sense and interpret their environment.	The constraining and negative impact of design blind spots on how IS designers interpret, design and implement an IS.	The failure of a well designed and successfully implemented abstract system and IS due to operational issues or mistakes.
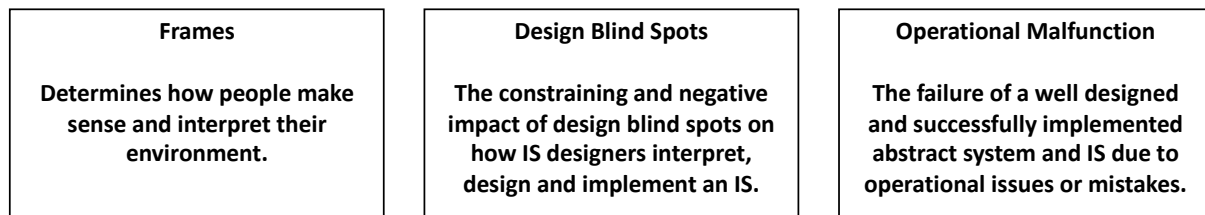
Figure 4.10: Extension of the theorical framework by including IS related components

According to social cognitive research, the knowledge a person has about an information-domain is the result of experience and interaction that is cognitively structured. These socio-cognitive structures provide the frameworks people use to make sense of their environment, to assist with problem solving and to assist them to fill information gaps (Davidson, 2002). The concept of frames and how it relates to information technology can be traced to Boland (1978) who argues that the misunderstandings between users and IS designers are caused by a lack of a shared frame in terms of the assumptions, expectations and understanding of the two parties (Lin & Silva, 2005). Shared frames are the knowledge and expectations that groups of individuals share. Frames are the contexts, structures, and models that individuals use to make sense of their environment, especially during a period of change or uncertainty. Organisations consist of various social groups such as users, technologists, and managers. Managers will typically focus on the strategic impact of the technology whereas users will focus on the immediate and operational impact, and technologists will focus on the technical fit and interoperability. Each of these groups will have their own frames/schemas. A frame can have a constraining effect but is flexible and will change over time. Technological frames refer specifically to the general understanding people have of the objective, function and value of technology (Gash & Orlikowski, 1991; Orlikowski & Gash, 1994). Technological frames enable people to make sense of new information technology by comparing it to other information technology applications they have used before. This reduces uncertainty and influences how people interpret and use information technology. When a group of people shares a frame, they have the same or a similar understanding and their actions will be similar. However, organisations consist of many groups, for example the marketing, financial and technology groups and it does not mean that one group's technological frame will be similar or accepted by another group. Each group will use their frames as the general

understanding of how to interact with information technology. If there are differences between groups, the result is incongruence of frames. Incongruence occurs when there are differences in the assumptions, knowledge and expectations incorporated in the frame domains of the various social groups. Incongruence leads to user resistance and adoption issues. Where there is alignment of the frames, it is deemed as congruency. Congruence of frames exists when there are similar expectations in terms of the role of information technology, the nature of use and support between the groups. Due to the flexibility of information technology and the ability to apply it in various ways, technological frames will strongly influence the design and use of technology (Gash & Orlikowski, 1991; Lin & Silva, 2005). According to Bostrom and Heinen (1977) the frames of IS designers, their perception and interpretation of an organisation, the people and the role of IS are embedded in how IS designers design, build and implement IS, and a key reason why many IS projects fail.

Although Giddens (1990) does not specifically discuss IS in his writings about modernity and structuration, he discusses the notion of design faults when an abstract system does not enable or support the objectives of a social system. Whilst frames create the filters that enable IS designers to make sense of their environment, Bostrom and Heinen (1977) observe that it can also constrain IS designers and negatively impact on how they interpret, design and implement an IS by creating what I term as "*design blind spots*". The reason is that IS designers are not always aware of the influence of their frames of reference and how this may limit their design and implementation strategies or even create incongruency. For example, a Performance Reward Programme (PRP) that promotes activities and behaviours that is incongruent with the IS designer's frame of reference can result in the design and implementation of an IS that does not meet the requirements or expectations of the IS users and other stakeholders. Bostrom and Heinen (1977) propose seven reasons related to IS designers' frames of reference, described in Table 4.10, that can cause design blind spots and result in inadequate IS designs and unsuccessful implementation strategies. The seven reasons for inadequate IS designs and unsuccessful implementation strategies by Bostrom and Heinen (1977) provide IS designers with the awareness of design blind spots. By addressing these blind spots in conjunction with the socio-technical systems approach of collaborative design that balance social and technical aspects enable IS to mitigate the risk of inadequate IS designs and unsuccessful implementation strategies.

Table 4.10: Bostrom and Heinen's (1977) seven reasons that cause inadequate IS design and unsuccessful implementation strategies

Reason	Description
IS designers' implicit theories	IS designers are influenced by their frame of reference and their knowledge and assumptions of the people and the organisation.
IS designers' concept of responsibility	Because IS designers typically take responsibility for the IS development process, they are also normally made responsible for organisational changes as change agents. The challenge with this approach from a change theory perspective is that change agents cannot force people to adapt to change, because people have their own volition. People need to take responsibility for their own change behaviour and the role of the IS designer is purely to facilitate change through a change programme.
Non-systemic view and limited frameworks	The limited consideration of complete work systems by IS designers and that a change in one part of a work system may result in changes in other parts of a work systems.
Focused on only optimising the technical system	Typically, IS designers only focus on the technical system aspects, for example increasing efficiencies and improving the quality and type of information presented to management and neglect social system aspects that improve quality of working life.
Limited involvement of users and other stakeholders in a work system	When IS designers do consider the input of people, they typically only reference a small or select group of people, neglecting other groups and stakeholders. The negative impact of this is that it ignores the impact on other work systems and what people do or how they do something. The consequence of ignoring other work systems and people will ultimately impact on the success of an IS.
A static view of organisations and the IS development process.	The traditional IS design and development process ignores the notion of a dynamic environment and instead presumes a static environment where the IS design and development process is rational and static. It also presumes that organisations are clear what their problems are, and that the implementation of a new IS will instantly transform the organisationn to the ideal state.
Using limited change technologies	IS designers tend to use a limited set of techniques and change technologies to improve both social and technical systems and facilitate organisational change.

Giddens (1990) also discusses the notion of operator failures in his writings about modernity and structuration, where an abstract system has been well designed and successfully implemented, but fail due to operational issues or mistakes. DeLone and McLean (2008) propose six key dimensions that determines IS success, namely: information quality, system quality, service quality, system use, user satisfaction, individual and organisational impact. For the purpose of this research study and to enrich the theoretical framework, I group data quality and system quality as components of what I term as sources of "*operational malfunction*" that can cause user frustration with an IS, resistance to using an IS, and ultimately the rejection and failure of an IS. According to Wixom and Watson (2001) an IS can provide IS users, stakeholders and the organisation with numerous benefits when the IS is perceived to provide accurate, complete and consistent data through an IS that is deemed of high quality in terms of the capabilities and interoperability with other IS in the organisation. For example,

an IS providing accurate, complete, and consistent data can improve the understanding of situations and the decisions required to achieve desired outcomes, whilst a high-quality IS can simplify and optimise work processes and improve efficiencies, effectiveness and conditions of work for the IS users. An additional factor that influences system quality is system performance in terms of speed of the IS to render information or executing activities initiated by the IS users. An IS with slow response rates can result in IS user frustrations, leading to resistance to using the IS and the rejection of an IS by replacing the IS at significant organisational cost and impact.

In Figure 4.11 I demonstrate how frames, design blind spots and operational malfunction are incorporated into Schlichter and Rose's (2013) Structuration and Information System Trust Creation model. Frames are influenced by chronic reflection which in turn influence ontological security and trust. Design blind spots influence the design, development, and implementation of an IS. Finally, operational malfunction impacts on the adoption and use of an IS and can also result in a breakdown in trust between IS users and IS designers.
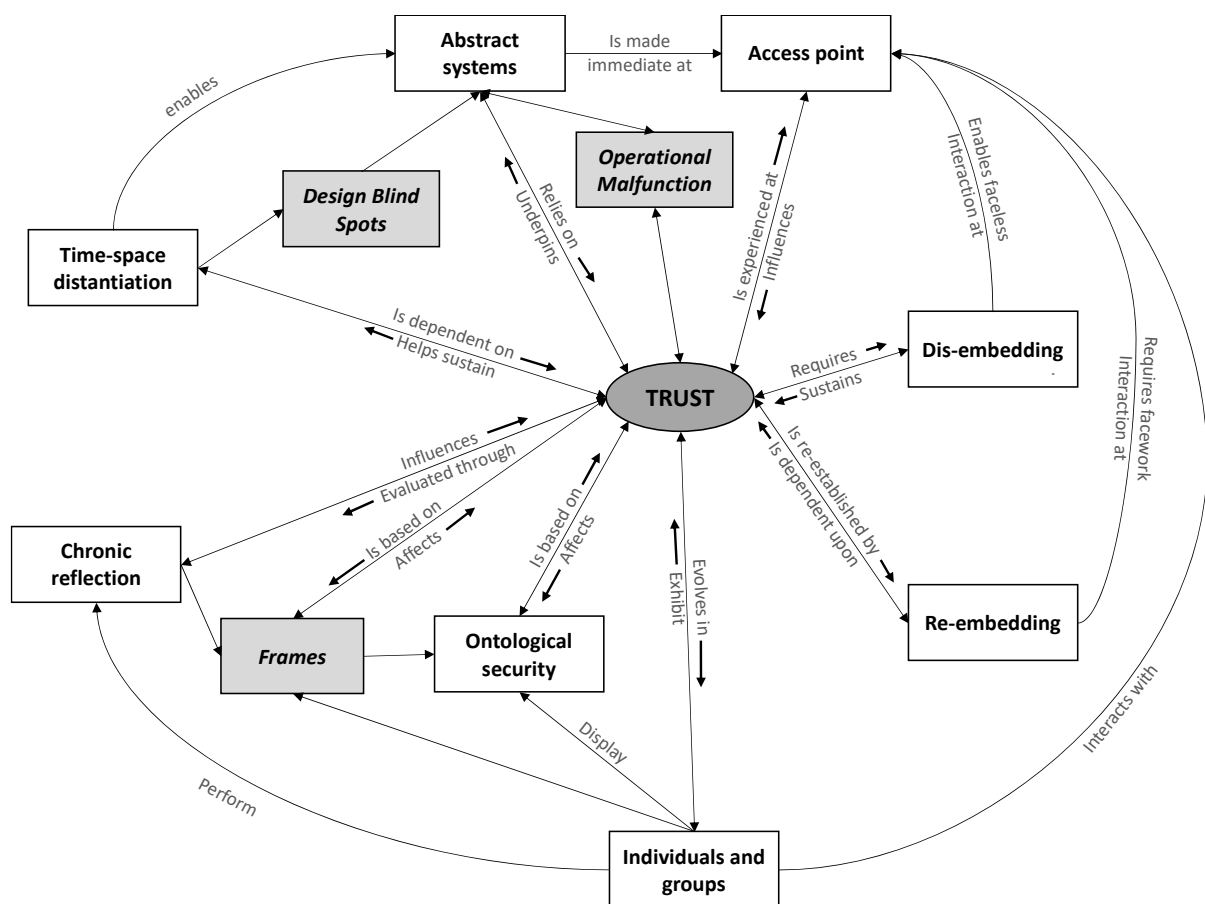
Figure 4.11: Proposed extension of the Structuration and Information System Trust Creation model by Schlichter and Rose (2013)

4.8   Conclusion

In this chapter I introduced and discussed various theoretical frameworks based on Giddens's structuration theory and the theoretical framework I selected for this research study. I discussed the key constructs and modalities of structuration, SST, and structuration from a technology perspective by introducing the structurational model of technology and AST as examples. Secondly, I discussed the relevance and importance of the socio-technical systems perspective for studying the relationship between IS, people and organisations. Finally, I introduced the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) as the theoretical framework for this research study and rationale for adding three additional components: frames, design blind spots and operational malfunction.

In the next chapter I discuss the research methodology.

Chapter 5 – Research methodology

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

Chapter 2: Performance Management
- What is it?
- Why is it important?
- What needs to be solved?

Chapter 3: Trust
- Defining Trust: overview and topology
- Trust formation and IS
- Variance and process theories
- Giddens structuration and process approach

Chapter 4: Theoretical Framework
- Key constructs and modalities of structuration
- Structuration theory and technology
- Socio-Technical perspective
- Structuration and IS trust creation
- Selection of the theoretical framework for the research study

Chapter 5: Research Methodology
- Rationale for selecting the qualitative interpretive research method
- Motivation for a single longitudinal case study and using action research as method
- Describing the research design and case organisation selection
- Ethical considerations

Chapter 6: Case Study Context
- Rich description of the history, evolution and dynamics of Performance Management in the case organisation

Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 5.1: Research case study outline

5.1   Introduction

In this chapter, demonstrated in Figure 5.2, I present the rationale for selecting the qualitative interpretive research method and using theory for explaining from a theoretical perspective. Secondly, I explain why a single longitudinal explanatory case study strategy using action research as research method is applicable for this research study. Thirdly, I describe the research design and why I chose a financial services organisation and how a deductive/"theory-driven" thematic analysis approach assisted me in structuring, coding and analysing the data I gathered. This chapter concludes with the ethical considerations associated with this type of research study and mitigating steps I took to ensure confidentiality of the participants and the protection of information.
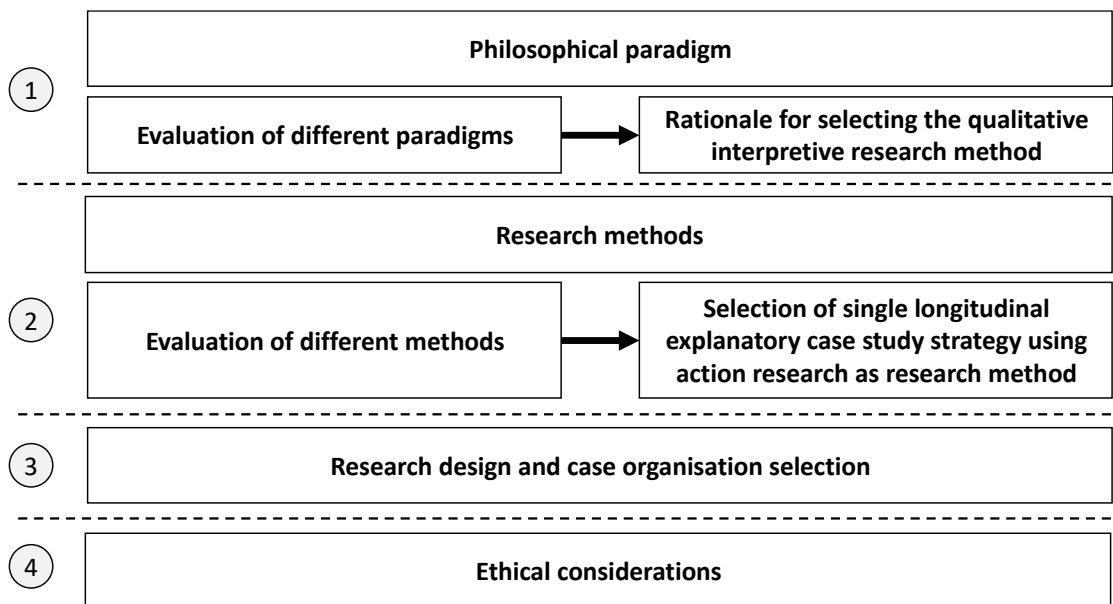
Figure 5.2: Demonstration of the chapter content and flow

5.2   Philosophical Paradigm

Philosophical paradigm is the fundamental set of assumptions that a professional community adopts to share similar perceptions and to engage in shared practices. It defines a researcher's assumptions about knowledge (epistemological) and the process of how knowledge is acquired (ontological) (Hirschheim & Klein, 1989). Cooper and White (2012) note that a researcher must recognise and be aware of their specific paradigm in order to guard against the danger of own bias.

For this research study I evaluated the positivist, critical and interpretive paradigms to inform and guide my selection of the appropriate paradigm, theories, and methodology. In Table 5.1 I compare the three paradigms based on their ontological and epistemological assumptions, their beliefs about the relationship between theory and practice, limitations and in context of IS of each paradigm.

Table 5.1: Evaluation and comparison of the positivist, interpretive and critical paradigm (Cooper & White, 2012; Goldkuhl, 2012; Klein & Myers, 1999; Orlikowski & Baroudi, 1991)

	Positivist Paradigm	Interpretive Paradigm	Critical Paradigm
Beliefs about Physical and Social Reality (Ontological)	- Assumes an objective physical and social world that exists independent of humans. - Assumes that human action is intentional and rational, and that people interact in relatively stable and orderly ways. - The researcher plays a passive, neutral role in the investigation, and does not intervene in the phenomenon of interest. - The role of the researcher is to "discover" the objective physical and social reality by crafting precise measures that will detect and gauge those dimensions of reality that interest the researcher. - Understanding phenomena is primarily a problem of modelling and measurement, of constructing an appropriate set of constructs and an accurate set of instruments to capture the essence of the phenomenon.	- The social world is produced and reinforced by humans through their action and interaction. Organisations, groups, social systems do not exist apart from humans. - Believes that social reality can only be interpreted and the importance of subjective meanings. - Interpretations of reality may shift over time as circumstances, objectives, and constituencies change.	- Is essentially ideological and draws from Classical Marxism and focuses on oppression and marginalisation based on factors ranging from gender, race, nationality to sexual orientation, social class, and work. - Social reality is understood to be produced and reproduced by humans, constantly undergoing change. - Believes that social reality is historically constituted, and that people, organisations, and societies are not confined to existing in a particular state, and that people can change their material and social circumstances. - The capacity to enact change is however constrained by economic, political, and cultural authority. - Assumes that the contradictions inherent in existing social forms lead to inequalities and conflicts, from which new social forms will emerge. - The role of critical research is to expose these hidden contradictions and thereby attempt to reframe the basic oppositions, potentially enacting a different social order.
Beliefs about Knowledge (Epistemological)	- Concerns with the empirical testability of theories, whether this requires theories to be "verified" or "falsified". - A search for universal laws or principles from which lower-level hypotheses may be deduced.	- Understanding social process entails getting inside the world of those generating it. - Understanding social reality requires understanding how practices and meanings are formed and informed by language and tacit norms shared by humans working towards some shared goal.	- Knowledge is grounded in social and historical practices. - Studies tend to be longitudinal long-term historical studies and ethnographic studies of organisational processes and structures. - Does not merely accept the self-understanding of participants, but also

	Positivist Paradigm	**Interpretive Paradigm**	**Critical Paradigm**
	• A tight coupling among explanation, prediction, and control. • Sample surveys and controlled experiments are the primary data collection techniques, and inferential statistics is the data analysis method used to "discover" causal laws.	• Research methods are field studies that investigate people within their social settings. • The objective is to describe, interpret, analyse, and understand the social world from the participants' perspective.	critically analyses it through the theoretical framework which they adopted to conduct their work.
Beliefs about the Relationship between Theory and Practice	• The relationship between theory and practice is primarily technical. • Researchers can objectively evaluate or predict actions or processes, but they cannot get involved in moral judgments or subjective opinion.	• The researcher can never assume a value-neutral stance and is always implicated in the phenomena being studied. • Researchers' prior assumptions, beliefs, values, and interests always intervene to shape their investigations.	• The role of the researcher is to surface the restrictive conditions of the status quo, initiating change in the social relations and practices, and helping to eliminate the bases of domination. • The role of the researcher is to actively effect change in the phenomena being studied.
Limitations	• The quest for universal laws leads to a disregard for historical and contextual conditions as possible triggers of events or influences on human action. Neglecting these influences may reveal an incomplete picture of IS phenomena. • The positivist aims to explain and predict external reality and implies that people are not active makers of their physical and social reality.	• Does not examine the conditions that give rise to certain meanings and experiences. • Does not explain the unintended consequences of action. • Does not address structural conflicts within society and organisations and ignores contradictions which may be endemic to social systems. • Does not explain the reason for a particular social order nor how it might change over time.	• This almost exclusive focus on economic factors obscures the importance of other factors such as race and gender that have also led to dominating and repressive social relations. • Critical researchers are often not critical enough of their own concepts and theoretical models. • The form of theory and knowledge in this tradition is uncertain.
From an IS perspective	• Formal propositions, quantifiable measures, hypothesis testing, and inferences about a phenomenon from a representative sample.	• Sensemaking and knowledge is created through for example language, consciousness, shared meanings and documents.	• Social critique of the status quo with the objective to eliminate domination and create the opportunity for realising human potential by changing social and economic conditions.

Based on evaluation in Table 5.1, I elected to use the interpretive paradigm for the following reasons:

1. The objective of the research study is to understand and explain and not to prove, disprove or change, which is the objective of positivism and critical research.
2. According to Hirschheim and Klein (1989) the research paradigm defines a researcher's assumptions about knowledge (epistemological) and the process of how knowledge is acquired (ontological). The interpretive paradigm aligns with my world view from an epistemology and ontology perspective. I view knowledge as perceptions, feelings and opinions that is shaped through experiences like work, travel, and continuous studying. I believe knowledge is intersubjective and created primarily by a person's environmental and social conditions and the influence of peers and role models a person engages with.
3. As per Myers (2009) and Olivier (2009), the interpretive paradigm allows me to immerse myself and participate in research, instead of looking at the subject from the "outside in".
4. As per Klein and Myers (1999), the interpretive paradigm firstly enables me to gain an understanding and insight into how people think and the actions they take and secondly, how this impacts on IS development and usage.

I also compared the interpretive paradigm to pragmatism since Baskerville and Myers (2004) suggest it as the underlying philosophy for most forms of action research and the influence pragmatism has had on IS research (Goldkuhl, 2012). Goldkuhl (2004, 2012) comments that whilst interpretivism focuses on gaining an understanding, pragmatism focuses on being useful in action. This is demonstrated by the type of questions that a pragmatist asks, for example, "who is doing something", "what is done", "when is something done", whilst an interpretivist asks, for example, "why was something done" and "how was something done".

Historically and traditionally the relationship between the researcher and research as well as the (auto) biographical role in the development of qualitative research have been ignored, but postmodernism influenced and changed how qualitative research is interpreted and understood (Cooper & White, 2012). It allows me to look at the subject from the "inside" through immersion. I can write in an autobiographical format that enables me to make better sense of the social phenomena and to explain the context and subject through actual experience in richer detail as suggested by Myers (1997) and Cooper and White (2012).

Although immersion is a hallmark of the interpretive paradigm and qualitative research methods (Kaplan & Duchon, 1988), Walsham (2006) notes that interpretive does not equal qualitative and suggests that researchers doing interpretive research should evaluate the inclusion of quantitative data in their research. An example of quantitative data in interpretive research is the results from surveys. However, Myers (1997) and Baxter and Jack (2008) note that the goal of understanding a

phenomenon from the participants' point of view as well as their social and institutional context is lost when textual data is quantified. Institutional context is lost as quantitative studies are restricted to static constructs and neglect the social interaction that might affect the outcomes and constructs of what is studied. Myers (1997) and Baxter and Jack (2008) therefore suggest that qualitative research methods are better suited while Kaplan and Duchon (1988) propose the advantage of using qualitative research methods with the interpretive paradigm as they assist in posing and solving research problems. Klein and Myers (1999) propose seven principles for conducting interpretive research to improve the quality of interpretive research in IS as summarised in Table 5.2. The principles focus on interpretive research of a hermeneutic nature.

Table 5.2: Klein and Myers (1999) principles for conducting interpretive field studies in Information Systems

Principle	Description
The hermeneutic circle	Proposes that how we understand and make sense of a phenomena is achieved through an iterative process where we consider the meaning of the components and the whole.
Contextualisation	Importance of providing sufficient social and historical context to the reader to enable understanding of the situation of the research environment.
Interaction between the researcher and the subject	Researchers should recognise and be aware how their personal perspective and context may influence the interaction with participants and how the research content is constructed.
Abstraction and generalisation	Requires researchers to generalise their observations and findings by using theories as a sensitising device to either develop new concepts, to generate theory, propose implications or contribute insights.
Dialogical reasoning	Researchers need to be aware that theoretical preconceptions might contradict the actual findings.
Multiple interpretations	Researchers need to be aware that people interpret events and situations differently.
Suspicion	Researchers need to be aware that people might be biased and that the narrative may cause distortion.

Lewis and Weigert (1985) observe that trust is a social phenomenon that is indispensable in social relationships. According to Söllner and Leimeister (2013), trust is a social constructive and cognitive process where people choose who to trust based on perception, context and circumstances irrespective of evidence or rational reasoning. Söllner and Leimeister (2013) further comment on the increasing interest in trust by reflecting on the number of articles and special issues in major journals. Conversely, Bstieler, Hemmert and Barczak (2017) observe a lack of empirical research that examines bases of trust in inter-organisational relationships.

In the following section I evaluate various research methods and discuss why I selected action research as research method.

5.3   Research methods evaluation and action research selection

Since IS research has been criticised for having little relevance and influence on practice (Cole et al., 2005), and given my role as project leader and employee at the bank, I evaluated ethnography, design science research and action research in selecting a suitable research method. Although ethnography enables me to emerge myself to understand and to describe the organisation and systems, it limits my role to primarily observer and when required to participate in action taking, the actions should be beneficial to the organisation and not to achieve scientific goals (Baskerville, 1999a). Design science research primarily focuses on activities related to the construction and evaluation of technology artefacts that meet organisational needs and the development of associated theories. Design science research is rooted as a discipline in the sciences of artificial with a focus on the creation of new and innovative artefacts and its utility, rather than natural phenomena. The activities associated with design science research can be either building or evaluation of artefacts, and artefacts can be constructs, models, methods or instantiations (Cole et al., 2005). A recent focus in design science research that is gaining momentum is designing methodologies and interventions using a socio-technical perspective to develop practical design knowledge (Carlsson, Henningsson, Hrastinski, & Keller, 2011).

Action research, however, is a change-oriented approach (Cole et al., 2005) that focuses on creating a more desirable future with an emphasis on the utility of a future system from a people's perspective (Järvinen, 2007). In contrast to the methods of objectivist science where the researcher is an impartial spectator, the researcher is a key participant, working collaboratively to solve problems and to enact change in action research (McKay & Marshall, 2001). Although there is a natural compatibility between design science research and action research, because both share important assumptions regarding ontology, epistemology and axiology (Cole et al., 2005), design science research focuses on the production of technical artefacts and their utility (Järvinen, 2007). Design science research also limits a researcher's scope and participation to the development of an IS artefact and not in participating in organisational change initiatives to solve a practical problem (Baskerville, 1999a).

According to Baskerville (1999b) organisations are complex social systems and the interaction with information technology should be understood as whole entities. Baskerville (1999b) proposes action research as an appropriate qualitative research method to use in both the organisation development and IS field to study complex, real-world phenomena that cannot be reduced by using positivist approaches. Grant and Ngwenyama (2003) support this view, contending that action research is an interventionist research method that focuses on practical problem solving and expanding scientific

knowledge in IS practice through collaboration and critical inquiry. McKay and Marshall (2001) also propose action research as a powerful tool for researchers interested in the interplay between humans, technology, information and socio-cultural contexts. Whilst action research is largely motivated by the early work of ethnographers (Kock, Avison, Baskerville, Myers, & Wood-Harper, 1999) and uses similar methods as ethnographic studies to collect data, the process of action research requires the researcher to participate through a collaborative process in solving practical organisational problems (Baskerville & Pries-Heje, 1999). Action research is also different to case study research, because a case researcher is limited to studying the organisational phenomena without effecting changes, whereas an action researcher is involved in both the planned organisational change as well as to study the process (Avison et al., 2001). Finally, Lindgren, Henfridsson and Schultze (2004) also propose action research as an appropriate research method in projects that focus on improving competence management systems and aligning organisational and HR objectives. Because, at an organisational level, the focus is on the organisation's core competence and competitive advantage for example culture, routines, and learning, whereas on a HR level, the focus is more on how people perform in a job, staffing and training practices and reward system design.

Action research allows me to learn more about how people understand and deal with problems, to reflect on and internalise the learnings, and to actively participate in a "helping-role" to solve organisational problems through the enabling role of IS whilst expanding scientific knowledge (Baskerville, 1999a). The iterative process of action research provides me with a structured method to scope projects and to use the results and learnings from one project as the starting point for another project and it supports a planned continuous change process that uses IS as an enabler.

In the next section I will discuss the origin and goal of action research.

5.3.1   The origin and goal of action research

Action research originates from the social sciences and can be traced back to the social changes that resulted from World War II (Baskerville & Myers, 2004). Kurt Lewin from the University of Michigan Research Center for Group Dynamics and the Travistok Clinic independently developed modern action research. Whilst Lewin focused on action-based social psychology, the Travistok Institute focused on psychological and social disorders, and when Lewin joined the Travistok Institute, the two developments converged. The aim of action research is to understand complex human processes without prescribing universal social laws (Baskerville, 1999b) and to create organisational change through an iterative research process whilst allowing researchers and subjects to learn within the context of a social system and study the process (Baskerville & Myers, 2004). The objective of action research is to improve problem situations with various problems instead of solving a particular problem and is influenced by system thinkers who see a particular problem as a symptom of other factors that need to be addressed (Avison et al., 2001). Action research is described as a

"*post-positivist social scientific research method ideally suited to the study of technology in its human context*" (Baskerville & Wood-Harper, 2016, p. 235).

Although action research is accepted as an inquiry method, the various meanings associated with action research have resulted in debates about its epistemological basis as a research paradigm. For example, is it a social science theory or research method (Lau, 1999), and whether the nature of the paradigm assumptions is positivist, interpretivist or critical (Davison, Martinsons, & Kock, 2004). Furthermore, there are various conflicting definitions of action research, as it is not a single method but rather a general class of approaches consisting of various forms (Baskerville, 1999a), and other disciplines such as health and education have a different understanding (Holwell, 2004). Examples of different forms of action research are: Canonical Action Research, Information Systems Prototyping, Soft Systems, Action Science, Participant Observation, Reflective Systems Development and Collaborative Practice (Davison et al., 2004). Although each form of action research is characterised by different models, structures and goals, they have the following characteristics in common (Baskerville, 1999a):

- The social setting of the study
- The researcher's interpretive assumptions
- The active participation in the interventions
- The observations of the researcher
- Reflecting on and studying social or organisational change as a result of an intervention experiment to solve a problem

Canonical Action Research (CAR) is however distinctive in that it is iterative and consists of a cyclical process of intervention. It is rigorous due to carefully planned and executed cycles of activities and the continuous process of problem diagnosis to ensure planned activities are relevant to the problem. Finally, it is collaborative by focusing on both organisational development and generation of knowledge, by combining theory and practice in a joint acceptable framework (Davison et al., 2004).

Participatory action research has an additional characteristic where the practitioners are both subjects and co-researchers (Baskerville, 1999b) and collaborate in theorising by combining their distinctive knowledge sets. For example, action researchers contribute knowledge of action research and general theories, whereas the research subject contribute situated, practical knowledge (Baskerville & Myers, 2004). Secondly, because the participants set their own agenda and participate in the collection and analysis of the data, they solve the problems for themselves (Lau, 1999).

In essence, action research consists of two stages, a diagnostic stage and a therapeutic stage. The diagnostic stage entails an analysis by the researcher and subject to define the problem and to formulate theories about the research domain, whilst the therapeutic stage focuses on collaborative change experiments and the study of the impact and effects. Action research is anchored in post-positivist philosophy, using an interventionalist viewpoint to observe and to participate, and focuses on research as social enquiry instead of social science. It is typically an iterative research process, depicted in Figure 5.3 and described in Table 5.3, grounded in practical action during which both the researcher and subject benefit from learning through reflection to solve current problems whilst informing theory. Hermeneutics, deconstruction, and theoretical sampling are often used as qualitative analytical techniques. The ideal domain for action research is firstly where the researcher is actively involved, secondly the ability to immediately apply obtained knowledge using a clear conceptual framework, and thirdly using a cyclical process to link theory and practice (Baskerville, 1999a, 1999b). Baskerville (1999b) proposes five practical and prescriptive principles to promote rigour and relevance in terms of addressing organisational problems and contributing to scholarly knowledge as described in Table 5.4.
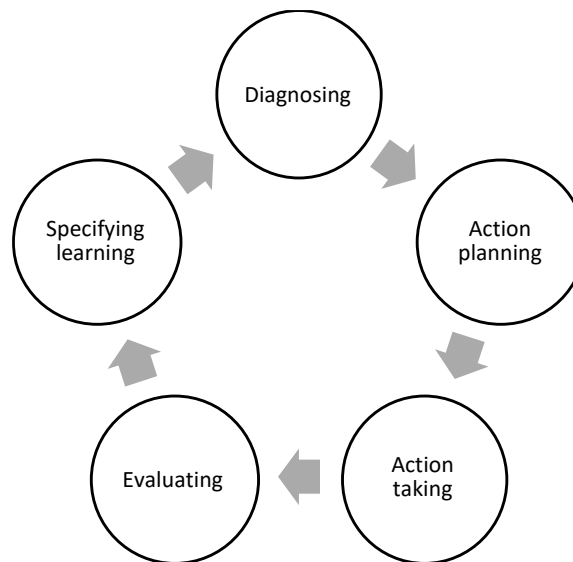
Figure 5.3: Action research stages (Baskerville, 1999b)

Table 5.3: The five phases of action research (Baskerville, 1999b)

Stage	Description
Diagnosing	Diagnosing entails identifying the primary problems, the causes and the need for change through self-interpretation in a holistic fashion using theoretical assumptions about the organisation and the problem that needs to be solved.

Stage	Description
Action planning	During action planning the researcher and practitioner collaborate to specify the required actions and is guided by the theoretical framework. Through setting targets and the approach to change, the theoretical framework defines the future state and the changes that will be required.
Action taking	The planned actions are then implemented during the action taking stage, and the practitioner and researcher collaborate in the intervention using different intervention strategies and tactics.
Evaluating	The objective of the evaluation stage is to determine whether the planned theoretical effects of the actions were realised and the impact on the problem. If the effect of a change was successful then a critical evaluation is required to assess if the actions were the actual cause of the success, and if the change was unsuccessful then then the next research cycle should be planned.
Specifying learning	This can be the knowledge gained by the organisation, or if the change was unsuccessful then the inputs for diagnosing and preparation of additional action research interventions and finally knowledge to the scientific community to assist in future research settings.

Table 5.4: Five prescriptive principles that promote rigour and relevance in terms addressing organisational problems and contributing to scholarly knowledge (Baskerville, 1999b)

Principle	Description
Research-Client Agreement (RCA)	The RCA promotes shared inquiry and assist with creating trust with stakeholders by explaining how the action research will work, the advantages and disadvantages, and ensure there is agreement between the researcher and organisation (Davison et al., 2004). It also provides the authority to researchers and practitioners to specify the actions to be taken (Baskerville, 1999b).
Cyclical process model	Assists with ensuring a CAR project is conducted with systematic rigour (Davison et al., 2004). The extent to which the methodology is followed is influenced by the experience of the practitioner and the problem setting, for example the organisation culture, power structure, climate and management philosophy will influence and impact on the methodology (Grant & Ngwenyama, 2003).
Principle of theory	Existing theory is used at the beginning of a research project as the foundation to plan and act. Scientific contribution is achieved through the process of validation, withdrawal or modification of the theoretical framework after the evaluation stage of each research cycle (Baskerville & Pries-Heje, 1999).
Change through action	Focuses on the common understanding and motivation between the researcher and organisation on the actions to change the current situation. When designing planned actions, the objective should be to address both the cause and problem. Before planned actions are implemented the researcher should explain the action and expected impact to the organisation and receive approval. Action researchers need to be flexible in the planning of actions and adapt to changing circumstances (Davison et al., 2004).

Principle	Description
Learning through reflection	The advancement and discovery of knowledge for both the research community and organisations is the result of a continuous process of deliberate reflection and learning. For example, regular progress reports allow the organisation to reflect, learn and restructure organisational norms to reflect the new knowledge. Secondly, it informs additional interventions, and thirdly by creating new theory or updating existing theory the present knowledge is advanced. Finally, the lessons learnt may have wider methodological implications. From a rigour perspective it is important to generalise findings and evaluate the value of the theoretical models used, to consider the transferability of the theories and models and to specify what has been learnt (Davison et al., 2004).

In the next section I discuss the criticism, risks and disadvantages associated with action research.

5.3.2 Criticism, risks, and disadvantages associated with action research

Even though action research is recognised as a valid research method and especially relevant in IS research, it is not popular, particularly among North American IS researchers, because of the criticism towards action research and the risks, challenges and disadvantages associated with the method (Baskerville, 2001; Baskerville, 1999a).

Action research is criticised to being similar to consultancy, since it is a popular technique consultants use for organisational development. However, action research differs from consultancy in several ways. Where consultancy is motivated by commercial benefits and the commitment is to the client only, action research is motivated by its scientific prospects and commits to both the client and research community by producing scientific knowledge. In consultancy the objective/unbiased "outsider" view is valued, but in action research collaboration is essential. When it comes to recommendations, the consultant suggests solutions that proved successful in similar situations, but an action researcher uses a theoretical framework. Consultants use independent critical analysis to inform their understanding of a problem situation, but action researchers use the practical success from iterative experimental changes to inform their understanding (Baskerville, 1999b).

Action research is also criticised for the difficulty in publishing journal length articles due to its qualitative and interpretive foundations and the lack of agreed evaluation criteria (Baskerville, 1999b), its generalisability and the validity of one-off studies (Holwell, 2004), especially for academics who are required to publish in journals on a regular basis. Additionally, when financial support is offered to the research subject then ethical and professional problems can ensue, for example when the researcher did not explain the research orientation sufficiently and the research subject expected a consulting-type performance (Baskerville, 1999b).

From a risk perspective, action research is discouraged for various reasons, described in Table 5.5, for example ambiguity risk, philosophical and methodological risks, practical risks, and academic career risk.

Table 5.5: Different types of risks associated with action research (Avison et al., 2001; Baskerville, 2001)

Type of Risk	Description
Ambiguity risk	• The nature of action research entails dealing with ambiguity, but if too ambiguous there is a risk that the methodology and learning might not produce useful knowledge.
Philosophical and methodological risks	• Rejection, because it conflicts with traditional scientific values, for example deductive logic, problem reduction and detached observational objectivity. • Because the findings are based on interpretive data and the researcher participating in the research, other scientists might challenge the underlying data and analytical techniques. • Techniques like hermeneutics and deconstruction in qualitative analysis may be perceived to be more suitable in historical and literary analysis than in social science. • Since action research is typically situated in a specific organisation, the research might be criticised due to lack of traditional analytics techniques for example repeatability, reliability and falsifiability.
Practical risks	• When a research project fails to achieve its objective due to completion risk because a researcher disengaged from the research. • Detachment risk due to a role dilemma between the researchers' professional responsibility to the subject and their scientific responsibility to explore imaginative new theories. • Maintaining the fine balance between reflection and action. • Power and control factors will direct the action research project in a specific direction, especially when the practitioner is also the researcher.
Academic career risks	• The academic culture of "publish or perish" and that academics are encouraged to avoid risks when starting their academic career. • Action research is not popular in mainstream IS literature and researchers rather select mainstream IS techniques like experiments and surveys, which can be designed so that some form of knowledge contribution is almost certain.

Avison, Baskerville, Myers and Wood-Harper (1999) also note there are various potential disadvantageous to action research in IS research which discourages researchers from using action research as a method:

1. Gaining access to a research site where a researcher can act as an agent of change is difficult without close ties with at least one organisation.
2. Compared to other research methods, action research requires significantly more commitment from researchers in terms of the amount of time the research takes and may discourage doctoral students.
3. When the research is funded by the organisation the researcher needs to guard against conflict of interest and the risk it poses to the credibility of the reported findings.

4. The researcher's participation may influence the actions and perceptions and result in bias research findings.

5. The difficulty in publishing in top IS journals.

In the next section I discuss the motivation for selecting action research as research method.

5.3.3 Motivation for selecting action research as research method

The advantages of action research from a research perspective make it a rewarding and worthwhile endeavour even when we consider the risks, challenges and potential disadvantages associated with action research (Kock et al., 1999). The application of action research in IS provides a rare opportunity to link theory and practice to not only answer real-world problems, but also to contribute to generating new understanding through intellectual reflection and learning how IS can enable social change and lead to new forms of practice.

The advantage of an action-oriented methodology such as action research is an improvement of our understanding of social phenomena through "doing", and overcomes the criticism that IS research is overly preoccupied with theories, methods and publication (Lau, 1999). Avison, Baskerville, Myers and Wood-Harper (1999) and Baskerville (1999b) suggest the following advantages of action research:

1. A researcher gains access to rich and in-depth research data by participating and collaborating with the research subjects.

2. There is a high likelihood that the findings will be relevant to the organisation because the organisation participates in selecting the topic.

3. The real-world orientation of the approach offers part-time doctoral students the opportunity to apply the research method in their specific organisation to solve a problem.

4. Action research can be combined with other research methods and used in various modes to either create new theory or contradict existing theory.

For this research study I elected to use participatory action research due to my dual role as employee who can contribute practical knowledge and researcher with knowledge of action research and IS theories.

In the next section I discuss the role and objectives of IS frameworks in action research.

5.3.4 The role and objectives of IS frameworks in action research

Davison, Martinsons and Kock (2004) note that whilst action research is praised for its relevance from a results perspective, it is criticised for lacking rigour. However, a growing number of IS publications

are advocating alternative approaches to understand the impact of IS planning, development, usage and adoption from an organisational, behavioural and social perspective (Lau, 1999).

Howell (2004) contends that the purpose of a framework is to assist with recoverability for anyone interested in subjecting the research to critical scrutiny. Lau (1999) defines the objectives of a framework to provide procedures and rules, to assist with defining and assessing the quality of action research studies and to guide the research effort in diagnosing the problem and type of interventions, and further to clarify the researcher's role, the extend of reflection and learning and if new knowledge has been created. The framework defines the appropriate assessment criteria, for example assumptions, approach, and reporting, to evaluate whether the researcher provided sufficient information to demonstrate that the problem is resolved.

I selected frameworks created by Baskerville (1999a), Lau (1999), Baskerville and Myers (2004) and Davison, Martinson and Kock (2004) as a reference and for self-evaluation to mitigate the criticism, risks and disadvantages of action research and to ensure the research study demonstrates rigour and quality in terms of execution that will be suitable for inclusion in journals. In Table 5.6 I discuss the objectives of the different IS frameworks used in the research study.

Table 5.6: Evaluation frameworks to ensure rigour and quality of action research

IS Framework Objective	Description	Creator
To assess the rigour and relevance of the research.	The assessment framework provides a set of principles and criteria that both researcher and reviewer can use to evaluate the rigour and relevance of an action research study.	Davison, Martinson and Kock (2004)
To evaluate the quality of a participatory action research project.	The assessment framework by Davison, Martinson and Kock (2004) demonstrates the alignment to the four key process sets that Baskerville (1999a) proposes.	Baskerville (1999a) Davison, Martinson and Kock (2004)
A prescriptive framework that defines both the criteria how action research should be conducted, as well as how to assess action research.	The framework consists of four dimensions, the conceptual foundation dimension, the study design dimension, the research process dimension, and the role expectations dimension.	Lau (1999)
Evaluation if the action research study is suitable for inclusion in journals.	Action research must meet three requirements to be suitable for inclusion in journals. Firstly, it should demonstrate a contribution to practice. Secondly, it should demonstrate a contribution to theory, and finally the researcher should identify the criteria to evaluate the research and explicitly demonstrate how the research meets the criteria.	Baskerville and Myers (2004)

In the following section I discuss the role of theory and its application in the research study.

5.3.5 The role of theory in action research

Gregor (2006) defines theories as abstract concepts that researchers use to describe, explain and enhance their understanding of the world, and which in some cases, could be used to predict the future based on specific interventions or actions. Although a strong theoretical base is not mandatory for interpretive research (Myers & Klein, 2011), Merriam (1998) notes that it is incorrect to assume theory has no place in a qualitative study, since qualitative research inductively builds instead of tests concepts, hypothesis and theories. Gregor (2006) supports this view and highlights the need for and the importance of developing IS theory, but Walsham (1995) warns that although theory can be the result of a research project, theory selection is subjective and based on the researcher's interest, and using theory rigidly might limit the discovery of new areas of exploration, therefore a researcher should be willing to modify initial assumptions and theories.

According to Merriam (1998) the purpose of the theoretical framework is to create the structure and framework of the research study which guides a researcher in identifying concepts and constructs, the research design, and in data collection, analysis and interpretation. The classification system that Gregor (2006) has developed identifies five different types of theory to assist in the development of IS theory, ranging from theory for analysing, theory for explaining, theory for predicting, theory for explaining and predicting to theory for design and action.

For this research case study, I use theory for explaining, because these theories try to explain the reason for certain phenomena by presenting an alternative view of the world to create new understandings. The objectives of an appropriate theoretical framework for this research study are two-fold, firstly a framework that supports the primary research focus, using trust as a central theme. Secondly, a framework that will assist in addressing specific limitations and criticisms raised by other researchers. In terms of addressing specific limitations and criticisms the appropriate theoretical framework will assist with the exclusive focus on institutional levels of analysis, and expand the research focusing on predominantly European and American societies. Thirdly, empirically applying the ideas developed by Giddens and specifying how institutions and actions are related and evolve over time.

I apply structuration theory, which is a general theory of social organisation, focusing on the relationship between individuals and society. Although structuration theory is not an IS specific theory, it explains the mutually constitutive duality between structure and agency and that individuals have the capability to transform structures. It is attractive for IS research, because it can be related to the structuring properties of technology as well as structure as a property of organisations and work groups (Jones & Karsten, 2008). The use of structuration theory also enables me to incorporate other theories to assist in explaining the phenomena, for example, Social Capital Theory which focuses on the role and importance of social networks and relationships, Social Exchange Theory which focuses

on the motivational factors that affect people's behaviour (King & Burgess, 2008) and self-determination theory which defines the instinctive predispositions of people (Deci & Ryan, 2013).

I selected the Structuration and Information System Trust Creation model by Schlichter and Rose (2013) as the theoretical framework because it presents trust as a central theme and provides a processual theory approach to demonstrate the multi-dimensional relationships between constructs in Giddens's account of trust in abstract systems. Secondly the framework enables me to focus on both an employee level and organisation level. Thirdly, it assists in analysing the relationship between trust and actions and how trust evolve and is sustained over time.

I selected a case study report as presentation method as case study reports are the most common style of presentation used for action research projects (Lau, 1999). In the next section I discuss the different types of case studies, various misconceptions, and the reason for selecting a single longitudinal explanatory case study strategy.

5.4   The selection of case study as a research strategy

Case studies can be either explanatory, exploratory or descriptive, and the type of case study will guide the study purpose and unit of analysis of the research. Explanatory case studies focus on explaining causal links in real-life interventions that are too complex to answer through surveys or experimental strategies. Exploratory case studies are used in situations where the intervention has no clear or single set of outcomes. Descriptive case studies describe an intervention or phenomenon in the real-life context in which it occurred (Baxter & Jack, 2008).

Case study as a research method is relevant when the focus of the study is to answer "why" and "how" questions, secondly, where the behaviour of the research subjects cannot be manipulated, thirdly, when the researcher wants to cover contextual conditions that is relevant to the phenomenon that is being studied, and fourthly, when the boundaries between the phenomenon and context are not clear. Case study as a method is useful when a natural setting is needed or the focus is on contemporary events, since it allows for an empirical investigation into a phenomenon in its real-life context, and to understand the dynamics of a specific situation to draw general conclusions from it. A case study can range from a social process to an organisation or a collective social unit. Longitudinal case studies also allow the analysis of multiple sources of information, for example documents and interviews over an extended period (Baxter & Jack, 2008; Benbasat, Goldstein, & Mead, 1987; Davidson, 2002; Eisenhardt, 1989; Hancock & Algonzzine, 2015; Myers & Newman, 2007; Weber, 2009).

I am aware that case study as a research strategy have opponents who hold the conventional view that a case study cannot be of value unless it is linked to a hypotheses and uses the hypothetico-deductive

model of explanation (Flyvbjerg, 2006). In response, Flyvbjerg (2006) counters the common misconceptions about case study research limitations and specifically the validity of single case studies, the ability to draw generalisations, that case studies are arbitrary and subjective, and the role of case studies in theory development in Table 5.7.

Table 5.7: Flyvbjerg's (2006) response to common misconceptions about case studies

Misconception	Response
Value of single case studies	• Galileo's rejection of Aristotle's law of gravity was not based on observations across a wide range (multiple case studies), it consisted of only a conceptual experiment and a practical experiment at a later stage. • Developments in physics by Newton, Einstein and Bohr were the result of carefully selected experiments, cases, and experience. • Case studies also played a role in the work of Darwin, Marx, and Freud. • The common denominator across all these is selecting an appropriate case and how it is defined.
Ability to generalise single case studies	• More discoveries originated from observation than from applying statistics to a large group. • Formal generalisation is one of many ways for people to gain knowledge, and it does not mean that knowledge that is not formally generalised, cannot form part of the knowledge accumulation process of a given field or society.
Less rigorous due to a bias towards subjectivity and verification	• Bias and subjectivity towards verification is not a phenomenon related to case studies, but a fundamental human characteristic. • Researchers who conduct in-depth case studies normally revise their hypothesis due to incorrect pre-conceived views, assumptions, concepts, and hypothesis. • The nature of in-depth case study naturally results in a falsification test process.
More suitable for testing hypotheses and generalisation than theory development	• The descriptive nature of case studies assists in the development of a nuanced view of reality especially from a human behaviour perspective, and secondly from a personal learning perspective by learning what skills are needed and various approaches to do good research. • Using multiple data sources in gathering data allow for a case study to be richly descriptive and create a mental image of the phenomenon (Hancock & Algonzzine, 2015). • Random sampling may not be the optimal strategy when rich and extensive information on a specific problem or phenomenon is required (Hancock & Algonzzine, 2015).

In addition to different types of cases, case studies can either be a single case study or multiple case study, which assist in defining the boundaries of the case study. It is important to clearly define the boundaries to mitigate the risk of a topic with too many objectives or a research question that is too broad. Boundaries can range from time, place, activity to definition and context. A single holistic case study is relevant if the focus is on a specific group and the objective is to gain a better understanding of a phenomena through rich analysis but limits the researcher to only understand the one case. Multiple case studies on the other hand focus on understanding the similarities and differences between multiple cases. The advantages of multiple case studies are that they can be used to predict

similar or contrasting results, and the evidence that is created from this type of study is considered robust and reliable. The disadvantages are however that it can be extremely time consuming and expensive to conduct (Baxter & Jack, 2008).

I selected a single longitudinal explanatory case study strategy since the focus of the research study is on both an employee level and an organisation level and to analyse the relationship between trust and actions and how trust evolves and is sustained over time. This strategy enables me to develop a nuanced view to understand causal links, and explain why people act the way they do by analysing a specific social group within their specific context (Flyvbjerg, 2006).

I have defined the research study in terms of philosophical paradigm, the research method, the role and purpose of theory and the reason for selecting a single longitudinal case study, and continue to discuss the research design of the study in the next section.

5.5   Research study design

The design of the research study, demonstrated in Figure 5.4, consists of the case study site context, the different research instruments I utilise, the planning of the fieldwork and the analysis of the data gathered that forms the basis for case study.
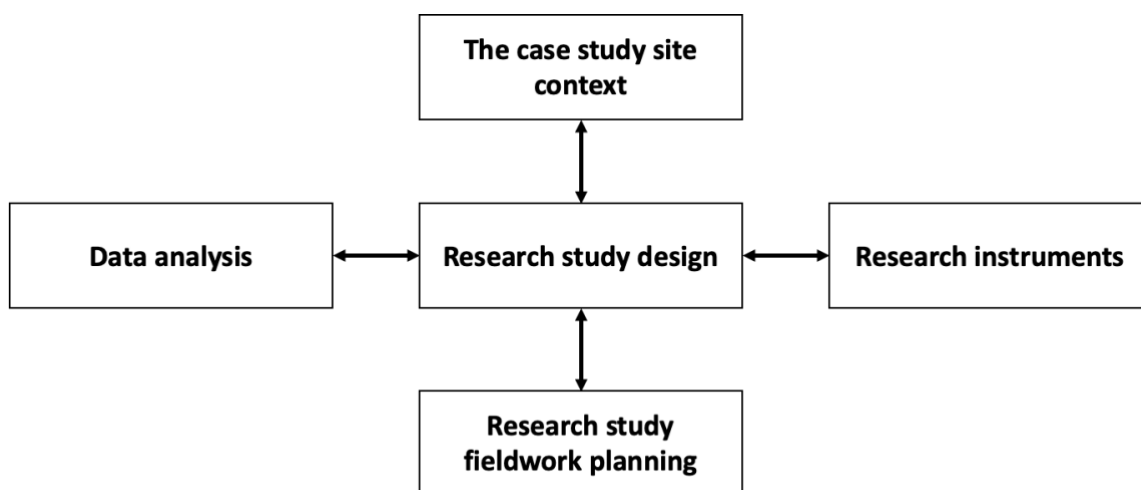
Figure 5.4: Research study design components

In the next section I discuss the case study site context.

5.5.1   The case study site context

The unit of analysis for this case study is the Private Banking division of a large South African financial services organisation. The purpose of the research study is to demonstrate the collaborative

design process of a PMP and PMIS and how a PMIS enables trust formation between Private Bankers and line managers using a trust framework based on structuration components.

The context is the transformation the organisation went through in reaction to the impact of the 2008 global financial crisis by implementing a new performance measurement and reward model that is mutually beneficial to the interests of customers, shareholders, and employees. The transformation entailed moving from a commission type bonus and management discretion programme to a bonus programme that is based on the sustainable profit the organisation earns over a multiyear period and implementing key performance areas that reward risk management, customer retention and entrenchment.

As an employee and practitioner with more than ten years' experience in working closely with the leadership team, I have the freedom to explore ideas and continuously diagnose problems and identify opportunities for proactive action taking. The social capital, reputation and trust I have accumulated over this time assist me in how to position and present ideas, how to lobby support, to know when the right time is to present ideas and how to navigate the organisational bureaucratic maze. As a researcher the organisation provides me with a research site where I can act as an agent of change and people feel comfortable with me to candidly discuss issues related to trust, performance management, remuneration and management practices.

The period that the case study covers is from 2015 to 2019. The research for this case study was carried out over a period of 6 months in the third quarter of 2020 through interviews with the key stakeholders that are directly involved and impacted by the programme. I conducted follow up interviews during the second quarter of 2021 to clarify questions that surfaced during the data analysis phase of the case study.

For the research study I utilise a variety of research instruments to assist in describing the social context, goals, and objectives, the PMP and PMIS that were developed and implemented and the impact it had. In the next section I discuss the various research instruments I use in the research study.

5.5.2 Research instruments

For this research study, I use interviews, participant observation, documents, and my personal impressions as research instruments to assist in the definition, gathering and analysis of the data. Interviews are the primary source of information for the case study, and it is complemented by documents to inform and validate my understanding. Field notes from personal observations are used to enrich the case study.

5.5.2.1 Semi-structured interviews

According to Myers and Newman (2007) the qualitative interview is one of the most important data gathering tools in qualitative research and Rubin and Rubin (2005) compare it to night goggles: "…*permitting us to see that which is not ordinarily on view and examine that which is looked at but seldom seen*" (Rubin & Rubin, 2005, p. vii).

I identified nine different interview groups based on how they engaged with or were impacted by the programme. Table 5.8 defines the unique characteristics of each interview group.

Table 5.8: Interview groups' characteristics

Interview Group	Engagement with the Programme
Executive Leadership	- Ensuring alignment of performance measures to organisational objectives. - Defining minimum performance requirements.
Regional Leadership	- Ensuring alignment of performance measures to organisational objectives. - Defining minimum performance requirements.
Team Leadership	- Setting appropriate performance targets. - Programme implementation and change management. - First line support to the Private Bankers. - Programme limitations and enhancements identification.
Private Bankers: - Type 1: Original Commission Programme participants - Type 2: Discretionary Programme participants - Type 3: OBB Programme participants	- Programme "end users" and ultimate beneficiaries. - Engage with the programme to maximise personal and organisational performance and earn performance bonus. - Understanding and internalising the three elements in the performance programme. - Proactive analysis using the variety of BI toolsets and reports available to analyse portfolios and define a portfolio execution plan that will result in sustainable profit growth.
HR Business Partner	- Second line support to the Private Bankers. - Programme limitations and enhancements identification.
Finance	Setting appropriate performance targets on a regional and team level.
Business Intelligence	- BI toolsets and reports development and support. - PMIS development, support, and enhancements. - Monthly performance scorecards and client profitability results.
Business Support	- Training material. - Operational data management processes. - Operational business process support.

I selected semi-structured interviews to allow for improvisation during the interview process to present questions in a context that is relevant and meaningful to the interviewee. The reason for this is because the different groups and stakeholders have different frames of reference that they use to make

sense of their environment, especially during a period of change or uncertainty (Orlikowski & Gash, 1994). Frames can also be defined as schemas, and the purpose of schemas is to provide the structure for different concepts to create meaning (van Tonder, 2004).

5.5.2.2 Participant observation

Myers (2009) defines observation as watching people from the outside as a spectator and not participating, but participant observation in contrast entails participation and interaction with the objective to understand their beliefs and activities from the inside.

I used both observation and participant observation to gather qualitative data during field work. An example of observation is attending different Private Banker team meetings with the objective to gain insights into how the different line managers approach team performance discussions, the different BI reports they reference and topics that Private Bankers raise as constraints or areas that they need assistance on. Participant observation on the other hand is for example workshops with different Private Banker teams to define business rules for the new PMP and PMIS functionality requirements. I gained insights into not only different Private Banker and line manager profiles, but also how they approached problems and what is important for them. By using field notes to document the observations, I gathered a "*stream-of-consciousness commentary about what is happening in the research*" (Eisenhardt, 1989, p. 539).

5.5.2.3 Document Analysis

Myers (2009) proposes that document analysis may allow a researcher to create a richer picture instead of merely relying on field notes and interviews. Documents are defined as records that can be stored and retrieved for analysis and can range from written material to pictures, diagrams, photos and video recordings to websites and software. The advantage of studying documents is that it enables the researcher to understand the research subject.

For the research study, I used various documents ranging from scoping documents, business case, presentations, training guides, meeting notes and email correspondence. In addition, I used voice recordings to transcribe the interviews and field notes to document observations. Table 5.9 provides a summary of the different document types and purpose of each document type.

Table 5.9: Different documentation types and purpose of the documentation

Document Type	Purpose
Scoping and business case documentation	Provides an overview and the objectives of the programme. The documentation provides context in terms of the purpose and nature of the change as well as the expected impact of the change.

Document Type	Purpose
Training documentation	The detailed reference guide is used to gain an understanding of the PM programme and PMIS.
Change management documents	To understand how the change process was planned, conducted as well as the type of content that was used during the change process.
Email communications to Regional Heads	Analysis of the content included in the monthly communications to the line managers.
Meeting notes from Regional Head check-in meetings	Analysis of the type of questions and issues raised by the Regional Heads.
Transcriptions from voice recordings	Analysis to identify various themes.
Field notes	Analysis of personal observations during the field study period.

Myers (2009) also suggests that researchers should use qualitative data analysis (QDA) software irrespective of whether they are doing content analysis or hermeneutics and narrative analysis. The advantages of using QDA software include document storage, making field notes, coding, contentment analysis, data display, to theory building and graphic mapping that can depict findings or theories.

I used the ATLAS.ti version 8 for MAC application for document management, codification and thematic analysis. The advantage of using specialist codification software is that it enabled me to codify the documents systematically, and through functions such as code frequency tables I was able to discover interwoven meanings that assisted me in the data analysis and gap identification for follow up interviews.

In the next section I discuss the research fieldwork planning.

5.5.3   Research study fieldwork planning

I have been the PMP and PMIS programme manager since its inception and I wanted to ensure that my personal bias did neither influence how I present the perception and impact of the programme nor determine who tells the story and the story people tell. To this end I targeted a broad group of people to provide different and unique perspectives. I created an interview map, demonstrated in Figure 5.5, to define the interview groupings and specific types of people that I needed to interview. I identified nine interview groupings who would be able to provide unique perspectives of the programme and how it relates to my research objectives. I used the interview map to assist me in planning and scheduling the interviews. The objective of the interview planning was to ensure I did not focus only

on a specific region and team to prevent regional or team bias, secondly to balance the interview feedback and to use an interview as input and reference during the next interview.

Role		Interview Group	Interview Plan					# Interviews
Executive Team		Group 1	CEO		CFO		HR	
Regional Leadership		Group 2	Region 1	Region 2	Region 3	Region 4	Region 5	
Team Leadership		Group 3	Teams 1 - 5	Teams 6 - 8	Teams 9 - 11	Teams 12 - 14	Teams 15 - 17	
Bankers	Original Commission Program participants	Group 4						
	Discretionary Program participants	Group 5						
	OBB Program participants	Group 6						
Finance		Group 7						
Business Intelligence		Group 8						
Business Support		Group 9						

Figure 5.5: Interview plan and research groups

The interviewees for the case study listed in Table 5.10 were selected based on the functional area they represent, their role or the impact the programme had on them.

Table 5.10: Functional area and role of the interviewees for the case study

Functional Area	Role	Level of Experience
Information Technology	Business Intelligence Manager	Minimum 10 years of experience
Information Technology	Business Intelligence Developer	Minimum 10 years of experience
Human Resources	Head of HR	15+ years of experience
Finance	Head of Finance	15+ years of experience
Finance	Financial Manager	5+ years of experience
Sales and Relationship Management	Private Banking CEO	25+ years of experience
Sales and Relationship Management	Regional Head	15+ years of experience
Sales and Relationship Management	Divisional Manager	Minimum 5 years of experience
Sales and Relationship Management	Private Banker	Minimum 5 years of experience

Functional Area	Role	Level of Experience
Sales and Relationship Management	Private Banker	Minimum 10 years of experience
Sales and Relationship Management	Private Banker	Minimum 20 years of experience
Executive Team	CEO, Regional Head and Head of HR	Group interview to review the application of theoretical framework and action research method

The planned duration of an interview was an hour and digitally recorded to enable me to focus on the interviewee and to identify additional areas of exploration that are not part of the interview guideline. All voice recordings were transcribed and uploaded to ATLAS.ti.

My interview guide comprised of two sections, first role agnostic questions and second role specific questions. The interview questions were structured as discussion topics to elicit personal views by using words like "*how would you…*", "*how did you…*", "*what is your view…*", "*what is your ideal…*" and "*how do you…*". The interview questions focused on three themes, firstly questions that that support structuration theory aspects, secondly on IS adoption, resistance and conflict, and thirdly on trust concepts and the supporting role of IS.

The first section was grouped into discussion topics:

- Interviewee role and work experience.
- Perception of the organisational culture, leadership style and ideal way of working.
- Perception of the previous and current renumeration programmes in terms of transparency fairness, conflict, and resistance.
- The enabling or limiting role and impact of IS.
- Trust concepts, personal definition, perception, and the role IS play in creating trust and mitigating conflict.
- Mistrust and the source of mistrust.

In the second section I asked role specific questions targeted at the Finance, Human Resources and Business Intelligence practices. The objective of the questions was to gain an understanding of the impact and benefits the programme and supporting IS.

In the next section I discuss how I will conduct the data analysis.

5.5.4 Data Analysis

According to Braun and Clarke (2006) qualitative analytical methods can be divided into two camps, firstly methods based on a specific theoretical or epistemological position, and secondly methods that are independent of theory and epistemology that can be applied across a range of theoretical and epistemological approaches. Myers (2009) notes that for novice researchers the various approaches and alternatives to qualitative data analysis may be bewildering and suggests that no approach is better than the other and each approach has advantages and disadvantages. Myers (2009) suggests the choice of approach should be determined by whether it is interesting for the researcher and consistent with the research method and researcher's epistemological and ontological position. Additionally, can the right quantity and quality of data be gathered and finally, a supervisor who can provide guidance and advice using the approach. Based on Myers' (2009) suggestions and the guidance from my supervisor, I chose thematic analysis as the suitable data analysis approach for this research study.

Braun and Clarke (2006) define thematic analysis as a foundational method that can be applied across a range of theoretical and epistemological approaches to reflect and unravel the surface of reality. Thematic analysis assists in identifying, analysing, and reporting themes or patterns within complex data by organising, coding and describing data in rich detail. Themes or patterns are identified through coding and the approach to coding and analysing the data will be informed by the choice between either an inductive or deductive approach. The inductive approach is a data driven approach, where the themes or patterns are informed by and linked to the data gathered, and neither the research questions nor the researcher's theoretical interest influence the codification of the data. In contrast, the deductive approach is an analyst-driven approach based on the researcher's theoretical or analytical area or interest and focuses on a detailed analysis of specific aspects of the data instead of a rich description of the data overall.

For this research study, I chose a deductive or "theory-driven" thematic analysis approach to assist me in structuring, coding and analysing the data I gathered. The process I followed was an iterative process to refine the themes or patterns that surfaced and to ensure firstly that there was not too much overlap, secondly that the themes were coherent and consistent, thirdly that it supported my research questions, and fourthly to demonstrate the mutually interacting duality between structure and agency and that individuals have the capability to transform structures and the role of IS in trust formation.

I followed the thematic analysis process Braun and Clarke (2006) propose, demonstrated in Figure 5.6, by familiarising myself with the data, notes, transcripts from interviews and documents I gathered and uploaded to ATLAS.ti. The objective was to immerse myself in the data and through repeated reading, to identify a list of initial themes or patterns. I then used the list of initial themes or patterns that I found interesting and created a set of codes that supported my objectives and applied the codes to the dataset in ATLAS.ti. The third step entailed the analysis of the coding results by grouping

codes in different ways to identify candidate themes. During step four I refined the candidate themes by either collapsing themes into similar themes or creating new themes. The principle I used in this step was that there should not only be coherence between the themes, but also clear distinctions between the themes. Step five entailed further refinement and naming of the themes to ensure the essence of each theme was clear and that a theme was not too diverse, complex, or trying to do too much. I tested each theme by describing the scope and content of each theme in a few sentences to identify which themes required further refinement. This step also entailed conducting and writing a detailed analysis of the story each theme tells. Step 6 was the final step in the thematic analysis and concluded with producing the report. The objective of the report is to tell a story that convince the reader of the merit and validity of the analysis.
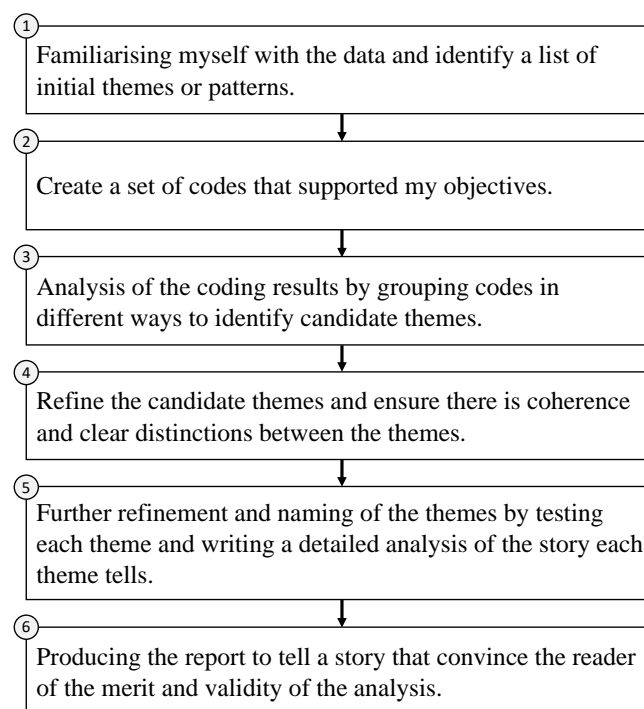
Figure 5.6: Thematic analysis process approach proposed by Braun and Clarke (2006)

This concludes the research design. In the next section I discuss the ethical considerations.

5.6   Ethical considerations

As a researcher, I adhere to the University's code of ethics for scholarly activities (University of Pretoria, n.d.) and recognise the autonomy of the individual. Participants are supplied with a consent form and the data gathered is used only with prior written consent and for the intended purpose.

In accordance with the Protection of Personal Information Act (The Presidency, 2013) participants will have the following rights:

- To establish whether a responsible party holds personal information of that data subject and to request access to his, her or its personal information as provided for in terms of section 23;
- To request, where necessary, the correction, destruction, or deletion of his, her or its personal information as provided for in terms of section 24.

The participants' identities will be kept confidential and protected as follows:
- Participant consent forms will be stored in a sealed envelope in secure storage for the duration of the research study.
- Participant consent forms will be stored separately from interview notes, observation notes and digital recordings.
- The identity of the participants will not be disclosed without consulting with the University of Pretoria Ethics Committee.
- No personal information (name, age, sex, race, or qualification) is required.

I will treat all information with respect and protect it as follows:
- Interview notes and observations will only contain details of the job role and division.
- Data gathering and analysis will be based on division, location, and job role.
- Pseudonyms will be used to provide anonymity/confidentiality in terms of division for example division A, B, C and in terms of location for example location 1A2 where 1 = city, A = building, 2 = floor.
- The case study will only refer to job descriptions and functions for example Private Banker, line manager, Regional Head, Business Intelligence Manager, Data Warehouse Solution Architect, Human Resources Head, Operations Head, Chief Financial Officer, and Chief Executive Officer.
- Interview notes, observation notes and digital recordings will be transcribed using a computer with password protected user access.
- To mitigate the risk of theft or loss of information the information will not be stored on a physical device, but in the cloud, using Dropbox and OneDrive in a private folder with access limited to only myself.
- The computer equipment, paper copies and voice recordings will be stored in a room with limited access.

The information related to the study, that includes the interview and field notes, digital voice recordings and the analysis of the data will be provided to the University of Pretoria.

5.7   Conclusion

In this chapter, I presented the rationale for selecting the qualitative interpretive research method and using theory for explaining from a theoretical perspective. Secondly, I explained why action research as a research method and a single longitudinal explanatory case study strategy are appropriate. Thirdly, I explained the IS framework and strategies I used to mitigate the criticisms, risks and challenges associated with action research, how to ensure rigour and how to evaluate the action research study. Fourthly, I described the research design and why I chose a financial services organisation. The chapter concludes with the ethical considerations associated with this type of research study and mitigating steps I took to ensure confidentiality of the participant and the protection of information. In the next chapter I discuss the context for this research case study. The objective is to provide the reader with a rich overview of the history, dynamics, and evolution of the organisation.

Chapter 6 – Case organisation context and journey

Chapter 1: Introduction
- Background, problem definition and scope
- Problem significance and motivation
- Research objectives
- Research significance

Literature Review Chapters

Chapter 2: Performance Management
- What is it?
- Why is it important?
- What needs to be solved?

Chapter 3: Trust
- Defining Trust: overview and topology
- Trust formation and IS
- Variance and process theories
- Giddens structuration and process approach

Chapter 4: Theoretical Framework
- Key constructs and modalities of structuration
- Structuration theory and technology
- Socio-Technical perspective
- Structuration and IS trust creation
- Selection of the theoretical framework for the research study

Chapter 5: Research Methodology
- Rationale for selecting the qualitative interpretive research method
- Motivation for a single longitudinal case study and using action research as method
- Describing the research design and case organisation selection
- Ethical considerations

Chapter 6: Case Study Context
- Rich description of the history, evolution and dynamics of Performance Management in the case organisation

Chapter 7: Analysis and Findings
- Present the role of IS in trust formation and maintenance across three action research cycles and the influence of structuration concepts using the theoretical trust framework
- Demonstrate how the conclusion of a cycle create the starting point for a new cycle
- Demonstrate the evolution of Performance Management due to increased Private Banker and Line Manager understanding, and the need for additional PMIS toolsets
- Conduct evaluations, reflections and present learnings of PMIS projects that succeeded and failed implementation and adoption

Chapter 8: Conclusion
- Summary of research study
- Response to research questions
- Evaluation of the research study contribution to knowledge
- Assessing Action Research approach
- Limitations and future research directions

Appendix
- Interview Guide
- Supporting content

Figure 6.1: Research case study outline

6.1 Introduction

Chapter 6 is the context for this research case study and the objective is to provide the reader with a rich overview of the history, dynamics, and evolution of the organisation. The chapter is written from my perspective and based on my experience as being part of the organisation for more than ten years and leading the PMP and PMIS programme since its inception.

6.2 Background and context

Globally societies have lost their trust in financial services organisations since the 2008 global financial crisis, the 2013 Wells Fargo and 2016 Deutche Bank scandals, which the media and regulators ascribed to corporate and executive greed, hubris, and a perception of "too big to fail". A general feeling amongst society is that the basic human desires for example to belong, to be respected, to be considered and to be valued are ignored at the cost of financial greed. In South Africa this is more visible and the impact greater due to the phenomena of State Capture since 2009. Society wants things to be equal and fair and when there is no transparency, doubt and distrust set in. Due to these global and local incidents there were a significant increase in new regulatory requirements as well as a public outcry and shareholder demand to review organisational renumeration programmes.

The focus of this research case study is a South African Private Bank that will be referred to as Bank Pegasus and how the bank changed and innovated their performance management and remuneration programme to address and align to these expectations from a client, employee, organisation, and shareholder perspective to ensure sustainable profit growth instead of short-term performance incentives. The research case study is discussed over five time periods from 2010 to 2019:

1. The changing environment and the imperative for change from 2010 to 2015. This section provides the context for the case study, the changes the organisation went through and the process of co-creating the programme with the leadership team.
2. The implementation approach and coping with change from 2016 to 2017. In this section I discuss the implementation approach we followed, and how various groups dealt with the changes. I also discuss the impact the programme had on employee trust formation, employee retention and organisational performance.
3. Promoting the correct behaviour in 2017 and 2018. In this section I discuss the shift from explaining and demonstrating the advantages of the PM programme and PMIS, to the drivers of performance, strategic portfolio management and the role of the line manager in leading their Private Banker teams instead of managing activities. I also explain the complimentary toolsets we implemented to assist Private Banker teams in analysing, planning, and executing tactical plans.

4. Driving sustainable performance in 2018 and 2019: In this section I discuss the transition to activities that promotes sustainable performance and the alignment to the strategic objectives of the organisation. Secondly, I discuss how we dealt with data-related challenges.

5. Solving capacity constraints and fair workload allocation in 2019 and 2020: In the final section I discuss the prototype solutions we developed to assist with capacity planning, workload balancing and Private Banker Type classification for learning and development needs.

Secondly, the research case study context will also explain the iterative and collaborative process approach we followed in the scoping, development, and implementation of the PM programme and PMIS. Thirdly, the research case study context will demonstrate how we continuously focused to ensure we promoted ownership and accountability by providing contextual information, provided people with transparency so they can understand the rationale, and made the information relevant for all stakeholders. Finally, the case research study context will demonstrate how we used IS and solutions to compliment the organisational culture and contributed to promoting sustainable performance.

6.3   A changing environment and the imperative for change

The Private Bankers at Bank Pegasus participated in a bonus programme where they shared in the value of new loans generated until 2010. The Private Bankers primary focus were structured lending solutions to assist wealthy clients executing a balance sheet growth strategy through gearing and secondly, referrals to Wealth Managers who specialised in long term investments and balance sheet diversification. Lending solutions focused primarily on residential and commercial property. The rationale for this strategy was threefold:

1. South Africa was experiencing a correction in property valuation prices between 2002 and 2008.

2. The industry measurement was based on balance sheet size in terms of lending, investments, and assets under management.

3. The organisation wanted to grow its market share and become the leading private bank in South Africa.

By mid 2009 the impact of the global financial crisis was noticed in the local market and by 2010 the full impact was felt when bad debt escalated rapidly and changes in legal and regulatory requirements were implemented. By 2011 Bank Pegasus changed its judgemental credit policies, business strategy and renumeration practices. Credit policies focused more on understanding the free cash flows and affordability of clients instead of income and acceptable level of gearing. The business strategy changed to focus on all aspects of banking instead of merely lending. Remuneration practices were

changed from sharing in the value of lending deals implemented to a discretionary bonus programme that was governed and measured through a balanced scorecard. The balanced scorecard measured growth, retention, client service and risk activities. Growth did not only focus on new clients or specific products, but it also included entrenching the client with the complete private banking value proposition and solving for the family and not just the primary member in the family.

The change in the bonus programme that motivated and rewarded Private Bankers for outperformance to a discretionary bonus programme had several negative effects, for example:

1. It did not support the owner manager culture of the organisation.
2. Once the target was exceeded there was no incentive to do more.
3. It was contradictory to the nature of sales and relationship people who are very competitive and financially motivated. The impact was a decline in Private Banker morale, an increase in resignations and a slowdown in both client growth and client satisfaction.
4. There was a gap between discretionary bonuses of junior versus senior Private Bankers, because in the calculation of the discretionary bonus a person's salary is a function in the formula and a senior Private Banker with the same performance as a junior Private Banker would by default earn more.
5. Private Bankers lost trust in the performance management process, because they perceived it as being biased and favours a select few, especially the Private Bankers with the longest tenure and best line manager relationships.

In mid 2015 a team consisting of the CEO, the CFO and Head of a HR and I, initiated a project to develop a new Outperformance-Based Bonus (OBB) rewards programme. A steering committee was established consisting of the core project team and Regional Heads that met every couple of months to review progress.

We reviewed current and previous programmes across the organisation. We conducted workshops with the leadership teams, Private Bankers and key stakeholders which included product house, finance, and HR executives to establish trust in the process and the new programme. It was critical to establish trust with stakeholders and executives because outperformance-based bonus programmes had a very bad track record across the organisation for either rewarding activities that did not translate into the performance and contribution that were expected or was not robust and flexible enough to adapt to changes in strategy or market conditions. In addition, the typical outperformance programme in the organisation used potential future profits as a proxy to calculate and pay bonuses and unfortunately the potential future profits often did not materialise due to changes in the economy, client behaviour or the assumptions used in calculating the potential future profit were incorrect.

We used the inputs we gathered to define the key principles of the new programme and use as "North Star" whilst developing the programme. The key principles we adopted were:

1. The programme must be motivational and provide Private Bankers with the ability to influence the size of the funding pool and share in the profit based on their collective and individual performance and contribution.

2. The programme should be fair and promote behaviour that is rewarding for both the Bank, the clients, the shareholders, and the Private Bankers. The funding of the programme should be based on actual performance.

3. It must be a transparent process that cannot be manipulated or influenced by line manager bias. Private Bankers should have full access to how performance is measured, how their personal contribution to the organisation's total performance is calculated and how their contribution translates into the bonus they receive.

4. The programme and process must demonstrate fairness, where Private Bankers will compete with their peers while tenure or relationships will not influence the value of the bonus they can earn.

5. The programme must promote sustainable profit growth and foster trust with the Private Bankers that they are rewarded for outperformance, and with stakeholders and executives that performance rewards are based on actual contribution and outperformance.

These key principles simplified the review process of previous and other programmes in the organisation because we only had to establish to what extent the other programmes supported the key principles. Our findings were that although all the programmes had components that motivated staff and focused on key tactical enablers, there were very limited transparency and measurement of performance in relation to peers. Also, significant customisation would be required to adapt any of the other programmes to meet our objectives. As a project team we compiled a presentation with our findings and recommendations for submission to the steering committee.

The key principles also enabled us to define the various ideal behaviours we wanted to promote. To identify the input measurement options, demonstrated in Figure 6.2, we requested the steering committee to submit ideas via email. Selecting the input measurements entailed a process of reviewing the options and then grouping the inputs which presented us with leading and lagging inputs that is demonstrated in Table 6.1. Selecting the appropriate contribution measurement methods was a quantitative process done by the CFO and myself to determine reasonability and fairness.
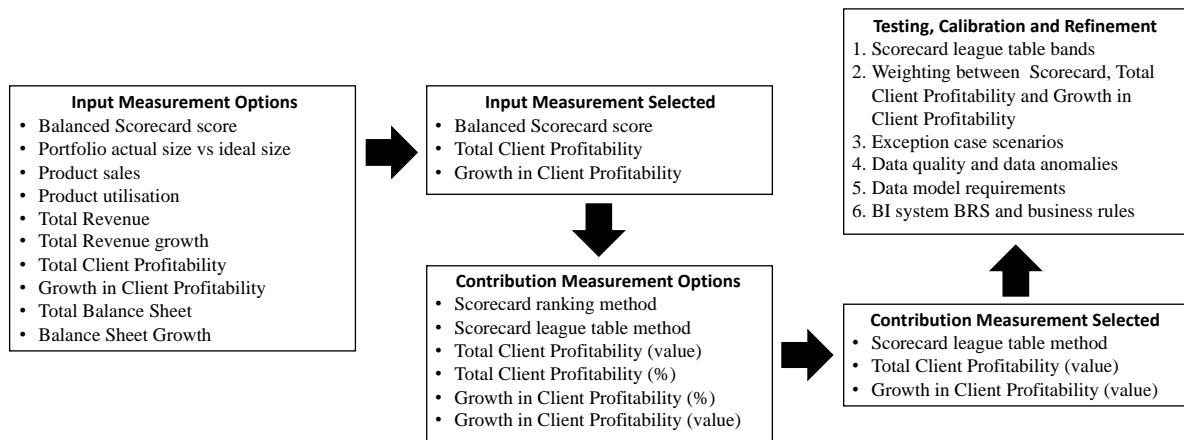
Figure 6.2: Process how inputs and contribution measurements were defined and selected

Table 6.1: Leading and Lagging input examples and source of the input

Type of Input	Examples	Source
Leading	Client related activities and ranged from sales and service activities to risk management and client engagement activities.	Balanced scorecard with specific targets and weightings for every key performance indicator.
Lagging	Key performance indicators that focused on the impact of the activities and the contribution the activities made to the organisation's overall performance. Contribution to organisation performance was measured firstly as the total profit of the portfolio a Private Banker managed and secondly, the profit growth of the portfolio year on year.	Client profitability results.

We compiled a presentation with the proposed core inputs and contribution methods and distributed it to the steering committee via email for review and comment. Our proposal included the rationale for an input measurement inclusion or exclusion supported by examples or scenarios. The proposal also included the advantages and limitations of the different contribution measurement options and rationale for selecting the preferred contribution methods. The CFO and I had one-on-one meetings with each steering committee member to discuss any questions, and a steering committee conference call was scheduled a few weeks later to ratify the proposal and commence building a prototype.

The design principles and key performance indicators enabled us to build a modular IS prototype that consisted of two main elements, a funding pool calculation method, and a distribution method. The objectives of the funding pool calculation method were to establish an objective and transparent method to fund the bonus programme, secondly to link the bonus programme to the organisation's performance, and thirdly to act as a motivator for collective outperformance and sustainable profit

growth. The objective of the distribution model method was to recognise and reward individual performance and contribution.

Instead of the traditional approach to IS development of spending months scoping and building a database, then creating the business logic and presenting the results on the organisation's BI platform, a BI developer and I, pictured in Figure 6.3, built a prototype in Microsoft Excel to test the assumptions and expectations.
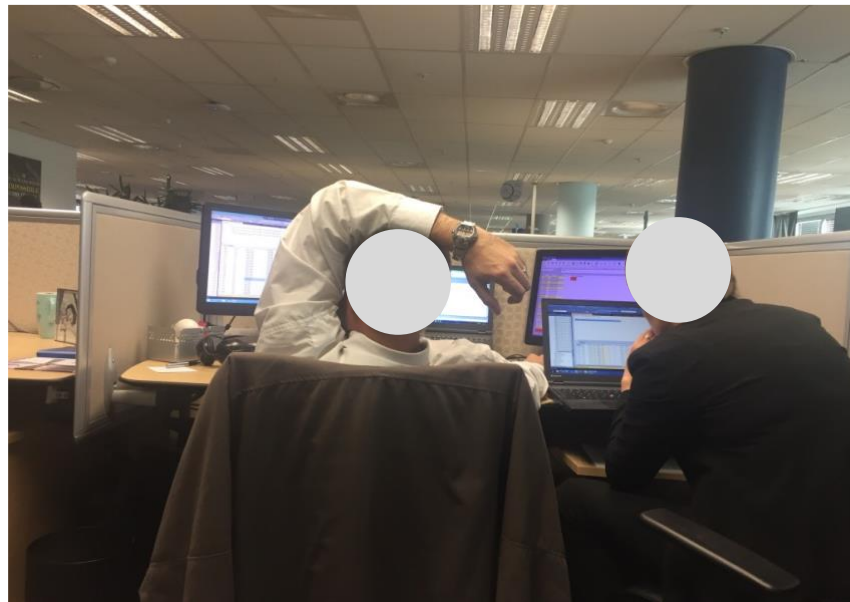
Figure 6.3: The PMIS prototype development was done by a senior BI developer and me

The reason for proposing and the advantages of building a prototype and using MS Excel were:

- The nature of a prototype is "work in progress" and positions the development process as participatory. Also, attention is diverted from how the system looks to what the system does and should do.
- All the steering committee members have advanced MS Excel skills which enabled them to interrogate and test the underlying data to identify business logic errors or enhancements requirements.
- With the data set in MS Excel, we are able to identify and exclude data anomalies. Anomalies can then be classified as either data quality or incomplete data related, and solutions can be discussed with the relevant product system owner.
- It is very easy to create new or different versions for review by the steering committee.
- Through engaging with a prototype new business rules and unique scenarios are identified, for example how do deal with maternity leave, promotions and Private Bankers joining during

the financial year, or how do you deal with a client relationship transferred between two Private Bankers during the financial year.

The objectives of the first prototype version as demonstrated in Figure 6.4 were to test the measurement inputs, the methods how Private Banker contribution can be measured and supply the steering committee members with a basic toolset to commence the testing process as well as to provide calibration and refinement suggestions.

Figure 6.4: MS Excel prototype that was used to test and validate the programme results

Using formulas, pivot tables and graphs in MS Excel, for example Figure 6.5, we were able to do detailed analysis to identify and explain outliers, and in particular identify Private Bankers worse off on the new PM programme. We identified various use cases and reference cases, and documented the enhancements, gaps, and anomalies. We also noted aspects we did not know how to solve yet due to either incomplete data, data quality or other projects that were still in the development phase.

OBB Results| 172 Bankers in the pilot group
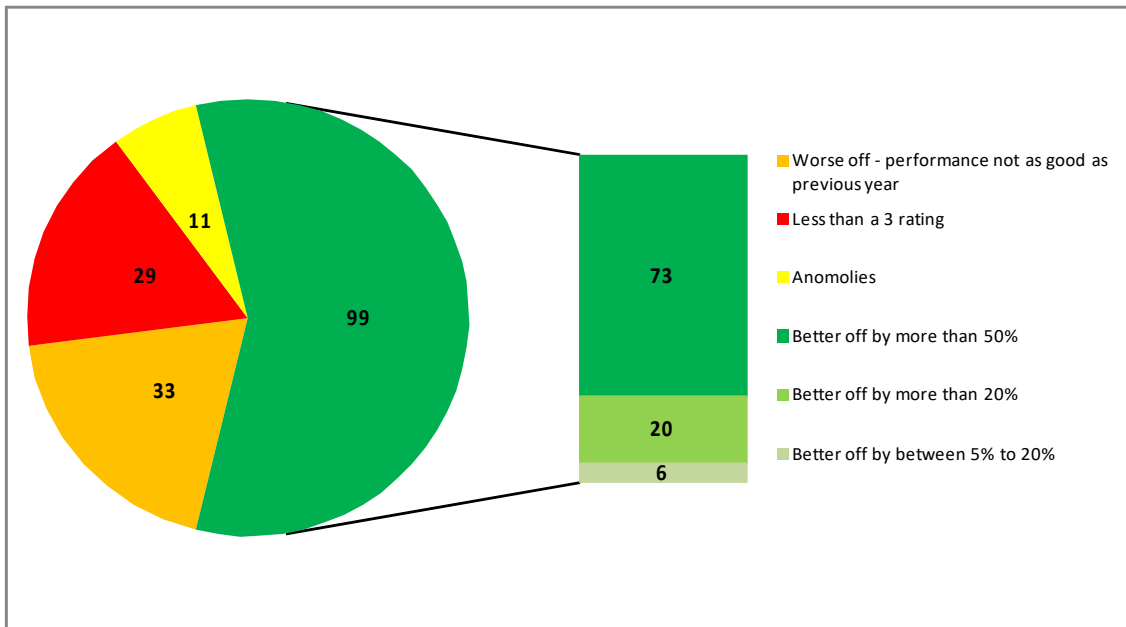
Notes:
- Scorecards are cumulative and we used YTD February 2016.
- We are comfortable that Bankers who are worse off due to performance not being as good as last year will make further progress in the remainder 4 months of this financial year.
- The majority of Bankers below a 3 rating are between 2.7 and 3. We are comfortable with 4 months to go until the end of this financial year, hat the majority of these Bankers will achieve at least a 3 rating.
- We have an action plan in place for the anomalies and this will be resolved by 1 July, implementation date.

Figure 6.5: Monthly analysis to quantify and explain the impact of the PM programme compared to the previous discretionary programme

I distributed an updated prototype result monthly as demonstrated in Figure 6.6 to the Regional Heads and steering committee with commentary via email. Additionally, I also distributed a region specific email with more in-depth analysis and comments on specific Private Banker cases that had been raised. We also had an hour slot at our monthly Strategic Management Committee meeting to provide feedback on issues raised and the resolutions. The advantage of the approach was that during the prototyping period they were sensitised to the new programme rules and objectives. They participated in identifying concerns and reservations were addressed on an ongoing basis.

Dear Regional Heads,

In addition to the email I sent you with your region's 2016 discretionary bonus vs. OBB comparison, below is a summary of March's OBB release focusing on the following:

- Banker portfolio overview.
- Suggested portfolio sizes vs. actual portfolio sizes.
- OBB distribution model compared to the 2016 discretionary model.
- Enhancements we're working on.
- Unresolved issues that we will address.

Banker Portfolio overview:

Portfolio Type	# Bankers	% of Bankers	% of HH	% of Profit	% of OBB Pool
A	79	30%	40%	24%	24%
B	172	66%	58%	63%	63%
C	11	4%	2%	13%	13%

Comments:

- UHNW pods manage 13% of the total profit, if we can increase this to 20%+ the UHNW distribution pool will be larger.
- Many of the UHNW pods are not up to capacity yet and many UHNW Households are not aligned to UHNW Pods.

Suggested portfolio sizes (April 2015)

Portfolio Type	Average # Households	Relationship VSI	Average Number of Clients	Average Profit per Household	Average Portfolio Profit
A					
B					
C					

Actual portfolio sizes (February 2017)

Portfolio Type	Average # Households	Relationship VSI	Average Number of Clients	Average Profit per Household (annualized)	Average Portfolio Profit (annualized)
A					
B					
C					

OBB distribution model compared to the 2016 discretionary model

	Region 1	Region 2	Region 3	Region 4	Region 5
# of Bankers					
OBB is less than last year's discretionary bonus					
Scorecard is above a 3					
Profit growth is positive					
Profit growth is greater than 18%					
Potential model issue					

Comments regarding the X Bankers participating in OBB:

- X Bankers (74%) have more than a 3 on their scorecard – this is a significant jump from the previous month's X.
- X Bankers (83%) contribute to positive profit growth – only an increase of X Banker from the previous month.
- X Bankers (43%) are growing their portfolios with more than 18% ytd – an increase of X Bankers from the previous month.
- X Bankers (4%) have more than a X on their scorecard and growing their portfolios with more than 18% ytd, but worse off in OBB -X less Bankers from the previous month.
- X Bankers (1.5%) need further investigation why OBB do not benefit them – X less Banker from the previous month.
- Issues regarding the UHNW pods need to be discussed separately – refer to unresolved issues below.

Enhancements we're busy with that will have a positive impact on OBB distribution amounts:

- Flagging and excluding Bankers who resigned and adding their OBB amounts back into the distribution pool.
- Adding revenue from staff clients to all Bankers who manage staff clients into the distribution methods to level the playing field for all Bankers.

At this stage the biggest unresolved issues are probably the following:

- Doing extremely profitable business, but with a defined end date that then negatively impacts the Banker to such an extent that the Banker can't recover from this during the current year. Example is ▮▮▮▮▮▮▮▮▮▮▮▮▮ who had a pref share deal that expired, and the result is more than ▮▮▮ negative profit growth in his portfolio this year.
- How to deal with the handful of Bankers who exceeds all the benchmarks we use and are worse off in OBB.

Regards

Stefan

Figure 6.6: Example of monthly email communication sent to the leadership teams

After approximately two months of engagement, the consensus amongst the steering committee members was that the prototype was stable, they had sufficient understanding and were comfortable to support the next phase of the programme of building the PMIS. We scheduled a steering committee meeting and presented the results for the prototype phase and a high-level plan of the next steps to formalise the agreements and commitments.

The building of the PMIS followed a similar participatory and collaborative approach to the development of the prototype, demonstrated in Figure 6.7, but with the advantage that we had use cases and data we could reference to validate the PMIS outputs.
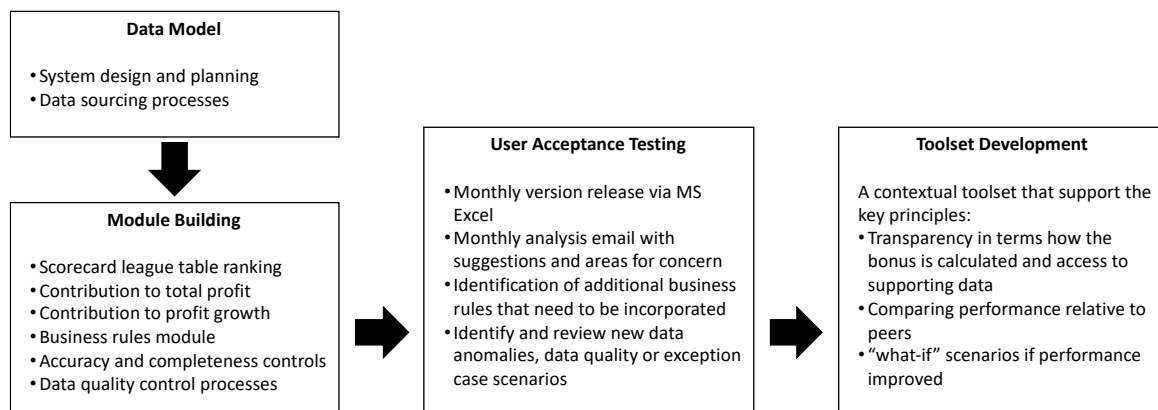
Figure 6.7: Summary of the PMIS deliverables

The BI Developer and I spent approximately four weeks to design and build Version 1 of the data model and four modules (Scorecard league table ranking, contribution to total profit, contribution to profit growth and a business rules module) that constituted the rules-based IS which we named the "OBB Engine".

We <u>designed</u> the OBB engine to allow human input/engagement only via the business rules module to support the core design principles of transparency and to prevent bias manipulation. The advantages of this approach were:

- Because business rules had to be generic enough to be applicable to everyone, we did not have the problem of "manual overrides" built into the system to cater for special exceptions and specific portfolios. The only way to get a business rule implemented was if the steering committee approved it. Additionally, any business rule changes were reviewed in terms of alignment to and supporting the core design principles. This did not mean people did not try to add business rules to cater for special exceptions and specific portfolios, but the process prevented it from implementation.

- Developing controls to test for completeness and accuracy of data and process execution were simplified.
- We were able to clearly demarcate accountability and responsibility from a data supply and data processing perspective.
- From a financial audit and governance perspective we only had to supply the business rules and supporting documentation.

The approach we took building the PMIS modules is demonstrated in Figure 6.8. We started by replicating the prototype to test and validate our data sources and use cases. We then added the additional business rules and different control processes. Finally, we populated the PMIS database with the current financial year data to generate output results.

Replicate the prototype

- Test data sources
- Validate use case matching

Enhance with business rules

- Add additional business rules identified during the prototype phase
- Accuracy and completeness controls
- Data quality control processes

Add current financial year results

- Start building history by adding every month in the current financial year to test the process execution and accuracy.
- Generate output results that we can distribute for testing and review

Figure 6.8: Migrating from MS Excel prototype to Information System on BI platform

With the PMIS development completed and results reflecting the current financial year we were ready to start the user acceptance testing phase. Similar to the prototype phase our preferred distribution method was MS Excel to ensure we focus on the results and not user interface design. However, instead of only using the steering committee members to participate in the testing and review process, we expanded the user group to include the Private Banker's line managers.

The objectives with including the line managers at this stage were to:

- Provide them the opportunity to "start kicking the wheels" of the new system and offer them the opportunity to participate in identifying gaps or exceptions.
- Provide them with enough time to evaluate the advantages and limitations of the new programme and how the results impact on different Private Bankers.
- Engage with the line managers to address concerns, debate the rationale behind the business rules and if required submit change requests to the steering committee for review and resolution.
- Start the process of establishing mutual ownership of the programme, and how they will need to adjust the planning and management of their teams.

"The moment you can democratise that data set and put it out in front of everybody and everybody knows that the person next them can see the same data set, a bit like Blockchain in some ways, you start to trust." – **Line manager**

User acceptance testing started in February 2016 and every month I distributed via email an analysis and supporting MS Excel data file. Similar to the protype, the MS Excel file had multiples worksheets:

1. A worksheet for each of the contribution measurements.
2. The complete underlying data set.
3. A consolidated summary sheet and an insights worksheet.

Monthly meetings were scheduled with each Regional Head and their line managers to review the results and to discuss questions. Many line managers also arranged additional meetings to clarify the programme rules, results, and impact it will have, for example:

- Impact on their ability to direct behaviour or "control people" if they have no influence over the bonus someone will earn.
- Impact on specific Private Bankers who will not be happy with the new programme and due to their tenure and relationships with senior executives may create a lot of "noise" within the organisation.
- Requesting advice how to plan for their team to be successful in the new programme.

6.4   The implementation approach and coping with change

We received approval from the Strategic Management Committee to proceed with the formal approval process from the organisation's remuneration policy committee, the industrial relations business unit and the labour union and proceeded with the formal building phase of the PMIS. The approval process entailed a business case and demonstrating the impact on Private Banker teams. We

had to explain how this complied and aligned to TCF (Treat Customers Fairly) regulations, how this supported sustainable profit growth and mitigated against the risk that we may have made a mistake in our model and the programme end up creating an excessive bonus pool that is not related to the organisation's performance.

Once we received approval from the various committees, business units and labour union, we started communicating and sensitising the Private Banker teams about the programme objectives, the opportunities the programme would offer them and how to prepare for the launch. We continued to distribute the MS Excel version with commentary to the senior management team. In addition, we built an information guide, demonstrated in Figure 6.9, to explain the objectives, the mechanics, and rules of the new programme.

Summary| So, what's in it for you?

Current

New

Discretionary Pool linked to staff costs

OBB Funding Pool linked to Profit Growth

3 ways to earn your bonus

Create the biggest cake possible and opportunity to share in 3 different ways.

Distribution Pools| How

❶ Scorecard ranking	❷ Profit Contribution	❸ Profit Growth
30%	21%	49%

Why use it:
- Reward performance that supports the strategic objectives through Scorecard KPI's.
- Reward the total portfolio profitability and the effort involved with maintaining a portfolio and ensures we retain what we have.
- Reward the growth in portfolio profitability through either cross selling or acquisitions to ensure we continuously grow our business.

How does it work:
- Scorecard: uses the concept of a league table where you share more, the higher you are on the rankings.
- Portfolio Profit: share based on the % profit size of your portfolio in relation to total profit.
- Profit Growth: share based on the % profit growth of your portfolio in relation to total profit growth.

What should the Banker do:
- Review scorecard for appropriate targets.
- Analyse portfolio and understand where the opportunities lie in terms of revenue and costs.

Figure 6.9: The programme content focused on the advantage of the programme, the methods, and rules.

Our implementation approach differed from previous IS projects. We used the line managers as the implementation team instead of our central support functions, for example the Learning and Development team, the Internal Communications and Change Management teams, and the subject matter experts who developed the PMIS. The reason for this approach was threefold:

1. It transferred ownership and accountability of the programme to the line managers.

2. The line managers had to make sure they understood the intricacies of the programme to sufficiently address the angst and resistance within their teams.

3. Remuneration is a personal topic and people are motivated differently, have different context and experience. The line managers were the most appropriate people because they understood their teams and individual dynamics.

From a central support perspective, the Head of HR and I conducted training sessions with the line managers and Regional Heads in each region. Once the line managers and Regional Heads were comfortable with the rules and intricacies of the programme, they arranged sessions with their teams to explain the programme. Each Regional Head and their line management team determined the appropriate format to conduct the training sessions. Formats ranged from a single session with the whole team, to sessions consisting of different groups of people in a team, for example senior Private Banker sessions and junior Private Banker sessions, demonstrated in Figure 6.10. Some Regional Heads and line managers requested that we attended the sessions either physically or via video conference to assist with answering complicated or technical questions. Other regions opted to compile a list of questions and then invited me to a session to address the questions.

Figure 6.10: Implementation sessions ranging from conference calls via telephone or video to face-to-face

We did not provide email support to the Private Banker teams during this phase and all questions had to be channelled through the line manager to the programme team. The reason for this approach was from a scale and transfer of ownership perspective. We launched the programme to 254 Private Bankers located nationally in more than 10 locations. By channelling the questions through a line manager, the line manager was able to gain insight into the team's understanding, common concerns, and areas of resistance. We held monthly briefing sessions with the line managers and Regional Heads to address questions and concerns.

The Private Banker teams' initial response to the launch of the new programme varied between scepticism, anxiousness, and excitement. The senior Private Bankers who were with the Bank prior to 2010 were vocally distrustful and cynical about the programme. Private Bankers who were with the organisation for less than five years and who have never participated in an outperformance-based bonus programme were mostly excited about the potential the programme offered. The Private

Bankers who were anxious were typically the Private Bankers who were good at line manager relationships and perception management. From a line manager perspective there were three distinct groupings:

- The first group was excited about the programme and the opportunity that actual performance would be recognised, and performance management simplified.
- The second group bought into the programme but wanted more detailed understanding of the rules and how they can setup their Private Banker teams for success.
- The third group viewed the programme as diminishing their line manager role and taking power away from them, because they believed that if you cannot determine someone's bonus then they might not do what you instruct and respect your position. This third group required much more engagement that focused on the difference between management and leadership.
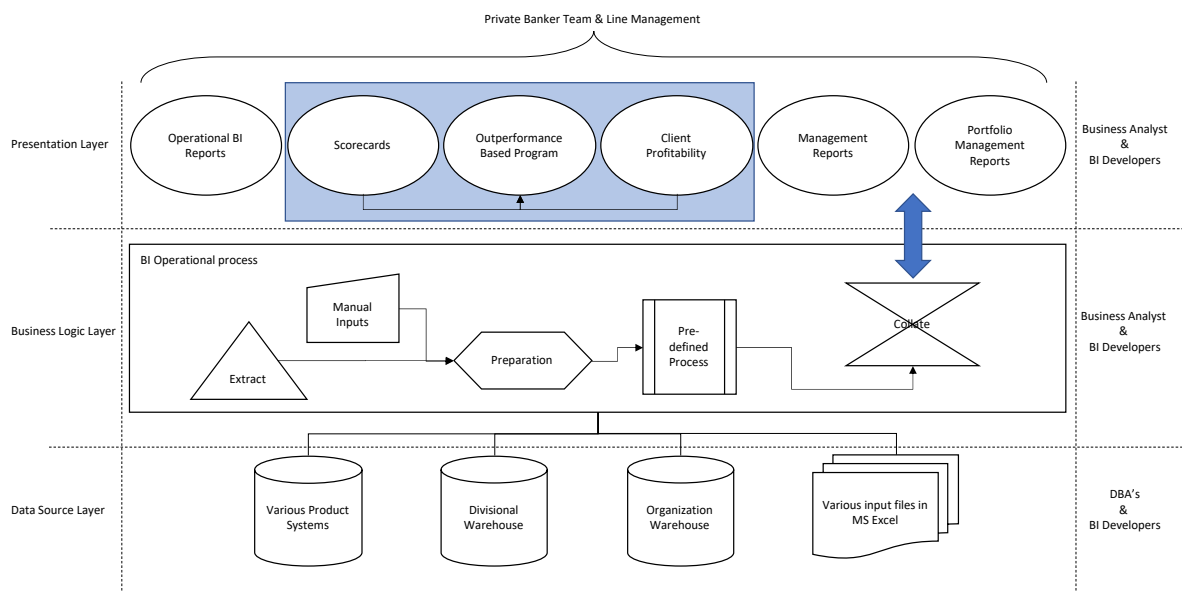
Figure 6.11: The Information System was built on our BI Platform, leveraging existing processes and integrating to other dashboard and reports through drill down capabilities.

From January 2016 to May 2016 we built the Outperformance Based Bonus (OBB) PMIS on the organisation's BI platform, demonstrated in Figure 6.11, and integrated it to various existing reports. In October 2016 we deployed the Outperformance Based Bonus (OBB) Dashboard, demonstrated in Figure 6.12, to the Private Banker teams. The dashboard consisted of four sections, and the objective of each section was to provide a Private Banker team with a comprehensive and comparable summary of their performance and how it compares to their peers.
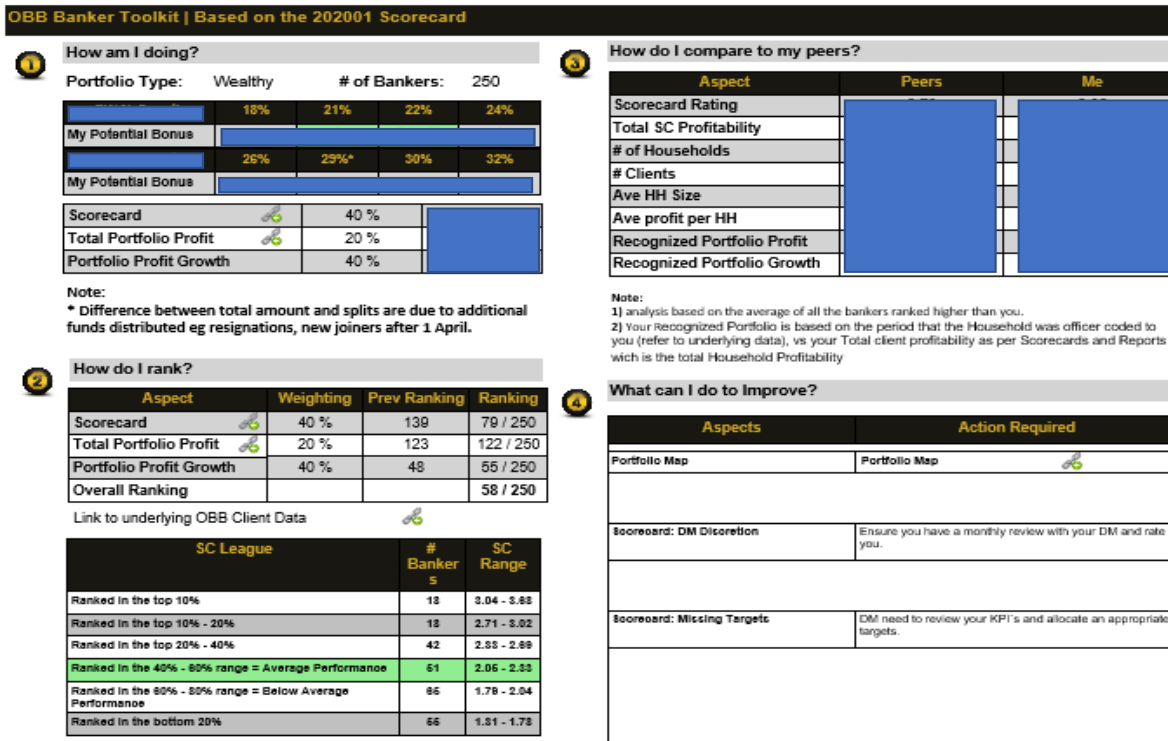
Figure 6.12: Private Banker toolkit that provides a detailed summary with drill down reporting capabilities

The <u>first section</u> presented their potential bonus and what it might be if different profit growth targets are achieved. It also demonstrated how much they might earn from the three distribution pools. The <u>second section</u> presented their ranking per element, their overall ranking and how it compared to the previous month. It also presented their scorecard performance and how their performance rating compares to the other Private Bankers. This enabled Private Bankers to understand their performance relative to other Private Bankers. The league table explained the scorecard ranges per ranking band and the number of Private Bankers per ranking band. This enabled Private Bankers to understand their performance in relation to their peers and what is required to move up the league table ranking bands and increase their earn or alternatively what is required to not move down and earn less.

The scorecard performance is measured in the form of a league table, demonstrated in Figure 6.13. We categorised performance into the following bands: Top 5%, Top 5%-10%, Top 10%-20%, Top 20%-40%, Average Performance: 40 %-60%, Below Average Performance: 60%-80 % and the Bottom 20 % performance.

League table	% of SC Scores	% of Pool	Pool Size	# Bankers	Amount per Banker
Top 5%	5%	25%		7	
5% - 10%	5%	15%		6	
10% - 20%	10%	15%		22	
20% - 40%	20%	20%		41	
40% - 60%	20%	15%		51	
60% - 80%	20%	10%		51	
80% - 100%	20%	0%		37	
	100%	100%		215	

Figure 6.13: Scorecard league table

The third section provided the Private Bankers with a comparative summary of their portfolio size, their portfolio total profit and portfolio profit growth relative to their peers. This enabled Private Bankers to understand the difference between their portfolios and their peers' portfolios and highlighted areas where a Private Banker's portfolio is lagging their peers. The fourth section provided suggestions how to improve performance and hyperlinks to the rules and frequently asked questions. The dashboard was linked to detailed reporting accessed through hyperlink drill downs. For example, the scorecard score hyperlinked to the detailed scorecard. Portfolio profit and portfolio profit growth hyperlinked to the client profitability dashboards, and the portfolio summary hyperlinked to the strategic portfolio planning map.

We also provided drill down reports demonstrated in Figure 6.14 and Figure 6.15 to the complete dataset used in the calculation of the total portfolio profit and portfolio profit growth. We presented the current financial year and previous financial year monthly and colour-coded the cells to make it easy to identify months where there were positive or negative profit growth, and when a new client joined the portfolio. The objective of this comprehensive dashboard was to support the design principles we defined during the scoping phase of the project:

- To provide full transparency.
- To measure performance in relation to peers.
- What is required to improve the potential bonus amount.
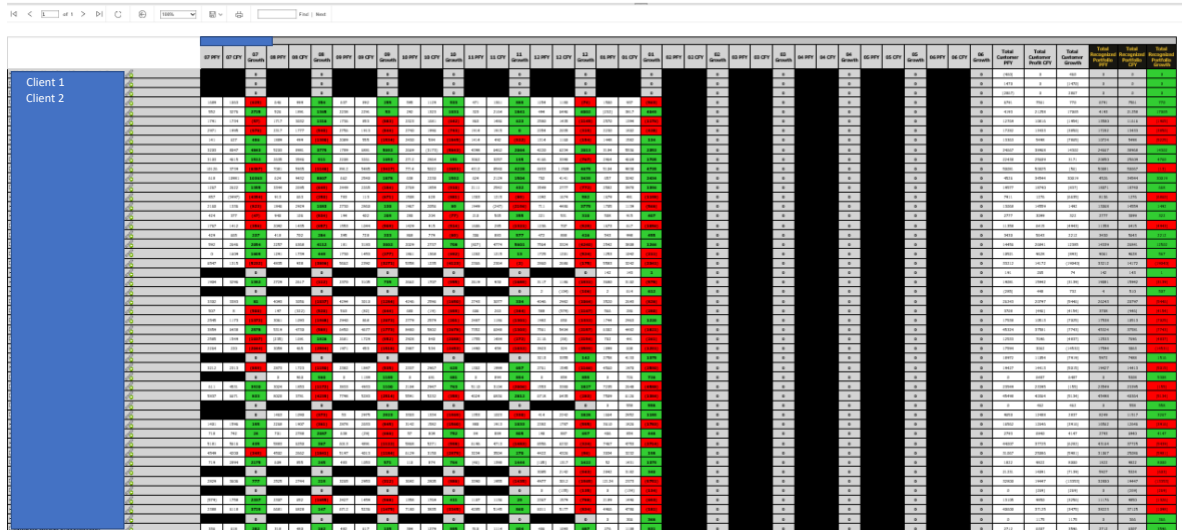
Figure 6.14: Detailed drill down reporting on a client level per month
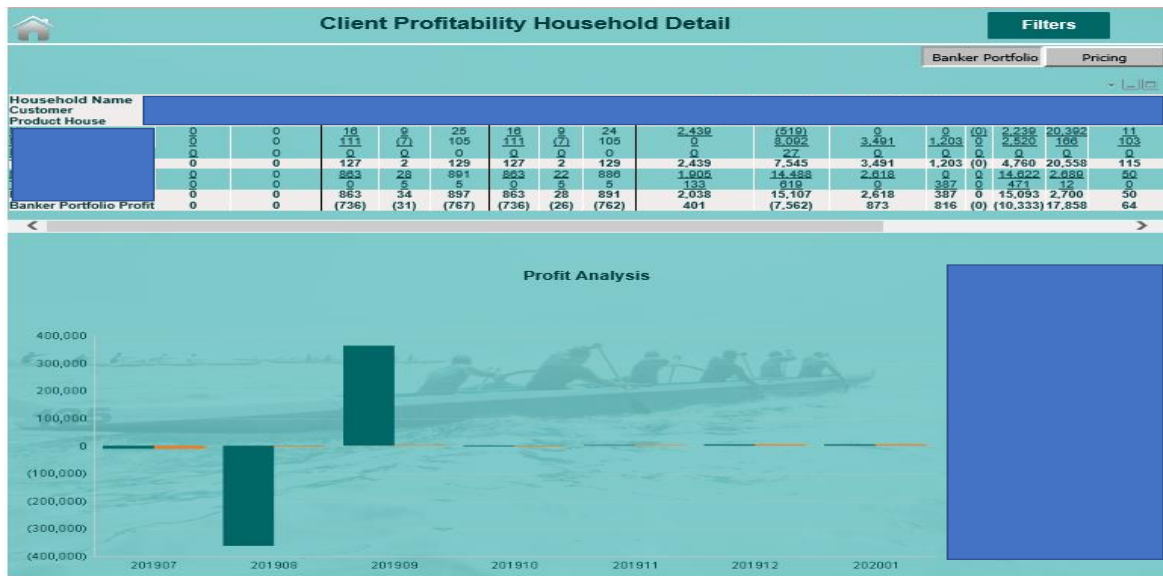
Figure 6.15: Drill down reporting on a client level providing insight into product holding, revenue and cost

We deployed two management toolkits for the line managers. The first toolkit enabled line managers and Regional Heads to view the performance of all the Private Bankers and to analyse the difference in the performance of Private Bankers. We did not limit the line managers and Regional Heads access to only their teams or regions for the following three reasons:

1. To become aware of their own bias related to defining performance expectations and their perception of people in their teams.
2. To discover how their teams compared to other teams and use this as a tool in their team and region planning.

3. To provide them with content they could use when explaining the rationale of their plans to their teams and why it is in the Private Bankers own interest.

Engagement from the Private Banker teams were limited during the first few months after the deployment of the PMIS. Firstly, it was related to the time of the year we deployed, as we were only four months into the new financial year. Secondly, we were approaching the South African summer holiday period between December and January and the Private Banker teams were focused on completing their work before the holidays. Reality started setting in by March 2017. The Private Banker teams realised that the results they were presented with would be what they will potentially earn and there will not be a discretionary "top-up" process. This resulted in a significant increase in Private Banker team briefing sessions.

The reference guide was distributed and the briefing session was positioned as a question and answer session and not a training session prior to hosting a Private Banker briefing session. At these sessions three types of Private Banker profiles were evident. The senior Private Bankers were either disengaged or critical, the junior Private Bankers were mostly excited, especially considering the projected potential bonus they would earn was significantly more than what they were used to under the discretionary programme. They wanted to understand specific rules and how to make the most of the programme. The third group only observed the session. Amongst the line managers two profile types surfaced, the one group took ownership of the programme and contributed during the session. Whereas the second group only introduced the session and then distanced themselves from the intricacies of the programme. The impression they portraited was that this is a programme defined by the organisation and they had to make the best of it.

During May and June 2017, we arranged three Private Banker exception case meetings, demonstrated in Figure 6.16, where the Regional Heads could present cases where they thought the programme treated a Private Banker unfairly. Prior to each exception case meeting the details of the exception cases had to be submitted with a motivation why this should be regarded an exception case. We investigated each exception case and distributed a summary document with our findings and recommendations for discussion. The objective of this approach was to allow all attendees enough time to review and have a constructive discussion at the exception case meeting. The meeting invitees were limited to only the Regional Heads, CFO, Head of HR, the CEO and me as the convener. The guiding principle for decision making at the meeting was that a decision or exception could not be based on a specific client behaviour and an exception is something that is applicable to everyone, for example treatment of specific costs over which a Private Banker or client has no influence. Client behaviour, for example clients immigrating and closing their accounts were not regarded as an exception case. At the exception case meeting all the cases were tabled and the recommendations

reviewed. In cases where a Regional Head disagreed with the recommendation the CEO had the final decision-making power.

#	Item	Decision
1	Client in legal - maintain the status quo and review the way forward in the new financial year.	Bankers should not be measure and rewarded for clients that are in "legal". Materiality need to be assessed and committee will then make a decision if this should be excluded immediately or only from 1 July.
2	Staff Clients - can we use a proxy to calculate the "potential revenue" and add to all relevant Bankers. Accurate data not easily available.	No, only accurate and complete results will be used, if revenue on staff clients can't be calculated before 30 June then exclude from the 2017 OBB process.
3	Other BU willing to contribute to Banker bonus outside OBB	Other BU's can contribute and Finance and HR will resolve the internal process how to deal with issuing 2 letters.
4	Banker currently on contract - do they participate	1. HR guidance is to comply with remuneration policies – contract staff doesn't participate in bonus processes. 2. Check the specific contractor's contract re terms.
5	Banker currently on contract and leaving on 30 June 2017	1. HR guidance is to comply with remuneration policies – contract doesn't participate in bonus processes. 2. Check the specific contractor's contract re terms.
6	Banker currently on contract and leaving on 30 June 2018, need to start handover in March 2018, what happens to the Banker's OBB	1. HR guidance is to comply with remuneration policies – contract doesn't participate in bonus processes. 2. Check the specific contractor's contract re terms. 3. Normal OBB 6 month rule will apply. Banker who receives the clients will receive the portfolio and scorecard benefits, but not the profit growth benefit.
7	Different forms of "performance management", when are you suspended from participating in OBB eg weekly check-ins, PIP or Performance Management.	Assess below 3 scorecard ratings and determine if the rating is the result of lack of Banker performance or the result of portfolio performance eg. large outflow of fund or specific deal reaches end of term. If the result is Banker performance then Banker should be on a formal PIP and will be excluded from OBB.
8	Doing extremely profitable business, but with a defined end date that then negatively impacts the Banker to such an extent that the Banker can't recover from this during the current year.	This is the normal nature of business and will not be treated as an exception scenario. It also opens the door to questioning other deals which the Banker is not directly involved and receives the benefits for.
9	How to deal with internal promotions.	Treat the same as a new employee and according to the OBB guideline.

Figure 6.16: Example of a leadership exception case meeting, topics and decisions taken

The organisation's financial year end is 30 June and during July we compiled the final bonus projection for the year and prepared for pay-out in August. Whereas every month we released a projected potential bonus amount, in the final month we released the actual amount the Private Bankers would receive only after the line managers had completed the distribution of the Annual Salary Review (ASR) and bonus letter process. The reason for this approach was to afford the line managers the opportunity and time to review and discuss the results with each Private Banker. The practice of delaying releasing the final results until after the distribution of the ASR letters were criticised by the Private Banker teams, even though the delay was only seven business days. The Private Banker teams quickly grew accustomed to the practice that the PMIS was updated within two business days after the release of the monthly scorecards.

In August 2017 we reviewed the programme which entailed analysing if the programme met the objectives and supported the principles we defined originally. Secondly, we analysed individual Private Banker performance versus reward received, thirdly the difference between traditional discretionary bonus and out performance bonus, fourthly that the programme did not differentiate based on region or team to ensure everyone had the same opportunity to outperform. The results of the analysis demonstrated that the programme was a success. We compiled an analysis briefing presentation that the Regional Heads used in their quarterly update sessions with their Private Banker teams.

A reality of any performance reward programme and especially an Outperformance Based Bonus programme is that there are winners and losers, and this programme was not different. The losers in the programme could be grouped into four groupings:

1. Private Bankers who were either non-performing or whose performance were lower than the previous year.
2. Private Bankers who resisted the programme rules. They were mostly senior Private Bankers who believed they could continue to carry on as usual and that there would be an additional bonus pool that would reward them, and that their relationship with the leadership teams would assist them to receive special dispensation.
3. Private Bankers who performed better than the previous year but earned less in the OBB programme. The primary reason was that the bonuses they received historically was too high and ascribed to leadership relationship and bias, and secondly the method how the discretionary bonus is calculated, which is a function of your salary and performance rating, and salary is a function of tenure.
4. Programme anomalies that consisted of ten Private Bankers out of the 254 Private Bankers. This group of Private Bankers performed better than the previous year, exceeded all the

programme objectives, but their portfolios were smaller than the average Private Banker and the smaller absolute size, value and growth in their portfolios meant they earned less.

Consensus amongst the leadership team was that the four groups were not a PM programme limitation, but a leadership and line management issue. Private Bankers who were unhappy with the programme results could arrange sessions with the programme team and their line manager to review how the results were compiled and discuss the reasons why the expected results were not achieved and suggestions how to improve results the next financial year. The approach to these sessions was not to focus on what the Private Banker might have done wrong or defend the programme. The intention and tone of the sessions were that the Private Banker is a performer who has the right skills. We focused on the dynamics of the portfolio, unpacking the areas that could have been improved and the opportunities that were not unlocked, and the size and contribution of the portfolio and how it compared to other Private Bankers. We did not share details of what other Private Bankers earned and masked the data so we could delve into the granular calculations and working of the programme. This level of transparency and willingness to engage gave the Private Bankers great comfort and they were always appreciative of the sessions.

6.5   Promoting desired behaviours

The rules for the 2018 programme remained the same, but the focus shifted from explaining and demonstrating the advantages of the OBB programme to the drivers of performance, strategic portfolio management and the role of the line manager in leading their Private Banker teams instead of managing activities. We enhanced our scorecards, demonstrated in Figure 6.17, to align to our strategic objectives, and to assist the Private Banker teams with understanding the drivers of performance.
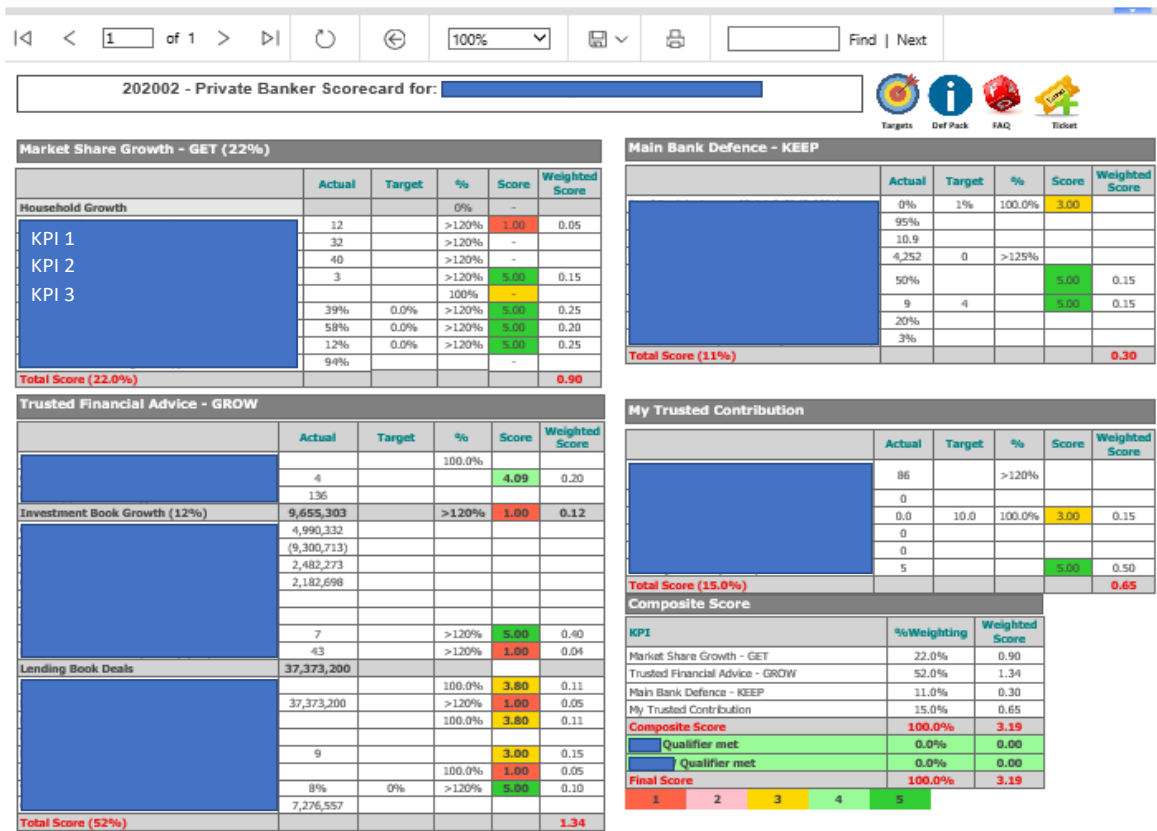
Figure 6.17: Example of a Private Banker scorecard

Secondly, we improved the level of detail available for each key performance area on the scorecard through drill down reporting to assist the Private Bankers teams in identifying opportunities in their portfolios, demonstrated in Figure 6.18.
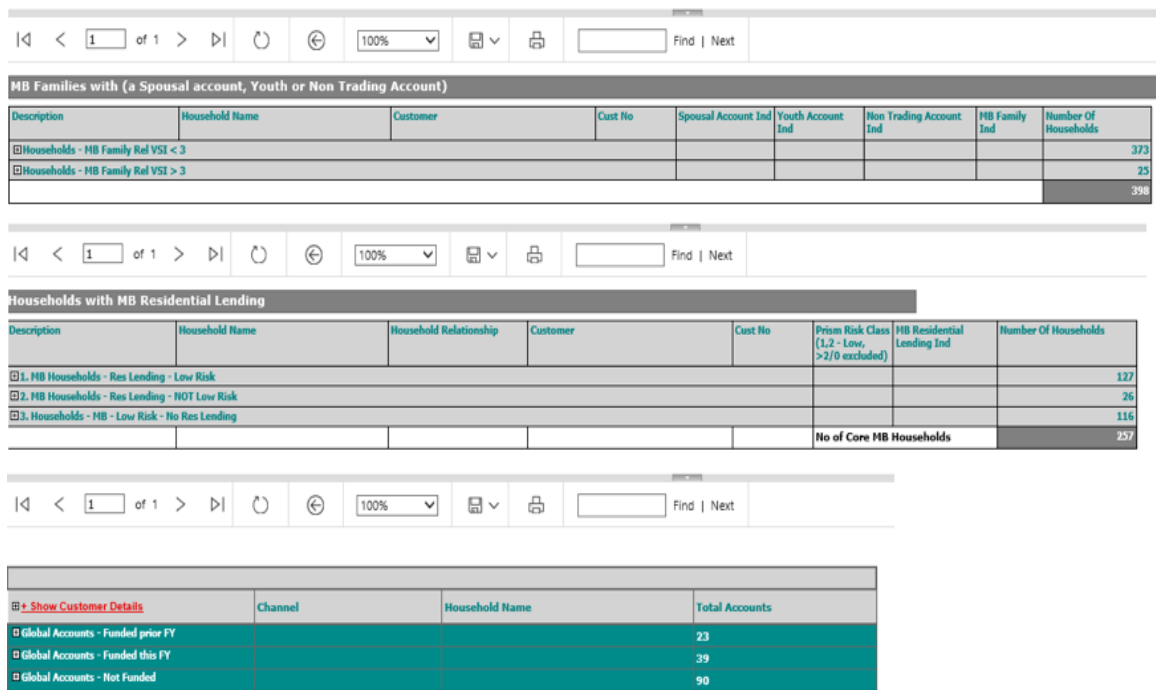
Figure 6.18: Drill down reports from the Scorecard

Thirdly, we developed Strategic Portfolio Management reports, demonstrated in Figure 6.19, to assist Private Banker teams to understand their portfolios and to analyse, plan and execute tactical strategies relevant to their portfolios. The information was presented as a portfolio map to demonstrate how the portfolio aligns to the strategic drivers of the bank and four specific focus areas:

- A summary that demonstrated to what extent the portfolio is aligned to the core strategic objective.
- Loss-making clients that required specific attention and a turnaround plan.
- Clients that needed to be protected from being "poached" by competitors.
- Clients who needed to be entrenched from a relationship and value proposition perspective.
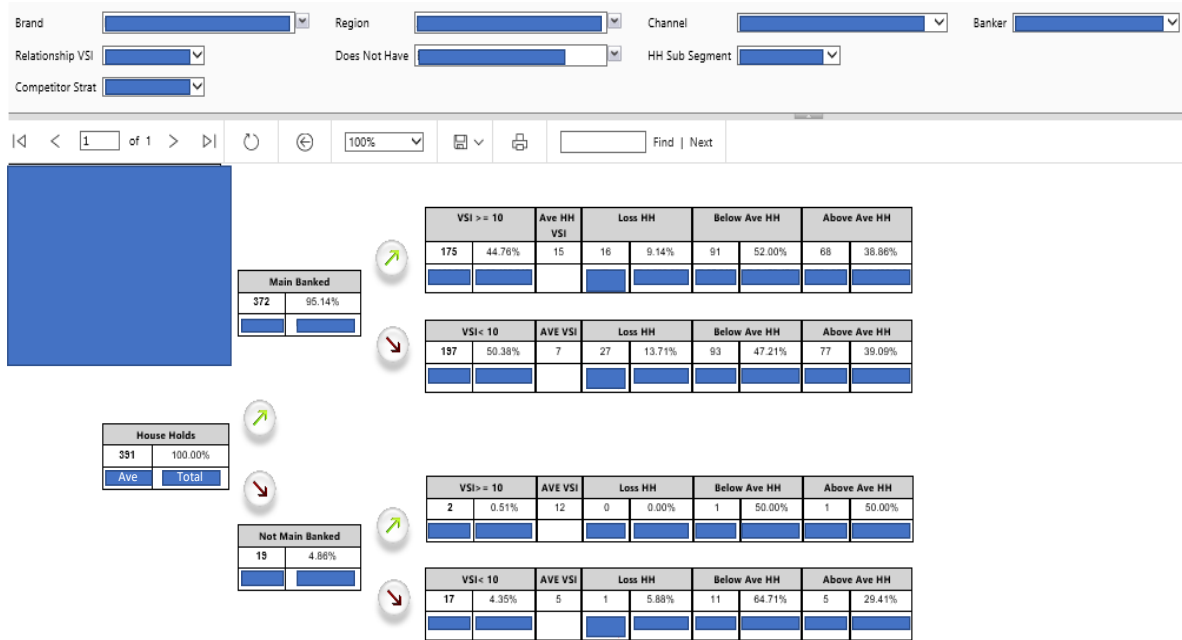
Figure 6.19: Example of a Private Banker strategic portfolio management map

The Strategic Portfolio Management reports had two additional levels of information. The second level, demonstrated in Figure 6.20, presented the list of clients in a specific focus area with summary information, for example profitability, total product holding and risk classification. The third level of information provided detailed content, for example drilling though on profitability, demonstrated in Figure 6.21, provided a detailed client analysis in terms of product holding, revenue and cost. Line managers used the same Strategic Portfolio Management reports to compare teams to assist them in leading versus managing.

The Strategic Portfolio Management report was not only used by the Private Banker team and line managers, but we also used the report to assist us in the annual strategy planning and budget review process. We used the report to determine the potential of our current client base from a product holding and profitability perspective. The adoption of the Strategic Portfolio Management report from both a Private Banker and line manager perspective was inconsistent and mostly adopted by the "planners" and the "I know best" group just ignored it.

Legend

Main Banked: MB VSI Above Or equal to 10: >=10 Loss Making HH: L

Not Main Banked: NMB VSI Below 10: <10 Below Average HH: BA

Above Average HH: AA

Region	Brand	Channel	Banker Name	CODE	House Hold Name	Household VSI	Relationship VSI	HH Profit	VIP	HH Main Member Salary Category	Risk Class	Client Grading
Region A			Banker 1	MB>=10BA	Client 1	15	5		NON VIP	Self Employed	Class 1	4
Region B				MB>=10BA		16	3		NON VIP	Self Employed	Class 1	4
				MB>=10BA		17	5		NON VIP	Self Employed	No Info	No Info
				MB>=10BA		21	4		NON VIP	Self Employed	Class 1	4
				MB>=10BA		10	5		NON VIP	Self Employed	Class 1	4
				MB>=10BA		17	2		NON VIP	Self Employed	Class 1	4
				MB>=10BA		11	2		NON VIP	Self Employed	Class 3	4
				MB>=10BA		12	1		NON VIP	Self Employed	No Info	No Info
				MB>=10BA		11	3		NON VIP	Self Employed	Class 1	4
				MB>=10BA		11	2		NON VIP	Self Employed	Class 1	4
				MB>=10BA		13	3		NON VIP	Self Employed	Class 1	4
				MB>=10BA		12	2		NON VIP	Self Employed	Class 3	4
				MB>=10BA		12	2		NON VIP	Self Employed	No Info	No Info
				MB>=10BA		13	1		NON VIP	Self Employed	Class 3	3
				MB>=10BA		12	1		NON VIP	Self Employed	Class 2	3
				MB>=10BA		10	4		VIP	Self Employed	Class 2	3
				MB>=10BA		23	3		NON VIP	Self Employed	Class 2	4

Figure 6.20: Drill down report from the Private Banker Portfolio Map to the underlying data

Figure 6.21: Drill down reporting on a client level to Client Profitability dashboard

The planning and reporting capabilities were just one aspect of the programme. Most of our time and effort as a programme team were spent on explaining and discussing various scenarios and the

objectives with both Private Banker teams and the line managers. Engagement entailed group and one-on-one sessions and the duration of sessions ranged from one to two hours. Multiple sessions over an extended period were required and our typical experience was that most people observed and listened during the first group session with a few people asking questions to test the logic and assess if it will simplify their workload or just add another layer of complexity that will require addition effort and time.

Once again different types of Private Banker profiles surfaced, namely "planners", "doers" and "I now best". The "planners" worked with a plan and goal in mind. The "doers" wanted a list of things they need to do that would make them successful. The "I know best" group had a mindset of "whatever you tell me will not change my views or the way I work". We found that the "planners" were mostly the Private Bankers with more than three years' experience, the "doers" tended to be the junior bankers who were still finding their feet and learning the ropes. The "I know best" group tended to be our senior Private Bankers with more than fifteen years' experience and set in their ways.

After a session a few Private Bankers would stay behind and asked specific questions. These Private Bankers would also typically email or contact us a few days later with specific questions and examples related to their portfolios. I would make a note of these Private Bankers and monitor their portfolio performance. Additionally, I would also start referencing them as examples of Private Bankers using the tools, how they used the various tools and the impact it had in the way they manage their portfolio and performance. The advantages of this approach were that it provided the other Private Bankers with references and these early adopters became the "champions" in their teams and started explaining the benefits that they were deriving. In addition, I used the champions to test ideas and tool enhancements. The impact of this approach was that the "doers" started copying the "planners" and the "I know best" started asking questions to test their current way of working. My expectation and approach to the "I know best" were not that they should adopt the tools and methods we proposed, but rather use the methods we suggested as a reference and test if their approach and the knowledge they have were still valid to make them competitive and successful.

The 2018 programme was a success from both an organisational, people performance and an HR practice perspective. The organisation outperformed significantly, and the impact was a 30% increase in the bonus funding pool. From a people performance perspective more than 85% of the Private Banker teams were able to grow their portfolios more than the budget and less than 10% had negative profit growth. There were also noticeable improvements in the Private Banker teams' understanding of client profitability and performance drivers and a significant improvement in data quality processes that impacted on profitability and personal performance. Additionally, the Private Banker teams kept on working until the end of the financial year, whereas previously Private Banker teams slowed down towards the end of the financial year or when they met their performance targets – a common practice

in sales organisations called "sand bagging". The impact of this behaviour was equivalent to two additional months of performance.

From an HR practice perspective, the Private Banker resignation churn rate started declining. An interesting phenomenon that we noticed was that Private Bankers who were planning on resigning or transferring to other business units notified their line managers and negotiated their transfers and exit dates after the programme closed to still participate in the programme.

The advantage of this unintended benefit was that it allowed for sufficient recruitment and portfolio hand-over time. A second unintended benefit was that Private Banker teams started planning and aligning their holidays to periods that were typically quiet periods to ensure they would not "miss out" whilst their colleagues kept on working.

6.6 Driving sustainable performance

The 2019 programme remained the same, but the emphasis shifted to activities that promote sustainable performance and we used the Private Banker Scorecard, Strategic Portfolio Management report and Client Profitability toolsets as the enabling IS. We conducted several workshops focusing on the importance of the leading effect of the scorecard inputs and how this supported the strategic objectives of the organisation, secondly the importance of analysis and planning portfolio management strategies, and thirdly how various activities translated into profit growth.

We enhanced the scorecard target setting method and introduced floor targets that each Private Banker had to achieve as a minimum. Secondly, we introduced penetration-based targets based on the specific dynamics of a portfolio. Thirdly, we introduced penalty rules if specific Private Banker engagement activities were not achieved. An example of a simple penalty rule is if a minimum of 15 client reviews per month is not achieved, a 10% automatic reduction in the scorecard score is applied. The rationale for this approach was not to push Private Bankers harder, but to ensure the consistent performers and outperformers were rewarded and that there was a clear identification of what the organisation defined as the "tail". The "tail" is defined as the group of Private Bankers who typically lag on activities and slow down the organisation.

We launched the 2019 Scorecard with targets on the first day of the financial year (1 July) and scheduled a "new year's event". The Private Banker teams received "party packs", demonstrated in Figure 6.22, and the event was used as a reflection on the previous year's performance and to announce the objectives for the new year. Each Private Banker also received a high-level summary of the scorecards they could use as reference and the detailed scorecard with their personal targets was deployed on the BI system.
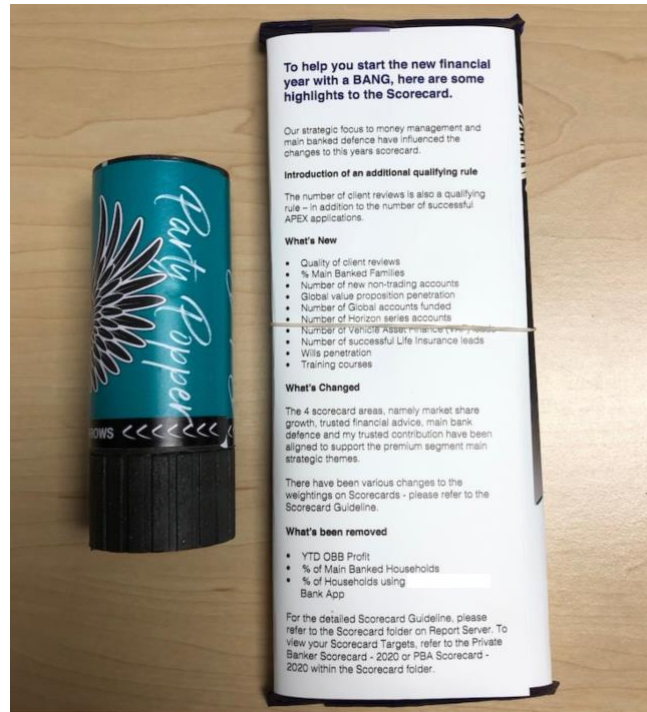
Figure 6.22: Example of the Scorecard launch communication on the first day of the new financial year

We introduced Strategic Portfolio Management and Client Profitability as two new modules to our Banker curriculum learning and development programme. Every month I hosted an hour session focusing on how to analyse "your" portfolio, tactical planning approaches, the execution of plans, and reviewing progress. This session was followed by understanding the drivers of client profitability and the various supporting toolsets. The impact of adding these modules to the Banker curriculum learning and development programme was an improvement in level of understanding and the type of questions the BI Team started to receive, for example the Private Banker teams started to identify data quality (incorrect, incomplete, and missing data) errors and inconsistencies in product house costing methods. A second benefit was that Private Bankers started to identify efficiency and optimisation opportunities in their portfolios. For example, they realised the impact of client behaviour change when you switch a client to use digital channels instead of call centres and branches, or having sold a product to a client, but the client was not using it that it only generated maintenance costs with zero revenue, which resulted in a loss. The third benefit was the realisation that a loss-making client presented a significant turnaround and profit growth opportunity.

From a programme operational perspective, we experienced significant data-related challenges which led to Private Banker frustration during this period. The challenges we faced can be attributed to the success of the programme and the various initiatives we implemented to foster ownership. Firstly, the success of the first two years of the programme proved to the Private Banker teams the advantages from an earning perspective. Secondly, the Private Banker teams demanded additional products to be

added to the Client Profitability model to improve the accuracy of the value of their portfolios. Thirdly, the Private Banker teams increased their understanding of the drivers of profitability that resulted in requiring more granular information to assist them to identify revenue and cost optimisation opportunities, and through these analysis activities they identified data quality errors and information gaps. The complexity and interdependency on other departments to add additional products, the requirement to enhance the granular level of detail and fix data quality issues, impacted on the Client Profitability development team's resource capacity and ability to deliver projects in a timeous manner.

The impact of these constraints and delays on the programme was incomplete and incorrect results. By November 2018 the Private Banker teams started commenting that they were losing trust in the programme and in the ability of the organisation to deliver on commitments. The line managers invited me to their monthly team meetings to listen to the frustrations and reservations and to provide the teams with feedback to address the concerns. The approach I took with these sessions was to listen and not to defend or to explain. I provided everyone an opportunity to raise their frustrations and reservations. I also shared comments from other teams I have met and issues they identified. During all the sessions multiple people would comment "we have lost trust", "I do not trust" or "when will the data be 100% accurate?".

Table 6.2 is a summary of the literature I referred to and that assisted me in planning how to approach, conduct and respond to feedback I received from Private Bankers and line managers during a session.

Table 6.2: Literature that assisted me in planning team engagement sessions

Theme	Author	Literature
Different forms of trust, sources of trust formation and caused of distrust.	Giddens (1990)	The Consequences of Modernity
Organisational change and the role of technology.	Orlikowski (1996)	Improvising Organizational Transformation over Time
	Gash and Orkikowski (1991)	Changing frames: towards an understanding of information technology and organizational change
	Markus (2004)	Technochange management: Using IT to drive organizational change
	Benjamin and Levinson (1993)	A Framework for Managing IT-Enabled Change

	Deci, Eghrari, Patrick and Leone (1994)	Facilitating Internalization: The Self-Determination Theory Perspective
Reasons for resistance and approaches to dealing with it.	Kim Kankanhalli (2009)	Investigating User Resistance to Information Systems Implementation: a Status Quo Bias Perspective
	Shang and Su (2004)	Managing User Resistance in Enterprise Systems Implementation
	Piderit (2000)	Rethinking Resistance and Recognizing Ambivalence: a Multidimensional View of Attitudes Toward and Organizational Change

Giddens' The Consequences of Modernity (1990) provided me with the ontology to define, to differentiate and to frame trust concepts. I realised the impact that position, experience, power, and knowledge have on how people perceive reality, communicate, and react to situations and gave me empathy. It also became evident to me that people were using the word "trust" too easily and often during an argument to note frustration. Thirdly, I realised trust was being generalised, because when you enquired about what people "do not trust", it often related more to the level of confidence or their understanding of the context. The literature related to organisational change, frames, and resistance to change provided me with the ability to identify different perspectives and assisted in engaging with people without being judgemental.

With the insights I gained from the literature, I waited patiently in every session for everyone to finish. I noted that by allowing people to raise their frustrations and concerns uninterrupted, it took less than 15 minutes for the anger and frustration to subside, and people were then willing to engage in a structured format. I made a point to take notes and to recognise each comment. Once everyone was done, I summarised the main themes and noted that as with all the other groups, trust was a dominant and very interesting theme. This then provided me with a basis for an interactive discussion on what people mean when they use the word trust.

I opened the conversation proposing that if the Bank and its employees are not trustworthy, then we have a cultural and sustainability risk which is much more important than a bonus programme. The impact of this statement immediately had people responding that their issue was not the trustworthiness of the organisation or the people, but the quality and reliability of the data and their expectation that information should be 100% correct and timeously available. The reference to "100% correct" was the second trigger I waited for and I then enquired how the measurement scale for trust works, for example what does 50% look like, at which people responded that you either trust or do not trust something or somebody. I then enquired whether their issue was not rather confidence and the level of confidence in specific aspects instead of the system and the process as a whole. To further

clarify my proposition, I used various examples and then asked what their confidence levels were in each example. I used examples I knew that would range from 100% confident to 0%, because the information was not available or incomplete to demonstrate the scope and to quantify the impact. I then discussed each example and provided the context, dependency, or reason it cannot be 100% correct. I also noted the harsh reality that the expectation that all information will reach a point of 100% correct was an unrealistic expectation in an organisation that is known for innovation and continuous change. Every time we develop a new product or make a change to a product, process, system or operating model, the information will not be 100% correct until all the various processes and systems across the organisation is updated, which could take several months. I noticed that by providing context and categorising the information into 100% correct, 50% correct and no information available, and the impact on their performance and potential rewards from the programme, that the Private Bankers calmed down significantly.

I could move on to the topics of commitment, transparency, and fairness and how I think this related to trust after the differentiation between trust and confidence was established and positioned the impact of continuous change on data accuracy. I explained our commitment to address and to fix issues as soon as we became aware of it and the responsibility of Private Bankers to engage and to participate in the continuous improvement process. In terms of transparency, I explained it meant that we acknowledged the gaps and continuously worked to solve it collectively. Finally, I explained that for us, fairness meant that we did things that ensured the balance between the interest of clients, employees, organisation and shareholders was maintained and that we will always err on the side of caution to protect our integrity.

During one of my regular update meetings with the CEO, he enquired how we were addressing the anxiety and frustration amongst the Private Banker teams. I explained my approach and my observations that firstly people did not realise the continuous change we underwent and how far we have come since I joined in 2009. Secondly, people were using the word "trust" out of frustration, since more than 70% of the people were with the organisation for less than five years and they did not necessarily understand our journey. Thirdly, I suggested that people were critical, not because they were negative, but rather because they wanted things to be better and aspired for more. We spent some time reflecting on how much have changed since 2009 from an operating model, technology, and functional perspective. We noted our progress and the pace of change, and realised we often get stuck focusing on short-term problems, and spent too little time to reflect, celebrate, and make sure new people understand the journey and progress.

The CEO requested a presentation that he could talk to during his quarterly regional update visits. I created two slides for the presentation, demonstrated in Figure 6.23, to firstly demonstrate that even the best ideas and plans are never as easily achieved as imagined and that success in the end requires

commitment and perseverance. Secondly, I created a slide, demonstrated in Figure 6.24, to remind people of the impact of global, local and industry changes and how we did not only adapted to these changes, but continuously innovated and improved our capabilities. The regional roadshows were a success and the feedback we received from line managers were that their teams have a better understanding and feel more comfortable that their concerns were heard and actively being worked on.
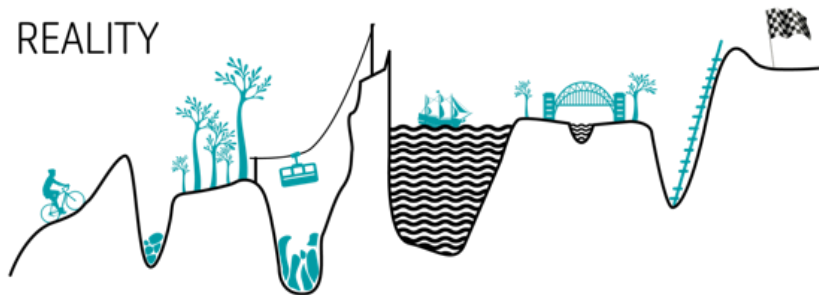
Figure 6.23: The difference between plans and reality
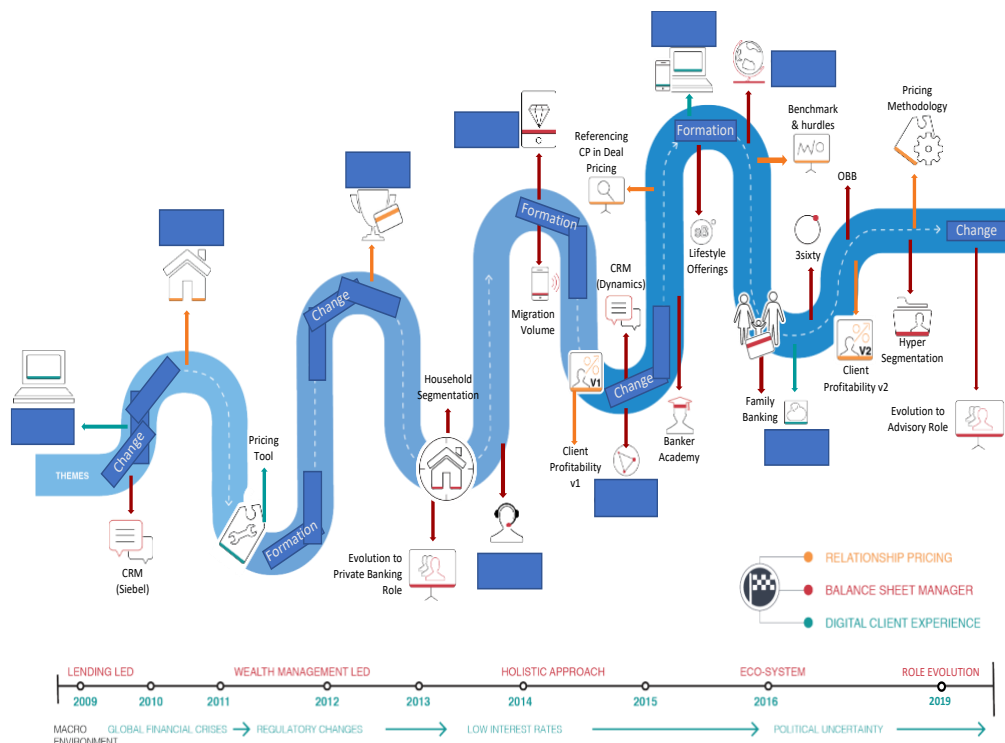
Figure 6.24: Visualisation of the various changes and our progress since 2009

The organisation outperformed the budgeted profit growth target and the bonus funding pool increased with more than 25% year on year, but again there were winners and losers in the programme. Effort was spent to explain and to demonstrate the impact on profit growth in the current financial year if Scorecard activities were neglected until the second half of the financial year versus the impact if a Private Banker focused on their Scorecard from the beginning of the financial year and consistently maintained performance and achieved their objectives.

The same three types of Private Banker profiles surfaced like the previous years, the "planners", the "doers" and the "I know best" groups. The "planners" group adapted quickly and incorporated the new scorecard targets and rules into their planning and execution. The "doers" and "I know best" groups struggled, and we experienced resistance and complaints from these two groups. The line managers had to spend time coaching and mentoring the "doers" group. Honest conversations about the changing environment financial services organisations operate in, why and how we are refining our strategy, the evolving role of a Private Banker and the increasing role platform technologies will be playing in how we engage, sell, service, and advise clients were held with the "I know best" group.

What was noticeable in the 2019 programme was the type of engagements we have had with the Regional Heads, line managers and Private Banker teams:

1. The engagements were proactive from a Regional Head, line manager and Private Banker team's perspective.
2. The engagements did not focus on discussing limitations and constraints, but on what the levers were to improve performance.
3. The level of understanding and sophistication of the questions improved dramatically.
4. The engagements changed from explaining to discussion and it was evident that the objectives and drivers of the programme were being internalised, and people were discussing their insights from the programme and how these could be translated into action.
5. Regional Heads and line managers referenced specific Private Banker and client examples much less.
6. The Private Banker teams were more aware of data quality or information completeness issues and raised it as soon as they noticed it.
7. Discussions changed from "why should I" to "how can I".
8. Private Banker team performance started earlier in the year, continued throughout the year, the average Scorecard rating was higher than the previous year and more Private Banker teams exceeded the divisional growth target than previous years.
9. Complaints and frustrations centred around source systems information accuracy, completeness, and timeous release of the results on the PMIS.
10. The rules and objectives of the programme were embedded and accepted throughout the organisation.

6.7   Solving capacity constraints and fair workload allocation

The programme entered a new phase with the programme firmly established and the improved understanding of both Private Bankers and line managers. Due to the exceptional client growth over the past three years whilst maintaining flat headcount growth, the Private Bankers and line managers started to complain about capacity constraints and Private Banker workload that was not fairly balanced. The impact of this resulted in an unfair advantage from a potential reward perspective and secondly, a negative impact on client experience due to Private Banker workload.

I followed a rapid prototyping approach again to solve this challenge. In early 2019 at our annual strategy planning and budget day, I conducted a two-hour idea generation session with the Strategic Management Committee. The format of the session entailed eight rounds of idea generation and each round lasted 15 minutes (5 minutes for idea generation and 10 minutes for feedback). At the start of each round, I posed a question, for example, "Describe the characteristics of a specific client profile" or "Describe the characteristics of a Banker profile that is best suited for a specific client profile". Everyone had to write down as many ideas in the five minutes without discussion. After the five minutes we went round the table, and everyone shared their ideas but were not allowed to comment

on any ideas. I consolidated all the ideas and presented the consolidated summary with recommendations at the monthly Strategic Management Committee meeting two days later. The Strategic Management Committee approved the recommendations and we proceeded to build a prototype in MS Power BI, demonstrated in Figure 6.25, instead of MS Excel in which I usually built prototypes.

Figure 6.25: Hyper Segmentation prototype built in MS Power BI which became the operational view

I conducted the same type of workshop with five of the line managers in one of our regions to validate the prototype. I did not share the inputs I gathered from the first workshop with the line managers to ensure I did not influence the inputs. The duration of the workshop was shorter and focused on specific client types and Private Banker types.

The advantages of using MS Power BI instead of MS Excel were in terms of scalability, functionality, and flexibility. It was easy to manage user access and implementing enhancements did not require distributing a new version of a MS Excel file. The robust functionality that MS Power BI offered enabled us to link the prototype to existing reports, demonstrated in Figure 6.26, through drill down capabilities and to link Cloud BI to On Premise BI from a data security perspective. The immediate impact of the prototype was:

1. Identifying similarities and inconsistencies in client profile types due to data quality errors.
2. Confirming the validity of the various hyper segments and sub client groupings that was identified.
3. Providing us with actionable tasks we could prioritise, for example running an internal campaign focusing on specific data points to improve the completeness and correctness.

Figure 6.26: Example of drill down reporting to our existing reports from the Hyper Segmentation prototype

We also defined four types of Private Bankers, ranging from junior to senior during the initial workshop. The basic characteristics of each type of Private Banker in terms of skills, experience and qualifications were defined and the HR Business Partners allocated each Private Banker a type 1 to 4 classification. The HR Business Partners submitted their consolidated results to my team, and we enhanced the MS Power BI Hyper Segmentation prototype by adding a second dashboard, demonstrated in Figure 6.27, that presented alignment of client type to Private Banker type. We categorised the alignment as either green (ideal), orange (acceptable) or red (not ideal) to assist with the visualisation of the results. We also added a Banker type 5 which represented Private Bankers who did not have a Private Banker type classification yet.

Figure 6.27: Overlaying Private Banker types with client types to evaluate portfolio alignment

Similar to the Client Hyper Segmentation prototype, the immediate impact of the client type to Private Banker type alignment prototype were:

1. Identifying similarities and inconsistencies in terms of alignment of clients to Private Banker types.
2. Confirming the validity of the various hyper segments.
3. Providing actionable tasks we could prioritise, for example allocating a Private Banker type classification to the Private Bankers with a Private Banker type 5 and reallocation of the client type E linked to Private Banker type 1.

The third dashboard we built used the Client Hyper Segmentation and the Client Type to Banker Type alignment prototypes as inputs to determine potential capacity through balancing the load amongst different Private Banker types. This dashboard, demonstrated in Figure 6.28, was our first iteration to develop a capacity planning model that would assist us to proactively plan capacity requirements, to determine which regions need additional capacity and which Private Banker types were required from a financial budgeting perspective. In contrast with the first two dashboards, this dashboard did not have any immediate actionable tasks, but confirmed the critical need to develop an appropriate capacity planning model, due to the limited availability of skills in the market as well as from a budgeting perspective.

Figure 6.28: First iteration in determining potential capacity through balancing the load amongst different Private Banker types

The development of a capacity model was a very complex and time consuming process. We went through more than five iterations to test and to validate the inputs. By October 2018 we had a protype model that met most requirements, and we could start to calibrate the variables, demonstrated in Figure 6.29. Similar to previous protypes, we built this prototype in MS Excel. The advantage using MS Excel was that we could easily adjust variable weightings and compare multiple scenarios. We presented the results in MS Pivot Tables to assist us to identify similarities and differences between Client Types, as demonstrated in Figure 6.30. We also used the results to identify anomalies we needed to investigate further, for example Type 5A Clients with the same maximum score as Type 1A Clients. In most of the cases the reason for the anomalies related to data quality and we distributed these cases to the relevant Private Bankers to correct the data point in our CRM system. From October 2019 to January 2020, we refined the capacity model by calibrating various variables and sourcing more accurate data points.

Relationship (X%)

Main Bank	
Measure	Complexity
Type A	1
Type B	3

HH Type	
Measure	Complexity
Type 1	1
Type 2	2
Type 3	3

Client Location	
Measure	Complexity
<50 KM	1
>50 KM	3

R-VSI	
Measure	Complexity
9+	1
6-8	2
3-5	2
2	3.5
1	4.5

Life-Stage	
Measure	Complexity
A	1
B	2
C	3
D	2
E	1
F	1

Hypersegment	
Measure	Complexity
Client Type 1	1
Client Type 2	1
Client Type 3	2.5
Client Type 4	4
Client Type 5	5

Advice (Y%)

Client Type	A	B	C	D	E	F
Product 1	1	2	4	3	3	2
Product 2	0	1	2	2	0	0
Product 3	1	4	6	6	6	6
Product 4	2	5	7	7	7	7
Product 5	1	2	2	3	3	3
Product 6	1	2	3	3	3	3

Service (Z%)

HH Type	
Measure	Complexity
Type 1	1
Type 2	2
Type 3	3

Life-Stage	
Measure	Complexity
A	1
B	2
C	3
D	2
E	1
F	1

Hypersegment	
Measure	Complexity
Client Type 1	1
Client Type 2	1
Client Type 3	2.5
Client Type 4	4
Client Type 5	5

Product 1	
Measure	Complexity
3+	2
2	1
1	1
0	0

Product 2	
Measure	Complexity
3+	5
2	3
1	1
0	0

Product 3	
Measure	Complexity
3+	5
2	2
1	1
0	0

Product 4	
Measure	Complexity
5+	6
2-4	3
1	1
0	0

Product 5	
Measure	Complexity
3+	5
2	4
1	3
0	0

Product 6	
Measure	Complexity
3+	6
2	4
1	2
0	0

Assisted/Unassisted	
Measure	Complexity
Option 1	1
Option 2	2
Option 3	4

R-VSI	
Measure	Complexity
1	1
2	2
3-5	2
6-8	3.5
9+	4.5

Figure 6.29: Capacity model input variables to calculate a client complexity and effort score

Focus		Type A	Type B	Type C
Type 1	Max	35	36	31
	Ave	23	24	20
	Min	15	14	14
Type 2	Max	35	36	33
	Ave	23	24	21
	Min	15	14	14
Type 3	Max	35	35	32
	Ave	22	23	20
	Min	13	8	13
Type 4	Max	34	34	29
	Ave	22	23	21
	Min	12	11	13
Type 5	Max	35	35	33
	Ave	23	24	21
	Min	13	8	7

Figure 6.30: Comparing different client types scoring results from a complexity and effort perspective

By February 2020 the model, demonstrated in Figure 6.31, was deemed stable enough to be used at our annual strategy planning and budget review process day. In contrast to previous years where each Regional Head would present the client growth potential and headcount requirements to the CFO and CEO, this year we provided a summary view and the session focused on tactical execution plans. The advantage of this approach was:

1. The transparency in the method how headcount allocation was determined.
2. The time was spent on debating various tactical execution options and reviewing options how to optimise the operating model to achieve more with the same.

Region	Current HC	Current Score	Budgeted HC	Budgeted Score	HH Score Growth	Additional HC	Final Score
	194	10 102	203	9 654	388 999	-	11 571
Region 1	38	9 897	43	8 746	83 577		10 690
Region 2	51	10 436	54	9 856	148 054		12 598
Region 3	82	9 835	84	9 601	91 551		10 691
Region 4	23	10 654	22	11 138	65 817		14 130

- Current HC – Current active bankers with portfolios
- Current Score – The average score per banker as of today.
- Budgeted HC – all bankers plus banker vacancies.
- Budgeted Score – Score if all vacancies were filled.
- HH Score Growth – Total score of upgrade opportunities per region.

Region	Current HC	Current Score	Budgeted HC	Budgeted Score	HH Score Growth	Additional HC	Final Score
	194	10 102	203	9 654	388 999	16	10 746
Region 1	38	9 897	43	8 746	83 577	1	10 486
Region 2	51	10 436	54	9 856	148 054	8	11 017
Region 3	82	9 835	84	9 601	91 551	2	10 486
Region 4	23	10 654	22	11 138	65 817	5	11 366

- Additional HC – Current approved headcount distributed per region such that the load is shared more or less equally per region.
- Final Score – Final score based Households (including upgrade opportunities) and headcount (including vacancies and additional approved headcount).

Figure 6.31: Summary view example of the capacity model used at the annual strategy planning and budget review process day

We distributed a toolset, demonstrated in Figure 6.32, to assist the Regional Heads and their line managers to review the capacity of the Private Banker teams and to start the process of balancing the load and allocating clients to the appropriate Private Banker types after the strategy planning and budget review process day. The objective of the toolset was:

1. To provide the line managers with a simple method to compare the Private Bankers in their team's capacity score.
2. To review the clients allocated to a Private Banker and to identify clients that should be reallocated.
3. To test how the reallocations will impact on balancing the load.
4. To provide an easy way to submit these changes.

- Current Score – The total score per banker as of today.
- Movements – inter-portfolio movements of households. Move a client to the most relevant banker based on client needs and banker skills.
- Upgrades – from a pool of upgrade opportunities – assign upgrades to the most relevant banker based on client needs and banker skills.
- New Score – What the score will look like after all changes have taken effect.

Generate a list with all the information needed to execute reallocation.

List

Banker	Current Score	Movements	Upgrades	New Score
Banker 1	3 917	19	-	3 898
Banker 2	13 887	-	-	13 887
Banker 3	13 324	-	-	13 324
Banker 4	13 497	-	-	13 497
Banker 5	16 137	61	-	16 076
Banker 6	12 454	49	-	12 405
Banker 7	11 460	54	-	11 407
Banker 8	10 495	-	-	10 495
Banker 9	13 913	47	-	13 866
Banker 10	7 091	248	426	7 765
Banker 11	2 730	-	-	2 730
Banker 12	13 954	-	-	13 954
Banker 13	16 714	19	-	16 695
Banker 14	13 207	-	-	13 207
Banker 15	13 631	-	-	13 631
Banker 16	-	-	-	-
Banker 17	-	-	-	-

Household	New Banker
Client 1	Banker 10
Client 2	Banker 10
Client 3	Banker 10
Client 4	Banker 10
Client 5	Banker 10
Client 6	Banker 10
Client 7	Banker 10
Client 8	Banker 10
Client 9	Banker 10
Upgrades	
Client Name	New Banker
Client 12	Banker 10
Client 13	Banker 10
Client 14	Banker 10
Client 15	Banker 10
Client 16	Banker 10
Client 17	Banker 10
Client 18	Banker 10

Figure 6.32: Example of Private Banker capacity balancing toolset

We also focused to refine how we determined the Private Banker type classification in parallel with developing the capacity model. We knew by implementing a Private Banker type classification system, the immediate response would be that we were grading people by using subjective criteria and the perception that it would ultimately have an impact on their performance bonus potential. The Head of HR and I conducted interviews with all the Regional Heads to document the areas they focused on when they interviewed and evaluated prospective Private Bankers. We consolidated the information, identified the inputs, and proceeded with the development of a model, demonstrated in Figure 6.33, that we could use to evaluate Private Bankers objectively to identify potential learning and development focus areas.

Qualifications		
Measure	**Rating**	**Score**
Qualification	TAX	5
Qualification Relevance vs Specialisation	Medium	3
CAT	Cat 1.19	2

Performance		
Measure	**Rating**	**Score**
Performance Rating	above avg	4
Balance sheet – Investment & Lending	below avg	2
Complaint Resolution	above avg	4
Advisory Ability	above avg	4

Personal Development		
Measure	**Rating**	**Score**
What are you doing to keep yourself relevant	Medium	3
Self Awareness	High	5

Work Experience		
Measure	**Rating**	**Score**
Overall Work Experience	7+ yrs	5
Private Banking Experience	2-4 yrs	2
Product Experience		
Wealth & Investment	average	3
Lending (SBL,CPF)	below avg	2
Global Wealth Solutions (CI, Global)	above avg	4
Fiduciary	below avg	2
Total		2.55

Focus		
Measure	**Rating**	**Score**
Suited For	Salaried	3
PB Preference		
Complexity	High	5
Volume	Medium	3
Total		4

Skills		
Measure	**Rating**	**Score**
PB Skills		
Selling	below avg	2
Planning	above avg	4
Problem Solving	average	3
Total		3
Social Skills		
Client Engagement	below avg	2
Networking	above avg	4
Maintain Relationships	above avg	4
Operate within Client Network	good	5
Total		3.5
Takes Initiative	below avg	2
General Knowledge	average	3
Skills aligned to Pillars	above avg	4

Grading Example													
	Work Experience		**Qualifications**		**Skills**		**Performance**		**Personal Development**		**Focus**		**Final Score**
Banker1	3.3	22%	3.18	22%	3.1	44%	3.5	0%	4.1	6%	3.6	6%	3.25
Banker2	4		3.22		4.1		3.2		4		4.1		3.88

Figure 6.33: Example of the Private Banker Type grading inputs used to calculate Private Banker type

Each input had a variable that could be calibrated and a weighting that we used to calculate the total score. We built a toolset, demonstrated in Figure 6.34, that enabled the HR Business Partners and line manager to retrieve a Private Banker's information, to score the different areas and to compare the results and to recommend learning and development courses. The intention of the toolset was to enable the line manager to have an open and transparent conversation with a Private Banker to position and explain to a Private Banker their classification type, the areas that need development and how progression can be achieved.

The development of the Client Hyper Segmentation, Banker Capacity and Classification models offered many potential advantages:

1. Improving client experience by balancing the load and aligning clients to the appropriate Private Banker.
2. Improving Private Banker morale when workload and complexity are equally and appropriately distributed.
3. Optimising capacity that has as direct impact on profitability, which has a positive impact on the Private Banker OBB programme.
4. Identifying through the Private Banker classification model specific learning and development needs and spending the budget appropriately.
5. Reviewing and optimising our operating model, such as better understanding the characteristics of different Client Hyper Segments in terms of complexity and engagement effort in conjunction with Private Banker Classification has enabled us to test different engagement models.

Left panel:

		Item	Score
Banker Type		Existing	
Channel			
Banker Name		Banker X	
Qualifications	Qualification	TAX	5.0
	Qualification Relevance vs Specialisation	Medium	3.0
	CAT	Cat 1.19	2.0
Work Experience	Overall Work Experince	7+ yrs	5.0
	Private Banking Experience	2-4 yrs	2.0
	Product Experience		
	Wealth & Investment	average	3.0
	Lending (SBL,CPF)	below avg	2.0
	Global Wealth Solutions (CI, Global)	above avg	4.0
	Fiduciary	below avg	2.0
	Total		2.6
Skills	PB Skills		
	Selling	below avg	2.0
	Planning	above avg	4.0
	Problem Solving	average	3.0
	Total		3.0
	Social Skills		
	Client Engagement	below avg	2.0
	Networking	above avg	4.0
	Maintain Relationships	above avg	4.0
	Operate within Client Network	good	5.0
	Total		3.5
	Takes Initiative	below avg	2.0
	General Knowledge	average	3.0
	Skills aligned to Pillars	above avg	4.0
Performance	SC & Performance Rating	above avg	4.0
	Balance sheet – Investment & Lending	below avg	2.0
	Complaint Resolution	above avg	4.0
	Functional fulfilment vs advisory ability	above avg	4.0
Personal Development	What are you doing to keep yourself relevant	Medium	3.0
	Self Awareness	High	5.0
Focus	Suited For	Salaried	3.0
	PB Preference		
	Complexity	High	5.0
	Volume	Medium	3.0
	Total		4.0
Final Score			3.3

Submit

1. Measure – Categories identified as measures to grade a banker on.
2. Item (score) – Drop-down lists for the HRBP and the Line Manager to choose the most relevant item based on what is known about the banker.
3. Score (Numerical) – The drop-down lists are then converted to a numerical score.
4. Final Score – A roll-up of all the scores, together with a relevant weighting applied to each category/measure.
5. Submit (to Database) – The Submit button will save all the data to a database. This data can be accessed and updated by selecting the banker name again.

Right panel:

Overall Banker Ranking		
Training	Average Team	Banker X
Skills		
Selling	1.0	2.0
Planning	2.0	4.0
Problem Solving	1.5	2.0
Client Engagement	1.0	3.0
Networking	2.0	1.0
Maintain Relationships	2.0	4.0
Operate within Client Network	2.5	2.0
Takes Initiative	1.0	4.0
General Knowledge	1.5	5.0
Skills aligned to Pillars	2.0	5.0
Performance		
SC & Performance Rating	2.0	2.0
Balance sheet – investment & lending	1.0	3.0
Complaint Resolution	2.0	4.0
Advisory ability	2.0	4.0

Banker X vs Rest of the Team

(Channel Average, Banker X)

Relevant Training Generator	
Problem Area	Recommended Training
1. Networking	Social Skills - Networking
2. Operate within Client Network	Social Skills - Networking

Generate Training

Figure 6.34: Example of the Private Banker type evaluation toolset and recommended learning and development focus areas compared to other Private Bankers

Unfortunately, not all the prototype models progressed to the implementation and adoption phase. For example, whilst hyper segmentation was adopted an implemented, the Banker Capacity and Classification models were deemed important but required more work to be relevant and useful to Regional Heads and their line managers. The reliance on complete and accurate data rendered the models unreliable and the effort required by line managers to use the models outweighed the benefit they thought they would derive.

6.8   Conclusion

What started out as a programme that focused on the implementation of a new Private Banker bonus programme with the primary objectives to be fair, transparent and reward Private Bankers based on collective and own performance, evolved as the organisation matured and the adoption, understanding, and use of the information increased. Our primary objectives with the development of solutions were always to promote ownership and accountability by providing contextual information.

Secondly, to provide people with transparency so that they can understand the rationale. Thirdly, to make the information relevant to all stakeholders, from a Private Banker, line manager, Regional Head, Head of HR, CFO and CEO perspective. Finally, the purpose of the solutions was to compliment the organisational culture and to assist in promoting sustainable performance.

Unfortunately, the outbreak of the global Covid-19 pandemic in January 2020 and the consequent "lock down" in South Africa from March 2020 halted progress on some of the initiatives while we focused on business operations to help clients in urgent need and to ensure our employees are safe, engaged, and motivated. The Covid-19 pandemic has however not paralysed our ability to think and plan and created new opportunities, for example we had to solve within a few weeks what working from home entailed, and how we could enable it to maintain productivity and performance.

This concludes the context of the case study. The next chapter focuses on the analysis and findings of the research study.

Chapter 7 – Action research study analysis and findings
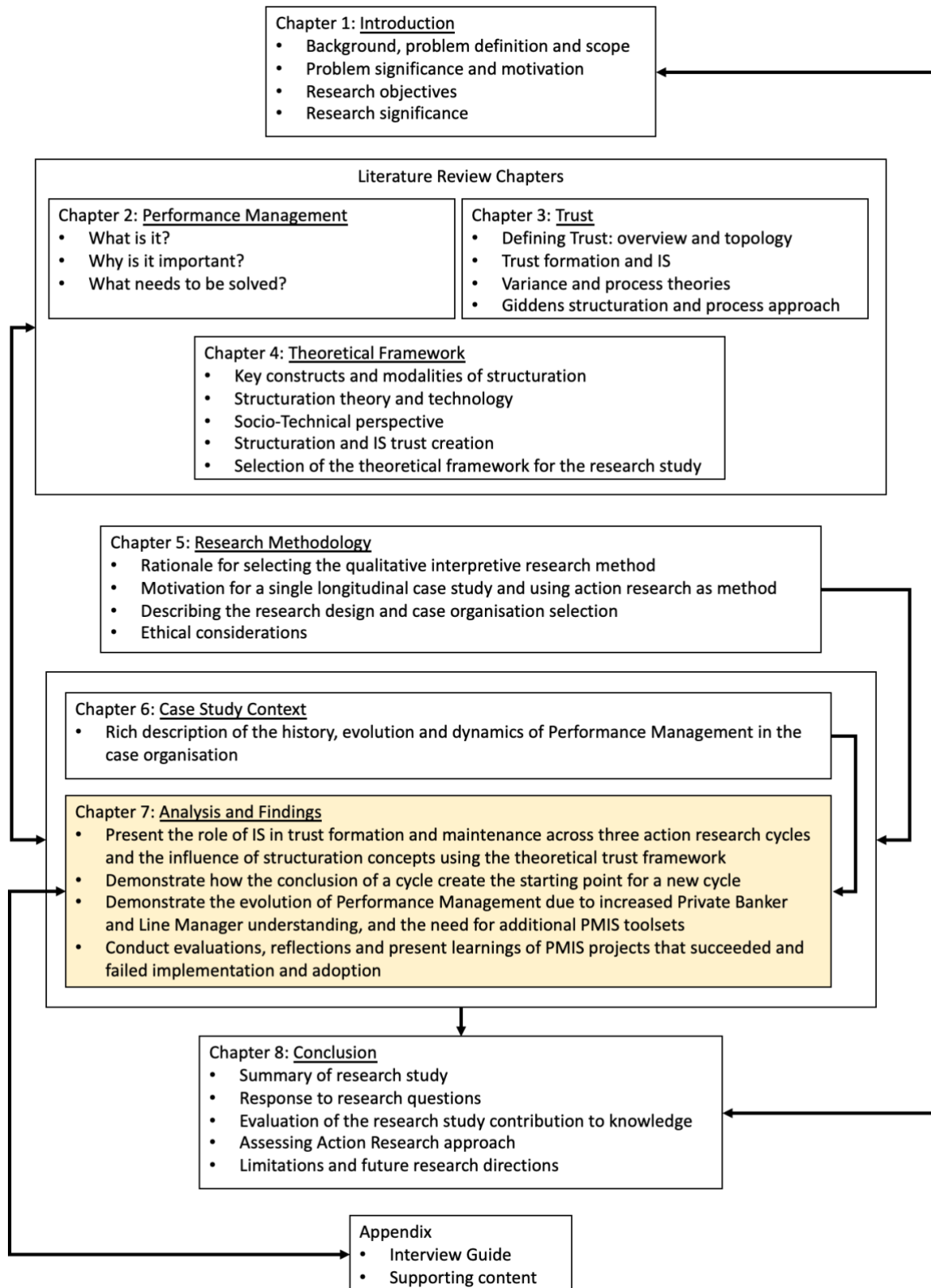
Figure 7.1: Research case study outline

7.1 Introduction

In this chapter I present the analysis and findings from the research study. The chapter comprises of four logical sections as depicted in Figure 7.2. In the first section I discuss how I conducted the research study fieldwork, then consolidated the data and transformed it into contextual information. In section two I introduce the analysis approach and discuss the analysis and findings by presenting three different cycles and the influence of structuration concepts using the proposed trust framework. I also demonstrate and discuss how I deconstructed and applied the trust framework in the different cycles and stages of the research study to ensure I do not only focus on building toolsets from a technology perspective. In section three I discuss the value of using action research as a method to manage PMIS projects. In the final section I discuss the extension and application of the theoretical framework to establish and maintain trust.
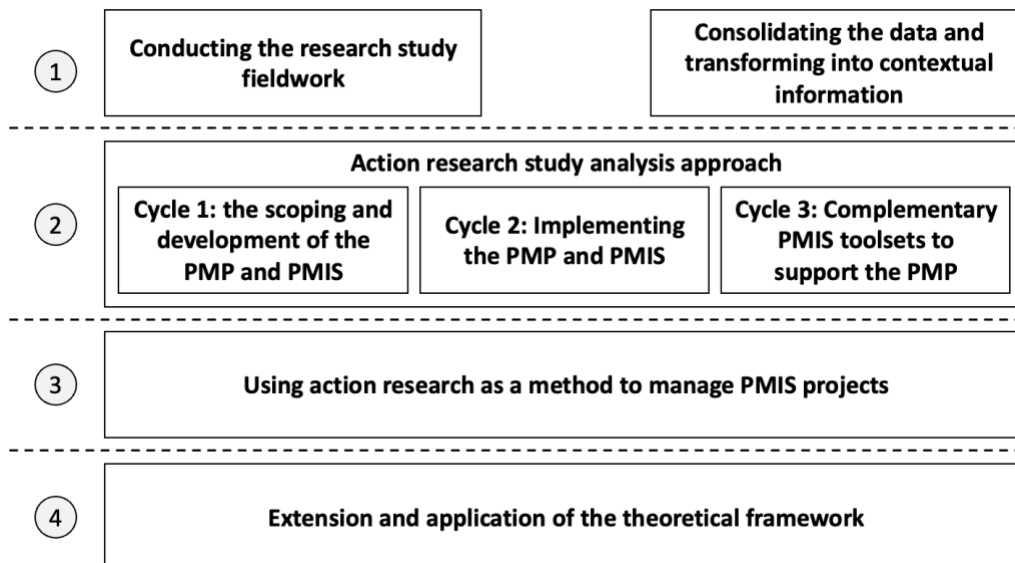
Figure 7.2: Analysis and findings chapter construct

In the next section I discuss how the research study fieldwork was conducted.

7.2 Conducting the research study fieldwork

I used two sources of data for the research case study, namely the interviews I conducted with the various stakeholders, and the documents, presentations, and emails. The documents and presentations explained the programme and the methodology that were followed to develop and to implement the programme. I referenced emails for the type of communications that were distributed.

I started with people I knew well and that I was comfortable with to familiarise myself with the interview process, to test the flow and sequencing of the questions in the interview guide and to ensure that the interview process felt informal and conversational. I approached each person

individually, asked if they would be willing to participate in my research study and gave them an overview of my research study objectives, why they were selected, and how their contribution and participation would contribute to the research study. I also explained structuration theory in layman's terms and why their personal perspective was particularly important.

I positioned and explained structuration theory using three examples. The first example focused on "are you a function of your environment or your environment a function of you". The analogy I used was two children who grew up in the same street in the Cape Flats, an impoverished area in Cape Town, South Africa. The one child became a surgeon at John Hopkins Hospital in the USA and the other child became a drug lord who ended up in prison. The second example focused on perception and the analogy I used was that you walk into a hospital and there is a person wearing a white laboratory coat and you walk into a barber shop and there is also a person wearing a white laboratory coat. Who are they and why do you think so? The third example focused on knowledge and experience and for the analogy I used a smart phone. For small children it is an entertainment device, for teenagers it is a device that keeps them connected through services such as social networking, music streaming and messaging platforms. For adults it becomes a productivity tool that enables mobility and accessibility. For many people irrespective of age it is a camera and for some it is just a telephone. For organisations it is a tool that enables them to develop new product and service offerings.

These three examples enabled me to explain the concept behind structuration theory, and the objective of my research study to explore how IS can assist in trust formation and conflict mitigation and why the interviewee's unique perspective, experience, position, power and knowledge are relevant.

I arranged a meeting within a few days after the initial briefing session, and prepared the specific interview guide. I scheduled the formal interview a few days later to allow the interviewee time to reflect on the objective and topics we would be discussing during the interview. The formal interview then focused on the formalities in terms of signing the consent form and discussing the various topics. The duration of the average interview was 40 minutes and we covered the following: organisational culture and management style, the previous versus current remuneration programmes, trust, transparency and fairness, conflict and personal opinion of rules-based IS. Follow up interviews to clarify questions that surfaced during the data analysis phase were approximately 20 minutes long. The interviews where the interviewees were based in Johannesburg or Pretoria were conducted in person whereas interviews where the interviewees were based in the Western Cape, Eastern Cape and Kwa-Zulu Natal were conducted via MS Teams.

The tone of the interviews and words used were predominantly personal using "I" and seldom "they", "them" and "we", because the interviewee had a few days to think about the objective of the interview

and how it related to their experience and perceptions. I also made sure that when I posed a question or asked for clarification that I specifically asked "you" questions. I emphasised that there was no correct response or answer and that opposing views were critical to lending legitimacy to the research study.

I printed the guide and highlighted the questions I would be focusing on during the specific interview prior to an interview. I stored each interview in a separate physical file to simplify and to assist with document management. The advantage of this method was that it simplified follow up interviews. I referenced the interview guide to assist me in directing questions during the interview but paid special attention to not limit the conversation flow or how an interviewee interpreted a question. The interviews were audio-recorded with the consent of the interviewee. I made minimal notes and only noted key words associated to a specific question or questions that did not flow smoothly during an interview, and then afterwards updated the interview guide with the new flow order to ensure the interview remained informal and conversational. Figure 7.3 demonstrates how I used the previous interviews as an input in the interview process.
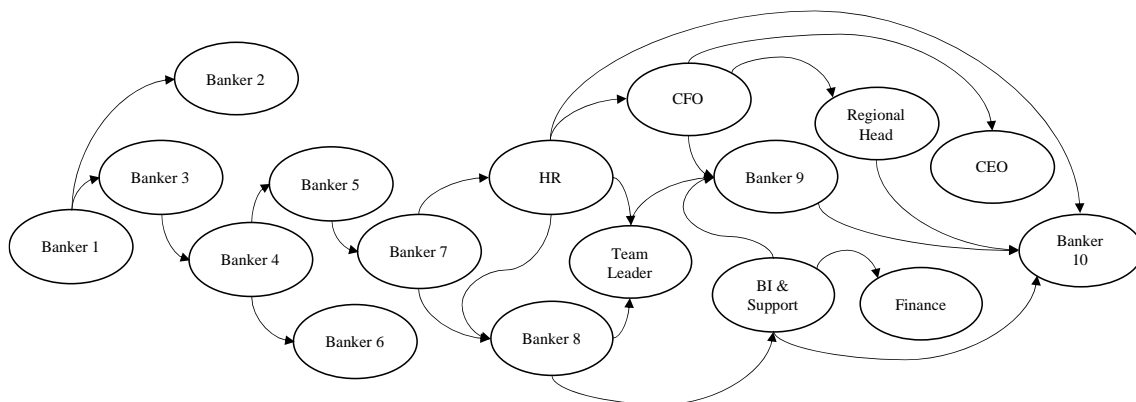
Figure 7.3: Impact of the interview process on the interview guide

I executed the interview process in sprints over the period and did a minimum of three interviews during a sprint. The interviews were always across interview groups and the rationale for this approach was to continuously evolve the conversation and to use triangulation to validate or clarify statements. Secondly, I applied this approach to mitigate against interview fatigue that could occur when you get the same type of responses, lose concentration, and miss the opportunity when an interviewee makes an interesting statement that you could have explored in more detail.

When I completed an interview, I updated my interview map, reflected on the content gathered and planned the next interview. For example, an interesting statement by Banker 3 made led me to test the statement with Banker 4, and input from the Head of HR provided areas for exploration with a Team Leader, CFO and Banker 8 and 10.

Figure 7.4 is a graphical representation of my interview map and how I kept track of progress.

Role		Interview Group	Interview Plan					# Interviews
Executive Team		Group 1	CEO	CFO		HR		2
Regional Leadership		Group 2	Region 1	Region 2	Region 3	Region 4	Region 5	4
Team Leadership		Group 3	Teams 1 - 5	Teams 6 - 8	Teams 9 - 11	Teams 12 - 14	Teams 15 - 17	4
Bankers	Original Commission Program participants	Group 4		1				1
	Discretionary Program participants	Group 5	1 1	1				3
	OBB Program participants	Group 6	1	1				2
Finance		Group 7	1					1
Business Intelligence		Group 8	2					2
Business Support		Group 9	2					2

Figure 7.4: Updated interview map

I conducted 32 interviews, listed in Table 7.1 and in general the interviewee responses were candid and unreserved which was a confirmation of the culture, leadership style and values of the organisation. I used an informal and conversational interview style because I know the management, leadership and executive team very well and I am well acquainted with the Private Banker and BI teams. The impression I got was that the interviewees also used the sessions to explain their ideas and areas they felt needed improvement. I enjoyed the interview process and derived a lot of value from the process, because I was forced to listen from an interviewer perspective and to participate by asking questions, instead of being the programme manager where I typically participated in sessions by explaining and responding to questions to explain the rationale related to decisions.

Table 7.1: Summary of the number of interviews conducted for the research study

Functional Area	Role	Level of Experience	Number of Interviewees	Number of follow up Interviewees
Information Technology	Business Intelligence Manager	Minimum 10 years of experience	1	
Information Technology	Business Intelligence Developer	Minimum 10 years of experience	1	
Human Resources	Head of HR	15+ years of experience	1	1
Finance	Head of Finance	15+ years of experience	1	1
Finance	Financial Manager	5+ years of experience	1	

Functional Area	Role	Level of Experience	Number of Interviewees	Number of follow up Interviewees
Sales and Relationship Management	Private Banking CEO	25+ years of experience	1	
Sales and Relationship Management	Regional Head	15+ years of experience	4	2
Sales and Relationship Management	Divisional Manager	Minimum 5 years of experience	5	3
Sales and Relationship Management	Private Banker	Minimum 5 years of experience	2	3
Sales and Relationship Management	Private Banker	Minimum 10 years of experience	2	
Sales and Relationship Management	Private Banker	Minimum 20 years of experience	2	
Executive Team	CEO, Regional Head and Head of HR	Group interview to review the application of theoretical framework and action research method	1	
Total			**22**	**10**

The digital recording was transcribed into a MS Word document and the recording and MS Word document were uploaded into a secured folder on MS OneDrive and ATLAS.ti after each interview. I then categorised the recording and document in ATLAS.ti with the corresponding reference number of the interview folder that contained my handwritten notes.

In the next section I discuss the consolidation of the data and transforming it into contextual information.

7.3   Consolidating and transforming the data into contextual information

The consolidation and transformation of the data into contextual information was a three-stage process as shown in Figure 7.5. The first stage entailed codification and enrichment of the data, the second stage was to group the data into meaningful themes that supported the objectives of the research study, while the third stage comprised assessing the completeness of the information and identifying areas that required more information.
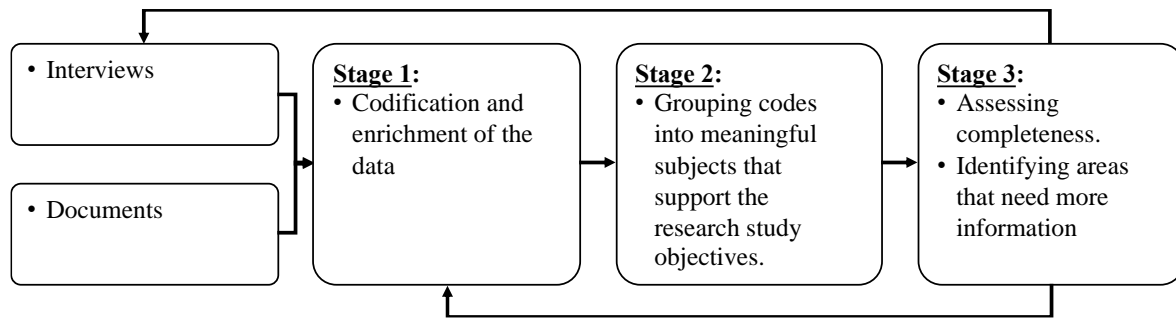
Figure 7.5: The consolidation and transformation of the data stages

In the next section I discuss the codification and enrichment of the data process.

7.3.1.1 Codification and enrichment of the data

All the interviews were digitally recorded with the consent of the interviewee, transcribed, and then imported into ATLAS.ti which I used for document management, codification and creating memos. The various artefacts were classified as either a document, presentation, email, interview, or recording. I numbered the recordings and interviews to ensure interviewee confidentiality. I added the interview number to the information in the physical interview file that contained the signed interviewee consent form and interviewee details as a reference.

The objective of a coding process is to identify a set of themes. At a top level is the themes that motivate a researcher, secondly there are themes that are relevant to the specific research programme, next are themes that focus on specific projects and finally, themes that are relevant to the specific organisation. Themes function as the glue in the research project and are explored via a declared framework and methodology (Holwell, 2004). During the first stage open coding is used as a process to identify, name, and categorise the essential ideas that surface from the data. Axial coding is used to develop a greater understanding of relationships by connecting various categories. The story and theory are then developed that is most appropriate to the phenomena through selective coding.

I followed a free style and iterative codification process that assisted me in reflecting on the data I gathered. I used the trust framework to guide me to identify the themes without limiting myself during this stage and missing other themes that might surface, for example resistance to change, "what is in it for me" and different approaches to IS implementation.

The physical coding process entailed listening to the recording again whilst reviewing the transcript to identify aspects that an interviewee emphasised or comments that were particularly interesting but not necessarily part of the primary objectives. I highlighted these sections and allocated codes, for example "resistance to change". Once completed, I worked through the transcript again and allocated additional codes. The reason for this two-staged approach was to ensure I focused on finding the

"golden nuggets" that appear unexpectedly and then to mine the transcript for data that could be transformed into information.

I reviewed the codes I had created and did the first iteration of rationalising and combining similar codes after coding the first ten interviews. I then repeated this rationalisation process after every five interviews.

In the next section I discuss the creation of meaningful code groups.

7.3.1.2   Creating meaningful code groups

I created code groups and linked the codes to code groups as demonstrated in Table 7.2. After the first ten interviews were coded, I used the result to reflect and to review what I had found, to ascertain commonalities and uniqueness and what interesting and unexpected topics had surfaced that I wanted to explore in more detail. For example, culture and leadership style had the same feedback irrespective of the interview group, and the definition of trust was similar across the interviewees and mostly focused on personal trust.

A unique perspective that surfaced was the differentiation between fair and equal, and an interviewee noted that "*although the programme treated people equal it did not mean that it was fair*". This was a very profound observation for me, and I added this differentiation as a clarification question to the interviews to test how other people viewed this statement.

Table 7.2: Code groups analysis

Code Groups	# Codes	# Times Code Used
Change	22	43
Communication	4	19
Conflict	21	57
Implementation approach	4	21
People	34	92
Information systems	72	252
Inputs	14	46
Limitations	14	46
Reflections	28	295
Reward	27	159
Culture	23	136

Code Groups	# Codes	# Times Code Used
Distrust	12	57
External influences	13	19
Trust	16	144
Total	**304**	**1386**

The code groups and codes also assisted in filtering on specific themes to extract quotes from different people on the same topic to provide corroborating or opposing views and to contribute to a rich descriptive case study.

In the next section I introduce the analysis approach for the research study.

7.4 Action research study analysis approach

The action research case study is divided into three cycles: the scoping of the new Performance Management Programme (PMP) and design and development of the Performance Management Information System (PMIS), the implementation and adoption of the PMP and PMIS, and the additional toolsets to support the PMP due to increased Private Banker and line manager understanding of the drivers of performance. Each cycle is presented separately to demonstrate the action research process and how one cycle fed into the next cycle. As shown in Figure 7.6, the first cycle focused on the requirements for trust in the new PMP and is typified by the analysis, prototype and reaching agreements activities. The second cycle focused on establishing trust in the PMP and PMIS and is typified by the various implementation adoption activities and addressing resistance to change. The third cycle focused on maintaining trust in the PMP and PMIS by developing additional supporting toolsets that assisted in driving sustainable performance, promote desired behaviours and the operational management of the PMP and PMIS.
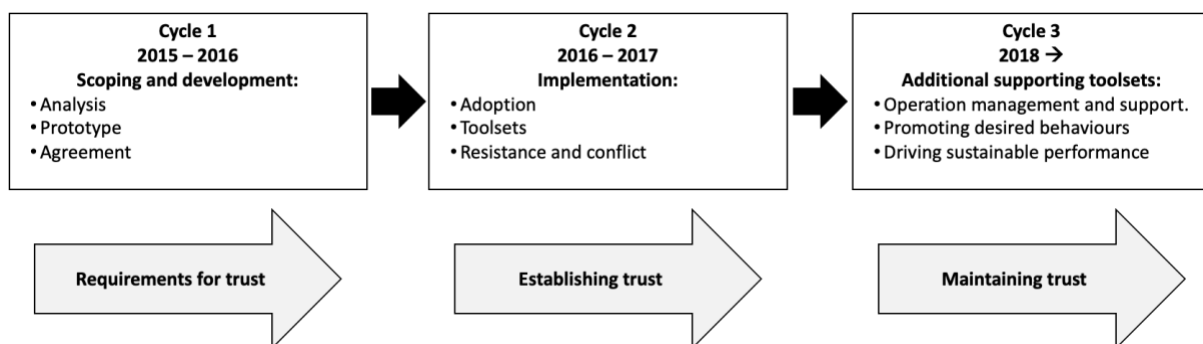
Figure 7.6: The three distinct cycles in the PM programme and PMIS action research study

In the next section I present the analysis and findings of the first cycle, the scoping and development of the PMP and PMIS.

7.5   Cycle 1: The scoping and development of the PMP and PMIS

The goal of the first cycle was the delivery of a new PMP and PMIS. Figure 7.7 overlays the different action research stages onto the key activities. The key activities entailed the review of the previous and other PMP and PMIS in the organisation, gathering input from various stakeholders, building a PMIS prototype, developing a new PMIS and receiving approval for the implementation of the PMP and PMIS.
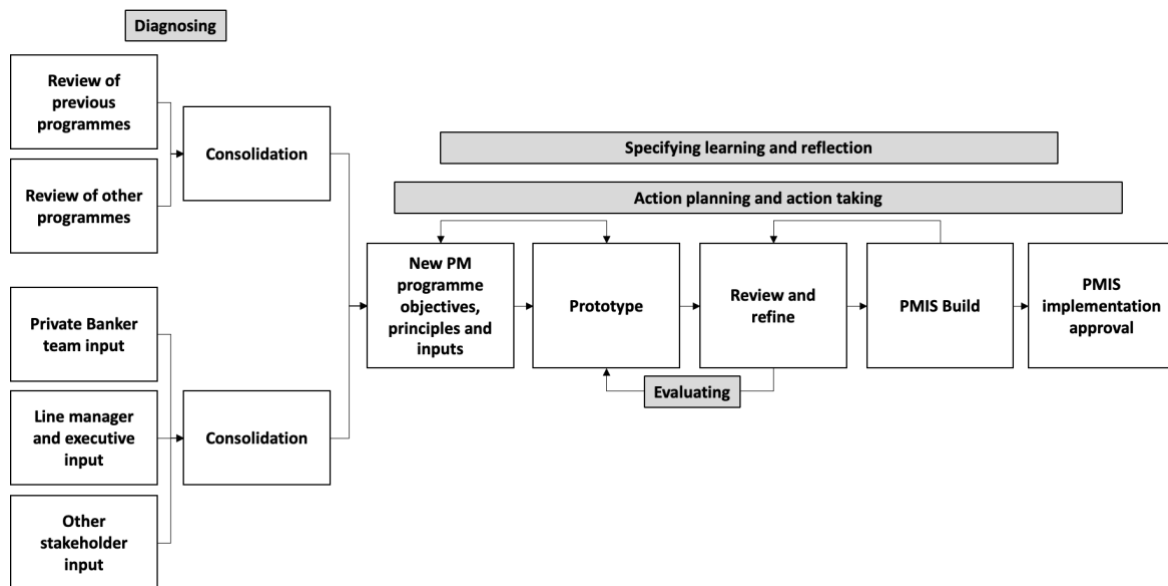
Figure 7.7: Cycle 1 scope and overlaying action research stages

In the next section I discuss the diagnosing stage.

7.5.1   Diagnosing

The diagnosing stage in the first cycle consisted of two components: reviewing previous and other PMP and PMIS in the organisation and gathering input from various stakeholder groups. To review the previous and other PMP and PMIS, we requested documentation from the respective PMP managers. Documentation consisted of presentations and specification documents. The purpose of reviewing the previous and other PMP in the organisation was to understand each programme's objectives. Secondly, to understand the rules that governed each programme and how each programme enabled the business unit and organisation strategy by promoting ideal behaviours. Thirdly, we reviewed the operational complexity and challenges of each programme. Input from various internal stakeholder groups from the banking unit were gathered through individual interviews and small focused workshops. The stakeholders were grouped into three distinct groups: the Private

Bankers, line managers and executive team, and other stakeholders. The other stakeholders group included the operational support functions, for example Finance, BI and Human Resources.

The purpose of gathering input from the various stakeholders were to document the advantages and disadvantages of the previous PMP, the level of perceived trust and fairness of the previous PMP, expectations of a new PMP and the type of behaviours the new PMP should promote or discourage. The feedback from Private Bankers highlighted their uncertainty about whether the bonus they received was a fair reflection of their contribution, and about the level of line manager bias and influence. For example, reflecting on the transition from a commission-based bonus programme to a discretionary bonus programme, Private Banker [P3] commented:

"When we moved onto a salary and discretionary bonus structure you never really knew how much value did you add, and were you remunerated appropriately. Some people get a lot more than you and some people get a lot less, you do not know how equal and fair that was. So, that was pretty much dependant on your superiors and your relationship with your superiors potentially. So, you either benefited or did not."

Private Banker [P1] shared a similar view and commented:

"You weren't always certain how much intervention, or how much weight your manager's decision has on what you used to get. In general I used to trust it, but it also depended on the manager. And, there was always that 'but what if' kind of thought. Although you don't question it, there is always that 'what if'. Discretionary for me, leaves a bit of, I almost want to say a bias towards some people. I might be wrong. I think it also allows for the human element to overrule what is actually happening. So, the human or the emotional element kicks in. I am not too big a fan of discretionary bonuses, because I believe what you put in is what you should get. For me discretionary is you don't know, you might think that you got a great bonus, but you don't really know where you stand in the bigger picture, so you can't really relate it to anything."

Transparency in the process of how bonuses were determined and the impact of relationships with line managers and executives was another topic that the Private Bankers raised during the interview process, and Private Banker [P2] observed:

"Your networking and your favour with management becomes a lot more important in those instances where your performance might not have been the best, but if you are favoured by management, if they deem you to be a good person, good friend, good worker, regardless of what the results said they can decide what sort of part of the piece of the pie you get at the end of the day."

Line managers shared the same views as the Private Bankers and noted their reservations and concerns with discretionary bonus programmes, for example line manager [P6] commented:

"I was completely <u>distrustful of the programme</u>. I think it was <u>inherently unfair</u>. <u>Power resided entirely in the hands of a few</u> who, if they had a jaundiced view of an individual, were able to affect that individual negatively despite underlying performance. In the previous world the rem <u>process was a secret</u>. There was absolutely <u>no transparency</u> in the previous environment because everything was centralised. You weren't sure exactly what was happening behind those closed doors. We're not sure how you got to this answer. We're not sure if the guys in head office got to the same answer as you for the same reasons. There were some shallow attempts to demonstrate fairness through that process but the decentralised management teams could never trust that process because they never had the data or they had no way of determining whether it was fair and just as an example. Was there or wasn't there favour? You couldn't prove or disprove it but it left the space to imagine it."

Line manager [P4] shared the following view in terms of the leadership maturity that is required to prevent bias in a discretionary bonus programme:

"I think it made life difficult for people in a sense that <u>you needed to have very mature leaders</u> to have a discretionary model because there is always room for manipulation and for bias. I think it's good in a very mature environment and where we have very mature leaders."

In additional to perceptions of fairness, transparency, and bias, both Private Bankers and line managers noted the anguish that the discretionary bonus programme process caused, for example Private Banker [P1] and line manager [P6] noted:

"<u>I experienced angst</u> when I had to sit in discretionary discussions and receive my letter."

"In the old days we <u>used to agonise</u> over whether we were <u>being fair or not fair</u>, or getting it right or getting it wrong."

In terms of the performance management processes and measurements of the discretionary bonus programme, executives [P7] and [P8] noted:

"I can guarantee you, if you ask many people holistically around performance management, they are going to say <u>it is a tick box</u> and it just gets in at the last minute. Very <u>time consuming</u>, a lot of back and forth."

"There was no profit driver and that is the ultimate driver of our business unit. When people did well on certain metrics on their scorecard then they <u>were perceived as the top performers</u>, but we did not realise that in terms of profit growth they did not contribute that much compared to other people."

Another area of criticism that surfaced during the interview process was the insufficient IS capabilities to assist Private Bankers and line managers to measure and manage performance. For example, line manager [P6] commented:

"The <u>tools were poor</u> in the sense that they were <u>interpreted very differently from one person to the next</u>. The rules was massively open to interpretation with the result that a rating of 4 in one area might be a 2 in another area, depending on who the manager was."

The content and feedback were consolidated into a presentation which formed the foundation for defining the new PMP objectives, principles and inputs. The inputs from the interviews and workshops were then consolidated and grouped into common themes, for example Figure 7.8 demonstrates the themes that surfaced that had a relationship to trust concepts.

Bias
- Your favour with management
- Regardless of what the results said
- Paid on perception
- Were perceived as the top performers
- Interpreted very differently from one person to the next
- Your relationship with your superiors

Process
- Process was a secret
- No transparency
- Not so much data driven
- Time consuming
- Tools were poor
- It is a tick box

Fairness
- Used to agonise - being fair or not fair
- Was not inherently fair
- Lot more room for interpretation
- I do not think it was objective

Uncertainty
- "It is what it is"
- There is always that "what if"
- You do not know
- Were not always certain
- I always wondered
- I had more angst
- You never really know how much value did you add and how well did you understand that value
- Ca not really relate it to anything

Trust
- Distrustful of the program
- You needed to have very mature leaders
- Resided entirely in the hands of a few
- Judgement call - inherent distrust

Figure 7.8: Examples of themes related to trust concepts that surfaced from the interviews and workshops.

The themes were then aligned to key concepts in the trust framework in Table 7.3 to assist in understanding how themes impacted on each other and to create what I called "key messages". The reason I called it "key messages" was threefold:

1. I wanted it to be clear that the inputs and themes were not the project team's opinion or a generalisation, but what different people felt, experienced and thought which in turn influenced their perception of the organisation.

2. I wanted to use the "key messages" to form the basis of the PMP design principles of the new PMP. I named the design principles "our North Star" and the purpose was to assist and to guide us in the PMP and PMIS development process.

3. I wanted to use the PMP design principles when we implemented to demonstrate to the stakeholders that they were heard, that the PMP was developed with their interest in mind and to create mutual ownership of the programme.

Table 7.3: Relating themes to trust framework concepts

Key Concepts	Key messages that surfaced from the different themes
Trust	Influenced by process transparency, tools, maturity of leadership and location of power.
Ontological security	Impacted by uncertainty, "powerlessness", angst, and inability to contextualise and relate performance to peer performance.
Frames	Influenced by perceptions of fairness and bias, relationship with line manager was more important than actual performance and "who you are".

Mcknight, Carter, Thatcher and Clay (2011) observe that employees typically frame their distrusting beliefs in terms of people and not IS. McKnight and Chervany (2001) propose a typology of trust constructs to make it easier to compare and communicate results and to create a model of trust types. They identify two broad groupings, conceptual types and referents. Conceptual types relate to attitudes, beliefs, behaviours, and dispositions, whereas referents relate to trust in something, trust in someone, or trust in a specific characteristic of someone. Sources of distrust are perceptions of incompetence (lacking ability), malevolence (intention to do harm) and deceit (tendency to provide false information) (Moody et al., 2017). Figure 7.9 highlights frames as the logical starting point. Further, if the PMP could demonstrate how these concerns were mitigated it would impact on ontological security and trust.
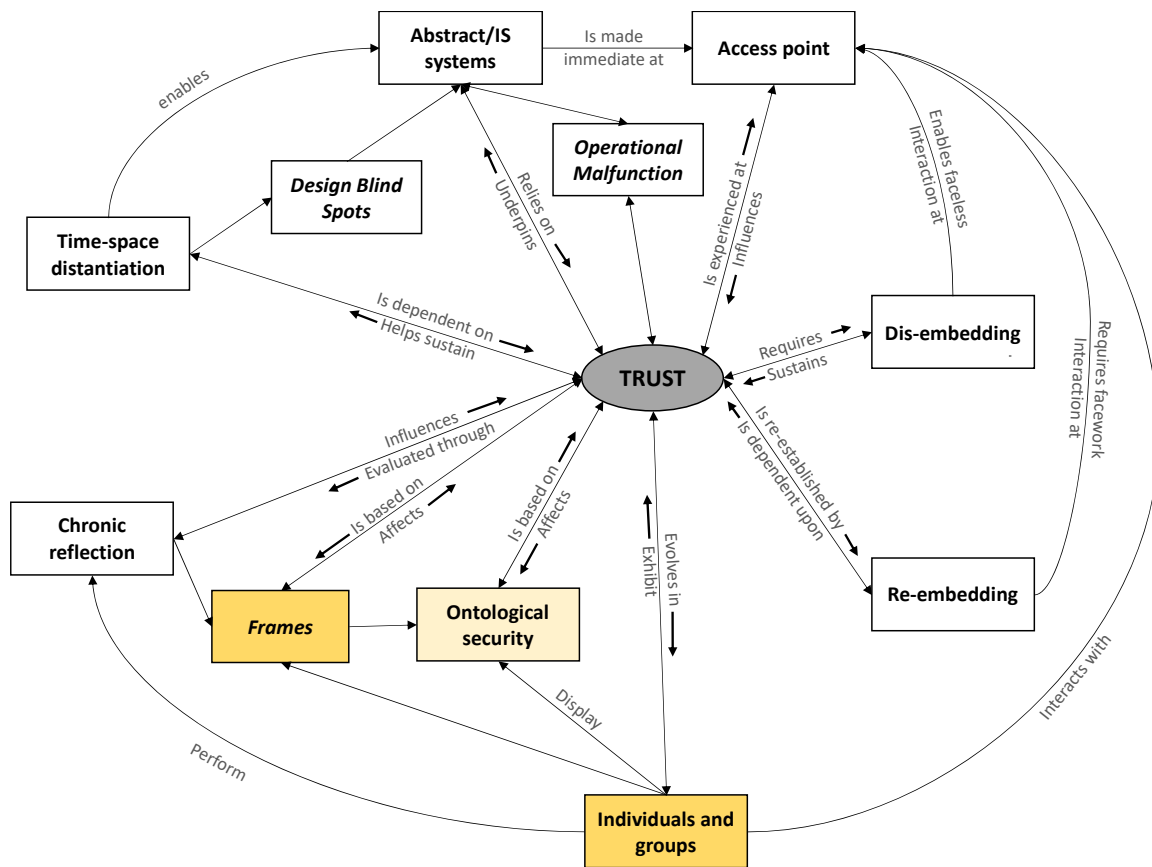
Figure 7.9: Logical starting point for the project to start establishing trust

The themes also provided the basis for defining the key PMP design principles of the new programme and reference as our "North Star" to develop and to evaluate the programme. The PMP design principles we adopted were:

1. The PM programme must be motivational and provide Private Bankers with the ability to influence the size of the funding pool and share in the profit based on their collective and individual performance and contribution.

2. The PM programme should be fair and promote behaviour that is rewarding for the Bank, the clients, the shareholders, and the Private Bankers. The funding of the PM programme should be based on actual performance.

3. It must be a transparent process that could not be manipulated or influenced by line manager bias. Private Bankers should have full access in the PMIS to understand how performance is measured, how their personal contribution to the organisation's total performance was calculated and how their contribution translates into the bonus they received in the PMIS.

4. The PM programme and PMIS process must demonstrate fairness. Private Bankers will compete with their peers while tenure or relationships will not influence the value of the bonus they could earn.

5. The PM programme must promote sustainable profit growth and foster trust with the Private Bankers that they are rewarded for outperformance, and with stakeholders and executives that performance rewards are based on actual contribution and outperformance.

These PMP principles simplified the review process of previous and other programmes in the organisation because we only had to establish to what extent the other programmes supported the objectives. The key principles also enabled us to define the various ideal behaviours we wanted to promote.

Maier and Fadel (2009) note the importance of designers' knowledge of the context in which the artefact will be used. Reviewing previous and other PMP and PMIS in the organisation and gathering input from various stakeholder groups ensured that we first defined the themes that will influence the key social constructs of a PMP, for example trust formation, ontological security, and frames. The various themes formed the social principles of the PMP, and the purpose of the social principles are to inform and guide the PMP and PMIS design principles. Secondly, as per Chandra, Seidel and Gregor (2015), using design principles ensured we captured the essential design knowledge on an abstract level.

In the next section I discuss the action planning, action taking and evaluation stages.

7.5.2 Action planning, action taking and evaluating

The next phase of the project entailed presenting our findings and recommendations to the steering committee for review and approval. The steering committee approved our proposal, and the CFO and I could commence with scoping the first prototype version.

Contrary to typical IS development projects in the organisation we proposed building a prototype using MS Excel to demonstrate how the PMIS would support the five key principles and to enable the steering committee to participate in the development, review, and refinement process. Figure 7.10 demonstrate the prototype development and participation approach from an action research perspective.
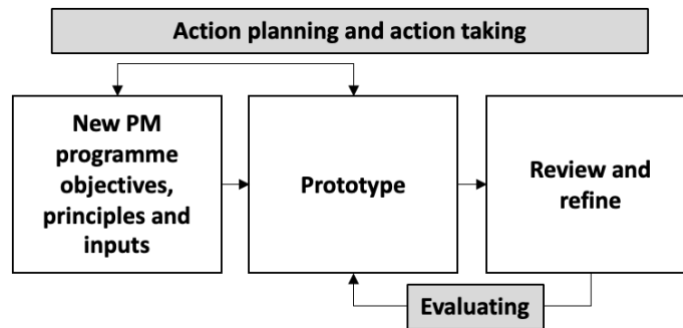
Figure 7.10: Cycle 1 PMIS prototype and overlaying action research stages

The BI Developer and I started building the prototype PMIS in MS Excel following the steering committee's approval. We used the previous financial year's client profitability data and Private Banker scorecards. Using the previous financial year's data enabled us to compare the PMIS prototype results to the previous discretionary bonus programme results. The MS Excel PMIS protype had multiples worksheets:

- A worksheet for each of the contribution measurements – scorecard, total portfolio profit and portfolio profit growth
- The complete underlying data set
- A consolidated summary
- An insights worksheet

We distributed the first PMIS prototype within a few weeks and scheduled one-on-one meetings with the steering committee members to take them through the prototype and highlight initial insights, gaps and anomalies we had identified. Over the next few weeks, we received feedback on various aspects listed in Table 7.4 from the steering committee members and released several enhancements of the PMIS prototype.

Table 7.4: Examples of the type of feedback received from the steering committee members

Aspect	Testing, calibration, and refinement examples
Scorecard league table bands	• Different league table groupings and impact on the number of Private Bankers participating per league table grouping to test the change in bonus amount per grouping. • Impact of including versus excluding the bottom 20% scorecard performers. • Goal seeking bonus amount scenarios that will be motivational.
Weighting between scorecard, total client profitability and growth in client profitability	• Testing different bonus pool distribution amounts to determine ideal scenario, for example 40/20/40 split vs 60//20/20 split vs 30/21/49 split.

Aspect	Testing, calibration, and refinement examples
Exception case scenarios	• Private Bankers who joined during the previous financial year, compared to Private Bankers who were part of the organisation the full financial year – if the Private Banker joined during the financial year, they would have received a smaller discretionary bonus. • Private Bankers who went on maternity leave the previous financial year received a pro-rata bonus allocation. • Private Bankers with predominantly staff portfolios – because the organisation offer staff lower banking fees and interest rates, these Private Bankers are disadvantaged and an enhancement to client profitability was required to cater for this.
Data quality and data anomalies	• Not all clients were included in a Private Banker portfolio, because the clients were either incorrectly or not linked to the Private Banker portfolio (housekeeping incomplete). • Costing methodology used in client profitability resulted in some products to be perceived as unprofitable and negatively impacted on total client profitability and client profitability growth contribution.
Data model requirements	• HR data file requirements, for example start date and resignation date, maternity leave information. • Scorecard data file requirements. • Client profitability data source requirements.
BI system BRS and business rules	• Need to cater for Private Bankers joining during the financial year. • Need to cater for Private Bankers on maternity leave. • Need to cater for Private Bankers promoted to line management function. • Business rules to treat and penalise client attrition. • Business rules for treating operational losses.

We explained the rationale for the enhancement, the advantage of the enhancement and insights we gained with each release of the PMIS prototype enhancement. The advantage and consequence of this participatory approach were that the steering committee was continuously busy validating the PMP design principles and through debating and explaining they were teaching each other what the new PMP and PMIS should do and how it should work. Many steering committee members commented on how the PMIS prototype approach assisted them to crystallise their understanding and created a sense of ownership through participation in the development process, for example:

"*The benefits of prototyping and why I personally liked the way that we did the OBB design and development was that consistently throughout the process the management teams who needed to drive this within their business had an understanding and had the idea and picture and almost final solution of what this would look like. So we were consistently contributing towards the development of it, and all on the same page.*" – **Line manager [P12]**

"*It contributed in a large way because there was stuff we found out along the way that needed to be fixed and worked on. So, we could see early on, running in parallel, without*

disturbing the business flow and harming anybody. If we just did it upfront and got it wrong, we would have breached trust forever and I think trust lost is very seldom regained. So, the prototype allowed us not to lose trust and deliver it in a fashion, which had the most positive impact possible.” – **Steering committee member [P6]**

“...in a system they probably would have said you guys have already decided how it is going to work, so I think they would have disengaged, but by doing it in Excel and building a prototype and refining we took them on the journey. So it became to a big extent their programme as well.” – **Executive [P7]**

We received approval to implement the PMP programme from the various committees, business units and labour union in April 2016. We started sensitising the Private Banker teams about the PMP objectives and the opportunities the programme would offer them, and prepared for the official launch in July 2016.

In the next section I discuss the reflection and learning stage.

7.5.3   Reflection and learning

Based on the insights from the diagnosing stage and in support of the views of Whitener, Brodt, Korsgaard and Werner (1998), it was fundamental for us as a project team to ensure that we continuously considered different stakeholder frames, and through a participative and collaborative process focused on establishing trust during the action planning and action taking stages. I planned different engagement approaches objectives with the assistance of the trust framework demonstrated in Figure 7.11. For example, the project steering committee consisted of members with different interests and perspectives which structured their *frames of reference* which in turn affected their ontological security and trust in rules-based IS:

- The CFO's interest was how we ensured that we did not overpay nor underpay. Her primary focus was on business rules for determining contribution and how outperformance translated to a bonus pool provision, with a secondary focus related to data quality and process controls.
- The Head of HR interest was improving staff morale and retention. Her primary focus was peer comparison and matching level of skill and experience to work complexity.
- The Regional Heads interests were business rules for determining contribution and aspects that could create Private Banker angst and resistance.
- The CEO focused on ensuring that the PMP promoted behaviours that were in the interest of our clients, the organisation and shareholders. Secondly, the alignment of action and performance to strategy.
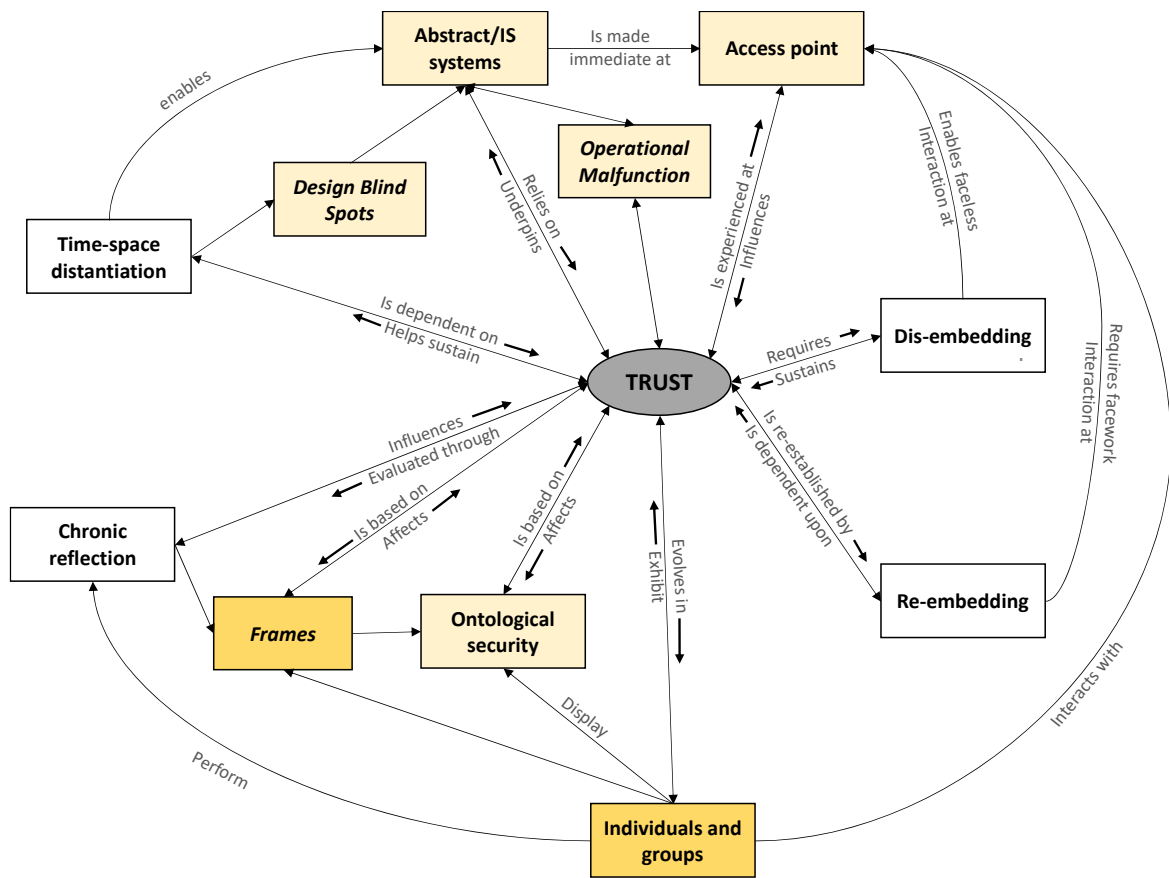
Figure 7.11: The role of frames as logical starting to plan engagements and trust formation

Participation and collaboration were created at access points, and we deliberately used different types of access points. We wanted to create sufficient opportunities for stakeholders to voice their personal views during one-on-one meetings and to participate as a group during workshops to learn from each other and understand different perspectives. We also wanted people to have time to review and to reflect on the content, the impact of different scenarios and to contribute alternative options. I conducted semi-structured interviews with each steering committee member during the diagnosing stage and presented the findings at a steering committee for validation. We conducted small workshops to scope or solve specific questions for action planning and action taking. We communicated results and insights via email and followed with individual meetings. The steering committee was used for formal check-in session to ensure alignment and ratification of decisions. The prototype approach for the PMIS provided a critical access point.

From a structuration perspective, the prototype approach enabled the steering committee to engage with the PMIS with a purpose. They actively participated in crafting the objectives and business rules instead of being only users of the new PMIS and presented with results. Secondly, because they participated in the user acceptance testing, and we were dependent on them to solve *design blind spots,* they had to *continuously reflect* on the impact of the business rules and unconsciously started

developing *trust in the PMP and PMIS* which in turn affected their *frames and ontological security*. The advantage of having a diverse steering committee that engaged with the PMIS was that different types of *operational malfunctions* were identified, for example treatment of maternity leave, transferring a client relationship between Private Bankers, or missing information. Another advantage was that the steering committee understood the reason for the operational malfunction and what was required to resolve it. For example, in cases related to data quality errors due to Private Banker process errors, or timing difference between when a sale was completed and when a client started utilising a product and generating income.

As programme manager I continuously reflected on the level of understanding of Private Bankers, line managers and Regional Heads, areas of concern and the status of trust formation in the PMP and PMIS. I arranged regular informal coffee sessions with Private Bankers, line managers and Regional Heads to clarify uncertainties and to unpack specific issues. I created an issue log, and each issue was analysed, classified and a recommended action was documented, and was then presented at the steering committee for review and guidance. For example, most of the issues raised by the Regional Heads related to the impact on Private Bankers with long tenure and strong relationships and who were typically favoured by a discretionary bonus programme, or Private Bankers who were perceived to be average performers and who did exceptionally well in the new PMP. The approach I took to mitigate bias was to mask the Private Banker names and to validate the business rules. Once the Regional Head agreed with the logic and results, I then presented the specific Private Bankers that did not meet the preconceived perception. I supplied an analysis to explain the reasons why the Private Bankers did not perform as expected with suggestions what could be done to achieve a different result. An aspect that surfaced during the user acceptance testing when we included the line managers, was the perceived loss of control and influence of the line manager in the new PMP. A significant amount of time was spent on understanding their ontological security and then reframing how the PMP would change their role from managing Private Banker activities to leading the Private Bankers and focusing on ideal behaviours and meaningful client engagement.

The critical success factors that contributed to the completion of Cycle 1 can be ascribed to using the trust framework in defining the PMP and PMIS design principles, to identifying the logical starting point for the project and building the PMIS prototype. The PMIS prototype enabled the steering committee to be active participants and assisted them to update their frames, to address ontological security issues and to form trust in the programme. The nature of the PMIS prototype also enabled us to go through multiple and rapid iterations of evaluation, action planning and action taking. The different types of access points that focused on steering committee and line manager frames and ontological security ensured we address areas of concern or uncertainties.

In the next section I present the analysis and findings of the second cycle: implementing the PMP and PMIS.

7.6   Cycle 2: Implementing the PMP and PMIS

With the completion of Cycle 1 that comprised of an approved new PMP and a rules-based PMIS, the key project focus areas of Cycle 2 related to the implementation of the PMP and PMIS, to embedding ownership and to providing operational support. Figure 7.12 provides a summary of the key project activities per focus area.

Implementation	Embedding ownership	Operational support
• Training content and change management • Toolsets • Private Banker training sessions • Continued focus on the changing role of line manager from manager to leader • Identifying and addressing aspects causing anxiety	• Regular check-in sessions with regional leadership team • Pro-active regional and Private Banker portfolio analysis to assist regional leadership team to engage with their teams	• Clarifying Regional Head and line manager uncertainties • Ad hoc analysis and issues resolution • Continuous monitoring to identify design blind spots and operational malfunctions • Ad hoc Private Banker team sessions to clarify programme business rules

Figure 7.12: Summary of Cycle 2 objectives

In the next section I discuss the diagnosing stage.

7.6.1   Diagnosing

The inputs from the Private Bankers and line managers from the diagnosing stage and insights from the learning and reflection stages in Cycle 1 formed the starting point of the diagnosing stage of Cycle 2. The key themes that surfaced in Cycle 1 were to address line managers' uncertainties relating to how the PMP would impact on their role and the ability to control and to influence the Private Banker behaviour. Secondly to demonstrate how we solved examples of issues and concerns raised by Private Bankers and line managers as listed in Table 7.5 that related to the previous discretionary bonus programme and influenced what McKnight and Chervany (2001) refer to as trusting beliefs in our competence, benevolence, integrity and predictability.

Table 7.5: Input from Cycle 1 regarding issues and concerns related to the previous programme

Stakeholder	Selective quotes
Private Banker input	• "…*you don't know*, you might think that you got a great bonus, but you don't really know where you stand in the bigger picture, so you *can't really relate it to anything*." • "…*you never really know how much value did you add*…" – [P1] • "*I had more angst* when I had to sit in discretionary discussions and receiving my letter." – [P1]
Line manager and Regional Head input	• "*I always wondered* if every channel and region follow the same process..." – [P5] • "…*tools were poor* in the sense that they were *interpreted very differently from one person to the next*." – [P6]

Stakeholder	Selective quotes
	• "There was absolutely *no transparency* in the previous environment because everything was centralised." – [P6] • "In the old days we *used to agonise* over whether we were *being fair or not fair*…" – [P6] • "Historically, we split bonus pools per region, which *wasn't inherently fair* because out performers in a smaller region would share less than out performers in a larger region." – [P6] • "…having data and information *easily accessible* closer to real time if possible. I think ensuring quality of data that is presented and *very little inconsistent data* where you look at various different reporting and finding different data being presented differently." – [P12]

Referencing the theoretical framework in Figure 7.13, indicated that the implementation approach and content should first address issues related to existing frames and ontological security. Secondly, when we introduced the Private Bankers to the PMP and PMIS they would need sufficient time to familiarise themselves with the PMIS, how it supported the PMP objectives and to interrogate the business rules and supporting data. Thirdly, we would need to provide processes for the Private Bankers to raise design blind spots and operational malfunction questions. Finally, different types of access points would be required, depending on the type of session, question, or group of Private Bankers.
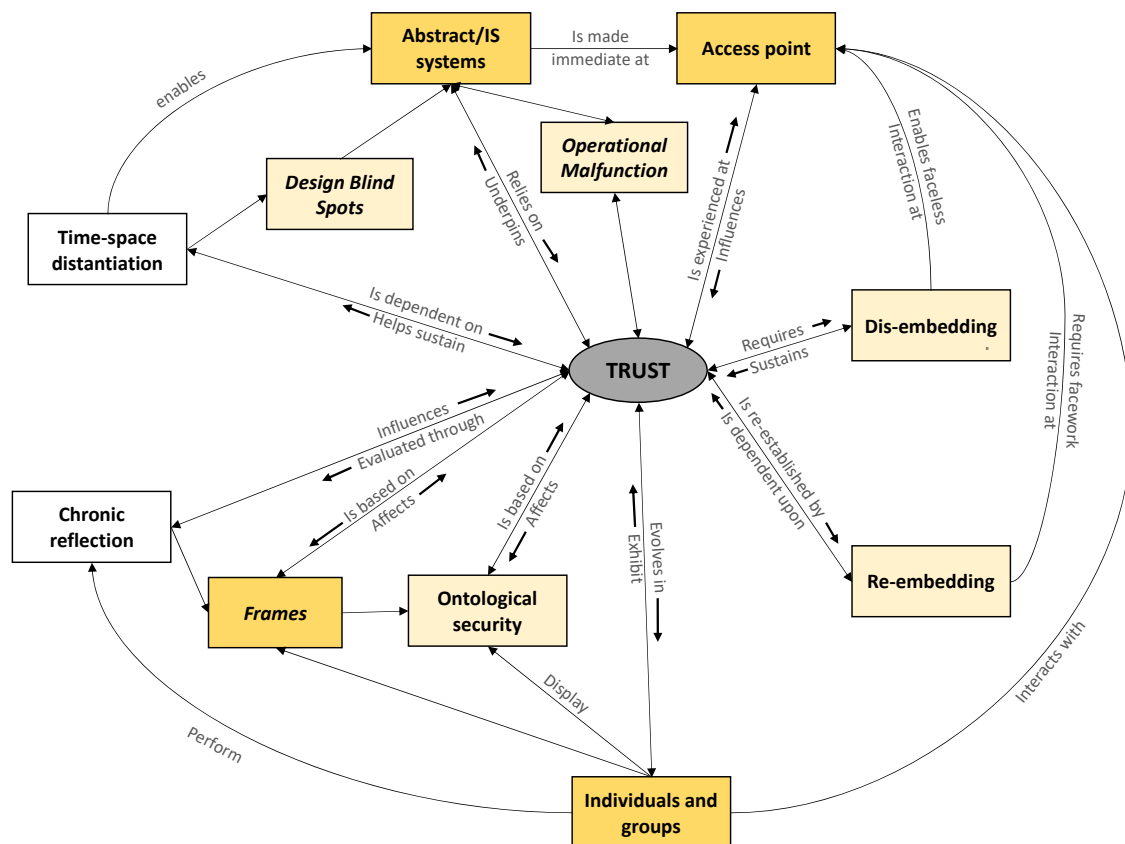
Figure 7.13: Importance of addressing frames and creating different access points to engage with the PMIS

Regular access points would be required to embed ownership and to address the uncertainties that line managers had relating to how the programme would impact on their role and their ability to control and influence the Private Banker behaviour in terms of embedding ownership. The objectives of the access points would not be to "instruct", but to "listen to understand" the different frames and level of ontological security. The Regional Heads proposed that they initiated and facilitated the sessions with the core project team (HR Head, CFO, and me) to attend the sessions as subject matter experts to ensure we embed ownership.

The objective of operational support was defined as the content, activities and processes that will support the implementation and embedding of ownership and to assist in creating trust and transparency in the PMP and PMIS. The purpose of the content, activities and processes were to assist the Private Bankers with understanding the cause and the plan of action for issues raised relating to design blind spots and operational malfunctions.

In the next section I discuss the action planning, action taking and evaluation stages.

7.6.2 Action planning, action taking and evaluating

From a trust framework perspective, Figure 7.14 indicated that the *implementation approach* to establish trust in the new PMP and PMIS centred on the different types of access points to introduce the new PMP and PMIS, secondly for Private Bankers to engage with the project team and line management with questions and concerns as their level understanding evolved.
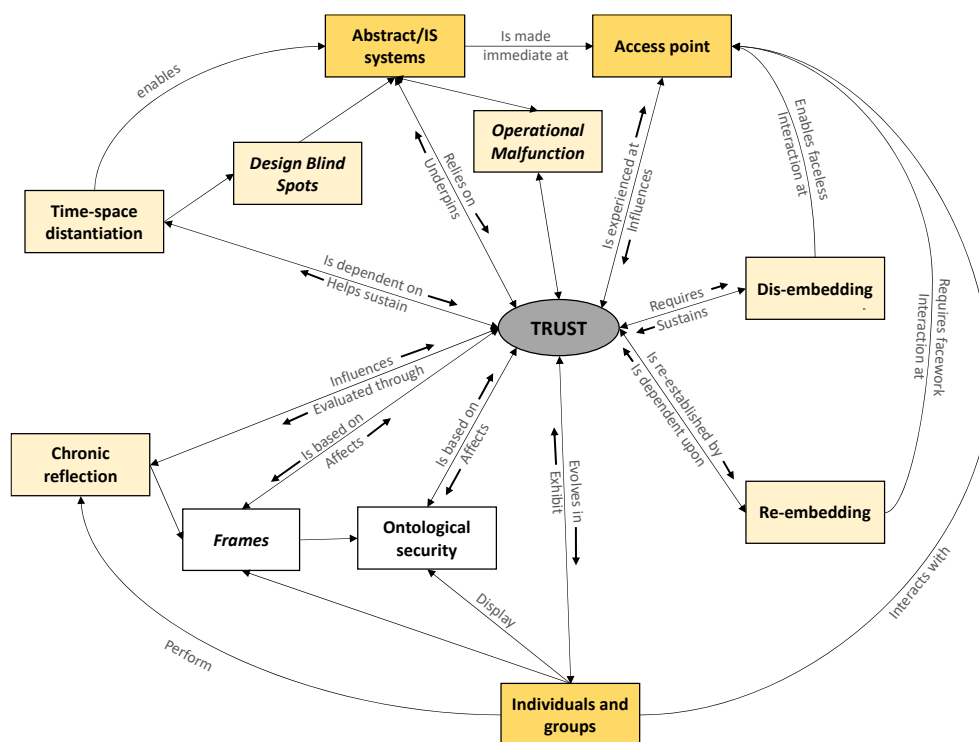
Figure 7.14: The objectives of creating different access points

We extended the core project team by including the Learning and Development Manager as subject matter expert to focus on the nature and structure of the content and to scope the approach to the different types of access points we identified. Table 7.6 demonstrate the different access points for the Private Bankers and line managers to engage with the project team, the purpose of the access point, the type and access frequency.

Table 7.6: Purpose and frequency of different types of access point

Access point	Purpose and examples	Type	Frequency
Training line managers	Train the trainer sessions with the line managers, taking them through the training content, how to position the programme with the Private Bankers.	Re-embedding	Two sessions
Programme launch communication	The CEO officially announced the launch of the PMP and alignment to strategic objectives, the opportunity for Private Bankers and a brief overview of the implementation roadmap.	Dis-embedding	n/a
Introduction sessions	A formal two-hour session per team led by the Regional Head and line manager supported by me as PMP manager. Positioned the PMP design principles, business rules, a case study example, introduction to the PMIS and suggestions of how to maximise performance potential from the PMP.	Re-embedding	One session per team
Scheduled team check-in	A formal 30-minute slot at each team's monthly team meeting to receive feedback and answer questions.	Re-embedding	Monthly
One-on-one sessions	Informal meeting requests from Private Bankers, line managers or Regional Heads to discuss different aspects of the PMP or PMIS.	Re-embedding	At least 3 per week
Ad hoc team sessions	Informal meeting requests from a sub-group of Private Bankers which may include the line manager to discuss different aspects of the PMP or PMIS.	Re-embedding	At least 2 per month
Ad hoc line manager sessions	Informal meetings initiated by either me or the line manager to discuss topics ranging from specific Private Banker results, clarifying business rules or raising potential design blind spots, to what the line manager can do to assist the Private Bankers in their team to maximise their potential rewards. Other topics also included tactical planning for the team and structuring Private Banker portfolios from a profitability, capacity, and complexity perspective.	Re-embedding	At least 3 per month
Design blind spots and operational malfunction communication	The investigation and feedback on specific issues raised by the Private Bankers and line managers. Issues that were due to a misunderstanding were communicated to the specific people, whereas issues impacting all the Private Bankers were communicated to all the Private Bankers explaining the cause and plan of action to rectify. For example, incorrect client profitability results due to a data	Dis-embedding	Ad hoc

Access point	Purpose and examples	Type	Frequency
	supplier operational malfunctions and the need to recalculate the results.		
Programme analysis email	With the monthly release of the PMIS results we continued with the distribution of a detailed analysis email to the Regional Heads.	Dis-embedding	Monthly
Steering committee session	Implementation progress report presented at the steering committee meeting that focused on Private Banker feedback and adoption, challenges we encountered, any design blind spots and operational malfunctions identified that on which we need guidance or assistance. We also presented the most recent results and insights.	Re-embedding	Every two months
Regional leadership session	Similar to the steering committee progress report but focusing on each region.	Re-embedding	Quarterly

We used the line managers as the implementation team instead of our central support functions for example the Learning and Development and Change Management teams. The reason for this approach was threefold:

1. It transferred ownership and accountability of the PMP to the line manager.
2. The line manager had to ensure that they understood the intricacies of the PMP and PMIS to sufficiently address the anxiety and resistance within their teams.
3. Remuneration is a personal topic and people are motivated differently, have different context and experience and the line managers were the most appropriate people because they understood their teams and individual dynamics.

This approach aligned to the views of Whitener, Brodt, Korsgaard and Werner (1998) that managers' actions and behaviours provide the foundation for employee trust formation. Reflecting on this approach during the research study interview process, both line managers and members of the steering committee validated the appropriateness and relevance of the approach by commenting:

"Our business evolves so quickly at the moment, that there's no room really for massive change management interventions." – **Line manager [P6]**

"I think there's a natural distrust of what comes from far away. If it comes from closer to you and it's explained to you and the context is given, it's just a better way of change management." – **Line manager [P6]**

"I think the advantage is that the line managers were forced to make sure that they fully understand how the programme works." – **Steering committee member [P7]**

The Private Banker teams' initial response to the launch of the new PMP and PMIS varied between scepticism, anxiousness, and excitement. For example, the senior Private Bankers were vocally distrustful and cynical about the PMP. Line manager [P12] explained how he had to adapt his sessions to first spend time on explaining the continuous need to adapt to changes in the environment, dispel assumptions and how the organisation used this an opportunity to innovate:

"My first challenge was trying to convince the older guys where the business and the market is now. The second challenge was lots of Private Bankers still felt there might be input and discretion that managers had on the programme. So, lots of communication to be able to dispel that myth that there is any involvement from management in terms of OBB." – **Line manager [P12]**

The first few months after the deployment of the PMIS engagement from the Private Banker teams were limited. As time progressed and after each engagement, whether a team check-in session or the monthly PMIS release, the requests for one-on-one sessions and specific questions related to design blind spots or operational malfunction started to increase. Reality started setting in by March 2017 when the Private Bankers realised that the results they were presented in terms of performance and ranking as demonstrated in Figure 7.15 would be what they would potentially earn. This resulted in a significant increase in Private Banker Team sessions.

A line manager commented:

"IT systems are great in democratising data and knowledge, which helps people to firstly, gain context quickly, but they also gain a sense of an equal playing field." – **Line manager [P6]**

How am I doing?

Portfolio Type: Wealthy   # of Bankers: 250

	18%	21%	22%	24%
My Potential Bonus				

	26%	29%*	30%	32%
My Potential Bonus				

Scorecard		40 %	
Total Portfolio Profit		20 %	
Portfolio Profit Growth		40 %	

Note:
* Difference between total amount and splits are due to additional funds distributed eg resignations, new joiners after 1 April.

How do I rank?

Aspect	Weighting	Prev Ranking	Ranking
Scorecard	40 %	139	79 / 250
Total Portfolio Profit	20 %	123	122 / 250
Portfolio Profit Growth	40 %	48	55 / 250
Overall Ranking			58 / 250

Link to underlying OBB Client Data

SC League	# Bankers	SC Range
Ranked in the top 10%	18	3.04 - 3.88
Ranked in the top 10% - 20%	18	2.71 - 3.02
Ranked in the top 20% - 40%	42	2.33 - 2.69
Ranked in the 40% - 60% range = Average Performance	61	2.05 - 2.33
Ranked in the 60% - 80% range = Below Average Performance	66	1.79 - 2.04
Ranked in the bottom 20%	66	1.31 - 1.78

Figure 7.15: Example of the Private Banker toolkit

The reference guide was distributed prior to hosting a Private Banker Team session. The format of the sessions demonstrated in Figure 7.16 was positioned as a question and answer session with group discussions that focused on proactive portfolio planning that leveraged the various BI reports available on the BI platform.

Three types of Private Banker profiles surfaced: the senior Private Bankers were either not interested or critical; the junior Private Bankers were mostly excited, especially considering the projected potential bonus that they would earn was significantly more than what they were used to under the discretionary bonus programme. The third group only observed the session. Amongst the line managers two profile types surfaced, the one group took ownership of the PMP and contributed during the session. Whereas the second group only introduced the session and then distanced themselves from the intricacies of the PMP. The behaviour of the second group can be ascribed to

leadership style, for example a line manager who is operationally inclined and want to be involved with the intricacies of aspects affecting their team, versus a line manager who is more strategically inclined and focus on providing direction and ensuring alignment to objectives and rely on the support and enablement teams to address operational intricacies with their team.

The "not interested" or "critical behaviour" of the senior Private Bankers and "distanced behaviour" of line managers resembled what Moody, Lowry and Galletta (2017) refer to as ambivalence, where a person have both positive and negative views of a subject. The behaviour of the Private Bankers who only observed the session might be ascribed to their predisposition to trust as per Kramer (1999) or cognition-based trust as per Gefen, Karahanna and Straub (2003).

Figure 7.16: Example of a Private Banker session

The engagement of different groups through the other access points, for example one-on-on sessions and emails raising design blind spots or operational malfunctions, had a similar characteristic. As a project team we took a deliberate decision to focus our energy on the Private Bankers who were excited and curious and line managers who took ownership. The approach we took with Private Bankers was to ask them for input and suggestions of how to manage personal performance and portfolio management during the monthly team check-in sessions. The rationale for this approach was twofold, firstly having a Private Banker explain to other Private Bankers demonstrated trust in the PMP which then also translated to ownership, and secondly because they shared similar frames they were able to provide practical examples and suggestions. We took a similar approach with the line managers and the impact was that the line managers who distanced themselves originally started engaging in case they were missing out. Their engagement approach was however more from an exception case, design blind spot and operational malfunction perspective. Exception cases, design blind spots and operational malfunctions were collated and presented at the steering committee for

review. Table 7.7 demonstrate examples presented to the steering committee of different design blind spots and operational malfunctions, the decision and impact.

Table 7.7: Examples of design blind spots and operational malfunction cases submitted for evaluation

Item	Type	Decision	Impact
Staff Clients: can we use a proxy to calculate the "potential revenue" and add to all relevant Bankers. Accurate data not easily available.	Operational malfunction	No, only accurate and complete results will be used, if revenue on staff clients cannot be calculated before 30 June then exclude from the 2017 OBB process.	No action
Other business units willing to contribute to Private Banker bonus outside OBB.	Design blind spot	Other business units can contribute and Finance and HR will resolve the internal process how to deal with issuing two letters.	Enhancement
Doing extremely profitable business, but with a defined end date that then negatively impacts the Private Banker to such an extent that the Private Banker cannot recover from this during the current year.	Design blind spot	This is the normal nature of business and will not be treated as an exception scenario. It also opens the door to questioning other deals which the Private Banker is not directly involved with and receives the benefits for.	No action

In August 2017 the steering committee reviewed the PMP which entailed analysing if the programme met the objectives and supported the principles we originally defined as per Table 7.8. Secondly, we analysed individual Private Banker performance versus reward received, thirdly the difference between traditional discretionary bonus and out performance bonus, fourthly that the PMP did not differentiate based on region or team to ensure everyone had the same opportunity to outperform. We compiled an analysis briefing presentation that the Regional Heads used in their quarterly update sessions with their Private Banker teams.

Table 7.8: Programme objectives as per the business case

Item	Business Case Objectives	Steering Committee Review
1	Staff retention: the scheme offers both short-term and medium-term incentives.	Objective achieved
2	Trust and transparency: Address aspects raised in People Pillar Survey.	Objective achieved
3	Ownership culture: Linked to and limited to profit contribution and growth of Private Bankers portfolios.	Objective achieved
4	Data as an asset: Improved data quality in key client management systems i.e. Household Maintenance and CRM data.	Significant improvement

Item	Business Case Objectives	Steering Committee Review
5	Quality insights: Enhance analysis and strategy planning as a result to improved data quality.	Significant improvement
6	The size of the bonus pool is not constrained to a discretionary pool that gets allocated at a Group level.	Objective achieved
7	A Private Banker can proactively work on growing the funding pool by focusing on client profitability drivers.	Significant improvement
8	A Private Banker will have the ability to review their personal progress and influence their rewards.	Objective achieved
9	Private Bankers will know what they can do to improve their portfolio profitability and improve their scorecard ratings.	Significant improvement

In terms of addressing the issues and concerns with the previous discretionary bonus programme raised by the Private Bankers during the diagnosis stage and reflecting on the new PMP, Private Bankers provided the following feedback:

"In the old discretionary bonus programme there were a lot of gaps, not everybody was happy, some people were more happy than others. The word unfair has been used before. This system overwhelmingly improves everybody's understanding of how their bonuses are structured. They could see what they are working for throughout the year, which I think is a motivator." "With the OBB programme you get what you put in. I think it's a lot more fair in that sense. There is an element of luck, but not really material that could really negatively affect anyone. It levels the playing field as opposed to the discretionary bonus programme." – **[P2]**

"There is no way the programme can show favouritism and allocate high bonuses based on knowing that person. So, you have to be treated fairly." – **[P13]**

In terms of the PMIS capabilities and enabling both line managers and Private Bankers to manage performance and to provide quality insights, the Private Bankers made the following comments:

"They manage us more using their understanding of data, they can see the value immediately." – **[P3]**

"So the longer you use something, the more familiar you get with something, the more you trust it and the less angst you have." – **[P14]**

In the next section I discuss the reflection and learning stage.

7.6.3   Reflection and learning

The two components in the theoretical framework as demonstrated in Figure 7.17 that played a critical role were the various access points we created and the PMIS enabled and chronic reflection and

mitigated previous perceptions of line manager bias from an establishment of trust perspective in the PMP and PMIS during the implementation cycle of the project.
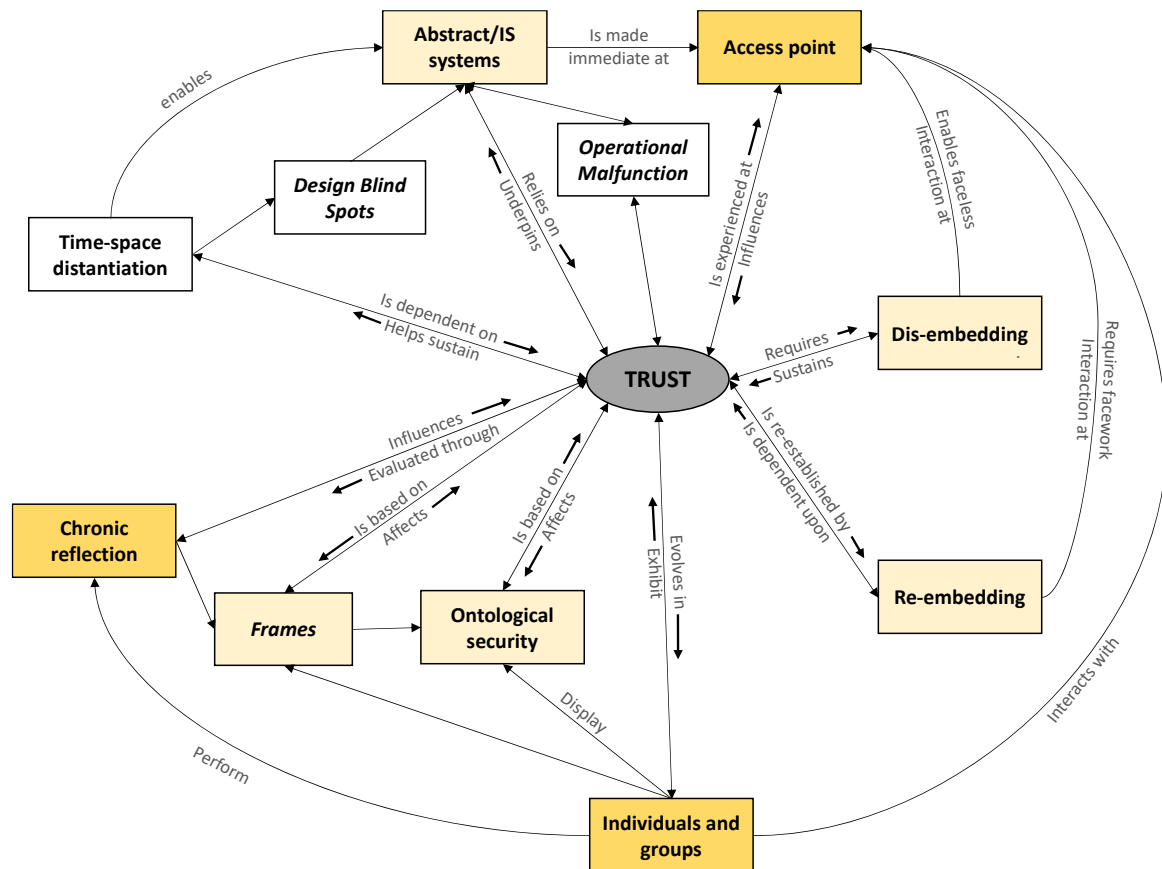
Figure 7.17: The role of access points and chronic reflection in trust formation

Mcknight, Carter, Thatcher and Clay (2011) note that trust is typically ascribed in people and not in the IS artefact. The different types of access points we created coupled with a blended approach of formal and informal sessions allowed for the Private Bankers and line managers to go through the adoption process at their own pace. Also, being aware how different frames, work experience and cultural nuances impacted on trust and resulted in angst and resistance, the various access points provided alternative engagement options and increased our potential for adoption success. Different types of access points also catered for people's predisposition to trust as per Kramer (1999) and what Gefen, Karahanna and Straub (2003) refer to as cognition-based trust.

Formal access points allowed for general updates, promoted transparency in the process and demonstrated a willingness to engage and to receive input to enhance the programme. Criticism was welcomed and used as a source to identify design blind spots or operational malfunctions. From a project team perspective, the formal access points, for example the monthly team check-in and quarterly regional leadership sessions, allowed us to observe team dynamics, body language and

collective frames. We also used these sessions to share learnings, insights, and novel approaches that other teams were taking, for example restructuring Private Banker portfolios to optimise capacity and maximise profitability. Finally, formal access points created the environment for the project team to facilitate different topics and to use the teams to debate and explain to each other the rationale or alternatives. Informal access points on the other hand created an environment for more detailed discussions where the Private Bankers, line managers and Regional Heads could freely discuss uncertainties and issues that impact on their ontological security.

The capabilities and user interface of the PMIS supplemented by various support processes enabled the Private Bankers, line managers and Regional Heads to interrogate the underlying data. Secondly, personalising the PMIS as demonstrated in Figure 7.18 with the topics: "How am **I** doing", "How do **I** rank" and "How do **I** compare to my peers" aimed at establishing personal ownership and internalisation of the results.
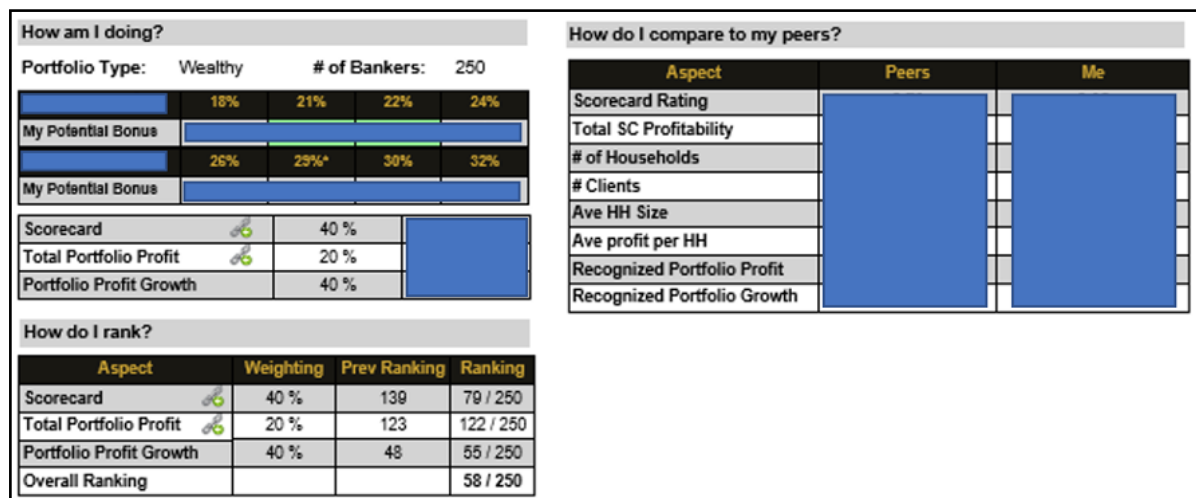
Figure 7.18: Personalising the PMIS

Source: Private Banker PMIS dashboard on Microsoft Reporting Server

In terms of providing Private Bankers with transparency and the ability to compare their performance to the peers, Private Banker [P14] commented:

"Everybody's got the same platform in front of them so you can't say one is treated unfairly towards the other one because you using all the same systems."

Within the first year we noticed a behaviour change when many Private Bankers started to focus on the drivers of profitability, instead of just focusing on scorecard activities. The advantage of this change in behaviour was the identification of various operational malfunctions. The identification of operational malfunctions supported by specific examples resulted in improved results. The improved

results contributed to trust formation and increased engagement by Private Bankers who wanted advice on how to improve their performance, for example Private Banker [P1] made the following observation:

"It has made people competitive, whether it's a financial thing or because it's a ranking thing, they see them ranked wherever in the first, the second or the third tiers. I sit with a lot of the bankers and everyone is always as soon as it is out, asking around what tier are you, where are you at, what is your scorecard like. So, it has created a lot of competitiveness."

In terms of changing Private Banker behaviour and to focus on sustainable profit growth, line manager [P10] observed:

"Historically Private Bankers would be chasing individual line items and it was very much of a product natured environment. Where now, it is more about a holistic approach. The OBB programme focuses much more on profit and profit drivers."

An unintended consequence of the IS was that many Private Bankers were more interested in their ranking compared to their peers instead of the potential monetary reward they may receive. Rankings also assisted in contradicting line manager and Regional Head perceptions and resulted in more detailed analysis to understand performance drivers.

In the next section I present the analysis and findings of the third cycle, the complementary PMIS toolsets supporting the PMP.

7.7   Cycle 3: Complementary PMIS toolsets to support the PMP

The focus of the Cycle 3 evolved to maintain the trust and to complement the PMP and PMIS with additional toolsets to assist Private Bankers and line managers following the successful implementation of the PMP and PMIS and different levels of trust in the programme established. The management approach of the PMP also evolved from a project with a steering committee to a business function that consisted of a dedicated operational PMP support team in Finance that worked closely with the Business Intelligence and Financial Resources Management teams.

The PMP team focus expanded to focus on three key areas to maintain trust in the PMP, demonstrated in Figure 7.19 and consisted of:

A. The operational management, governance and support of the PMP that not only satisfied Risk and Internal Audit requirements, but also assisted to manage the expectations of Private Bankers, line managers and other internal stakeholders.

B. The ongoing refinement of the PMP and PMIS due to the Private Bankers and line managers improved understanding of the PMP objectives and the key performance drivers. Secondly, addressing limitations and ensuring alignment to organisational objectives required an annual PMP review.

C. By embedding ownership with the line managers and Regional Heads additional analytical PMIS toolsets were required to assist them in planning and optimising capacity. From a Private Banker perspective, the need for more sophisticated reporting and analysis to assist them with portfolio management.
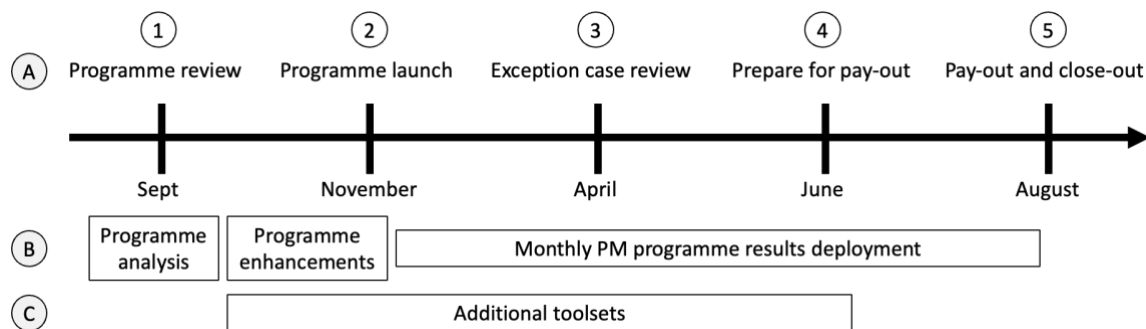
Figure 7.19: Changing focus areas of the PM programme team

For this research case study I focused specifically on section C (additional PMIS toolsets) and how we used the action research approach and theoretical framework to define and develop new complementary PMIS toolsets in 2018 and 2019 to support the Private Bankers, line managers and Regional Heads.

In the next section I discuss the diagnosing stage.

7.7.1 Diagnosing

Line managers started to focus on understanding individual Private Banker performance and to compare their team performance to other teams. From a PMP and PMIS perspective we started to receive two types of questions on a regular basis, firstly "How can I better analyse and create tactical plans for my portfolio?" and secondly, "Why is one Private Banker portfolio performing better than another Private Banker portfolio?" Additionally, due to the exceptional client growth during the past three years whilst maintaining flat headcount growth, the Private Bankers and line managers started to complain about capacity constraints, and unfairly balanced Private Banker workload. This change in line manager behaviour to transition from manager to leader supported the observations of Tseng and Levy (2019) and Varma, Budhwar and DeNisi (2008) that managers are evolving from focusing on administrative tasks to activities that will increase employee motivation and engagement.

The development of complimentary PMIS toolsets in support of the questions on planning and improving Private Banker performance and to assist in addressing concerns that related to capacity, motivation and morale were a natural extension. During the diagnosing stage we specifically focused on three themes demonstrated in Table 7.9: promoting the desired behaviours, solving capacity constraints and fair workload allocation.

Table 7.9: New Toolsets to support Private Bankers, line managers and Regional Heads

Year	Theme	Toolset	Capability
2017/2018	Promoting desired behaviours	Portfolio Maps	A Portfolio Map that demonstrated how the portfolio aligned to the strategic drivers of the bank. The purpose was to assist Private Banker teams to understand their portfolios and to analyse, plan and execute tactical strategies relevant to their portfolios. The Portfolio Management report also assisted in the annual strategy planning and budget review process to determine the potential of our current client base from a product holding and profitability perspective.
2019/2020	Solving capacity constraints Fair workload allocation	Hyper Segmentation	A Hyper Segmentation approach enabled the refinement of client engagement to meet client expectations and to align Private Bankers portfolios that were appropriate to their interest, skills, and experience.
		Banker Capacity Model	The objective of the toolset was to provide the line managers with a simple method to compare the Private Bankers in their team's capacity score, secondly to review the clients allocated to a Private Banker and to identify clients that should be reallocated. Thirdly, to test how the reallocations would impact on balancing the load and finally an easy way to submit these changes.
		Banker Grading Model	A toolset to evaluate Private Bankers skills, experience, and development areas. A toolset to assist a line manager to have an open and transparent conversation with a Private Banker to explain the areas that needed development and how progression can be achieved.

In the next section I discuss the action planning, action taking and evaluation stages.

7.7.2   Action planning, action taking and evaluating

Although the organisation has a robust BI capability and an extensive library of Management Information Systems (MIS) reports, the type of information Private Bankers and line managers required had to be retrieved from various reports. Once the data had been extracted, additional work was required to consolidate the data and derive specific insights, a time consuming process.

Additionally, inconsistencies in how the data was consolidated and interpreted led to misinterpretation and conflicting views. According to the participants in the study, Private Banker [P2] commented on the robustness of the BI capability and how the MIS reports could be used to plan and manage own performance:

"There is a centralised reporting system that we use where you can monitor down to a product level what you've sold during the year, what your targets are. Almost for every line item on the scorecard, there is a report that you can monitor your progress throughout the year. The same reporting systems can be used where you can identify opportunities. I work on the reporting system to find the gaps in my book and try to bring those things together."

However, a robust BI capability and extensive library of MIS reports could also be overwhelming. Private Bankers and line managers must balance analysing and planning their portfolio with client engagement and other operational duties. Providing Private Bankers and line managers with contextual relevant and useful information were critical. In agreement with the observations of Paranjape, Rossiter and Pantano (2006) about the impact the oversupply of measures, two Private Bankers commented:

"Information is key, and I think the right information is even more important. I think we are flooded with information these days from all over the place. I think it is important though, but the right information is key." – **[P1]**

"There's a wealth of reports, I don't understand half of them, there's so many." – **[P13]**

Supporting the Private Bankers views, line manager [P12] commented on how easy it was to access the relevant information and effort required to analyse the data:

"We have lots of data and lots of reports and information. Unfortunately, some of it isn't on my fingertips and the time that I need to spend in terms of analysing that data creates a little bit of time issues for me."

We adopted a similar design and development approach used for the PMIS Private Banker toolkit, demonstrated in Figure 7.20, to mitigate and solve for inefficient time spent by Private Bankers and line managers to source, extract and compile insights from the library of MIS Reports on the BI platform and the inconsistencies in compiling and interpreting data.
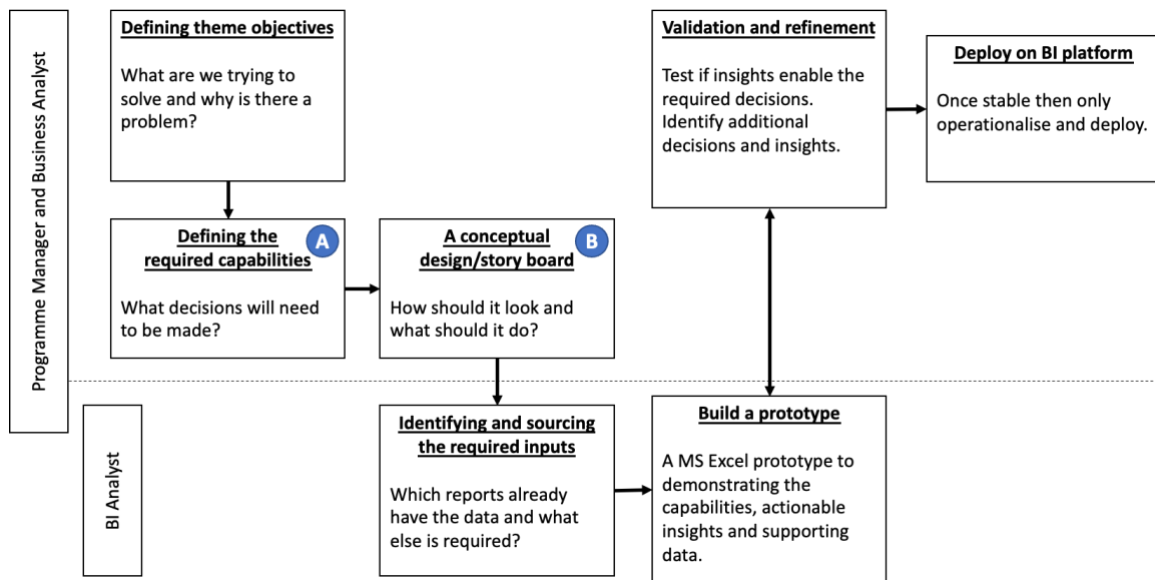
Figure 7.20: Approach from scoping and building prototypes to deployment on BI platform

The key difference to our approach with the design and development of complementary PMIS toolsets was to focus the affordances we wanted to enable as per Maier and Fadel (2009), for example to enable actionable decision making and presenting insightful information more visually. To achieve this, attention was centred on defining the required capabilities and the conceptual design/story board:

A. Defining the required capabilities – the focus was to solve "what" and "who" type questions and the content that would enable a decision.
B. A conceptual design/story board – the focus was on the essential information for decision making and to guard against adding interesting information.

In my experience as an IS practitioner with a background in business intelligence and analytics working with sales and relationship teams for the past 20 years, we tend to overwhelm people with interesting and insightful information, but non-essential to actionable decision making. We often use the phrase "less is more" but tend to ignore it and add a few more "interesting fields we think may be useful". Secondly, IS practitioners enjoy engaging with information, however presenting insights that are visually pleasing and meaningful are not always our core focus. We tend to be comfortable with tables and graphs and using the pre-defined functionality instead of developing custom visualisations that support a specific theme and story line.

I used the trust framework as demonstrated in Figure 7.21 as a reference to assist with the design and development approach and to ensure we do not only focus on the IT aspects whilst building a toolset. The trust framework ensured that we retained our focus on stakeholder engagement via access points

and created sufficient opportunities to reflect and address different perspectives and technology frames.
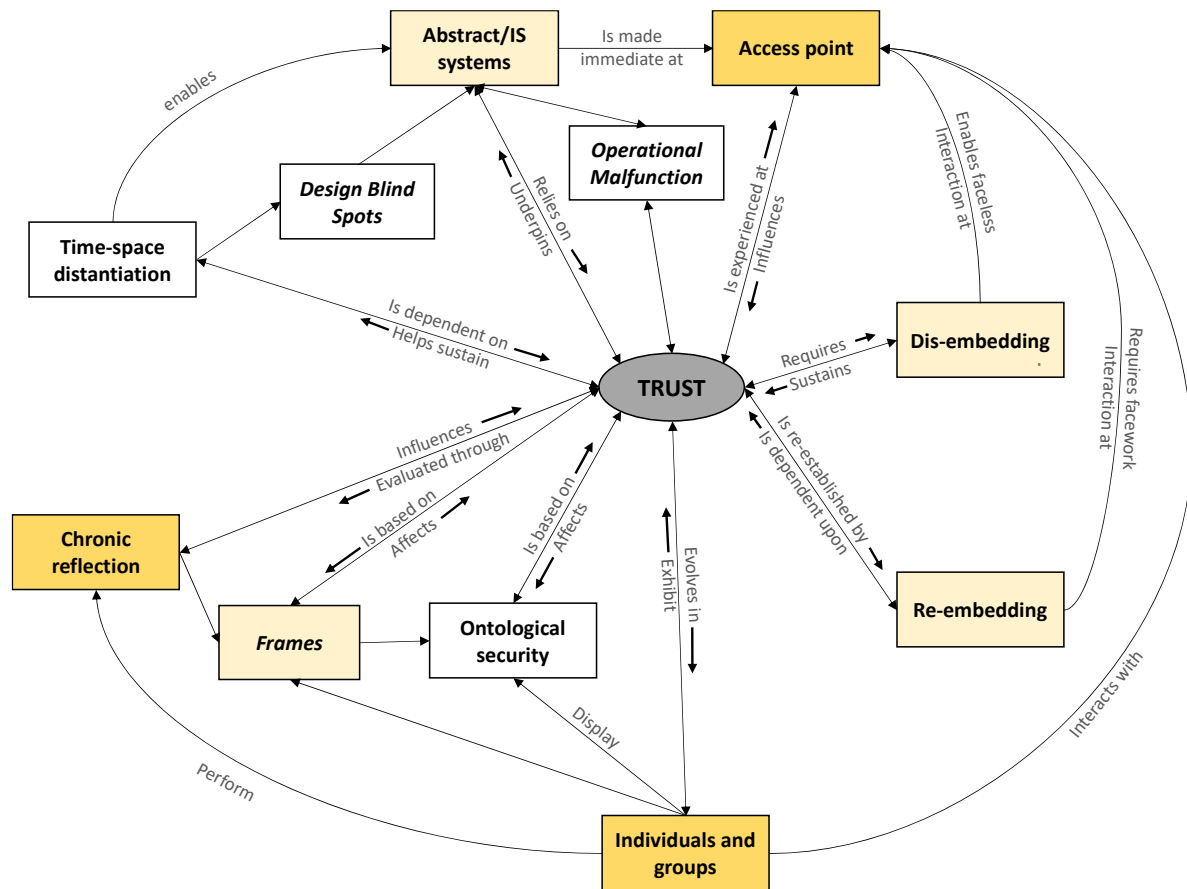
Figure 7.21: The role of different access points and sufficient time for reflection in trust formation

In the following section I analyse each toolset and discuss the action planning, action taking and evaluation stages.

7.7.2.1 Portfolio Maps

The objective of the Portfolio Map toolkit, presented in Figure 7.22, was to demonstrate how the national, regional, team and Private Banker portfolios aligned to the strategic drivers of the bank. The purpose was to assist Private Bankers and line managers to understand their portfolios and to analyse, plan and execute tactical strategies relevant to their portfolios.

The portfolio maps were updated monthly and linked to the PMIS Private Banker Toolkit. A Private Banker and line manager could select from a variety of filters to view a sub-set of a portfolio. Drill down functionality enabled a Private Banker and line manager to access the underlying data set that presented contextual and actionable information. Export to Excel functionality allowed the Private Banker and line manager to download the information and to use it in planning activities.
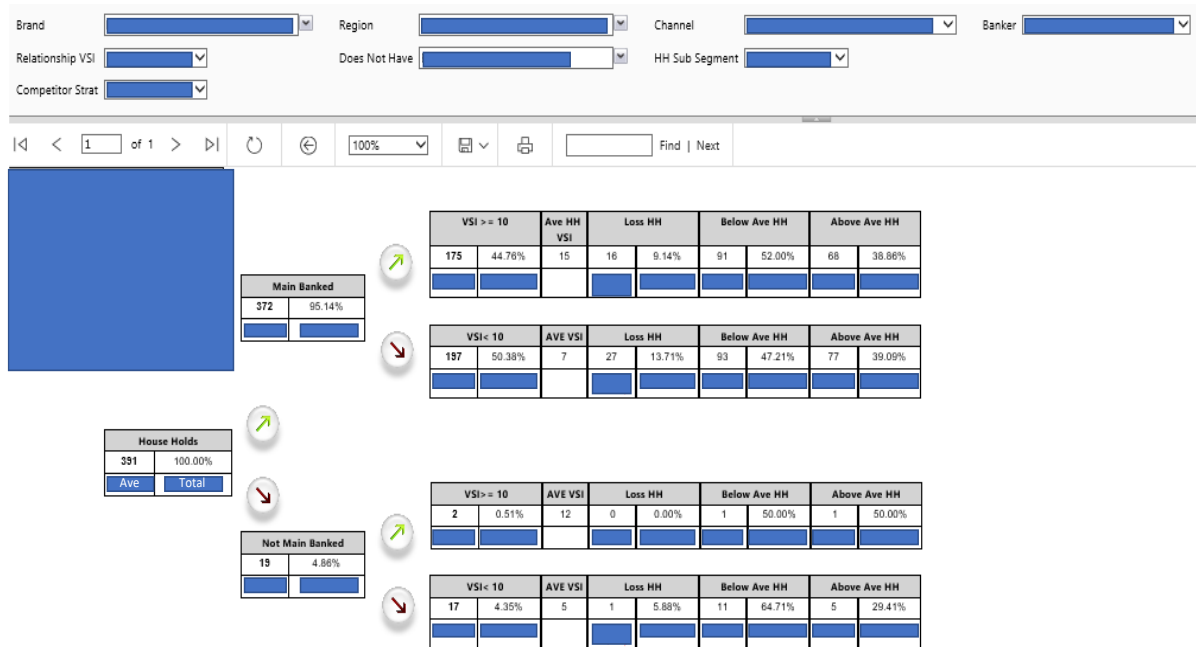
Figure 7.22: Portfolio Maps version 1 on MS Reporting Server

The action planning, action taking, and evaluation process is discussed in Table 7.10.

Table 7.10: Portfolio Maps

Stage	Process
Action Planning	Conducted a three-hour whiteboard session with the CEO and CFO to review and categorise the strategic Key Performance Indicators (KPI) into leading and lagging KPIs.
	Defined the key behaviours we wanted to influence, for example alignment to organisational strategy, portfolio planning and embedding sense of ownership.
	Defined the minimum information that was relevant on an executive, line manager and Private Banker level.
Action Taking	Built a prototype in MS Excel to test data roll-ups and calculations, review and enhance the type of content displayed and evaluate ease of use. The prototype was released to a small group of Private Bankers, line managers and a couple of Regional Heads to "test drive" and provide feedback.
	The additional feedback was incorporated, and a toolset then built on MS Reporting Server to provide drill down functionality to existing MIS reports with detailed content. Ad hoc enhancements were done mostly due to inconsistencies between MIS reports that used different or redundant business rules.
	Formal team sessions were conducted to introduce Portfolio Maps to Private Bankers.
	We added Strategic Portfolio Management and Client Profitability as two new modules to our Banker Curriculum learning and development programme. Every month I facilitated an hour's session focusing on how to analyse your portfolio, different tactical planning approaches, suggestions how to execute plans and reviewing progress. A second session that focused on understanding the drivers of client profitability was facilitated by the subject matter expert (SME) on the Client Profitability toolkit.

Stage	Process
Evaluating	Multiple sessions over an extended period were required and my experience was that most people observed and listened during the first group session with only a few people asking questions to test the logic and to assess if it will simplify their workload or just add another layer of complexity that will require addition effort and time.
	After a session a couple Private Bankers would stay behind to ask specific questions. These Private Bankers would also typically email or contact me a few days later with specific questions and examples related to their portfolios. I would make a note of these Private Bankers and monitor their portfolio performance. Additionally, I started referencing them as examples of Private Bankers using the tools, how they used the various tools and the impact it had in the way they manage their portfolio and performance.
	The advantages of this approach were that it provided the other Private Bankers with references. These early adopters became the "champions" in their teams and started to explain the benefits that they were deriving.
	Once again different types of Private Banker profiles surfaced, namely "planners", "doers" and "I now best". The "planners" worked with a plan and goal in mind. The "doers" wanted a list of things they needed to do that would make them successful. The "I know best" group had a mindset of "whatever you tell me will not change my views or the way I work".
	I found that the "planners" were mostly the Private Bankers with more than three years' experience, the "doers" tended to be the junior Private Bankers who were still finding feet and learning the ropes. The "I know best" group tended to be our senior Private Bankers with more than fifteen years' experience and set in their ways.
	I used the champions to test ideas and tool enhancements. The impact of this approach was that the "doers" started to copy the "planners" and the "I know best" group started to ask questions to test their current way of working. My expectation and approach to the "I know best" group were not that they should adopt the tools and methods we proposed, but rather to use the methods we suggested as a reference and to test if their approach and implied knowledge they have were still valid to make them competitive and successful.
	Unfortunately, overall adoption of the portfolio maps by Private Bankers and line managers were poor and predominantly used on a Regional Head and executive level for planning and review purposes. The primary reasons why adoption failed to gain traction can be ascribed to limited change management to demonstrate the value, the abundance of existing MIS reports that people were familiar with and limited time capacity to explore and experiment with a new toolset.

A small group of Private Bankers and a line manager who adopted the portfolio maps for portfolio planning activities and participated in the research study, offered the following feedback:

"So it gives you the tool to say where you should be focussing, as opposed to just winging it. So you are more prepared and you more structured. It shows you where the opportunities are and where you should be focusing." – **Private Banker [P3]**

"You can take a snapshot against all your clients. You can see which clients you are going to focus what on, you can drive different strategies within your portfolio." – **Line manager [P9]**

However, the majority of Private Bankers and line managers did not adopt the portfolio maps to assist them with portfolio planning activities. Private Bankers participating in the research study offered the following views:

"I think there's more than sufficient reports to track our performance. Not that we go and use it to the extent that we should just due to capacity." – **Private Banker [P14]**

"In our world at the moment, with everything that you're trying to touch on, you kind of feel like you're focussing on everything but getting to nothing. I think when you're rushed then you kind of just try and go to the stuff that you're familiar with." – **Private Banker [P1]**

Feedback and reflection by line managers offered a different perspective to why the adoption did not gain traction:

"I found with the portfolio maps it was almost like, it was something that was just like, oh this is also there, you guys must use it. But there is a lot of other reports available that you can also use, so it wasn't necessary a compelling reason for it." – **Line manager [P15]**

"The first thing to recognise is there is use in it, so if people were motivated to, they could have gained a benefit from going an doing some work, but there was also the ability at that point to just to stay with the status quo and do nothing, which required less of an inherent effort and there was no negative consequence to doing that in the moment, there was a loss of benefit, but it was a benefit you didn't yet have, so you weren't actually giving anything up that you could tangibly feel…" – **Line manager [P6]**

A second version of Portfolio Maps, demonstrated in Figure 7.23, was developed and incorporated into the Hyper Segmentation toolset, which I discuss in the next section. Access to the toolset was also limited to only line managers with the purpose to assist them with tactical opportunity and capacity planning for their teams. By incorporating Portfolio Maps into the Hyper Segmentation, the use case for Portfolio Maps became more compelling, because a line manager could assess a hyper segment alignment to the strategy to develop hyper segment specific tactical plans.

Figure 7.23: Portfolio Maps version 2 on MS Power BI

7.7.2.2 Hyper Segmentation

The purpose with a hyper segmentation approach demonstrated in Figure 7.24, was to enable a refinement of our client engagement approach to meet client expectations, to align Private Bankers to portfolios that match their skills and experience as well to align to their personal interest. According to line managers a hyper segmentation approach presented both clients, employees, and the organisation with opportunities to tailor portfolios based on client and employee dynamics, for example:

"I don't think you can have one strategy across a portfolio. Everybody is at different stages of their lives." – **Line manager [P9]**

"We currently have a one size fits all approach, whereas if we can do hyper segmentation properly, I think, we can do all kinds of target setting and budget setting a bit more focused." – **Line manager [P5]**

"From an employee perspective there's different skills in the market. By hyper segmenting clients and categorising them according to their needs we don't need to hire the same type of resources across the board." – **Line manager [P4]**
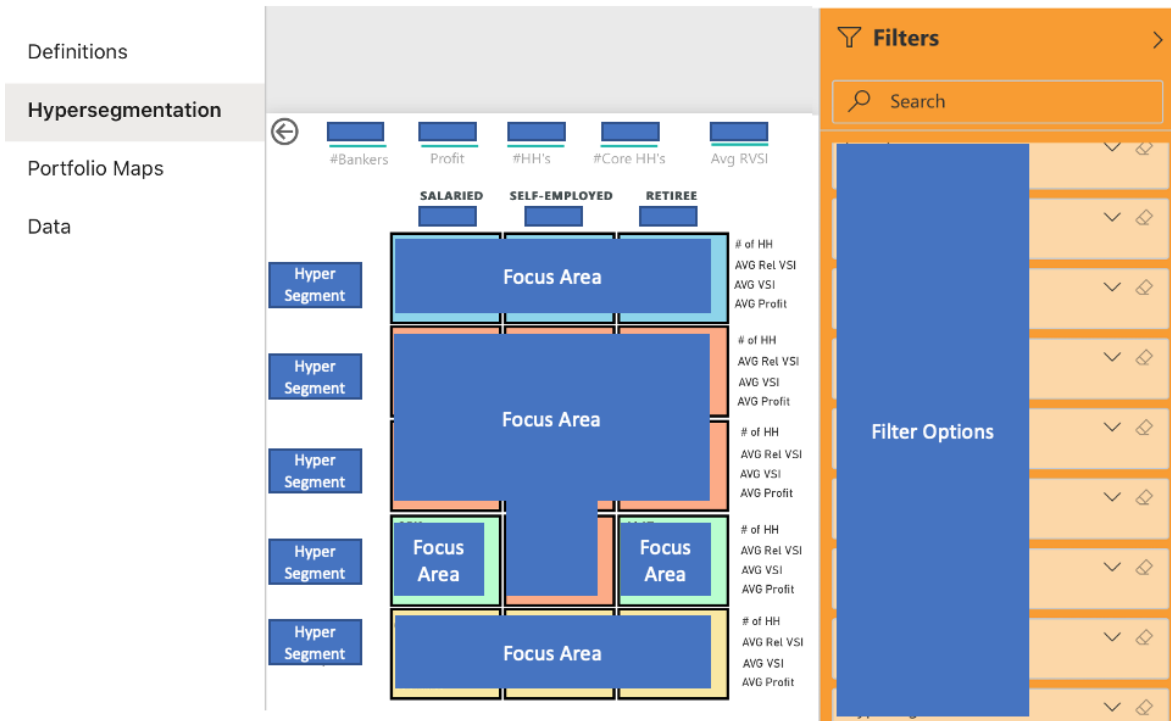
Figure 7.24: Hyper Segmentation

Considerable thought and effort were put into the essential content and visual presentation aspect of the Hyper Segmentation toolset to ensure it is not perceived as "just another interesting report". Table 7.11 discuss the action planning, action taking and evaluation stages of the project.

Table 7.11: Hyper Segmentation

Stage	Process
Action Planning	A two-hour idea generation session with the Strategic Management Committee to identify and define different client profiles, consisting of eight rounds that lasted 15 minutes each.
	At the start of each round, I posed a question, for example, "Describe the characteristics of a specific client profile or describe the characteristics of a Private Banker profile that is best suited for a specific client profile". Everyone wrote down as many ideas in the five minutes without discussion. After each round everyone shared their ideas but were not allowed to comment on any ideas.
	I consolidated all the ideas and presented the consolidated summary with recommendations at the monthly Strategic Management Committee meeting two days later.
Action Taking	Built a prototype in MS Power BI instead of MS Excel.
	To validate the prototype, I conducted the same type of workshop with five of the line managers in one of our regions. The duration of the workshop was shorter and focused on specific client types and Private Banker types. I did not share the inputs I gathered from the first workshop with the line managers to ensure I do not influence their inputs. At the end of the workshop, I demonstrated the prototype, and we reviewed aspects that were similar and different.
	The line managers received access to the prototype and were requested to submit additional information requirements within a week. With most of the additional information requirements

Stage	Process
	included we deployed the Hyper Segmentation toolkit to all the line managers and Regional Heads.
	The implementation approach was a formal regional leadership session where I introduced the rationale and objectives of hyper segmentation, explained the business rules applied per hyper segment, demonstrated the toolset functionality and how the toolset could be used from an analysis and planning perspective.
	Enhancement requests were predominantly for additional data points and done on an ad hoc basis. With the inclusion of additional data points, we deliberately did not test for completeness and accuracy of the data points. The rationale was firstly to speed up delivery of content, secondly to surface the data irrespective of quality and then to focus on improving the quality process with the system owner once the importance of the data point could be demonstrated from a business use case perspective.
Evaluating	The adoption of hyper segmentation by line managers and Regional Heads was much more successful than Portfolio Maps.
	The primary reasons for the successful adoption could be ascribed to a more inclusive process of design (line managers and Regional Heads were part of the design), the focus on a specific business problem (line managers and Private Bankers complaining about capacity) and actionable information (could use the information to review and balance Private Banker portfolios to match client complexity with Private Banker skill and experience).
	Secondary reasons for successful adoption were the ease of use (visual presentation and ability to download detailed content to MS Excel), and the type of information available (Private Banker detail, client demographics, profitability, product penetration, digital adoption).
	Using hyper segmentation for strategic planning, in exco presentations and scorecard target setting, also embedded it into our business as usual operations, for example our Contact Centre implemented a dedicated desk for the ultra-high net worth families and we allocated specific targets based on the type of clients in a Private Banker portfolio.

Reflecting on the learnings from Portfolio Maps, I wanted to ensure we address the short comings of the Portfolio Maps toolset. For example, whilst Portfolio Maps demonstrated the alignment to the organisational strategy, I realised that demonstrating alignment to strategy did not assist Private Bankers and line managers with the challenges such as capacity management, client engagement failures, Private Banker team morale and engagement. I wanted to ensure we provide practical and actionable information, demonstrated by the comments from line managers and an executive who participated in the research study:

"Hyper-segmentation first of all allows us to categorise clients so that based on common needs we can market to them at scale. Secondly, it also allows us to choose the appropriate Private Banker to meet those client needs" – **Line manager [P4]**

"You can give clients the type of service they require, instead of the kind of service that you think they require." – **Line manager [P5]**

"From a financial perspective what it has helped us with is in terms of determining what is the opportunities within each hyper segment and then how that translates into our financial matrix." – **Executive [P7]**

The implementation of hyper segmentation assisted line managers to allocate clients to different Private Bankers, to refine our client engagement models and to enhance our financial planning. However, it did not solve balancing capacity and the fair workload allocation between Private Bankers.

In the next section I discuss the development of the Private Banker Capacity Model toolset.

7.7.2.3 Private Banker Capacity Model

The traditional approach to capacity planning use Private Banker portfolio sizes as a proxy to calculate head count requirements. For example, if you have 10,000 clients and the norm is 200 clients per Private Banker portfolio, then you will need 50 Private Bankers. This traditional approach however became problematic during the last few years due to the following factors:

- The rise of platform and fintech competitors are forcing traditional financial services organisations to radically improve their cost to income ratios to remain competitive and sustainable. Globally the trend is for cost to income ratios below 40% versus low 50% range currently.
- The increase in client sophistication and financial literacy, combined with fintech and platform product offerings, require financial services organisations to shift from their traditional focus on banking and lending activities to more complex investment and risk advisory activities. These activities are however more time consuming and influenced by the complexity of the client profile and needs, which in turn impact Private Banker capacity and the size of portfolio a Private Banker can effectively and successfully manage.
- Due to a skills shortage in South Africa and fierce competition amongst financial services organisations for qualified and experienced resources, the traditional capacity planning and resourcing approach is not practical nor financially viable. Consequently, financial services organisations have to be more deliberate in managing, optimising and maximising capacity.

The purpose of the Private Banker Capacity Model toolset, demonstrated in Figure 7.25, was to provide line managers with a method to compare the Private Bankers in their team's capacity using a scoring method, secondly to review the clients allocated to a Private Banker and to identify clients that should be reallocated to another Private Banker. Thirdly, to test how the reallocations will impact on balancing the load and finally, an easy way to submit these changes.

Banker	Current Score	Movements	Upgrades	New Score
Banker 1	3 917	19	-	3 898
Banker 2	13 887	-	-	13 887
Banker 3	13 324	-	-	13 324
Banker 4	13 497	-	-	13 497
Banker 5	16 137	61	-	16 076
Banker 6	12 454	49	-	12 405
Banker 7	11 460	54	-	11 407
Banker 8	10 495	-	-	10 495
Banker 9	13 913	47	-	13 866
Banker 10	7 091	248	426	7 765
Banker 11	2 730	-	-	2 730
Banker 12	13 954	-	-	13 954
Banker 13	16 714	19	-	16 695
Banker 14	13 207	-	-	13 207
Banker 15	13 631	-	-	13 631
Banker 16	-	-	-	-
Banker 17	-	-	-	-

- Current Score – The total score per banker as of today.
- Movements – inter-portfolio movements of households. Move a client to the most relevant banker based on client needs and banker skills.
- Upgrades – from a pool of upgrade opportunities – assign upgrades to the most relevant banker based on client needs and banker skills.
- New Score – What the score will look like after all changes have taken effect.

Generate a list with all the information needed to execute reallocation.

List

Household	New Banker
Client 1	Banker 10
Client 2	Banker 10
Client 3	Banker 10
Client 4	Banker 10
Client 5	Banker 10
Client 6	Banker 10
Client 7	Banker 10
Client 8	Banker 10
Client 9	Banker 10
Upgrades	
Client Name	**New Banker**
Client 12	Banker 10
Client 13	Banker 10
Client 14	Banker 10
Client 15	Banker 10
Client 16	Banker 10
Client 17	Banker 10
Client 18	Banker 10

Figure 7.25: MS Excel Private Banker Capacity Model prototype

The action planning, action taking, and evaluation process is discussed in Table 7.12.

Table 7.12: Private Banker Capacity Model

Stage	Process
Action Planning	Private Bankers and line managers were interviewed to document service versus sales versus relationship management functions that impacted and constrained capacity.
	I reviewed the annual Private Banker survey that was used for product house charge out models to compare current focus areas versus intended future focus areas, for example shifting the focus from traditional banking and lending activities to investment and insurance advisory activities and how this would impact on capacity and regulatory requirements.
	I reviewed the organisation's digital platform roadmap and how this would impact Private Banker capacity, effort, and focus.
Action Taking	Consolidation of all the inputs that contributed to capacity consumption into a framework for review by the CEO, CFO, Regional Heads, and line managers.
	A quantitative analyst and I built a prototype model in SQL (database) and MS Excel (user interface) demonstrated in Figure 7.25 to validate business logic, identify gaps, calibrate the model, and test different scenarios.
	I conducted multiple review sessions with different types of Private Bankers based on the type of portfolio and the Private Banker experience to validate assumptions and to calibrate the model which resulted in multiple new model versions.
	Once the "as-is model" of the current capacity utilisation was completed we proceeded with the development of the "to-be model" that focused on balancing Private Banker portfolio workload

Stage	Process
	with input from the CFO that focused on financial KPIs for example direct cost to income ratio benchmarks to calculate portfolio capacity targets and potential regional headcount requirements.
	The final module in the prototype entailed building a user interface that provided the line manager, Regional Heads, and CFO with insights, scenario planning and execution capabilities.
Evaluating	Private Bankers, line managers and executives agreed that clients have different complexities as per the hyper segmentation approach and that different effort is required to establish a relationship, than to entrench or maintain a relationship. However, the notion of using a scoring method and rules-based engine to provide suggestions, proved too complex and abstract for them to adopt and operationalise. I would ascribe this as a design blind spot and not considering stakeholders' frames sufficiently.
	A second limitation and constraint on the rules-based engine and reliability of the capacity model was the dependency on complete and accurate data and limited contextual client data to categorise and score clients. I would ascribe this to the impact of operational malfunction of the IS and our inability to sufficiently address data quality issues.
	Similar to the Portfolio Map toolset, the Private Banker Capacity Model toolset provided line managers with an "interesting perspective" and a basis for comparison and constructive debate, but the perceived complexity, effort required to implement and confusion it would cause amongst Private Banker teams when comparing portfolios, outweighed the potential benefits. I would ascribe this to a design blind spot, by not sufficiently considering effort required versus value created.
	Although the Private Banker Capacity Model toolset prototype was not adopted and implemented, it formed the basis for refection and the development of a simplified version we called our Enhanced Relationship, Advice and Service model.

Reflecting on why we did not proceed with the approval and adoption of the Private Banker Capacity Model toolset, executive [P7] shared the following view:

"I think there was a little bit of uncertainty and maybe a little bit of discomfort from the line managers and the rest of the business because of the many variables and how to make sense of it and to understand it. So, even though it made sense to us from an analytical perspective, maybe from a practical perspective they grappled with that."

In parallel with the Private Banker Capacity Model toolset, we also developed a Private Banker Grading model to assist line managers to identify and compare Private Banker skills development areas and level of complexity most suited for a Private Banker to keep them engaged and motivated.

In the next section I discuss the development of the Private Banker Grading Model toolset.

7.7.2.4 Banker Grading Model

The traditional method that the line managers used to evaluate and compare Private Banker potential and performance was a Talent Grid, demonstrated in Figure 7.26, that mapped a Private Banker on a matrix. The limitation of the Talent Grid was that although it enabled a line manager to evaluate and

compile a summary view of a team of Private Bankers, it could not be used in one-on-one discussions with Private Bankers to review development areas and provide them with actionable personal development initiatives.

			Does not meet expectations	Meet expectations	Exceeds expectations
Potential	The ability to assume increasingly broad or complex accountabilities at business needs change during 12 - 18 months	High	**"Potential Gem"** High potential / Low performance May be an individual who has recently been promoted and hasn't had the opportunity to demonstrate higher performance. Focus on coaching and a sold development plan. If an individual has been in the role for some time, there may be a serious issue (derailer) **Develop**	**"High Potential"** High potential / Moderate performance A valuable asset for the future. There is still room for maximizing performance in current role; potential may not be fully realised yet. Focus on increasing performance contribution to high, after which greater challenge and/or broader scope are likely **Stretch/Develop**	**"Star"** High potential / High performance Has mastered current role and is ready (and anticipating) a new challenge. Next steps are to provide greater scale and/or scope or a new assignment which will stretch them in a significant way or will provide new or missing skills. Retention is critical. These are future leaders of the company **Stretch**
		Moderate	**"Inconsistent Performance"** Moderate potential / Low performance Shows some potential but performance is considered low. Focus on reasons for low performance and actions to improve it. If there isn't an improvement potential should be reassessed and a performance improvement plan put in place **Observe**	**"Core Potential"** Moderate potential / Moderate performance Has the potential for increased accountabilities and is meeting current performance expectations. Development focus: Increase performance contribution to "high" with further assessment of potential growth **Develop**	**"High Performer"** Moderate potential / High performance Is exceeding performance expectations and is a good candidate for growth and development. Employ development should focus on specific gaps - i.e.. What is needed to broaden or to move to the next level of responsibility **Stretch/Develop**
		Low	**"Risk"** Low potential / Low performance Not meeting performance expectations and demonstrate limited potential. Focus should be on significant performance improvement or finding a more suitable role (internal or external) **Observe/Exit**	**"Average Performer"** Low potential / Moderate performance Consistent contributor, but shows limited potential. Focus on maximizing performance while assessing future potential and/or a more suitable role. May need a plan for a successor. In some cases if performance declines or is blocked, retention may be reviews **Observed**	**"Sold Performer"** Low potential / High performance A strong performer but unlikely to move to a higher-level role. Engagement will be important for continued motivation and retention. May be of real value for development others. Professional, business or content experts may fall into this box. **Develop**
	9 Grid Talent mapping		Low	Moderate	High
				PERFORMANCE	
				Performance (based on current job)	

Figure 7.26: Traditional framework line managers used to evaluate Private Banker potential

The purpose of the Private Banker Grading Model toolset, demonstrated in Figure 7.27, was to assist the line managers to evaluate Private Bankers' skills, experience, and development areas. Secondly to assist a line manager to have an open and transparent conversation with a Private Banker to explain the areas that require development and how progression can be achieved. Thirdly, to assist a line manager to evaluate the appropriate type of client portfolio that would suit the Private Banker skills, experience and interest to keep them engaged and motivated, for example line manager [P5] commented:

"We have way too many instances where clients' needs and bankers' abilities are not matched. I have Bankers who come to me and say currently my job is like a nightmare, but if I just had to do simple lending instead of complex lending, I think, I could love my job again."

The intention was to develop a toolset like the OBB Toolset to provide an overview of performance across various aspects and to enable peer comparison to assist with personal reflection and introspection. Personal reflection and introspection were a critical theme for me with the design and

development of this toolset. In my experience in a work context, personal performance and development discussions often create anxiety and discomfort for both the employee and line manager. Whereas in a sport context people thrive on feedback, comparison, and development areas.

Figure 7.27: MS Excel Private Banker Grading toolset prototype

The action planning, action taking, and evaluation process is discussed in Table 7.13.

Table 7.13: Private Banker Grading Model toolset prototype

Stage	Process
Action Planning	The Head of HR and I conducted a detailed review of the Private Banker role profile, skills, and competency requirements.
	We interviewed various line managers to understand the criteria each used during the recruitment process of new Private Bankers to evaluate potential versus the criteria they used to evaluate existing Private Bankers potential and performance.
	Using the Hyper Segmentation toolset as a reference, we asked the various line managers to compile an ideal profile of a Private Banker per hyper segment.

Stage	Process
Action Taking	I consolidated the various inputs and categorised it based on input source and type of input, for example, input source was the line manager and type of input focused on skills that a Private Banker should have.
	We consolidated the various inputs and identified six categories: qualifications, work experience, skills, performance, personal development, and focus. Each category had various inputs and the selection per input was limited to a pre-defined list of values that a line manager could select from. Each list of value had a score ranging from 1-5, 1 being the lowest and 5 being the highest. The six categories also had different weightings that summed to 100%. Additionally, differentiation was made between an existing Private Banker and a potential Private Banker (either a recruit or a promotion).
	I worked with a quantitative analyst to build a MS Excel prototype for demonstration, validation, and calibration with line managers. We followed an iterative process over a couple months and during the process we removed some inputs, added a couple of new inputs, and refined the input selection criteria. We also tested different category weighting scenarios.
	Once we reached a point of relative stability (no additional calibration and input refinement), I distributed the MS Excel prototype to a group of line managers to do an assessment on each of the Private Bankers in their team and once complete, to send their MS Excel prototype back to me for consolidation and analysis.
	In addition to designing the input questionnaire, I worked with the Learning and Development (L&D) Team to map a suggested learning intervention to each input that presented each Private Banker with a personal list of suggested training interventions in our L&D System. A suggestion was made where a Private Banker scored lower on an input than the average score of the team.
	The concept I positioned and promoted was that we continuously wanted to get everyone above the average score and each Private Banker objective should be to score above average. Whilst analytical oriented people were critical of my approach and pointed out that my concept was impossible, I explained that it was not about the maths but the motivation and competitive nature of sales people, and although a small group would realise the concept was impossible, the majority would compete for the sake of competing. Secondly, the competition was not to be the best but to be better than the average, which was much more achievable and reasonable.
	The rationale for this approach was twofold, firstly to assist in addressing the continuous impact of the bottom 30% performers on organisational performance. Secondly, the impact the bottom 30% performers have on the rest of the team's workload and ultimately morale and motivation in terms of achieving team, region and organisational targets and objectives.
Evaluating	The feedback and support from the HR and L&D teams were positive that the toolset provided them with capabilities they did not have previously. For example, they could practically use the results to inform the type of learning interventions, the number of interventions, the priority of interventions as well as to plan and budget.
	The feedback and support from line managers were however mixed. The proposed Private Banker Grading Model was not adopted due to capacity constraints and other strategic priorities and even though the insights the toolset provided was deemed interesting, the results were not novel. Secondly, the effort required to generate results was greater than the line managers implicit knowledge about their teams. Thirdly, the insights were not practically actionable due to Private Banker team head count capacity constraints, for example whilst a Private Banker might not be best suited for a specific type of portfolio of clients, with the limited availability of skills in the market and existing team structure, a line manager had to balance the ideal state with a realistic state. Finally, a few line managers found the evaluation too subjective, and their criticism was that engagement skills and gravitas were not something you could score and weigh.
	Another aspect the toolset highlighted was the impact of inconsistent interpretation by line managers. Some line managers evaluated Private Bankers on their current ability and performance, whilst other line managers preferred to evaluate on potential ability and

Stage	Process
	performance. Additionally, some line managers defined potential within six months, some within one year and others within two years. I would ascribe adoption and implementation to design blind spots by not sufficiently considering the requirements of all stakeholders and limited change management.

Reflecting on why we failed to receive support for the adoption of the Banker Grading Model toolset, line manager [P15] shared the following view:

"I found it a bit subjective in terms of how we evaluated the Bankers skill sets. We actually know which clients segment our Bankers can and do operate in, so it was just easier to match that up and say okay, so we got these four buckets, these bankers belong in this bucket, those bankers belong in that bucket."

In contrast, executive [P8] ascribed the failure to receive support for adoption to limited change management and lack of business priority:

"I think more time should have been spent on the change management component to transition the mindset and explain the benefits. Secondly, we have lots of priorities and focus areas in terms of our strategy, and I think it's always execute mode, so a lot of what needed to happen from a business side was focussed on and less focus was put on this model, although the outcome would have been more beneficial to the strategy in the long run."

7.7.3 Reflection and learning

Although the implementation and adoption success of the four toolsets varied from successful, to partially successful or unsuccessful, the action research approach I followed provided the basis for the scoping, design, and development of the next toolset.

Using the trust framework, demonstrated in Figure 7.28 as a reference, ensured I did not only focus on building and delivering toolsets from a technology perspective, but that I also focused on stakeholder engagement and considered different perspectives to build social capital and trust. In my view, the social capital and trust that were built created an environment where people felt comfortable to share honest and constructive feedback.
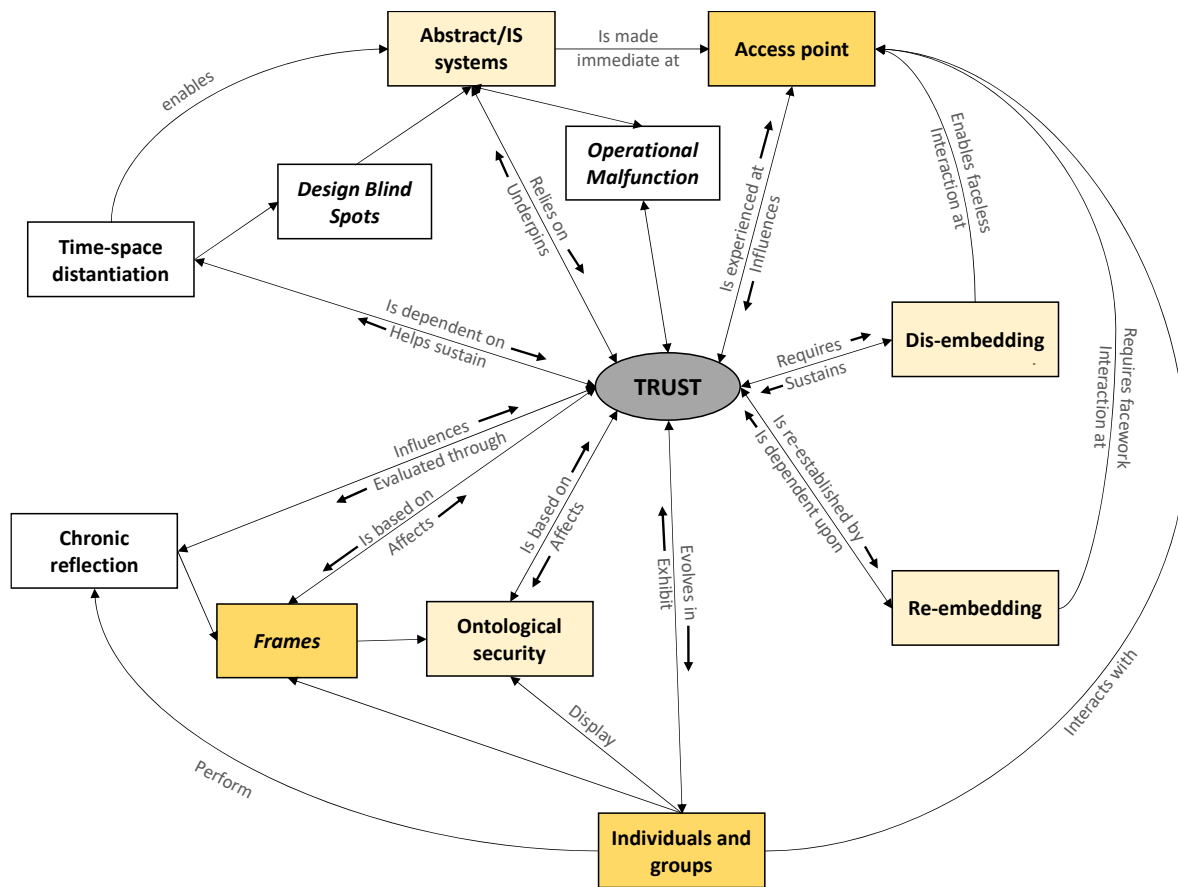
Figure 7.28: Insufficiently addressing frames and embedding aspects

Reflecting on the insights and learnings from the four toolsets, discussed in Table 7.14, my primary learning and insight as an IS practitioner was that I needed to be aware of the difference between insightful information versus practical and actionable information. Secondly, if the effort required to generate information outweighs the novelty and utility, then adoption and implementation may fail. Thirdly, I realised the importance of considering frames of reference and creating sufficient access points for engagement to raise and resolve design blind spots and operational malfunctions. Finally, if the design blind spots were not sufficiently addressed or incorporated, then a project could face either adoption challenges or implementation failure.

Table 7.14: Summary of reflection and learning designing and developing supporting toolsets

Toolset	Purpose	Implementation and adoption success	Reflection and learning
Portfolio Maps	The purpose was to assist Private Banker teams and line managers to understand their portfolios and to analyse, plan and execute tactical strategies relevant to their portfolios.	Implemented, but partially achieved adoption with Private Banker teams and line managers.	Although the toolset addressed the requirements from a strategic planning perspective on an executive level, there was not a compelling need for it on a Private Banker and line manager level. Whilst the toolset provided interesting insights and a consolidated view of opportunities in their portfolios, the content was not novel. The toolset was also perceived as adding another action to their workload, which they felt was already too much and could not cope with. From a project team perspective, more change management and value demonstration sessions might have addressed the adoption and resistance challenges. Linking tactical initiatives and practical activities to the portfolio maps might have assisted in Private Bankers and line managers internalising the value and adoption. From a theoretical framework perspective, the importance of continuous engagement and variety of access points focusing on change management and value demonstration are critical for adoption success.
Hyper Segmentation	The purpose with a hyper segmentation approach was to enable a refinement of our client engagement approach to meet client expectations, to align Private Bankers to portfolios that match their skills and experience as well aligned to their personal interest.	Successfully implemented and adopted by line managers.	Adoption success can be ascribed primarily to engagement and involvement of line managers in the scoping and design of Hyper Segmentation. The learnings from Portfolio Maps ensured wider consultation and include actionable information that addressed specific pain points in a novel and easy to accessible way. Providing access to the underlying data facilitated transparency and created trust in the toolset. Secondly, data quality issues were surfaced, and accountability could be allocated, for example if it was a Private Banker input error, product house system issue, or a timing difference. The toolset became embedded in the organisational planning by deliberately incorporating and referencing hyper segmentation content in presentations and other projects to demonstrate how it can enhance value or improve client engagement and capacity.
Banker Capacity Model	The purpose of the Banker Capacity Model toolset was to provide the line managers with a method to compare the Private Bankers in their team's capacity using a scoring	Implementation failed due to line manager adoption.	Although the toolset addressed the requirements from a financial and human resource planning perspective, the scoring method and rules-based engine proved too complex and abstract to adopt and operationalise for line managers. The Private Banker Capacity Model toolset provided line managers with an "interesting perspective" like the Portfolio Map toolset. However, the perceived complexity and effort

Toolset	Purpose	Implementation and adoption success	Reflection and learning
	method, secondly to review the clients allocated to a Private Banker and to identify clients that should be reallocated to another Private Banker. Thirdly, to test how the reallocations will impact on balancing the load and finally, an easy way to submit these changes.		required for its implementation and the confusion it would cause amongst Private Banker teams when comparing portfolios, outweighed the potential benefits. The dependency on complete and accurate data and limited contextual client data to categorise and score clients raised more questions than providing answers. Consequently line managers did not trust the results to be reliable and actionable. Further, due to headcount capacity constraints, the line managers felt it was impractical to operationalise at this stage. From a theoretical framework perspective, I would ascribe this a design blind spot and that the frames of stakeholders were not sufficiently considered, and secondly not sufficiently considering the effort required versus value created.
Banker Grading Model	The purpose of the Banker Grading Model toolset was to assist a line manager to evaluate Private Bankers skills, experience, and development areas. Secondly to assist a line manager to have an open and transparent conversation with a Private Banker to explain the areas that need development and how progression can be achieved. Thirdly, to assist line managers with evaluating the appropriate type of client portfolio that suits the Private Banker skills, experience, and interest to keep them engaged and motivated.	Implementation failed due to line manager adoption.	Although the toolset provided the HR and L&D teams with capabilities they did not have previously, support from line managers was mixed and due to capacity constraints and other strategic priorities the proposed Private Banker Grading Model was not adopted. The insights the toolset provided were deemed interesting, but the results were not novel like Portfolio Maps. Secondly, the effort required to generate results versus line managers' implicit knowledge about their team was too great. Thirdly, the insights were not practically actionable due to Private Banker Team headcount capacity constraint. Although we used an inclusive process, consulted broadly, and used various access points to address questions and concerns, many line managers perceived the method as too subjective, limiting their ability and role in the evaluation process. My personal view is that the toolset impacted on their ontological security and like the implementation phase (Cycle 2) of the OBB programme, when line managers raised the concern that the programme will diminish their ability to control and manage Private Bankers, this could be resolved if I had spent more time and effort on it. The method and toolset have since been replaced with a simplified version and adopted line managers. From a theoretical framework perspective, I would ascribe adoption and implementation failure to design blind spots by not sufficiently considering all stakeholders requirements and frames.

In my view implementation and adoption success is one dimension for evaluation and a second dimension is developing collective insight and common frames of reference. A third dimension is continuously building social capital and trust between support functions (Finance, HR and BI) and frontline functions (Private Bankers and line managers) with to objective to achieve common goals without it being to the detriment of the other.

Throughout the process of designing, developing, and testing the various toolsets, new insights were continuously developed which assisted in enhancing frames and ontological security. Social capital and trust between the frontline functions and support functions also increased, whereby the frontline teams started including the support functions more regularly in their team sessions to discuss opportunities and challenges. Secondly, conversations became less guarded, challenging questions could be asked and opposing views raised for debate. Thirdly, feedback form the line managers was that they enjoyed actively participating and contributing to these types of projects and it helped them to better understand internal operational challenges and limitations, which in turn enabled them to explain to their teams when frustrations about data, process and technology were raised.

In the next section I discuss the contribution of action research as a method in PMIS projects to enable organisational change, improve competence management systems and align organisational objectives and HR objectives.

7.8   Using action research as a method to manage PMIS projects

Through this case study I have demonstrated how I used action research as a method in a variety of PMIS projects with different objectives and deliverables:

- The business case development and design of a new PM programme and PMIS – Cycle 1.
- The change management and implementation of a new PM programme and PMIS – Cycle 2.
- Creating complimentary toolsets to support the original project – Cycle 3.

The five stages of action research provided me with the ability to use the method irrespective of project size, complexity, or scope. The iterative nature of the stages created the flexibility to continuously evaluate a project and based on the diagnosis, to either add an additional action planning and action taking stage to the project or initiate a new project. Table 7.15 provides a summary to demonstrate how action research was applied across the three cycles of the research study.

Table 7.15: Relevance of action research in projects with different objectives and deliverables

Stage	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
Diagnosis	Understanding how people felt, trust issues that had to be addressed, expectations that had to be met and defining the principles of a new programme that would establish trust amongst stakeholders, line managers and Private Bankers.	Implementing the programme, embedding ownership, and providing operational support. Demonstrating how we solved issues related to the previous programme and addressing the uncertainties that line managers had relating to how the programme would impact on their role and the ability to control and influence the Private Banker behaviour.	Maintain the trust and assist Private Bankers and line managers to understand the drivers of performance and do proactive planning. Complimentary toolsets to assist in addressing concerns that relate to Private Banker capacity, motivation, and morale, by focusing on three themes: promoting the desired behaviours, solving capacity constraints and fair workload allocation. Focused on actionable decision toolsets instead of only insightful information, by defining the required capabilities and the conceptual design/story board.
Action Planning	Design of a prototype to enable validation, refinement, and business case development.	Importance to address issues related to existing frames, ontological security, and trust. Provided Private Bankers with different types of access points, and sufficient time to familiarise themselves with the IS, to interrogate the business rules and supporting data, and the ability to raise design blind spots and operational malfunctions questions.	Used the theorical framework as a reference to ensure we did not only focus on building a toolset, but also focused on stakeholder engagement via access points and creating opportunities to reflect and address different perspectives.
Action Taking	Development of a prototype to enable validation, refinement, and business case approval. IS design, development, and user acceptance testing.	Establishing trust in the new programme through access points to introduce the new programme, supporting IS, and for Private Bankers to engage with the project team.	An iterative and collaborative design process with business stakeholders. The approach was to create a prototype in MS Excel as a minimum viable product. The prototype was distributed to a small stakeholder group to test the prototype and to provide feedback. Enhancements were classified as critical to the toolset or required for the "end state" toolset. An enhanced toolset was distributed in two-week cycles, but the underlying

Stage	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
			data was kept static, unless an additional data point was required. We migrated to a platform IS, for example MS Power BI, only once the stakeholders reached a point where they were ready to operationalise and implement with their teams.
Evaluating	Prototype calibration and enhancements based on steering committee feedback. Broader stakeholder engagement and refining business rules.	Analysing whether the programme met the objectives and supported the principles we originally defined. Analysing individual Private Banker performance versus reward received and validating that the programme did not differentiate based on region or team to ensure everyone had the same opportunity to outperform.	Toolsets were evaluated based on completeness and accuracy of the results, the complexity and effort required from a stakeholder perspective and if the content provided actionable insights. Based on the evaluation feedback either additional action planning and action taking stages followed, or alternatively the toolset remained as a prototype.
Specifying Learning	Success can be ascribed to continuously considering different stakeholder frames and through a participative and collaborative process establishing trust during the action planning and action taking stages.	The different types of access points, coupled with a blended approach of formal and informal sessions allowed for the Private Bankers and line managers to go through the adoption process at their own pace. Also, being aware how different frames, work experience and cultural nuances might impact on trust and result in angst and resistance, the various access points provided alternative engagement options and increased our potential for adoption success. The capabilities and user interface of the IS supplemented by various support processes enabled the Private Bankers, line managers and Regional Heads to interrogate the underlying data. Personalising the IS (Banker Toolkit) with topics for example "How am **I** doing", "How do **I** rank" and	Mixed implementation and adoption success can be ascribed to not sufficiently considering the frames of reference of all stakeholders. If the inputs from engagements are not sufficiently addressed or incorporated, then a project may face due to either adoption challenges or implementation failure. As a knowledge worker I must be more aware of the difference between insightful information versus practical and actionable information. If the effort required to generate information outweighs the novelty and impact, then adoption and implementation may fail.

Stage	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
		"How do **I** compare to my peers" established personal ownership and internalisation of the results. An unintended consequence of the IS was that many Private Bankers were more interested in their ranking compared to their peers instead of the potential monetary reward they might receive. Rankings also assisted in contradicting line manager and Regional Head perceptions and resulted in more detailed analysis to understand performance drivers.	

In the next section I discuss the extension and application of the theoretical framework.

7.9   Extension and application of the theoretical framework

The case study in conjunction with action research as a method, demonstrates how I used the trust framework to assist me to manage projects. I extended Schlichter and Rose's (2013) theoretical framework, demonstrated in Figure 7.29, to include frames, design blind spots and operational malfunction as the projects predominantly focused on delivering IS capabilities. The utility and benefit of extending the theoretical framework by including frames, design blind spots and operational malfunction are:

- Where ontological security provides the "what" the insecurity might be, frames provide the "why" for the insecurity which can be influenced by position of power, knowledge, experience, or culture. It provides a basis to gain real understanding and to an extent, empathy. Abstract systems and IS are never complete and prone to errors which result in user comments such as "it is wrong" which in turn quickly escalates to frustration, conflict, and resistance, and if not resolved, the eventual replacement of the IS.

- The inclusion of design blind spots and operational malfunction assist in contextualising issues. Design blind spots may for example be the result of incomplete or misunderstanding of business rules or functional requirements, whereas operational malfunction may be the result of process failures, limited controls, or a lack of data.
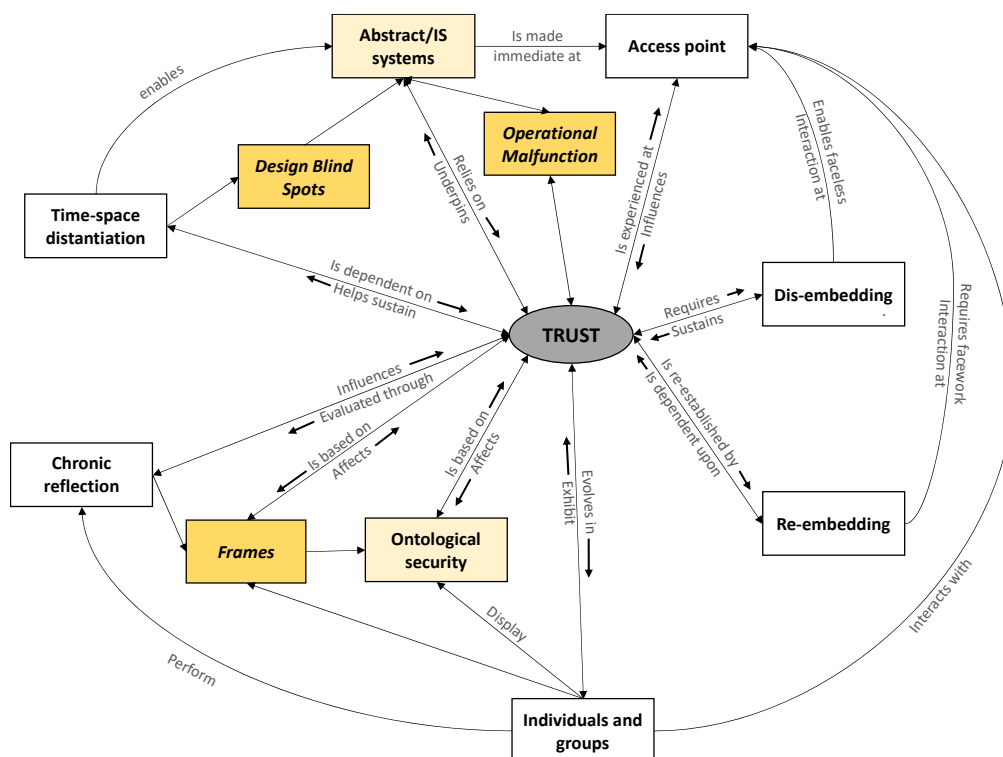
Figure 7.29: Extended trust framework

The trust framework provided me with the awareness of the human elements and aspects discussed in Table 7.17 that are critical to establishing and maintaining trust with stakeholders, especially projects that result in organisational change and how people operate. I conducted unit testing to validate the utility of the trust framework by interviewing a line manager, the HR Head and CEO to reflect on our journey, the approach, and their experiences. Common feedback from the interviews highlighted the following and is supported by quotes from the interviews in Table 7.16:

1. The use of the trust framework as a reference is applicable to any project.
2. Ensuring diversity in thinking and considering the impact of different frames of reference are critical to mitigating design blind spots.
3. Creating different access points to engage with the project team and including stakeholder representatives in the design, development and testing of a solution contribute to trust formation, project endorsement and adoption.

Table 7.16: Trust framework unit testing feedback examples

Role	Unit Testing Feedback
Line manager	"*Every single touch point and everything that we do actually has this, did the operation work, what did we forget, do we understand it, from a security perspective did we think about, how did we frame it, did we frame it correctly. Operational malfunction takes away trust, but blind spot should identify that. If someone misinterprets what we are trying to say and how, it is framed incorrectly.*" – **[P16]** "*So I think one of the problems is that people think this is a once-off event, this is ongoing on everything that we do.*" – **[P16]**
HR Head	"*I think where most organisations get it wrong is when it comes specifically to a reward or a commission programme is that they do not look at the ontological security aspect, they just dive into the programme.*" – **[P8]** "*If as an organisation, who are setting up such a programme, if you go in with one lens and you are looking at it from your frame only, what would happen is that you are not going to take in that feedback and do the analysis and so on, so then the organisation in turn has a blind spot and not just the staff. By approaching it in this way and go through the full cycle, you are eliminating the blind spots, you are considering the frames and you will gain the trust from the staff.*" – **[P8]**
CEO	"*What I enjoyed was being part of the development, I was part of the testing and I was part of the feedback, so that at all stages it felt that the social element was taken into account, but also that the developers were open to receiving the feedback and enhancing based on different use cases and I think that is where trust was actually built and you do not need all users to be part of the development, but as long as have a voice, I think the trust is always inherent in that.*" – **[P4]**

Table 7.17: How trust was established and maintained using the theorical framework

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
Trust	Establishing trust by first listening and understanding the issues and then ensuring inclusivity, process transparency, tools, different types of access points and continuous engagement.	To establish trust Private Banker teams were kept informed of the new programme objectives and principles during the design and approval phase of the programme. During the development phase of the IS the programme team started providing regular progress updates at regional team sessions. The CEO officially announced the launch of the programme, the alignment to strategic objectives, the opportunity for Private Bankers and the implementation roadmap.	To maintain the trust in the PM programme and objectives, additional toolsets were required to assist with questions raised by Private Bankers and line managers that focused on how to plan and improve personal performance and assisted in addressing concerns relating to capacity, motivation. For example by enabling Private Bankers to predict the level of satisfaction if the outcome is achieved (Varma et al., 2008), and morale in support of Tseng and Levy (2019) and Varma, Budhwar and DeNisi (2008) that managers are evolving from focusing on administrative tasks to activities that will increase employee motivation and engagement.
	Trust is related to social capital and created through communication, coaching and attention. In an IS context, a high level of trust in the project team acts as a form of social capital, that allows a project team to pursue project objectives (Schlichter & Rose, 2013).		
Ontological security	Impacted by uncertainty due "powerlessness", anxiety, and inability to contextualise and relate performance to historical performance and expectations.	Conducted train the trainer sessions with the line managers that focused on how to position the programme with the Private Bankers. Private Banker training sessions facilitated by the line manager and supported by the project team SMEs.	Line managers were concerned that using rules-based methods would be too subjective and have influence on the control and power they have within their teams. Operational malfunction such as incomplete or inaccurate data, would render results that inform incorrect decision making and impact on Private Banker morale and client experience.
	Ontological security is influenced by the previous experiences that stakeholders had with IS (Schlichter & Rose, 2013) and managers' actions and behaviours provide the foundation for employee trust formation as per Whitener, Brodt, Korsgaard and Werner (1998).		
Frames	Influenced by perceptions of fairness and bias, instances where the historical performance rewards of a Private Banker did not corelate to the prototype results, because historically performance measurement was predominantly	Being aware of different frames, work experience and cultural nuances that may impact on trust formation and result in anxiety and resistance, we used the line managers to lead the implementation within their teams. Being aware that people are motivated differently, the toolset presented potential	To transform from the traditional and generic approach line managers used for client relationship segmentation, capacity planning and workload allocation to a more sophisticated approach that leveraged analytics and insights.

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
	subjective versus the prototype which used a more objective rules-based approach.	monetary reward, rankings, and peer comparisons.	To change the traditional approach Private Bankers had of focusing only on scorecard KPIs and related activities, to an approach where they analysed their portfolios and identified where the greatest profit growth potential were and developed a portfolio plan for the year. To change line manager's perceptions that clients and Private Bankers dynamics were too complex to use rules-based methods to categorise, calculate and present suggestions to assist in planning and optimising capacity and performance.
	An IS is a dis-embedding mechanism to maintain trust, but will be influenced by the previous experiences of stakeholders with IS (Schlichter & Rose, 2013), for example, socio-cognitive structures provide the frameworks that people use to make sense of their environment (Davidson, 2002) and according to Whitener, Brodt, Korsgaard and Werner (1998), it is fundamental for a project team to continuously consider different stakeholder frames.		
Access points	Different types of engagements: • Steering committee to present proposals, receive direction and approval, executive alignment and support. • Workshops to define, debate and explore options. • Team discussions to share understanding or raise design blind spots. • One-one-one sessions to address questions, reservations or clarify understanding. • Email communication to provide general project updates and programme insights. • Presentations to explain programme objectives, concepts, rules, and project governance.	Different access points provided alternative engagement options and increased our potential for adoption success: • Regional leadership sessions to focus on exception cases within the region. • Regular informal line manager coffee meetings to discuss tactical planning for the team to maximise their potential reward from the programme. • Formal monthly Private Banker team sessions to share understanding or raise design blind spots. • Informal meetings with small groups of Private Bankers to discuss different aspects of the programme. • One-one-one sessions to address questions, reservations or clarify understanding.	Different types of engagements: • Workshops to define, debate and explore options. • Team discussions to share understanding or raise design blind spots. • One-one-one sessions to address questions, reservations or clarify understanding, to discuss their impressions, insights and design blind spots or operational malfunctions they have identified. • Presentations to explain toolset objectives, concepts and business rules used. • Regular informal line manager coffee meetings to discuss structuring Private Banker portfolios from a profitability, capacity, and complexity perspective.

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
		• Email support to answer data-related questions or clarify programme rules. • Monthly email to steering committee focusing on implementation and adoption progress as well as any design blind spots, or operational malfunctions that was raised by line managers.	• Formal sessions to demonstrate prototype toolset functionality, to compare insights people are deriving, how other people may be using it already, enhancements people would like implemented and to review the prototype toolset usefulness and implementation decision.
	Access points provide the ability for stakeholders to engage with the project team and IS, and consist of facework and faceless interactions (Schlichter & Rose, 2013). For example, the objective of facework interactions is to gather information and feedback, and have discussions and demonstrations, whereas the objective of faceless interactions is to distribute information or provide support, present results and communicate IS enhancements. Creating different types of access points coupled with a blended approach of formal and informal interactions allow IS users to go through the adoption process at their own pace. Different types of access points also cater for people's predisposition to trust as per Kramer (1999) and what Gefen, Karahanna and Straub (2003) refer to as cognition-based trust.		
Information System	A prototype toolset as an accurate demonstration of the programme and supporting rules and data.	An IS in the form of a toolset with performance related themes, peer comparison and suggested areas of improvement. Providing not only access to the supporting data, but also hyperlinked to other BI reports, for example scorecards, client profitability and portfolio maps.	Prototype toolsets built in MS Excel, because line managers are comfortable using MS Excel and it is not perceived as a "System". Process to address design blind spots or operational malfunctions and deploy a new toolset is quick.
	An IS is an access point for faceless re-embedding to increase trust when users experience a well-functioning IS to experiment with and identify potential benefits, and supports Giddens views of trust as an emergent and reciprocal process (Schlichter & Rose, 2013). For a well-functioning IS designers' knowledge of context and affordances as per Maier and Fadel (2009) is required and using design principles to capture essential design knowledge as per Chandra, Seidel and Gregor (2015) is important, for example offering insightful and actionable information in a visually pleasing format.		
Time–space distanciation	Providing the steering committee and line managers with a prototype toolset and supporting data, to assist them with familiarising themselves at their own pace and convenience with the programme rules and how it translates into results.	Consistently referencing the user guide in both face-to-face (leadership, team or one-on-one) or remote engagements via email.	Distributing the toolsets to line managers enabled them to experiment with different scenarios and calibrate inputs to test their assumptions.
	The time-space distanciation capabilities of IS allow for stakeholders to operate with confidence without the physical co-presence subject matter experts and incomplete knowledge (Schlichter & Rose, 2013).		

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
Dis-embedding & re-embedding	Ability to compare the results based on defined rules and how it related to own perception, expectation and understanding. Providing sufficient time between formal engagement sessions for the steering committee and line managers to engage with the toolset, to reflect and engage with each other and the project team.	Formal monthly Private Banker team sessions per region after the monthly release of the programme results to provide Private Banker a forum to provide feedback, validate understanding and raise design blind spots or operational malfunction concerns. The formal monthly sessions also provided an opportunity for the programme team to create shared frames and understanding and build trust and social capital with the Private Banker teams. During the month Private Bankers had time to work through their toolset and discuss with their line manager. Informally, Private Bankers discussed and compared their toolsets with each other and validated assumptions. This often resulted in either formal discussions with line managers or informal discussions with me.	Formal sessions used for scoping and design collaboration to ensure similar understanding, alignment of objectives to establish shared frames. Formal sessions to demonstrate prototype toolset functionality, baseline insights and various recommendations based on different scenario examples. Distribution of the prototype toolset to line managers to test the toolset in their own time and discuss amongst each other. Informal check-ins with the line managers to discuss their impressions, insights and design blind spots or operational malfunctions they have identified. Formal sessions with line managers to compare insights they derived, how they might be using it already within their teams and enhancements they would like implemented. Formal sessions with line managers to review the prototype toolset usefulness and implementation decision.
	An IS allows for faceless interactions and dis-embedding across time and space with the ability for chronic reflection and the dependency on physical presence for context. Re-embedding through facework interactions at access points between the project team and stakeholders focuses on discussing concerns, verifying understanding to re-situate the IS (Schlichter & Rose, 2013) or identify enhancements and new requirements.		
Chronic reflexion	The level of detail and insights the toolset provided enabled the steering committee and line managers to compare the programme principles and objectives to the results and to reflect how it relates on a Private Banker level.	Supplying Private Bankers with personal ranking and change in ranking to the previous month as well as peer comparison KPIs enabled Private Bankers to analyse their portfolios and reflect on the cause and opportunity. Providing line managers the ability to review and analyse all Private Bankers and not just their own team enabled them to reflect on Private Banker portfolio structure, capacity and targets.	The level of detail and insights the toolset provided enabled the line managers to reflect on different scenarios they created and compared to the approach applied and insights derived by other line managers. Ability to compare own team to other teams nationally created transparency and enabled line managers to reflect on what other teams might be doing better or how they managed to cope.

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
		From a programme team perspective, we were able to identify Private Banker teams who significantly underperform or outperform and to discuss with the line manager to establish if their frame of reference for setting targets or portfolio sizes were too low or high.	The consistency how the toolset generated results and used common KPIs rendered anecdotal examples and exception cases redundant in strategy and capacity planning discussions. The prototype toolsets have three problem-solving objectives, firstly if I have a problem what can I do to solve it. Secondly, if I am leading how do I maintain the lead. Thirdly, what should I focus or demonstrate to get what I want.
	Through chronic reflection people continuously evaluate their situation and the consequences of actions that can result in the need for facework interactions at access points with the IS project team to discuss concerns and verify understanding (Schlichter & Rose, 2013)		
Design blind spots and operational malfunction	Providing access points and the ability to raise any enhancements or additional business rules requirements, supported by formal process to evaluate and communicate. Design blind spots were classified as either unique to a specific team, based on an exception or an anomaly versus insights from using the toolset and enhancements that will improve the programme. Operational malfunctions were classified as either toolset development or calculation errors, exception cases and anomalies or data quality and completeness issues. To ensure we provided a prototype toolset that line managers found reliable and can trust the development or calculation errors were fixed and an updated toolset was deployed. In terms of exception cases and anomalies or data quality and completeness issues, we removed the data from the dataset and released an updated toolset.	Compartmentalising the programme into rules, process, and data, and then classifying it as either user understanding, design blind spot or operational malfunction. The investigation and feedback on specific issues raised by the Private Bankers and line managers. Issues that were prone to misunderstanding were communicated to the specific people, whereas issues impacting all the Private Bankers were communicated to all the Private Bankers to explain the cause and plan of action to rectify. For example, incorrect client profitability results due to a data supplier operational malfunction and the need to recalculate the results.	Providing a variety of access points to raise design blind spots, operational malfunction, or enhancements requirements. Design blind spots were classified as either unique to a specific team, based on an exception or anomaly versus insights from using the toolset and enhancements that will improve the usefulness of the prototype toolset. Finally, the effort and complexity to enhance the prototype toolset were considered and how critical it is or can it be included when migrating to the BI platform. Operational malfunctions were classified as either toolset development or calculation errors, exception cases and anomalies or data quality and completeness issues. To ensure we provided a prototype toolset that line managers found reliable and can trust, the development or calculation errors were fixed and an updated toolset was deployed. In terms of exception cases and anomalies or data quality and completeness issues, we removed

Component	Cycle 1 (Design and approval of the PM Programme and PMIS)	Cycle 2 (Implementing the PM Programme and PMIS)	Cycle 3 (Additional toolsets to support the PM programme)
	The updated toolset was deployed monthly, supported by an email release note that explained the enhancements and rationale for excluding certain requests.		the data from the dataset and released an updated toolset. Updated toolsets were deployed in two- or three-week cycles supported by an email release note that explained the enhancements to the toolset and rationale for excluding certain requests.
Systems with severe quality problems that are defined as structural or critical, and cause a mismatch between IS practice and work practices weaken trust, confuse and can demoralise both IS users and the project team (Schlichter & Rose, 2013), for example DeLone and McLean (2008) propose six key dimensions that determines IS success, namely: information quality, system quality, service quality, system use, user satisfaction, individual and organisational impact.			

7.10   Summary

In this chapter I presented the analysis and findings from the research study. I discussed how I conducted the research study fieldwork, consolidated the data, and transformed it into contextual information. The action research study was divided into three cycles and each cycle was presented separately to demonstrate the action research process and how one cycle fed into the next cycle. I also demonstrated the influence of structuration concepts using the proposed trust framework. I reflected on the contribution of action research as a method in PMIS projects and how trust was established and maintained using the theorical framework. The chapter concluded with an analysis and reflection on the utility and value of the trust framework and the extension of the trust framework by including frames, design blind spots and operational malfunction.

In the next chapter, I conclude the research study and focus on reviewing, reflecting, and assessing the research study.

Chapter 8 – Conclusion and evaluation of the research study
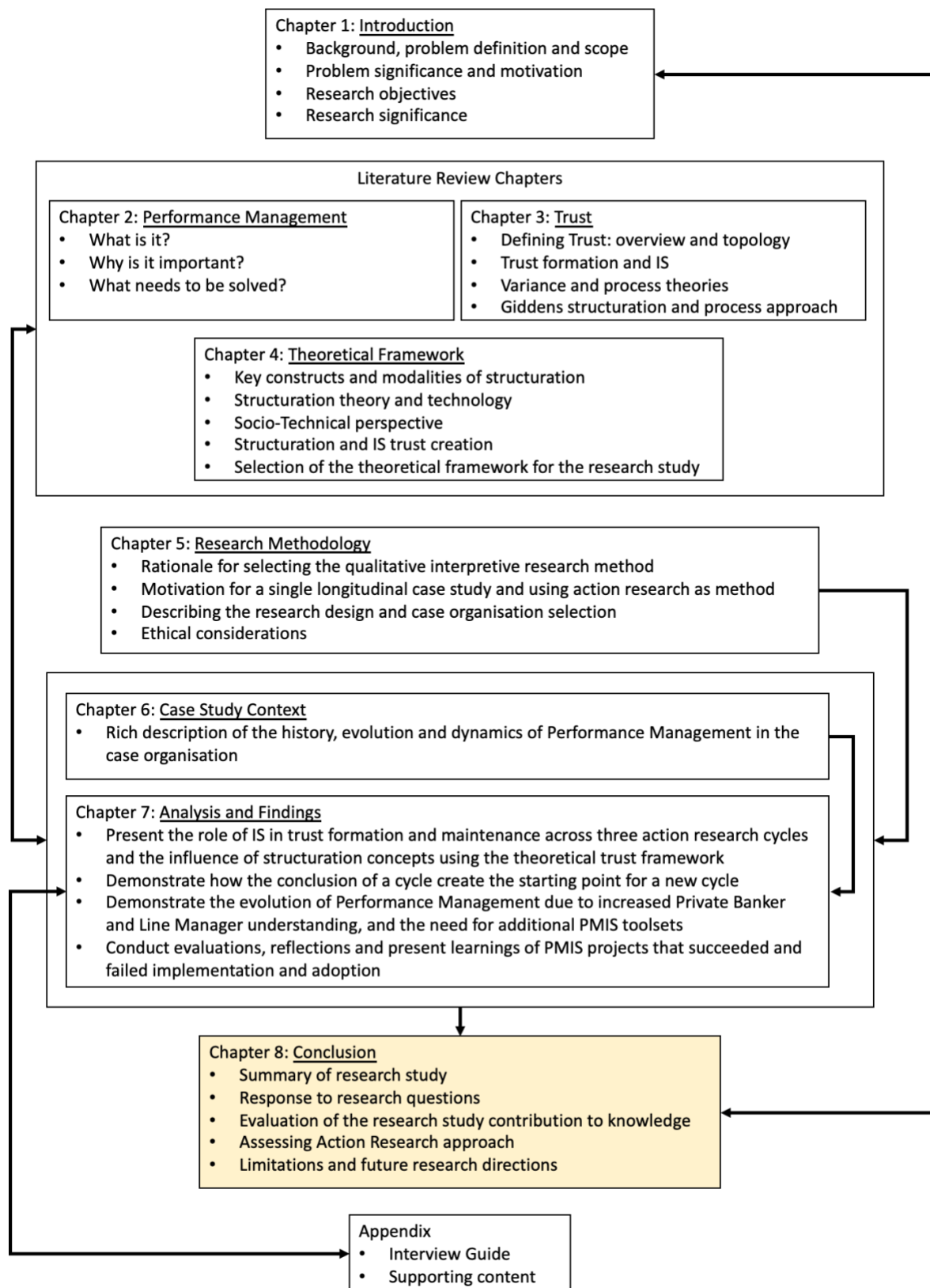
Figure 8.1: Research case study outline

8.1   Introduction

This chapter concludes the research study and focuses on reviewing, reflecting, and assessing the study. Figure 8.2 demonstrates the five focus areas of the chapter and the interrelationships between the different sections. In the first section I review the research objectives and address the research questions. The second section focuses on the evaluation of the contribution of the research study to the design of PM programmes and PMIS, as well as the practical, methodological, and theoretical contributions. In the third section I conduct a self-assessment of the action research study through applying four assessment frameworks to evaluate the rigour and relevance of the research, the quality of the participatory action research study and to evaluate whether the action research study is suitable for inclusion in journals. The fourth section focuses on the limitations of the research study given my role as an active participant and employee of the organisation in terms of presenting a fresh outlook, the impact of personal bias, the ability to generalise the findings, the ability to evoke action and the repeatability of action research. The fifth and final section provides directions for future research categorised into opportunities for future research interventions specifically related to the organisation that is the focus of this research study, and research directions for IS designers and HRM practitioners at other organisations and in different industries.
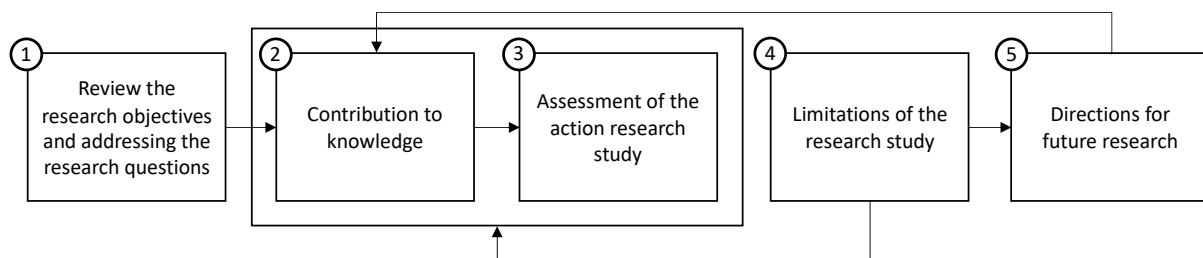
Figure 8.2: Logical flow and interrelationship of sections

8.2   Addressing the research questions that support the research problem and objectives

In chapter 1, section 1.2 (Problem definition and scope) I defined the impact of a breakdown in trust in the performance management and rewards programme as an organisational problem. In chapter 1, section 1.3 (Problem significance and motivation) I validated that trust in performance management and rewards programmes, and how best to measure performance and the high failure rate of organisational change initiatives with an IS component, are significant problems and of interest to HRM and IS researchers.

The primary objective of the research study was to demonstrate how a PMIS can bridge trust with employees by using a trust framework based on structuration components to design, develop, implement, and evolve a PMIS. The secondary objective of the research study was to demonstrate

how the application of action research as a method and incorporating prototyping could enable the effective design of a PMIS.

Sandberg and Alvesson (2011, p. 23) opine on the importance of formulating innovative and grounded research questions that "*could provide an integration of different approaches*" to generate interesting theories. They propose that research questions can be derived through either problematisation due to incomplete literature or gap spotting to extend and complement existing literature or to focus on an under-researched area. Due to my role in the case organisation as a programme manager and academic interest as a research practitioner subscribing to the socio-technical school, I support Mumford's (2006, p. 320) view that "*there can be no theory without practice, and no practice without research*". For this research study I used gap spotting to define research questions with the objective to extend and complement existing literature on an under-researched area to contribute to both academic knowledge and organisational practice. From a theoretical perspective, I used theory for sensemaking and explaining to gain an understanding from previous research how different theories explain the reason for phenomena, and frameworks that support the theory.

To support the primary and secondary objectives the following questions had to be answered:

How does a trust-based framework using structuration and socio-technical concepts inform the design of a PM programme and PMIS?

How can an action-based research approach inform practitioners in designing a PMIS more effectively?

In Figure 8.3 I demonstrate the approach and response to the research problem and supporting questions. To answer the research questions I present various propositions which forms the basis to answer the research questions.

Research Problem:
The case organisation required a new PM programme enabled by a PMIS to address issues related to employee trust that was impacting on motivation and engagement, but also ensured an alignment to organisational objectives and sustainable profit growth.

Research Questions

(1) How does a trust based framework using structuration and socio-technical concepts inform the design of a PM programme and PMIS?

(2) How can an action based research approach inform practitioners in designing a PMIS more effectively?

Proposition 1: The design of a PMIS requires firstly defining the social components that will promote employee trust, motivation and engagement. The technical design of the PMIS should be clear and reflect the affordances the IS artifact should enable to promote desired behaviours.

Proposition 2: A trust based framework using structuration concepts ensures IS designers and HRM practitioners consider the technical and non-technical influences on trust formation and maintenance.

Proposition 3.1: The Action Research approach supports a practice based and people centred approach to PMIS design.
Proposition 3.2: The Action Research approach is flexible and adaptable to different types of projects and organisational context.
Proposition 3.3: The Action Research approach provides IS designers with the ability to solve for the improved understanding of the drives of employee performance by initiating additional cycles.

Proposition 4: Incorporating prototyping in the action taking stage assist with validating and refining stakeholder requirements due 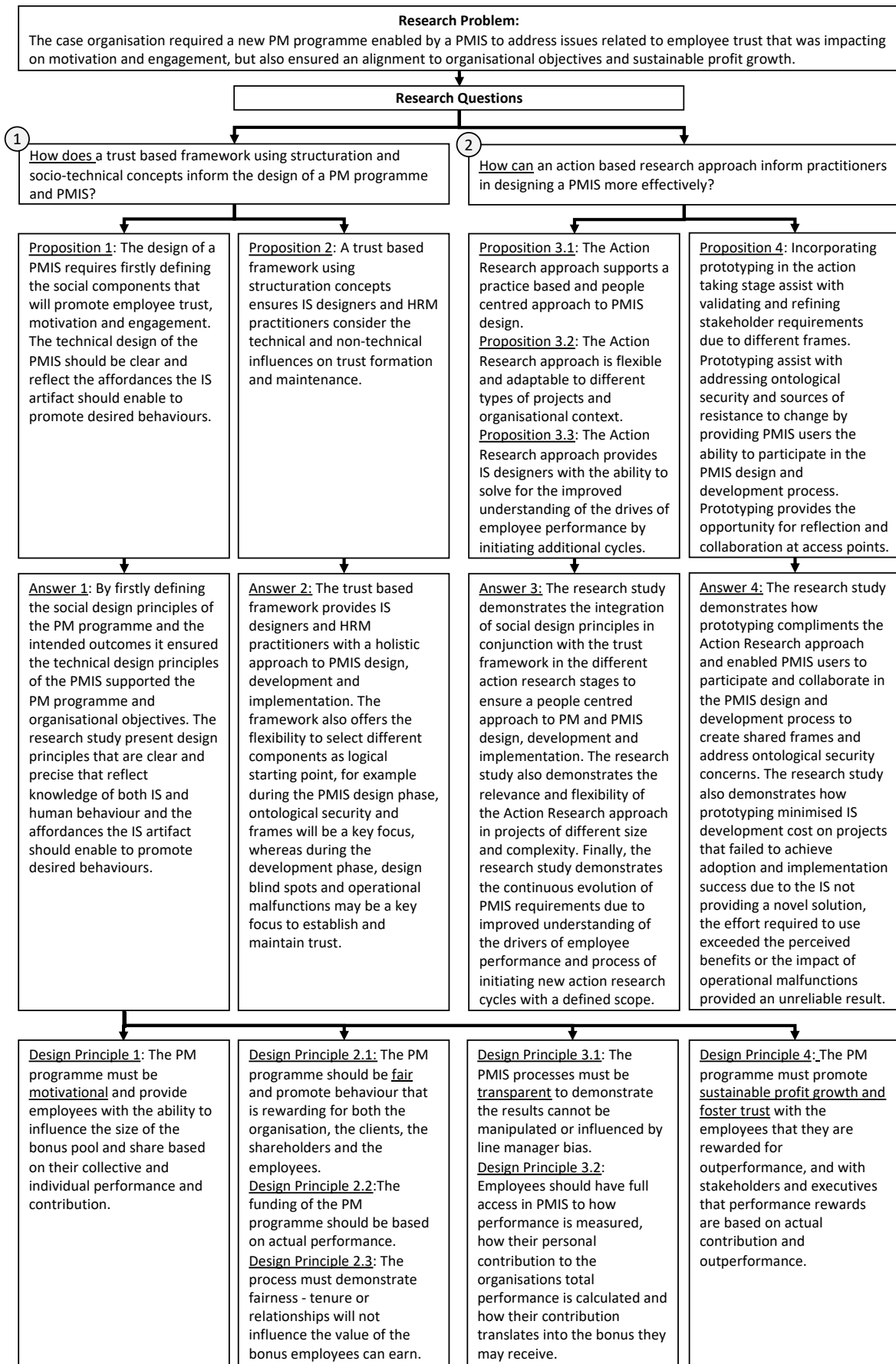to different frames. Prototyping assist with addressing ontological security and sources of resistance to change by providing PMIS users the ability to participate in the PMIS design and development process. Prototyping provides the opportunity for reflection and collaboration at access points.

Answer 1: By firstly defining the social design principles of the PM programme and the intended outcomes it ensured the technical design principles of the PMIS supported the PM programme and organisational objectives. The research study present design principles that are clear and precise that reflect knowledge of both IS and human behaviour and the affordances the IS artifact should enable to promote desired behaviours.

Answer 2: The trust based framework provides IS designers and HRM practitioners with a holistic approach to PMIS design, development and implementation. The framework also offers the flexibility to select different components as logical starting point, for example during the PMIS design phase, ontological security and frames will be a key focus, whereas during the development phase, design blind spots and operational malfunctions may be a key focus to establish and maintain trust.

Answer 3: The research study demonstrates the integration of social design principles in conjunction with the trust framework in the different action research stages to ensure a people centred approach to PM and PMIS design, development and implementation. The research study also demonstrates the relevance and flexibility of the Action Research approach in projects of different size and complexity. Finally, the research study demonstrates the continuous evolution of PMIS requirements due to improved understanding of the drivers of employee performance and process of initiating new action research cycles with a defined scope.

Answer 4: The research study demonstrates how prototyping compliments the Action Research approach and enabled PMIS users to participate and collaborate in the PMIS design and development process to create shared frames and address ontological security concerns. The research study also demonstrates how prototyping minimised IS development cost on projects that failed to achieve adoption and implementation success due to the IS not providing a novel solution, the effort required to use exceeded the perceived benefits or the impact of operational malfunctions provided an unreliable result.

Design Principle 1: The PM programme must be motivational and provide employees with the ability to influence the size of the bonus pool and share based on their collective and individual performance and contribution.

Design Principle 2.1: The PM programme should be fair and promote behaviour that is rewarding for both the organisation, the clients, the shareholders and the employees.
Design Principle 2.2: The funding of the PM programme should be based on actual performance.
Design Principle 2.3: The process must demonstrate fairness - tenure or relationships will not influence the value of the bonus employees can earn.

Design Principle 3.1: The PMIS processes must be transparent to demonstrate the results cannot be manipulated or influenced by line manager bias.
Design Principle 3.2: Employees should have full access in PMIS to how performance is measured, how their personal contribution to the organisations total performance is calculated and how their contribution translates into the bonus they may receive.

Design Principle 4: The PM programme must promote sustainable profit growth and foster trust with the employees that they are rewarded for outperformance, and with stakeholders and executives that performance rewards are based on actual contribution and outperformance.

Figure 8.3: Response to the research questions supporting the research problem

I started with the ideal end-state in mind and the user capabilities that the PM programme and PMIS should provide to address the research problem and the primary research objective. These capabilities formed the basis for defining a descriptive set of socio-technical design principles that were used as the organisation's North Star to design a PM programme and PMIS that promote trust through transparency and fairness, was motivational and improved employee engagement. In the research study I demonstrated how the application of the trust framework based on structuration concepts in Figure 8.4 ensured a holistic approach to trust formation and maintenance during the design, development, and implementation of the PM programme and PMIS. For example, in chapter 7 (Analysis and findings chapter), Cycle 1 (Design and development of the PM programme and PMIS) I demonstrated the importance to continuously consider different stakeholder frames and how trust was established through a participative and collaborative process. Whereas in Cycle 2 (Implementing the PM programme and PMIS) ontological security concerns were addressed and Private Bankers and line managers provided with sufficient time to familiarise themselves with the PMIS, the ability to interrogate the results with different types of access points to raise design blind spots and operational malfunctions that were essential to forming trust. Finally, in Cycle 3, I demonstrated the application of the trust framework in complementary projects and discussed how neglecting components in the trust framework resulted in some projects failing due to stakeholder adoption because of design blind spots due to insufficient stakeholder engagement and operational malfunction due to insufficient data quality.
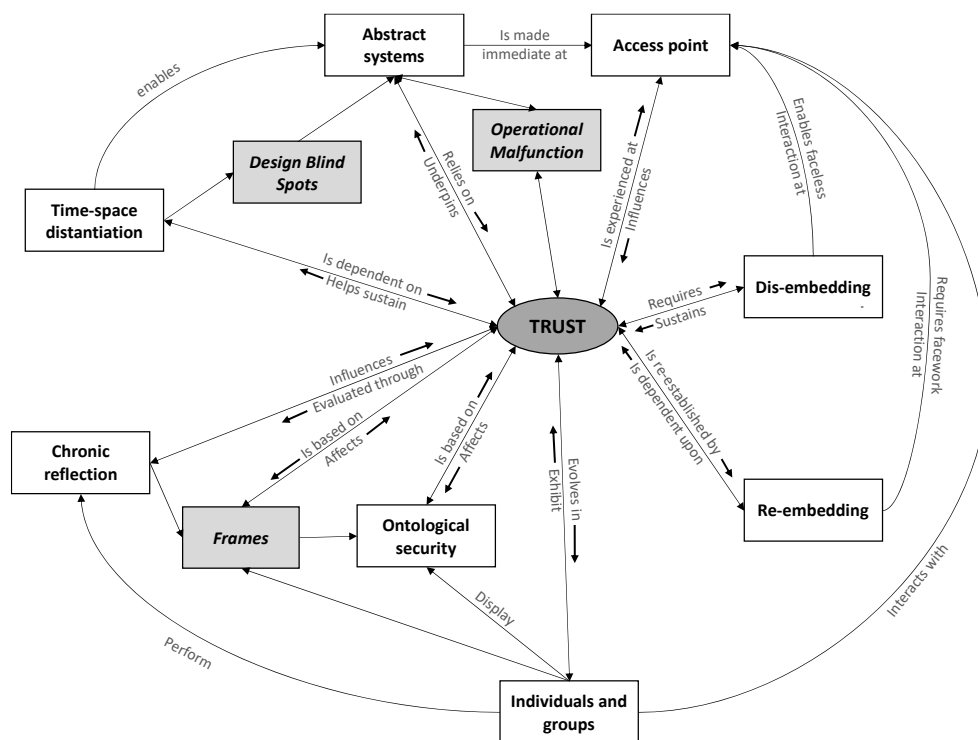

Figure 8.4: Extension of Schlichter and Rose's (2013) Structuration and Information System Trust Creation framework

I presented to IS practitioners the application, robustness, and flexibility of action research as a method to address the secondary objective of the research study. In Cycle 1 and 2 of the research study I demonstrated the integration of social design principles in conjunction with the trust framework to ensure a people centred approach to PM and PMIS design, development, and implementation. In Cycle 3, the research study demonstrated the relevance and flexibility of the action research approach due to an improved understanding of the drivers of employee performance in projects of different size and complexity. Furthermore, it was demonstrated how prototyping compliments the action research approach and enabled PMIS users to participate and collaborate in the PMIS design and development process to create shared frames and address ontological security concerns. Finally, the research study demonstrated how prototyping minimised IS development cost on projects that failed to achieve adoption and implementation success for various reasons, such as the IS did not provide a novel solution, the effort required to use the PMIS exceeded the perceived benefits, and the impact of operational malfunctions provided an unreliable result.

In the next section I evaluate the knowledge contribution of the research study.

8.3   Evaluation of the research contribution to knowledge

The research study can be evaluated in terms of the design, practical, methodological, and theoretical contributions to knowledge.

8.3.1   Contribution to design

Chandra, Seidel and Gregor (2015) note the scarcity of design-oriented knowledge work that prescribe how to build an artefact to achieve a predefined design goal. Additionally, Maier and Fadel (2009) comment on the limitations of design theories built around transformative processes of functions and algorithms and propose a relational paradigm for design based on a non-transformative concept to assist designers.

Maier and Fadel (2009) note the entwined relationship between the designer of an artefact, the artefact and the user of the artefact are essential to any design. This entwined relationship provides the basis for formulating a relational model that specifies and describes the relationship between the entities. The concept of affordance is relational and allows for describing the relationships between designers, artefacts, and users in design. The nature of the relationship between artefacts and users is that artefacts are used by users, but it is the affordances of the artefacts that determine how the artefacts can be used and what they should provide. The determination of affordances in turn requires the expertise of designers who have knowledge of the context in which the artefact will be used. The nature of the relationship between designers and artefacts is that designers create the affordances of artefacts.

In the following section I discuss the process of defining PMP design principles that will inform the design principles of a PMIS.

8.3.1.1 PM Programme design principles

Maier and Fadel (2009) note the importance of designers' knowledge of the context in which the artefact will be used. Due to the socio-technical relationship between users and IS, the research study demonstrates that the starting point for the design of a PMP is to first define the themes that will influence the key social constructs of a PMP, for example trust formation, ontological security and frames. Table 8.1 demonstrates examples of themes that influence different social constructs that surfaced during the diagnosing stage in Cycle 1 of the research study. The various themes form the social principles of the PMP, and the purpose of the social principles is to inform and guide the PMP and PMIS design principles.

Table 8.1: Aspects that impact on social constructs that surfaced during the diagnosing stage in Cycle 1

Social Construct	Examples of themes that influence and impact social construct
Trust formation	Influenced by process transparency, tools, maturity of leadership and location of power.
Ontological security	Impacted by uncertainty, "powerlessness", angst, and inability to contextualise and relate performance to peer performance.
Frames	Influenced by perceptions of fairness and bias, relationship with the line manager more important than actual performance and "who you are".
Technoframes	Influenced by how people view IS, their previous experience, and skills.

According to Chandra, Seidel and Gregor (2015) the purpose of design principles is to capture and communicate essential design knowledge on an abstract level to create generalised prescriptive knowledge. They suggest that the boundary conditions under which the design will work should be clear and precise by specifying the context or intended user group. However, they note that it is important that a design principle is formulated sufficiently abstract to leave some space for different instantiations in different contexts that share the defined boundary conditions.

To ensure the design principles are relevant in different instantiations and sufficiently abstract, the PM programme design principles from the research study are generalised in Table 8.2:

Table 8.2: PM programme design principles

Design Principles	Objective
Motivational	The PM programme should be motivational and provide employees with the ability to influence the size of the bonus pool and share based on their collective and individual performance and contribution.

Design Principles	Objective
Fairness	The PM programme should be fair and promote behaviour that is rewarding for both the organisation, the clients, the shareholders, and the employees. The funding of the programme should be based on actual performance. The PM programme and process must demonstrate fairness, employees will compete with their peers while tenure or relationships will not influence the value of the bonus they could earn.
Transparency	The PMIS processes should be transparent to demonstrate that the results cannot be manipulated or influenced by line manager bias. Employees should have full access in the PMIS to how performance is measured, how their personal contribution to the organisation's total performance is calculated and how their contribution translates into the bonus they may receive.
Sustainability	The PM programme should promote sustainable profit growth and foster trust with the employees that they are rewarded for outperformance, and with stakeholders and executives that performance rewards are based on actual contribution and outperformance.

The PM programme design principles provided designers with the context and design knowledge on an abstract level that Maier and Fadel (2009) refer to. In the next section I discuss how the PM programme design principles translate into PMIS design principles and align to the concept of affordance.

8.3.1.2 PMIS design principles

Chandra, Seidel and Gregor (2015) propose that the structure of an effective design principle should be clear and precise, and reflect knowledge of both IS and human behaviour. They also propose that an effectively formulated design principle should contain information about the actions made possible through the use of an artefact. Further, include information about the material properties enabling the action possible using technology metaphors. According to Maier and Fadel (2009) design is the specification of a system structure that possesses certain desired affordances in order to support certain desired behaviours.

Table 8.3 demonstrates how the PM programme design principles converts into PMIS design principles and affordances that satisfy the requirements of both Chandra, Seidel and Gregor (2015) and Maier and Fadel (2009).

Table 8.3: Converting PM programme design principles into PMIS design principles

PM programme design principle	PMIS design principle	Alignment to affordances
The PM programme must be *motivational* and provide employees with the ability to influence the size of the bonus pool and share based on their collective and individual	To motivate employees the PMIS must calculate and present employees with different bonus outcome scenarios linked to organisational performance	**Material Property:** Present different bonus outcome scenarios linked to organisational performance results.
		Action Potential: To motivate employees.

PM programme design principle	PMIS design principle	Alignment to affordances
performance and contribution.	results.	**Boundary Conditions:** Employees participating in the programme.
The PM programme should be *fair* and promote behaviour that is rewarding for both the organisation, the clients, the shareholders, and the employees. The funding of the programme should be based on actual performance.	To demonstrate fairness to employees and promote ideal employee behaviours, the PMIS must calculate performance based on quantifiable organisational results.	**Material Property:** Demonstrate fairness and promote ideal employee behaviours**.**
		Action Potential: Calculate performance based on quantifiable organisational results.
		Boundary Conditions: Employees participating in the programme.
The PM processes must be *transparent* to demonstrate the results cannot be manipulated or influenced by line manager bias. Employees should have full access in PMIS to how performance is measured, how their personal contribution to the organisation's total performance is calculated and how their contribution translates into the bonus they may receive.	The PMIS processes must not allow for manual manipulation and results must include access to the supporting data. The PMIS user interface must present employees with information that provide context to their performance results and the bonus they received.	**Material Property:** Provide access to supporting data and information how bonus is calculated.
		Action Potential: Do not allow manual manipulation. Provide ability to interrogate results.
		Boundary Conditions: Employees participating in the programme.
The PM programme and process must demonstrate *fairness*, employees will compete with their peers while tenure or relationships will not influence the value of the bonus they could earn.	To enable fairness the PMIS must provide line managers with the ability to categorise employees using predefined peer group criteria. The PMIS user interface must present employees with information that demonstrate the peer group they are part of.	**Material Property:** Present the peer group.
		Action Potential: Provide the ability to categorise and compare employees using a set of predefined criteria.
		Boundary Conditions: Line managers and employees.
The PM programme must promote sustainable profit growth and foster trust with the employees that they are rewarded for outperformance, and with stakeholders and executives that performance rewards are based on actual contribution and outperformance.	The PMIS must calculate performance based on quantifiable organisational results and present employees with information that provide context to their performance results and the bonus they received.	**Material Property:** Present bonus outcome linked to organisational performance results.
		Action Potential: Calculate performance based on quantifiable organisational results.
		Boundary Conditions: Employees, line managers, executives, and stakeholders.

In response to Chandra, Seidel and Gregor's (2015) comment in terms of the scarcity of design-oriented knowledge work that prescribes how to build an artefact, the study demonstrates the process of defining the aspects that will influence the key social constructs of a PM programme, enabled by a

set of prescriptive design principles from both a PM programme and PMIS perspective. Furthermore, it demonstrates the importance of context when designing a PM Programme and PMIS and how the theoretical framework enabled the process. Finally, the study shows how the concept of affordance was applied to define the set of prescribed PMIS design principles.

In the following section I discuss the practical contributions of the research study.

8.3.2   Practical contributions

Cole, Purao, Rossi and Sein (2005) and Sein, Henfridsson, Purao, Rossi and Lindgren (2011) note that IS research has been criticised for having little relevance and influence on practice. In response, this research study demonstrates contributions to HRM practice, IS design, action research practice and design science research.

From a HRM practice perspective the research study is deemed relevant as PM programmes are laden with complexities which could strain trust relations between employees and managers and impede an organisation from achieving its strategic goals. Important elements of trust such as transparency, consistency and open communication are key ingredients to forming and maintaining trust between employees and organisational leaders (Innocenti et al., 2011). Gupta and Shaw (2014) however comment on the sporadic and sparce research that focus on employee compensation. In response, the study extends the limited research and evidence on employee compensation programme effectiveness by demonstrating how the PMIS creates greater fairness and transparency in the reward distribution processes, clarity of communication and trust formation with Private Bankers and line managers. Secondly, the research study demonstrates how the improved understanding of the drivers of Private Banker performance and rewards resulted in the design and development of complementary toolsets to assist with achieving organisational goals through portfolio maps, capacity planning and Private Banker grading. Additionally, Tseng and Levy (2019) note the criticism and disillusion with traditional PM practices and the transition to treating employees and line managers as active participants in PM practices. The study contributes to HRM practice by demonstrating how the organisation is transitioning HRIS and HRM from treating employees as passive recipients of HRM to active participants and encouraging employee engagement. For example, by presenting to Private Bankers how their performance compares to their peers, providing access to the underlying data and offering suggestions of areas that need attention, Private Bankers can take a proactive approach in portfolio and performance planning. Secondly, the PMIS contributes to employee motivation by providing Private Bankers monthly with scenarios of their potential reward at different organisational profit growth scenarios. Thirdly, the transparency of the PMIS by providing Private Bankers access to the underlying data contributes to trust formation between Private Bankers and line managers and meaningful and objective performance management discussions. The result is a continuous design

approach of the PMIS driven by an increased understanding of performance and the alignment to organisational goals.

In support of Baskerville (1999b) that organisations are complex social systems and the interaction with information technology should be understood as whole entities, IS designers and HRM practitioners are presented with a set of prescriptive PM and PMIS design principles that satisfy the requirements of both Chandra, Seidel and Gregor (2015) and Maier and Fadel (2009). These prescriptive design principles are consistent with the concept of affordance and the design for socio-technical systems to assist in improving organisational practice and fostering trust. Although the focus of the study is a Private Bank in South Africa, the prescribed design principles are not industry or country specific. The study demonstrates to IS designers and HRM practitioners the value of using a dynamic trust framework to focus their attention on social practices relevant to designing a PMIS. The theoretical framework by Schlichter and Rose (2013) provides IS practitioners with the awareness of those human elements and aspects that are critical to establishing and maintaining trust with stakeholders, especially projects that result not only in organisational change but also in the way people operate. I also demonstrate to IS designers the robustness of action research as a method by presenting projects of different complexity. By presenting projects that failed adoption and implementation, IS designers are offered learnings and reflections, for example if the effort to use an IS outweighs the utility, then adoption will fail. Finally, I demonstrate how the cyclical nature of action research supports the continuous evolution of IS and how the result of a cycle provides the input for another cycle and new IS requirements.

McManners (2016) and Molineux (2018) note that action research is not only a research method but also an orientation to inquiry with the objective to solve real-world problems. McManners (2016) further observes that the advantage of action research is for a researcher to actively participate as a knowledgeable objective party, similar to an arbitrator, in the development, testing and implementation of ideas and to evaluate, reflect and learn from the results. In this research study I demonstrate to IS designers how action research can be used in different project settings, ranging from the design and development to the implementation and adoption of a PMIS and the continuous design and development process of adding supporting toolsets. Similar to McManners (2016), I also use case study methodology to demonstrate the interplay between humans, technology, information and socio-cultural contexts to ensure academic rigour. In the contextually rich case study context chapter, I offer an objective and balanced view by also presenting projects that failed and in the analysis and findings chapter I reflect on the learnings which can serve as generalisation for IS designers to consider. I demonstrate to action research practitioners how I used the dynamic trust framework during different action research stages and cycles to learn more about how people understand and deal with problems, to reflect on and internalise the learnings and to actively

participate in a "helping-role" to solve organisational problems. Molineux (2018) observes that action research is frequently grounded in strong ethics, for example emancipatory values with the objective to improve social situations. The research study demonstrates how the design and implementation of a PMIS not only improved the performance management and rewards of Private Bankers, but also contributed to the transformation of the organisation in terms of client segmentation, capacity planning and alignment of client portfolios to Private Bankers based on their skill and experience. The research also demonstrates the importance of a systems view and relevance of the soft system method (SSM) when designing IS where the objective is to improve Private Banker motivation, engagement, and overall organisational performance.

The research study also contributes to design science researchers interested in how action research and the trust framework can be incorporated to demonstrate how the interplay between people and technology result in the adoption and adaption of technology artefacts over time. Sein, Henfridsson, Purao, Rossi and Lindgren (2011) opine that the primary focus of design science research is the utility of the technology artefact and that organisational intervention is a secondary focus. Whilst I present examples of IS implementation and adoption failure due to design blind spots and operational malfunction, the application of the trust framework demonstrates how frames, ontological security and access points contributed to IS implementation and adoption success and failure. In support of these authors' view for the need to recognise that technology artefacts are the result of design, use and continuous refinement, the research study demonstrates the role and continuous participation of stakeholders in projects. Further, it shows how prototyping was used to define, test, and refine IS requirements. Secondly, the research study demonstrates similarities to Sein, Henfridsson, Purao, Rossi and Lindgren's (2011) Action Design Research. The research study demonstrates that the problem formulation stage in each of the three cycles was practice driven and then supported and informed by theory to define the research opportunity. During the building, intervention, and evaluation stages of each cycle the study demonstrates the role of stakeholders and the application of the trust framework to plan and guide different types of interventions. The reflection and learning stages in each cycle are not limited to the utility of the technology artefact, I also reflect on the process of trust formation, frames and the level of understanding, the use of access points and stakeholder engagement. This approach formalised the learning and the basis for subsequent projects and provided lessons why an IS project implementation and adoption succeeded or failed.

In the following section I discuss the methodological contributions of the research study.

8.3.3   Methodological contributions

Methodologically the action reseach case study contributes to design science research from a socio-technical design knowledge and objectives perspective, to the Soft Systems Method (SSM) by demonstrating the learning process and approach to organising and structuring the learning using

action research and theoretical framework, and to action research by demonstrating the application and impact of the method on projects of different sizes and complexity.

Carlsson, Henningsson, Hrastinski and Keller (2011) comment that although the primary focus of design science research is the development of novel IT artefacts, an emerging focus is the development of design methodologies and interventions from a socio-technical perspective that provide practical design knowledge to IS designers and managers. They classify design knowledge as knowledge that assist IS designers and managers to create or improve an IS, and knowledge that assist in implementing IS in an organisation. They also define three types of design objectives, an IT artefact-design, a realisation, or implementation-design and finally a process-design consisting of methods, techniques and design theories.

From a socio-technical design and knowledge perspective the case study demonstrates the importance of trust in IS design and implementation projects. The application of the theoretical framework demonstrates the impact that frames, chronic reflection, and ontological security have on trust and ultimately IS user adoption or resistance. Secondly, the importance of different types of access points and value of regular re-embedding interactions that allow IS users and stakeholders to engage with the IS designers to clarify, validate and provide design enhancement feedback. Finally, differentiating between the impact of design blind spots and operational malfunction enable IS designers to contextualise issues and mitigate IS user and stakeholder frustration, conflict, and resistance.

From socio-technical design objective the case study demonstrates the process-design and implementation-design approach using action research underpinned by an interpretive research paradigm to understand the case organisation's complex trust-related issues and the role of an PMIS to bridge trust. The study demonstrates how the five stages of action research in conjunction with the theoretical framework is applied in the continuous design and development of a PMIS. Through in-depth interviews, documents and thematic analysis, a contextually rich and descriptive case study is presented. The action research study presents the initial design and development phase of the new PMIS, the implementation and user adoption phase, and the continuous design and development of additional PMIS capabilities to support employees, line managers and executives increased understanding of the drivers of performance.

From a SSM perspective the action research case study demonstrates the learning process and approach to organising and structuring the learning to solve problematical situations. The evaluation and reflection stages during an action research cycle enable the learning process and provide the inputs for new IS requirements and additional action research cycles. For example, the improved understanding of the drivers of performance and impact of a Private Banker skills and ability resulted in the development of the Hyper Segmentation toolkit to enable the refinement of our client

engagement approach and Private Banker portfolio allocation. The approach to organising and structuring learning to solve problematical situations is demonstrated through the application of the theoretical framework. The theoretical framework enables IS designers to distinguish between problems that relate to frames which will impact ontological security or problems that relate to design blind spots and operational malfunction which will impact the abstract system and IS. Distinguishing between types of problems enable the planning of different types of interventions and actions. For example, problems related to frames and design blind spots can be solved through a re-embedding process between IS users, stakeholders and IS designers to clarify and validate understanding, whereas operational malfunction due to data quality can be solved through process and data quality control improvements.

From an action research process execution perspective, the research study demonstrates the ability to use the method irrespective of project size, complexity, or scope. The iterative nature of the stages creates the flexibility to continuously evaluate a project and based on the diagnosis, to either add an additional action planning and action taking stage to the project of initiate a new project. The case study also demonstrates that if a stage in a cycle is not sufficiently completed how it negatively impacts on IS implementation and adoption. For example, insufficient stakeholder input and assuming an understanding of stakeholder problems during the action planning stage of the Private Banker capacity model resulted in the design of an IS that provided a solution where the stakeholders did not trust the input sources and resulted in a failed implementation.

In the following section I discuss the theoretical contributions of the research study.

8.3.4   Theoretical contributions

The theoretical contribution of the research study is threefold. Firstly to theorise, secondly to analyse and thirdly to inform IS designers and HRM practitioners with the objective to improve the reliability and rigour of theory. According to Gregor's (2006) classification system, I used theory to explain the reason for certain phenomena by presenting an alternative view of the world and to create new understanding.

To theorise, the study assumes that trust is a social practice. I selected structuration theory, which is a general theory of social organisation. Although structuration theory is not an IS specific theory, it explains the mutually constitutive duality between structure and agency and that people have the capability to transform structures. I presented why Giddens structuration theory is appropriate from a performance management and socio-technical systems perspective to study the relationship between IS, people and organisations. I conducted an evaluation of various structuration perspectives and the rationale for selecting Schlichter and Rose's (2013) Structuration and Information System Trust Creation framework. I also explained the objective and advantages of extending the framework from a

socio-technical systems perspective by adding three additional components: frames, design blind spots and operational malfunction for this research study. In the literature review chapters I explained how social structures impact social practice and discussed the various uses of structuration theory. In the case study context chapter, I demonstrated how other taxonomic theories of trust are integrated to provide a better deconstruction of the concepts that Giddens encourages, for example social capital theory, social exchange theory and equity implementation model. Social capital and social exchange theories were critical to establish trust during the design and development of the PM programme and PMIS in Cycle 1. In Cycle 2 social capital and social exchange theories formed the basis why line managers instead of the Learning and Development team were used for the implementation and adoption phase. The PMIS provided the basis for Private Bankers and line managers to conduct equity implementation evaluation and highlighted the different Private Banker and line manager groups perception and evaluation of the PM programme and PMIS.

To analyse, I selected the theoretical framework by Schlichter and Rose (2013) because it provides explanations of the dynamics of trust in the context of large-scale IS implementations, using constructs derived from Giddens' theory of modernity. The objectives of an appropriate theoretical framework for this research study are two-fold, firstly a framework that supports the primary research focus, and secondly, a framework with an exclusive focus on organisational levels of analysis to empirically apply the ideas developed by Giddens and to specify how institutions and actions are related and evolve over time.

Schlichter and Rose (2013) however note the limitations of their framework that is based on a single exploratory case study and suggest additional research studies using a variety of research methods to investigate the generalisability of their theorical framework. Since trust is influenced by culture, they also suggest that the framework should be tested in different cultural situations and taxonomic theories of trust should be integrated to provide a better deconstruction of the concepts that Giddens encourages. The analysis and findings chapters of the research study demonstrates the application of the extended theoretical framework by Schlichter and Rose (2013) in a different cultural and industry situation and across various projects of different size and complexity using action research as method. The research study also demonstrated how the theoretical framework was deconstructed and used during different action research stages and different cycles. For example, understanding stakeholder frames and impact on ontological security and trust formed that basis of the diagnosis stage in Cycle 1. Whereas in Cycle 2, different access points were created to clarify understandings, raise design blind spots and operational malfunctions, and to enable sufficient time for reflection to address issues related to existing frames and ontological security. Finally, from a STS perspective the research study demonstrated to IS designers how each of the components in the extended theoretical framework contributed to establish trust by ensuring a consideration of different perspectives to build social

capital and trust instead of merely focusing on building and delivering toolsets from a technology perspective.

Whilst the advantages of the Schlichter and Rose's (2013) Structuration and Information System Trust Creation model is a processual theory approach that adopts a social stance and proposes how to establish and restore trust, the limited focus on the impact of IS design, IS quality and different frames of reference on IS trust creation is a limitation. Since the various projects in this research study focused on delivering IS capabilities, I extended Schlichter and Rose's (2013) framework by including frames, design blind spots and operational malfunction, which provided the following utility and benefit:

- Where ontological security provides the "what" the insecurity might be, frames provide the "why" for the insecurity which can be influenced by position of power, knowledge, experience, or culture. It provides a basis to gain real understanding, and to an extent also empathy.
- Abstract systems and IS are never complete and prone to errors which result in user comments such as "it is wrong" which in turn quickly escalates to frustration, conflict, and resistance, and if not resolved, the eventual replacement of the IS.
- The inclusion of design blind spots and operational malfunction assist in contextualising issues. Design blind spots may for example be the result of incomplete or misunderstanding of business rules or functional requirements, whereas operational malfunction may be the result of process failures, limited controls, or a lack of data.

To inform, Schlichter and Rose (2013) propose providing IS designers with prescriptive guidance on how to develop and maintain multiple trust relations. Although the research study does not provide IS designers with prescriptive guidance on these matters, the analysis and findings chapter provides IS designers with a rich description of how the extended theoretical framework was used to establish and maintain trust. The research study also demonstrates the application of affordance design theory in a HRM and IS context to assist in improving organisational practice and fostering trust, by defining a set of PM programme and PMIS design principles. In addition, the reflections, and learnings in the research study about reasons why some projects failed to be adopted and implemented, may provide IS designers with more value in terms of lessons learnt than offering prescriptive guidance that is not relevant to a specific organisation or so general that that it is not actionable. The advantage of applying the extended theoretical framework is that if IS designers actively manage the formation and maintenance of trust they might mitigate or minimise the need to expend effort on activities to restore trust and risks resulting in project implementation and adoption failure. For example, in Cycle 3 I demonstrated that the adoption and implementation failure of the Banker Grading toolset can be ascribed to design blind spots (not sufficiently considering all stakeholders requirements) and limited access points (insufficient change management). Whereas the implementation and adoption failure of

the Banker Capacity Model can be ascribed to design blind spots (not sufficiently considering effort required versus value created) and operational malfunction (inability to address data quality issues).

Baskerville and Pries-Heje (1999) note that grounded theory techniques can significantly improve the reliability and rigour of theory, the generalisability of findings and improve the scientific and practical potential of action research. By conducting a contextually rich longitudinal case study using action research and the theoretical framework by Schlichter and Rose (2013) the research study demonstrated in Table 8.4 the learnings and insights that IS designers, HRM practitioners, project managers and line managers can derive from this research study.

Table 8.4: Learnings and insights for IS designers, HRM practitioners, project managers and line managers

Audience	Description
IS designer	• The importance of non-technical design principles and the social aspects (frames, ontological security, access points and reflection) when designing a PM programme and PMIS. • Continuous awareness of design blind spots due to limited stakeholder engagement or assuming that value and utility of an IS for stakeholders will outweigh the effort required by the stakeholders. • Definition of sources of operational malfunction and the impact on implementation and adoption need to be evaluated and mitigated. • IS need to provide novel, insightful, and actionable solutions to problems to achieve implementation and adoption success. For example, the first version of Portfolio Maps provided a novel and interesting presentation of data to Private Bankers, but the information was not novel, insightful, and actionable, and resulted in failed adoption success. Whereas the second version of Portfolio Maps provided insightful and actionable information targeted at line managers and resulted in adoption success.
HRM practitioner	• The importance of defining non-technical performance management and reward design principles, for example to be motivational and fair, that are transparent and promote sustainable profit growth. • The social aspects (frames, ontological security, access points and reflection) when designing a PM programme and PMIS. • The value of a broad stakeholder group to prevent design blind spots. • Performance management and rewards should not be treated separate to business operations. Performance management and rewards have the potential to form the basis for organisational design, capacity planning and strategy planning. For example, the improved understanding of the drivers of performance led to the development of additional IS toolsets to assist Private Bankers and line managers to plan activities that contribute to improved performance, to adopt a client hyper segmentation approach, evaluate capacity and allocate Private Bankers portfolios based on their skill, experience, and interests.

Audience	Description
Project manager	• The importance of defining non-technical performance management and reward design principles to use as reference when scoping project deliverables and IS capabilities. This can assist in ensuring a balance from a STS perspective. • The social aspects (frames, ontological security, access points and reflection) when designing a PM programme and PMIS. • The value of a broad stakeholder group to prevent design blind spots. • The defined stages and cyclical nature of action research in conjunction with the theoretical framework provide a project manager with a toolset to scope, plan and manage an IS project and to ensure awareness of and focus on the social aspects in a PM programme and PMIS project.
Line manager	• The importance of defining non-technical performance management and reward design principles, for example to be motivational and fair, that are transparent and promote sustainable profit growth. • The social aspects (frames, ontological security, access points and reflection) when designing a PM programme and PMIS. • Performance management and rewards should not be treated separate to business operations. • Sources of operational malfunction need to be defined and the impact on implementation and adoption need to be evaluated and mitigated.

In the following section I conduct the assessment of the action research case study approach.

8.4 Assessing the action research case study research approach

To assess the action research case study approach, I selected four frameworks, explained in Table 8.5.

Table 8.5: Evaluation frameworks used to assess the action research case study

Evaluation Objective	Creator
Assess the rigour and relevance of the research.	Davison, Martinson and Kock (2004)
Evaluate the quality of a participatory action research project.	Baskerville (1999a)
A prescriptive framework that defines both the criteria of how action research should be conducted and assessed.	Lau (1999)
Evaluate suitability of action research study for inclusion in journals.	Baskerville and Myers (2004)

Whilst action research is praised for its relevance from a results perspective, it is criticised for lacking rigour (Davison et al., 2004). To improve the rigour and the contribution of action research, Baskerville (1999b) proposes seven strategies:

1. Action research should be the appropriate method and of interest to the audience.

2. The researcher should ensure that "informed consent" is provided and not disguised as consulting. Avison, Baskerville and Myers (2001) propose that rigour will be improved by ensuring that the appropriate control structures relating to the initiation, the authority for action and the degree of formalisation are defined.

3. A theoretical framework should be used in the diagnosing stage and the emergence of theory should be recorded.

4. The data collection methods and techniques should be planned to assist in the management of interpretive and qualitative data.

5. It is important to preserve collaboration with the subjects and avoid dominating the diagnosing and action planning stages, because the subjects hold key knowledge.

6. Action failures can be more important from a learning and knowledge perspective, because action research is typically cyclical and should continue until the immediate problem is solved.

7. Generalisations should be limited to similar settings where a theory may apply, because the theories developed are founded in deductive generalisations.

To assess the rigour and relevance of the research study, I selected the assessment framework created by Davison, Martinson and Kock (2004). The assessment framework provides a set of principles and criteria that both a researcher and a reviewer can use to evaluate the rigour and relevance of an action research study. Table 8.6 is the self-evaluation I completed to demonstrate the action research study is rigorous and relevant.

Table 8.6: Assessment framework created by Davison, Martinson and Kock (2004) to evaluate rigour and relevance of the action research study

Principle	Item	Criteria	Response
Research-Client Agreement (RCA)	1.1	Did both the researcher and the client agree that CAR was the appropriate approach for the organisational situation?	Yes, because the organisation uses action-based learning projects and design thinking in management development programmes, the CEO identified similarities to CAR and was comfortable that action research will not be disruptive from a practice perspective whilst supporting my objectives from a research perspective.
	1.2	Was the focus of the research project specified clearly and explicitly?	Yes, before commencing with the research project formal approval was obtained from the Head of Legal, Risk and Compliance.
	1.3	Did the client make an explicit commitment to the project?	Yes, the CEO initiated the project, and I was appointed programme manager. In the case study context chapter, I explain the background and reason why the project was initiated.
	1.4	Were the roles and responsibilities of the researcher and client organisation members specified explicitly?	Yes, the CEO was the project sponsor, a steering committee was established consisting of the CFO, Head of HR, and Regional Heads. As programme manager I chaired the steering committee and was responsible for project management. My academic interest and the objective were communicated to stakeholders.
	1.5	Were project objectives and evaluation measures specified explicitly?	Yes, the programme objectives and key principles were defined during the diagnosis stage in Cycle 1 and used to evaluate the prototype results and refine business rules. The business case to support the programme contained a set of quantitative and qualitative objectives that formed the basis for a formal review of the programme after the first year of implementation, and during the evaluation stage in Cycle 2. Although the objectives of each additional supporting toolset were defined in Cycle 3 of the study, there were no explicit pre-defined evaluation measures. The evaluation stage of each supporting toolset in Cycle 3 however demonstrated that the adoption and implementation success of a toolset was influenced by perceived utility, novelty, effort required to use and the reliability of the results.
	1.6	Were the data collection and analysis methods specified explicitly?	Yes, in the methodology chapter I explicitly specified and discussed the data collection and analysis methods.
Cyclical Process	2.1	Did the project follow the CPM or justify any deviation from it?	Yes, each of the cycles in the study followed the cyclical process model.

Principle	Item	Criteria	Response
Model (CPM)	2.2	Did the researcher conduct an independent diagnosis of the organisational situation?	Yes, as researcher, practitioner, and participant I conducted my own diagnosis through engagement and reflection. As a fulltime employee with more than 20 years of institutional knowledge and entrenched relationships, I am familiar with both the employee, line manager and organisational perceptions, frustrations, and expectations. As programme manager it is my responsibility to manage the operational aspects of the programme and have the situational awareness to proactively identify opportunities and to manage and resolve challenges. Due to my tenure, relationships, and role in the organisation I am continuously diagnosing problems from both a research and practice perspective to identify opportunities for novel and interesting projects to support the programme.
	2.3	Were the planned actions based explicitly on the results of the diagnosis?	Yes, the results from the diagnosing stage in each cycle formed the basis for the planned actions. However, additional supporting actions surfaced during the evaluation stages and contributed to the cyclical and iterative nature of the study. For example, in Cycle 3 during the development of additional supporting toolsets, the improved understanding of line managers resulted in either additional information or IS functionality requirements.
	2.4	Were the planned actions implemented and evaluated?	Yes, planned actions were implemented and evaluated. The results of the evaluation stage also determined if additional supporting actions were required.
	2.5	Did the researcher reflect on the outcomes of the intervention?	Yes, during Cycle 1 as researcher, practitioner, and participant I continuously reflected on the stakeholders' level of understanding, areas of concern and the status of trust formation in the programme. In Cycle 2 the focus of my reflection centred on the importance of access points, how the IS contradicted preconceived perceptions and unintended consequences. In Cycle 3 with the development of additional supporting IS toolsets my reflections focused on how the perceived utility, novelty, effort required, and reliability of results impacted on the successful implementation of IS capabilities.
	2.6	Was this reflection followed by an explicit decision on whether or not to proceed through an additional process cycle?	Yes, in Cycle 1, reflection formed part of each stage and continuously informed my approach and next steps. For example, I arranged regular informal coffee sessions with stakeholders to clarify uncertainties and unpack specific issues. I created an issue log, and each issue was analysed, classified and a recommended action was documented. The issue log was then presented at the steering committee for review and guidance. Additional process cycles entailed validating the original diagnosis, and then additional action planning, action taking and evaluation stages.

In Cycle 2, continuous reflection informed the engagement approach and the content presented. For example, formal access points allowed for general updates, promoted transparency in the process, and demonstrated a willingness to engage and receive input to enhance the programme. Whereas informal access points on the other hand created an environment for more detailed discussions where the Private Bankers, |

Principle	Item	Criteria	Response
			line managers and Regional Heads could freely discuss uncertainties and issues that impact on their ontological security. Through continuous engagement the level of understanding in the PM programme increased and required additional action planning and action taking stages to support the adoption of the PM programme. Within the first year we noticed a behaviour change when many Private Bankers started to focus on the drivers of profitability and increased engagement focusing on advice on how to improve their performance. In Cycle 3, the purpose of reflection in the design and development of additional supporting IS toolsets were twofold. Reflection provided the input for IS toolset refinement through additional action planning and action taking stages. Secondly, I used reflection to evaluate the reasons for implementation and adoption success or failure of IS toolsets and used it as a learning input in the design of the next supporting IS toolset.
	2.7	Were both the exit of the researcher and the conclusion of the project due to either the project objectives being met or some other clearly articulated justification?	Yes, in Cycle 1 and 2 the exit was the conclusion of the project by achieving the objectives. The exit for Cycle 1 was the approval of the programme. The exit for Cycle 2 was the formal review by the steering committee after the first year of implementation to assess if the PM programme met the objectives and supported the original principles. The exit for a supporting IS toolset in Cycle 3 was defined as either the point when an IS toolset was migrated from a prototype in MS Excel to the BI platform, for example Portfolio Maps and Hyper Segmentation, or if stakeholders elected not to proceed with the refinement of the IS toolset. For example, the Banker Capacity Model dependency on complete and accurate data and limited contextual client data raised more questions than providing answers and led to line managers not trusting the results as reliable and actionable. Whereas the Private Banker Grading Model method was perceived by many line managers as too subjective and limiting their ability and role in the evaluation process.
Principle of Theory	3.1	Were the project activities guided by a theory or set of theories?	Yes, I used theory to explain the reason for certain phenomena for example structuration theory, social exchange theory, social capital theory and self-determination theory. During the study additional theories surfaced for example affordance design theory. I also used a theoretical framework to create the structure and framework of the research study, to identify concepts and constructs, and in the research design, data collection, analysis, and interpretation.
	3.2	Was the domain of investigation, and the specific problem setting, relevant and significant to the interests of the researcher's community of peers as well as the client?	Yes, from a research community perspective the study extends the limited research and evidence on employee compensation programme effectiveness facilitated by a PMIS. The findings show the value of using a dynamic trust framework to focus the IS practitioners' attention on social practices relevant to designing a PMIS. The study demonstrates to peers how the organisation is transitioning HRIS and HRM from treating employees as passive recipients of HRM to active participants and encouraging employee engagement.

Principle	Item	Criteria	Response
			From a client perspective, to create greater fairness and transparency in the reward distribution processes that would contribute to improved Private Banker morale, engagement, trust formation and retention was of interest.
	3.3	Was a theoretically based model used to derive the causes of the observed problem?	Yes, I used a theoretical framework to create the structure and framework of the research study, to identify concepts and constructs, and in the research design, data collection, analysis, and interpretation.
	3.4	Did the planned intervention follow from this theoretically based model?	Yes, in Cycle 1 the theoretical framework highlighted that frames were the logical starting point and if the PM programme and PMIS can demonstrate how these concerns are mitigated it will impact on ontological security and trust. With the assistance of the theoretical framework, we were able to plan the different engagement approaches, expectations, and objectives.

In Cycle 2, theoretical framework indicated that the PM programme and PMIS implementation approach and content will need to first address issues related to existing frames and ontological security. Secondly, when we introduce the Private Bankers to the PMIS they will need sufficient time to familiarise themselves with the PMIS, how it supports the programme objectives and ability to interrogate the business rules and supporting data. Thirdly we will need to provide processes for the Private Bankers to raise design blind spots and operational malfunction issues. Finally, different types of access points would be required, depending on the type of session, question, or group of Private Bankers.

In Cycle 3, to assist with the IS design and development approach I used the theorical framework as a reference to ensure we do not only focus on building an IS toolset, but also focus on stakeholder engagement via access points and to reflect and address different perspectives. |
	3.5	Was the guiding theory, or any other theory, used to evaluate the outcomes of the intervention?	Yes, I used the trust framework that is based on structuration constructs to evaluate and reflect on the outcomes of each cycle.
Change through Action	4.1	Were both the researcher and client motivated to improve the situation?	Yes, the organisation required a new PM programme enabled by a PMIS to address issues related to employee trust that was impacting on motivation and engagement, but also ensured an alignment to organisational objectives and sustainable profit growth. As researcher and programme manager I was motivated to successfully deliver a programme that achieve the organisational objectives.
	4.2	Were the problem and its hypothesised cause(s) specified as a result of the diagnosis?	No, the organisation had a pre-existing problem with the current employee compensation programme and the impact on Private Banker morale, engagement, trust, and retention.

Principle	Item	Criteria	Response
			In Cycle 1 the objective of the diagnosis stage was firstly to gain an understanding of the problem from different perspectives by gathering input from various stakeholder groups. The inputs were then consolidated and grouped into common themes and aligned to key concepts in the theoretical framework to assist in understanding how themes impact on each other and create what I called "key messages".
			In Cycle 2, the inputs from the Private Bankers and line managers from the diagnosing stage and insights from learning and reflection stages in Cycle 1 formed the starting point for the diagnosing stage. The key themes that surfaced in Cycle 1 was used to demonstrate how we solve issues related to the previous PM programme, and address line managers uncertainties relating to how the PM programme will impact on their role and the ability to control and influence the Private Bankers behaviour.
			In Cycle 3, the successful implementation and adoption of the PM programme resulted in questions how to plan and improve Private Banker performance and concerns relating to capacity. The diagnosis stage focused on defining the requirements and objectives of the supporting IS toolsets.
	4.3	Were the planned actions designed to address the hypothesised cause(s)?	Yes, the objective and planned actions of Cycle 1 were the design and approval of a new Private Banker PM programme and PMIS, whereas the objective and planned actions of Cycle 2 were the successful implementation and adoption of the PM programme and PMIS by Private Bankers and line managers. Cycle 3 was the result of improved understanding of the drivers of performance and to maintain the trust by complementing the PM programme with additional IS toolsets to assist Private Bankers and line managers.
	4.4	Did the client approve the planned actions before they were implemented?	Yes, in Cycle 1 and 2 the planned actions were presented to the steering committee for approval. In Cycle 3 the design and development of each support IS toolkit was managed as a small project. Regular updates were presented at the strategic management committee meetings to receive direction and approval.
	4.5	Was the organisation situation assessed comprehensively both before and after the intervention?	Yes, there was a formal review by the steering committee after the first year of the PM programme implementation to assess if the PM programme met the objectives and supported the original design principles.
	4.6	Were the timing and nature of the actions taken clearly and completely documented?	Yes, proposals addressing business problems or opportunities were presented to stakeholders for review and approval.
Learning through Reflection	5.1	Did the researcher provide progress reports to the client and organisational members?	Yes, in Cycle 1 and 2 progress reports were presented at various forums on a regular basis, for example strategic management committee, steering committee, regional leadership team meetings. In addition, an email report was distributed monthly to the steering committee and line managers. In Cycle 3 progress

Principle	Item	Criteria	Response
			reports were distributed via email to key stakeholders and presented at project meetings and ad hoc at strategic management committee.
	5.2	Did both the researcher and the client reflect upon the outcomes of the project?	Yes, the organisation conducted a formal review of the programme after the first year of implementation. Additionally, an annual review was included in the operational management of the programme to reflect on the learnings, issues or opportunities that surfaced during the prior year for evaluation and inclusion in the current year's programme. As employee, participant, practitioner, and researcher I continuously reflected on aspects I think we can or should have done better, the reason or cause and my role and influence on the outcome. By engaging with line managers and Private Bankers informally on a regular basis to share reflections created a common sense of understanding.
	5.3	Were the research activities and outcomes reported clearly and completely?	Yes, the analysis and findings chapter provide a detailed description of the research activities and outcomes. During each cycle the five action research stages are demonstrated and supported with quotes from stakeholders, diagrams and IS screenshots.
	5.4	Were the results considered in terms of implications for further action in this situation?	Yes, it is discussed in the directions for future research section.
	5.5	Were the results considered in terms of implications for action to be taken in related research domains?	No, the research study is limited to the case organisation.
	5.6	Were the results considered in terms of implications for the research community (general knowledge, informing/re-informing theory)?	Yes, it is discussed in the evaluation of the research contribution to knowledge section.
	5.7	Were the results considered in terms of the general applicability of CAR?	Yes, it is discussed in the evaluation of the research contribution to knowledge section.

To evaluate the quality of a participatory action research project, Baskerville (1999a) proposes four key process sets that need to be applied and demonstrated. Table 8.7 demonstrates how the assessment framework by Davison, Martinson and Kock (2004) I used for self-evaluation align to the four key process sets.

Table 8.7: Key processes sets that a participatory action research project need to demonstrate according to Baskerville (1999a)

Baskerville (1999a) key processes sets	Davison, Martinson and Kock (2004) assessment framework	
	Principle	**Item**
Action is determined and the result of client participation.	Research-Client Agreement (RCA)	1.1
		1.2
		1.3
	Cyclical Process Model	2.3
		2.6
	Change through action	4.2
		4.3
		4.4
		4.5
Demonstrating sufficient understanding of the intended goals of the action.	Research-Client Agreement (RCA)	1.5
	Cyclical Process Model	2.4
	Learning through reflection	5.3
		5.4
The researcher role and participation in the project.	Research-Client Agreement (RCA)	1.4
	Cyclical Process Model	2.2
		2.5
	Change through action	4.1
	Learning through reflection	5.1
		5.2
Theory is informed by action.	Principle of theory	3.1
		3.2
		3.3
		3.4
		3.5

Lau's (1999) refines IS action research framework as a prescriptive framework that defines both the criteria how action research should be conducted, as well as how to assess action research. The framework consists of four dimensions, the conceptual foundation dimension, the study design dimension, the research process dimension, and the role expectations dimension. Table 8.8 is the self-evaluation I completed to demonstrate that the action research study complies with the criteria how action research should be conducted, as well as how to assess action research.

Table 8.8: Lau's (1999) refined IS action research framework of how action research should be conducted and assessed

Dimension	Criteria	Response
Conceptual foundation	**The goal of the conceptual foundation dimension is to ensure:**	
	The objective of the research addresses a genuine practical problem in an immediate situation.	The case study context chapter provides the history of PM programmes in the organisation and the impact the previous PM programme had on Private Banker morale, engagement, and retention.
	The perspective of the researcher is explicitly defined, for example interpretive, critical, or even positivistic.	In the research methodology chapter, I evaluate various philosophical perspective and explain why I selected the interpretive perspective as appropriate for this research study.
	The action research stream is selected, for example participatory action research for participant collaboration versus action learning in experiential learning.	In the research methodology chapter, I explain that due to my roles as employee, PM programme manager and researcher with knowledge of action research and general IS theories that participatory action research is the appropriate research stream.
	The theoretical assumptions which provide the philosophical underpinnings that will be used to make sense of the findings are identified.	In the research methodology chapter using Gregor (2006) classification system I discuss why I selected theory for explaining, supported by examples. I also explain how the theoretical framework creates the structure and framework for the research study and role in identifying concepts and constructs, the research design and in data collection, analysis, and interpretation.
Study design	**The purpose of the study design dimension is to:**	
	Describe the methodological details of the study. It includes the organisation context, the intended change and information about the participants. The data sources are described, what types of data will be used, how data will be collected and analysed, and why the data sources are credible and dependable.	In the case study context chapter, I discuss the history of PM programmes in the organisation and the impact the previous PM programme had on Private Banker morale, engagement, and retention. The case study context chapter also include details about the participants impacted by the PM programme and PMIS and intended change. In the research methodology chapter, I discuss the rationale for the case study site selection. I explain the research instruments and describe the data sources, what types of data will be used and how data will be collected and analysed.

Dimension	Criteria	Response
		To demonstrate why the data sources are credible I explain the characteristics of the interview groups, how the interview group participants were selected and the interview process approach.
	The duration of the study, the degree of openness and its appropriateness and adequacy for the social phenomena being studied.	In the research methodology chapter, I discuss the duration of the study and the appropriateness and relevance of the study to the organisation. I also explain how a variety of research instruments enabled me to describe the social context, goals, and objectives of the PM programme and PMIS.
	The of type access the researcher has and the extent to which the researcher is involved the change process is also explained.	In the case study context chapter, I describe my role in the organisation and participation in the design and development of the PM programme and PMIS.
	The presentation style is discussed, for example a case report that is either exploratory or descriptive in nature, and considering the targeted publication source requirements.	In the research methodology chapter, I discuss different presentation styles and the reason for selecting a single longitudinal case study as presentation style.
Research process	**The research process dimension defines the steps that make action research unique and sequence how action research is conducted:**	
	Iterative and systematic process of problem diagnosis.	In the analysis and findings chapter, I demonstrate the diagnosis process and objectives during each of the three cycles.
	Planned action interventions.	In the analysis and findings chapter, I demonstrate the planned actions interventions during each of the three cycles.
	Learning or feedback on the change instigated.	In the analysis and findings chapter, I demonstrate the evaluation and feedback during each of the three cycles. I also discuss my personal reflection and learning through the process.
	Contributing new credible, transferable, dependable and confirmable knowledge.	In the analysis and findings chapter, I demonstrate how the action research process is applied in different contexts, for example during the scoping and design of a PMIS, to the implementation and adoption process and the continuous process of designing and developing supporting IS toolsets. I demonstrate how I used the theoretical framework and extended it. I demonstrate how a set of prescriptive PM programme design principles informed the PMIS design principles that is consistent with the concept of affordance and the design

Dimension	Criteria	Response
		for socio-technical systems. Finally, I demonstrate how the PMIS assisted in improving organisational practice and fostering trust.
Role expectations	**The role expectation dimension assist in:**	
	Identifying ethical issues.	In the research methodology chapter, I discuss the autonomy and rights of the participants, their right to confidentiality and the treatment and safekeeping of information.
	Clarifying the expectations and nature of engagement.	The CEO initiated the project, and I was appointed programme manager. My role as researcher was known to the CEO, CFO, Head of HR, and Regional Heads.
	To evaluate the competency and capacity of both the organisation, the individuals and researcher participating in the action research project.	The CEO was the project sponsor, a steering committee was established consisting of the CFO, Head of HR, and Regional Heads. As programme manager I chaired the steering committee and was responsible for project management.

Finally, Baskerville and Myers (2004) note that action research has to meet three requirements to be suitable for inclusion in journals. Firstly, it should demonstrate a contribution to practice, secondly, demonstrate a contribution to theory, and finally the researcher should identify the criteria to evaluate the research and explicitly demonstrate how the research meets the criteria. In Table 8.9 I demonstrate how the action research study met the three requirements.

Table 8.9: Baskerville and Myers (2004) suitability requirements for an action research study inclusion in journals

Requirement	Demonstration
Demonstrating a contribution to practice.	The analysis and findings chapter demonstrates how the action research process is applied in the different context, and how a set of prescriptive PM programme design principles informed the PMIS design principles that is consistent with the concept of affordance and the design for socio-technical systems. Finally, I demonstrate how the PMIS assisted in improving organisational practice and fostering trust.
Demonstrating a contribution to theory.	In the analysis and findings chapter I demonstrate how I used the trust framework and extended it.
Identify the criteria to evaluate the research and explicitly demonstrate how the research meet the criteria	- I completed a self-assessment using the framework created by Davison, Martinson and Kock (2004) to evaluate rigour and relevance of the action research study. - I demonstrated how the assessment framework created by Davison, Martinson and Kock (2004) align to the key processes sets that a participatory action research project need to demonstrate according to Baskerville (1999a). - I completed a self-assessment using Lau's (1999) refined IS action research framework of how action research should be conducted and assessed.

By completing the four self-assessment frameworks I have demonstrated that the action research study meets the requirements in terms of rigour and relevance, quality, process, and inclusion in journals.

In the next section I discuss the limitations of the research study.

8.5 Limitations of the research study

The potential limitations of the action research study can be categorised in terms of presenting a fresh outlook, the impact of personal bias, the ability to generalise the findings, the ability to evoke action, and the repeatability of action research given my role as an active participant and employee of the organisation.

Walsham (2006) comments on the potential risk of not being able to present a fresh outlook when an action researcher has had a long relationship with the case organisation and the limitation of personal bias. Additionally, there is also a risk that people might be reluctant to share their views openly and honestly because they do not distinguish between the action researcher role and the colleague role, and how their feedback might be interpreted and affect them. I have the privilege to explore new ideas and continuously diagnose problems and identify opportunities for proactive action taking as an employee with more than ten years' experience working closely with the leadership team. The social

capital I have accumulated assists me in how to position and present ideas, how to lobby support, when the right time is to present ideas and how to navigate the organisational bureaucratic maze. Although I used member checking and triangulation to present what Klein and Myers (1999) define as a plausible account that is trustworthy, there is a risk that my tenure and active participation may result in bias research interpretation and findings. Secondly, whilst the interview group shared their views candidly, there is a risk that due my relationship with the interviewees their feedback might be biased towards providing responses to what they thought I need, instead of providing responses that reflected their actual experience and perceptions. To mitigate this the research study did not only demonstrate projects that were successful, but also projects that failed implementation and adoption to provide a plausible and trustworthy account of how the action research study was conducted and the trust framework applied.

Additional limitations of the research study include the ability to generalise the findings according to Klein and Myers (1999) and Lee and Baskerville (2003), the ability to evoke action according to Lincoln and Guba (1988), and the repeatability of action research according to Baskerville and Pries-Heje (1999). Besides the influence that organisational culture and leadership style have on performance management practices and renumeration approaches, local industry norms and regulatory rules also influence and limit the ability to generalise and replicate the findings. Where private banking in South Africa focuses predominantly on transactional banking and lending activities, in Europe and the USA private banking focuses on wealth management and investment services. Industry norms in terms of remuneration in South Africa tend to be either fixed bonus programmes or commission-based incentive schemes that is regulated. The ability to generalise the findings may be limited, because the population of the study focuses on South Africa and is limited to a single financial services organisation. Additionally, because the PM programme and PMIS have only been operational during a period of continuous profit growth and have not experienced a period of negative growth, it is unknown whether the findings are limited to the phenomenon and whether the theory that is extended from this case study can be generalised.

Finally, I am aware of my academic research limitation as a novice researcher and how this may impact on how I executed the action research study, my interpretation of the findings and nuances I neglected to identify and analyse.

8.6   Directions for future research

Directions for future research are categorised into opportunities for future research interventions specifically related to the organisation that is the focus of this research study, and research directions for IS designers and HRM practitioners at other organisations and in different industries.

The focus of the research study is limited to the initial design and development, implementation, and adoption of the PM programme, PMIS and additional supporting IS toolsets. The impact of Covid-19 in 2020 was a significant decline in the organisation profit and performance rewards. Covid-19 also changed how people work, engage, perceive, and manage performance. Future research should evaluate if a decline in performance rewards had an impact on the perceived relevance and fairness of the PM programme and PMIS. Future research should also evaluate the impact and contribution of the PM programme and PMIS to maintain trust by providing transparent and objective results, during a period of great uncertainty and physical disconnectedness. Finally, future research should evaluate to what extend the dynamic trust framework contributes to other IS project implementation and adoption success. Due to the success of the PM programme and PMIS contribution to improved Private Banker trust, engagement, and morale as well as the significant increase in organisational performance, two additional business units in the organisation have initiated projects to implement the PM programme and PMIS. Future research should evaluate the design relevance, trust formation, adoption, and impact of the PM programme and PMIS in these business units. To ensure the performance reward programme remains trusted and relevant, future research should focus on including trust enhancing PMIS affordances that support employees, line managers and executives.

The study demonstrates to IS designers how I used the Schlichter and Rose's (2013) Structuration and Information System Trust Creation model and extended it to balance the model with technical components, and applied it in various projects and in a different cultural and industry setting. It is recommended that future research by IS designers should not only further evaluate the relevance of Schlichter and Rose's (2013) Structuration and Information System Trust Creation model in different industries and cultural contexts, but also evaluate the extension I propose in this research study to assist in the formation and maintenance of trust.

The research study also demonstrated the robustness of action research, the value of prototyping during the action taking stages to crystallise requirements and the role of PM design principles with a focus on trust affordances. Future research by IS designers interested in action research should consider how Sein, Henfridsson, Purao, Rossi and Lindgren's (2011) Action Design Research could complement the action planning and action taking stages with the objective to increase IS project implementation and adoption success. To ensure a socio-technical design balance that would contribute to IS implementation and adoption success, future research should include design principles and affordances that satisfy the requirements of Chandra, Seidel and Gregor (2015) and Maier and Fadel (2009).

To HRM practitioners the research study demonstrates how the PM programme and PMIS address criticism raised by Varma, Budhwar and DeNisi (2008), Gruman and Saks (2011) and Schleicher, Baumann, Sullivan, and Yim (2019) in terms of employee distrust in PM programmes due to limited

objective measurements and insufficient communication, and the lack of evidence that demonstrate the effectiveness of PM programmes. The research study demonstrates the application of the dynamic trust framework in various projects. Future research by HRM practitioners should further evaluate the relevance of Schlichter and Rose's (2013) Structuration and Information System Trust Creation model in different industries and cultural contexts, and the extension of the model I propose and to what extent it assist in the formation and maintenance of trust with employees and contribute to PMIS project implementation and adoption success. The research study also demonstrates how an increased understanding of the drivers of performance by line managers resulted in the need for supporting IS toolsets and the re-organisation of Private Banker portfolios based on experience, skills and interest. It is recommended that future research by HRM practitioners should focus on design principles and affordances that satisfy the requirements of Chandra, Seidel and Gregor (2015) and Maier and Fadel (2009) to ensure PM is aligned and integrated into the organisational planning and decision-making.

Finally, the scope of the research study focuses on how to improve employee engagement, morale and the establishment of trust in a PM programme and PMIS prior to the global impact of Covid-19 in 2020. Future research by HRM practitioners should consider the impact of distantiated working relationships across various roles, how to maintain trust and the supporting PM practices and PMIS requirements that promote employee motivation and engagement.

8.7   Concluding summary

Organisations are continuously searching for new ways to ensure that employees are motivated and engaged, and that they trust the organisation and its leadership team. Performance management and rewards programmes can influence motivation, engagement, and trust. This research study provides IS researchers and HRM practitioners with a glimpse into the journey of how the organisation used a PM programme and PMIS to re-establish and maintain trust with employees as well as incorporating the learnings and insights into other organisational planning capabilities.

My hope for IS researchers is to recognise the importance of trust in what they do, how they do it and the benefit of incorporating the socio-technical perspective in their engagement with stakeholders and design of IS. For HRM practitioners my hope is that the research study provided them with insights of how they can leverage a PMIS to contribute to strategy planning and tactical execution.

The organisation and my research journey continue with the objective to create a mutually beneficial outcome for both the employees, stakeholders, organisation, and shareholders.

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Appendices

    A. Ethics clearance

    B. Approval letter

    C. Consent form

    D. Interview guide

    E. Interview process summary

    F. Sample Transcript

    G. Content storage and management

    H. PM Programme Infographic

A. Ethics clearance

Faculty of Engineering,
Built Environment and
Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en
Inligtingtegnologie / Lefapha la Boetšenere,
Tikologo ya Kago le Theknolotši ya Tshedimošo

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Reference number: EBIT/112/2018   24 October 2018

Mr S Brandt
Department of Informatics
University of Pretoria
Pretoria
0028

Dear Mr Brandt

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Conditional approval is granted.

This means that the research project entitled "*A structuration perspective of trust building in IT – business relations*" is approved under the strict conditions indicated below. If these conditions are not met, approval is withdrawn automatically. The applicant is not required to submit an updated application.

Conditions for approval

1. The application refers to a case study between 2015 and 2017. It is not read as meaning that the study has already been completed and that ethics clearance is sought retrospectively. However, please confirm in writing to the EBIT ethics committee that this is indeed the case, i.e. that no part of the study that requires ethics clearance has already been completed.

2. The informed consent form should explicitly request permission for recordings.

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Ethics Committee.

If action is taken beyond the approved application, approval is withdrawn automatically.

According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof JJ Hanekom
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY
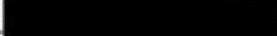
B. Company permission letter

3 September 2018

Approval Letter

To whom it may concern:

I, ████████████████ , as delegated authority of ████████████ , herby give permission to the researcher, Stefan Brandt, a doctoral student at the School of Information Technology at the University of Pretoria, for the following:

1. To engage (interviews) with the employees of the above-mentioned organisation. I have reviewed the interview questions given to me by the researcher. I hereby give my approval for using the interview questions by the researcher.
2. To collect and publish information about the above-mentioned organisation that is publicly not available for the research project, titled: A structuration perspective of trust building in IT- business relations.

This authorisation is based on a mutual understanding that the above-mentioned organisation's name will not be mentioned anywhere in this project.

Additionally, no information in this project will enable a third party to identify the name of the above-mentioned organisation as the respondent to the interviews.

The information provided by the employees or any other means (such as the organisation's archived documents or reports) of the above-mentioned organisation is purely for academic purposes and cannot be used for any other purpose.

Approved by:

Signature:

Name:
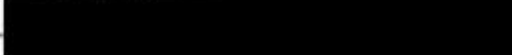
Designation: Head. Legal, Risk & Compliance

Date: 03·09· 18

Tel/Email address:

BANKING | SPECIALISED LENDING | WEALTH MANAGEMENT | STOCKBROKING | FIDUCIARY SERVICES

C. Approval letter

88 Saint Swithins Avenue

Auckland Park

2092

2 April 2018

To whom it may concern:

I, _____, as delegated authority of _____, herby give permission to the researcher, Stefan Brandt, a doctoral student at the School of Information Technology at the University of Pretoria, for the following:

1. To engage (interviews) with the employees of the above-mentioned organisation.   I have reviewed the interview questions given to me by the researcher.   I hereby give my approval for using the interview questions by the researcher.
2. To collect and publish information about the above-mentioned organisation that is publicly not available for the research project, titled: Designing a performance management information system to bridge trust: An action research case study.

This authorisation is based on a mutual understanding that the above-mentioned organisation's name will not be mentioned anywhere in this project.

Additionally, no information in this project will enable a third party to identify the name of the above-mentioned organisation as the respondent to the interviews.

The information provided by the employees or any other means (such as the organisation's archived documents or reports) of the above-mentioned organisation is purely for academic purposes and cannot be used for any other purpose.

Approved by:

Signature: _____

Name: _____

Designation: _____

Date: _____

Tel/Email address: _____

Official stamp:

D. Consent form

Letter of introduction and informed consent

University of Pretoria – Department of Informatics

Designing a performance management information system to bridge trust: An action research case study

Interview questions

<div align="right">
Research conducted by:
Stefan Brandt
Cell: 082 330 5771
</div>

Dear Participant

Thank you for taking the time to join me today.   It is greatly appreciated. The study is part of my doctorial research at the Department of Informatics, University of Pretoria. The purpose of the study is to gain a structuration perspective of trust building in IT and business relations.

Please note the following:

This is an anonymous interview which will take approximately 30 to 45 minutes. All sessions will be audio recorded. The recordings will be transcribed for processing. The recordings and transcripts will be treated as strictly confidential.

Your participation in this study is very important. You may, however, choose not to participate or stop at any given time should you feel uncomfortable, without any negative consequences.

- Please answer all questions as honestly as possible.
- There is no right or wrong answer.
- The results of the study will be used for academic purposes, internal use and may be published in academic journals.
- Please contact my study leader, Prof R. Naidoo (012 420 3351 / rennie.naidoo@up.ac.za) should you have any questions or comments regarding the study.

Please sign the form to indicate that:

- You have read and understand the information provided above.
- You give your consent to participate in the study on a voluntary basis.
- Upon signing the document, you will be provided with a copy.

_____   _____

Participant's signature   Date

E. Interview guide

Generic questions posed to all interviewees: "guide will be refined once research questions are clear"

Table D.1: Interview guide questions applicable to all interviewees

Interview Question	Question Objective
Interviewee name.	Background information and context about the interviewee.
Interviewee role.	Background information and context about the interviewee.
Number of years of experience in the role.	Background information and context about the interviewee.
Tell me a bit about your background, for example how long have you been with the organisation?	Background information and context about the interviewee.
How would you describe the culture and management style in the organisation? What is your ideal management style? How much freedom/discretion do you have in planning your schedule and priorities?	Background information and context about the interviewee.
How would you explain to a new employee how the previous remuneration programme worked?	
What is your opinion of the previous programme? What were the advantages and disadvantages of the previous programme?	
What level of transparency did the previous programme offer eg were you able to objectively assess and compare performance?	
What tools and support did you have access to previously to assist you in you in either managing the performance of yourself or Bankers?	
Did you trust the process that Bankers would be treated fairly eg judged based on performance and not a line manager's perception and personal bias?	
What type of conflict scenarios did you encounter due to the previous programme and how was this dealt with, e.**g.** did forums or process exist through which issues could be raised?	
How would you explain to a new employee how the current remuneration programme works? What differentiates the programme and enabling information system from previous programmes?	
What is your opinion of the current programme? Is it a success or failure and why do you say so? What are the advantages and disadvantages of the programme for you in your role? What are the advantages and disadvantages for people in other roles eg Line Management, HR and Finance? What aspects of your role has it simplified or complicated?	
What approach was used in the implementation and change management of the programme and enabling information system work? What role did	

Line Management and support functions play? What type of support was offered? What are the advantages and disadvantages?	
What information systems and support do you have access to, to assist you in you in either managing the performance of yourself or Bankers?	
How has the programme and enabling information system changed how you either manage your own performance or the performance of others? What capabilities do you have now that you previously did not have? What limitations and frustrations do the information system create?	
Do you think they programme creates a sense of ownership in a corporate context, and why?	Establish level of self-determination, internalisation and development of a shared vision.
How has the programme and enabling information system simplified performance management conversations?	
Do you trust the process that you will be treated fairly eg Bankers are judged based on their performance and not their line manager's perception and personal bias?	
In your opinion, what are the sources and causes for mistrust?	
How do you define trust? Are there different forms of trust and how is trust formed?	
What role do you think information systems play in trust formation? How do limitations and frustrations impact on trust formation and creation of conflict within the organisation? How can it be solved?	
What role do you think information systems play in enhancing collaboration the achievement of shared objectives?	

Interview questions focusing specifically on Human Resource (HR) practice:

Table D.2: Interview guide questions applicable to HR practice interviewees

Interview Question	**Question Objective**
What has been the impact of the programme on staff motivation and churn?	
What HR practice specific benefits are you deriving from the programme and enabling information systems?	

Interview questions focusing specifically on Finance practice:

Table D.3: Interview guide questions applicable to Finance practice interviewees

Interview Question	Question Objective
What Finance practice specific benefits are you deriving from the programme and enabling information systems?	

Interview questions focusing specifically on the CEO, Divisional Managers and Regional Heads:

Table D.4: Interview guide questions applicable to leadership team interviewees

Interview Question	Question Objective
The development of the programme and enabling information system was an iterative process of prototypes on MS Excel to enable Line Management to participate in refining the rules of programme. What was the advantages and disadvantages of this compared to traditional system development approaches where requirements are submitted and once a system is built the enhancement phases start?	
How has the programme changed the way you manage, coach and mentor Bankers?	
Did you experience angst and resistance to the programme and behaviour change it required? What type of resistance did you encounter? How did you approach and deal with it? Were there people who just could not adapt? Looking back 12 months after the programme was implemented, is there still the same level of angst and resistance?	
Has the programme changed the planning for your team eg strategy, capacity, focus areas or portfolio structuring?	

Interview questions focusing specifically on Private Bankers:

Table D.5: Interview guide questions applicable to Private Banker interviewees

Interview Question	Question Objective
How has the programme changed your engagement with your line manager?	
Did you experience angst and resistance to the programme and behaviour change it required? How did your line manager approach and deal with it? Looking back 12 months after the programme was implemented, do you still have the same level of angst and resistance?	

Interview questions focusing specifically on Business Intelligence Developers and Business Analysts:

Table D.6: Interview guide questions applicable to PMIS developer interviewees

Interview Question	Relates to Sub Question
What approach was taken with the scoping and development of the enabling information system for this programme? What was the advantages and disadvantages?	
How has the programme changed the level of engagement with Bankers and the type of queries they raise?	
Has there been a change in the way Bankers approach the management of their Client Portfolios? How have the Bankers approach to portfolio management changed?	
What are the limitations of the enabling information system and what frustrations does it cause?	

F. Interview process summary

Table E.1: Interviewee list

Participant	Interviewee Role	Number of Interviews	Transcript
P1	Private Banker	2	8, 26
P2	Private Banker	2	3, 27
P3	Private Banker	1	1
P4	Regional Head and CEO	2	9, 28
P4	CEO	1	33
P5	Line Manager	2	6, 31
P6	Regional Head	2	10, 22
P7	CFO	2	11, 29
P8	HR Head	3	12, 32, 33
P9	Line Manager	2	14, 23
P10	Service Manager	1	13
P11	BI Manager	1	15
P12	Line Manager	1	2
P13	Private Banker	2	4, 25
P14	Private Banker	1	5
P15	Line Manager	2	21, 30
P16	Regional Head	2	17, 34
P17	Solution Specialists	1	7
P18	Financial Manager	1	16
P19	Private Banker	1	18
P20	Line Manager	2	20, 24

The stakeholders were grouped into three distinct groups: the Banker Teams, line managers and Executive Team, and other stakeholders. The other stakeholders' group included the operational support functions, for example Finance, BI and Human Resources.

G. Interview transcript example

Interviewee: Senior Private Banker

INTERVIEWER: Thank you XXX for your time. So, as I explained my study focuses on trust formation, and the role information systems play and how it can assist with mitigating conflict and the formation of trust through this process.
INTERVIEWEE: Yes.

INTERVIEWER: So to start the interview, can you tell me a little bit about your role?
INTERVIEWEE: I am currently a private banker in the XXX space. I look after clients with medium to high net worth, responsible for relationship management, structured financing and investments and all your day to day banking requirements.

INTERVIEWER: How long have you been with the organisation?
INTERVIEWEE: It is going on my 12th year.
....

INTERVIEWER: How would you describe the culture and management style in the organisation?
INTERVIEWEE: I think I've experienced different cultures over the years. The current management style and culture, I believe where I am it is pretty much like you take ownership for what you do, as long as you do what you need to do, which I enjoy.   Currently with my immediate manager it is a, like I said, it is an ownership thing, so it is not a day to day check-up on you. You don't get checked whether stuff is done, which I enjoy.   Previously I obviously have had different management styles, which was more on a micro or on-hand kind of management style.   You know a daily kind of thing.   So, I think pretty much at the moment, you run your own business, and can get support through support structures if it's needed.
....

INTERVIEWER: And your ideal management style, what is your ideal?
INTERVIEWEE: I think this is almost there for me.   I like to be on my own, not to be on my own, but to do my own thing without too much intervention or with too much, how can I say, I don't want to be told what to do to a certain extent. I know what I need to do.   So, I like to have a manager that I can do my own thing.   I know what is needed of me, what is required and if I need something then I will approach them. Obviously if it's an ad hoc thing

that they need then I am happy to look into getting it done, but generally I don't like to be, how can I say, under the microscope.   I know what I need to do, and I'll do it, and that's the kind of environment and atmosphere I like to be in.

INTERVIEWER: How much freedom are you given and discretion in planning your own schedule and your priorities?

INTERVIEWEE: At this point in time I think I'm given a lot of freedom.   I don't think it is like that for all the bankers, but for me, from what I can see, it is pretty much, there is not a daily management of what I do and where I need to be or you know anything like that.   So, I think I am 90% on my own, if I can put it like that, in terms of running my portfolio, running my calendar, and doing what I need to do.   So, it is not a daily check-in as to where I am and stuff like that.   There is the odd check-in as to whether we are meeting some of the hurdles on certain days that they want, but in general I don't have to report on a daily basis.

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INTERVIEWER: Did you only participate in OBB or were you on the discretionary programme as well?

INTERVIEWEE: My first year in XXX, I had to get a discretionary bonus, well it was mid-year so it was between discretionary and OBB.

INTERVIEWER: What is your opinion of discretionary programmes versus OBB?

INTERVIEWEE: Discretionary for me, it leaves a bit of, I almost want to say a bias towards, yes, it is like a bit of bias towards some people.   I might be wrong.   I think it also allows for the human element to overtake the real, the actual what is actually happening. So, the human or the emotional element kicks in.   I am not too big a fan of discretionary, because I believe what you have put in is what you can get out and if it is clear-cut, then you know what you need to do and that is why the OBB works for me. I like the way it is structured, I like the fact that it is performance based and there is not too much of human intervention from what I understand.   And maybe over the last two years what I have seen from the outside, over and above what you do, there is not too much of a management intervention in terms of what your outperformance is going to be in terms of your incentive.   So, I like the OBB.

INTERVIEWER: Under discretion, did you trust the process that bankers would be treated fairly, for example just on performance and not on line managers' perception or personal bias?

INTERVIEWEE: Yes, I think I did, and I also didn't.   I think it depends also you know I've

worked with different managers over years and I think that plays a role as well, the trust that you have with that manager.   And, I think to some extent you weren't always aware…or you weren't always certain how much intervention, or how much weight your manager's decision has on what you used to get. I think in general I used to trust it, but it also depended on manager. And, there was always that "but what if" kind of thought.   Although you don't question it, there is always that "what if".

INTERVIEWER: What type of conflict scenarios did you encounter due to discretionary programmes?

INTERVIEWEE: So, you know over the years obviously there is people coming into the bank and leaving the bank and I think it is more maybe on a salary kind of thing rather than the bonuses itself, is whether it is clear cut, newbies coming in and what their level of expertise is, versus the bankers that are already there and the kind of rewards they can get within the first few months or year, versus the bankers that have already been there.   So, I think there is, there has been previous discussions, I won't say it was really an argument or anything, but more around the period with the bank and the experience versus the reward in terms of incentive and salary.   Yes, so I don't have much, I have not given much push back over the 12 years I've been in the bank.   I've accepted most things that I've been given.

INTERVIEWER: Did forums exist, or processes, where you could raise this?   Or is it just, it is what it is?

INTERVIEWEE: Yes, there I must say, it was, "it is what it is".   You'll get your letter on the 1st, although I think I've been pretty happy with most of it over the years, but also maybe my expectations weren't always very high in terms of bonuses.   I think before I moved to OBB, but at the end of the day there is no discussion in terms of what the bonus was or there wasn't.   It's a… you get your letter… I think most people would believe you can dispute it, but it is already on the letter, so there is nothing to dispute or discuss.   It is done, so it is done. So, yes.

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INTERVIEWER: How would you explain to a new employee how the OBB programme works?

INTERVIEWEE: To a new employee my explanation would be firstly that OBB to a large extent is where you manage your own business, that is the first thing.   You've got your portfolio of clients.   Firstly, you run the profitability of your portfolio, which is your business.   There are targets that you have to meet, you know but obviously that goes towards the OBB.   The explanation would be it is your own business, what you are going to

put in, is what you would get out. Make sure your targets are met, and for me the system can't really lie. So, the tracking and everything seems like it is in order, so you can almost track and see where you are in terms of your yearly targets.

INTERVIEWER: And how does this programme differentiate itself from a discretionary programme in your view?
INTERVIEWEE: So, for me discretionary is you don't know, you might think that you got a great bonus, but you don't really know where you stand in the bigger picture, so you can't really relate it to anything. To some extent, you might think that X-amount is great or bad, but you can't really see where the other guys ended you know, most of the other guys, or the department for that matter and whereas the OBB, you pretty much have a view of what you have been doing throughout the year, a view of the growth, where you stand versus the other colleagues in terms of your rankings. So, to me it is also, although you get your letter on the same day, it is to me a bit more transparent than just not knowing where you are until the last day and you get your letter. So, you've got a pretty much of a view where you are heading and what you need to do not to go backwards.
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INTERVIEWER: And your opinion of the OBB programme? Is it a success or a failure?
INTERVIEWEE: So, I think it is from a banker's point of view, if I have to say from a bank's point of view, I am sure there is the bank's point of view as well, which I would like to know what that is one day. But from a banker's point of view I think it is a success. If I just think about what we have done over the last two years as a banker on discretion, I want to say 99% sure we would have never seen the kind of incentives in a discretionary world and I might be wrong, but for me it really looks like if you put in the hard work, the returns are good for you. And what I do like is it almost feels like the top performers are well looked after and it might be at the expense of the worst performers, the bottom performers and I have no issue with that, because I feel that if you perform you should be looked after and I think that also takes that element of uncertainty out that was on the discretionary side when you don't know when the guy on the bottom of performance is also doing financially well, incentivised well, versus the guys that are doing well. So, I think it is successful. That is my 2 and half years' opinion.

INTERVIEWER: Are there any disadvantages to the programme?
INTERVIEWEE: I don't think there are too many disadvantages to the programme or the way that they incentivise. I think there are still a lot of factors during the year that's not always in your own control that can affect the OBB and it might be technology upgrades,

system down time or failures, whatever the case is it limits you to some extent to fulfil on certain targets and I think the biggest disadvantage then is it feels like it is difficult to get that looked or compensated for that kind of thing. It is almost like the numbers are the numbers unless you really push it up high. I do like the fact that you get paid according to your ranking and that to some extent the caps of what you can earn, I know it is capped, but it seems like it is capped quite high, so you can really push and do well, if you really start early.

INTERVIEWER: So, it sounds like a disadvantage when information is incomplete and not available?

INTERVIEWEE: Yes, definitely. Yes, I think the first thing is for me OBB is reliant on a lot of things, and I think the scorecard is a big element in terms of how quick it is up, how alive it is. I think there could be some work around that because in my mind the sooner you know where you stand, the sooner you know what to fix and that obviously runs back into your OBB. You try and keep track of what you are trying to do, but information is key, because I am a person, that, it is hard for me to know where I am going if I don't see where I am at. I would like to focus on certain things at certain stages during the year. Based on where I am with different targets, I will align my focus for the next month or few weeks or whatever the case is to maybe a line item that is lagging a bit. And if there is a lag effect with the information becoming available then that is maybe a bit of a disadvantage because it causes a bit of a delay in what you want to do and that is brought on next towards the end of the financial year sometimes.

INTERVIEWER: What aspects of your role has OBB simplified or complicated?

INTERVIEWEE: I think it simplified, it has actually made my, setting my goals easier, it made it easier for me to set my goals for the year and to establish right up front what I want to do for the next year. I think what it has complicated is the fact that it works on your mind daily, because it is always at the back of your mind. I think it has made people try to be competitive and whether it being a financial thing or be it because it is a pure ranking thing, they see them ranked wherever in the first or the second or the third tiers and I mean, I sit with a lot of the bankers and everyone is always, every second month measuring, as soon as it is out, asking around what tier are you, where are you at, what is your scorecard like. So, it has created a lot of competitiveness and I think that has helped a lot. So, in terms of simplifying things, I think it helps with setting the targets, setting the goals and it actually it helps with understanding the portfolio to a deeper extent than just I need to have 20 credit cards. You start understanding when you look into the profitability of the target that simplifies it to that extent where you can drill into what really makes money on the portfolio.

And I know the bigger picture is about what we earn and the bonuses but that is off the back of the profitability of the book as well. So, that has helped a lot to understand really what is going on at the back end of the stuff that is really making money for the bank.

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INTERVIEWER: What information systems and support do you have access to, to assist you in managing your performance?

INTERVIEWEE: There is a lot of the bank systems. Your ITC, Windeed, you've got your portfolio maps, the report server. I like to work, it is not necessarily the correct way, but I like to work off the scorecard. I like to work off something that is live, and that is why my opinion of earlier of having something that is available quicker rather than say 3 weeks into the new month. So for me, the scorecard is something I like to work off because that is the figures that pull through in terms of what I have done. So, yes there is a report server, you have got all the CRM tools, your reviews and everything, ITC, I think we have got ample systems available. I might not necessarily use all of them, it could be to my detriment, I'm not sure yet, but I've done pretty well so far. So, maybe I could do a bit better if I use it better.

INTERVIEWER: Has the OBB programme and the OBB toolkit changed how you manage your performance?

INTERVIEWEE: Yes. It comes down for me, to the profitability. I think the focus has moved a lot from just a scorecard item, whilst it is all scorecard items, but just the transactional side of it, hitting a few credit cards, and global and whatever the case is, more to doing that, but to focus on the more meaty deals like your structured financing. You can charge your fees. I think whereas in the years gone by you might not have focused too much on the more complex stuff and this is the honest opinion, the more complex lending stuff, you now want to do it because you focus on getting the profitability of the book up, because at the end of the day that is what makes the business grow or your profits grow.

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INTERVIEWER: Has the OBB system created any frustrations for you?

INTERVIEWEE: Yes, even though I like the system, really I do. I think it is a great system. I don't think we understand it fully, to the full extent that I would like. Sometimes you ask a question, or you try and look at the tiers and you are not sure whether your understanding of the calculation of the top, second, third is correct. Or when you think you do and when you try and test it, or stress test it or whatever, tested it, it does not seem to add up. So, to some extent there is a bit of a frustration, but I think it is something that I probably

you know if I had to go ask the right people I would probably get the answers, I just have not done that.   And, yes also, I think the only other frustration is again, you would like things to be a bit more live, a bit more quicker.   It does not have to be daily, I am just saying that instead of waiting a month and a half for the next OBB or a month maybe for it to, you know as soon as the scorecards are closed to try within the next week or two get the OBB's updated so you can see what has happened.

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INTERVIEWER: You touched on it earlier, does it create a sense of ownership?

INTERVIEWEE: Definitely.   I definitely think so. For me it has done that.   And with my banker friends, although they say that it doesn't, I can see that is the way they see it because again they look at a portfolio more in the sense of how I can make money for the bank. Because, not to sell the wrong things, but to make sure that you optimise the opportunities. And because it is your business, it is your profitability and you get paid on that.   And yes, so, for me it has brought it a huge sense of ownership.   And with that also a bit of competitiveness which is great.

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INTERVIEWER: Has the programme simplified performance management conversations with your line manager?

INTERVIEWEE: I think if you are rational, yes.   Because the numbers speak to what you have done.   There will always be someone that is going to, or some people that will, you know, have a dispute or discussions around why not or whatever, there is, I think there is still a bit of a, here and there, there is still a bit of fluctuation or stuff that you, like I said earlier, that you don't have full control over, but I am also not oblivious to the fact that you probably will never get it 100% right, but you can always strive to get as close as possible to getting it 100% right.   So, I think it has made it easier.   If I was a manager and I had to sit with actual numbers that are, again that are not necessarily discretional, it is more factual, it makes it easier to have a discussion around factual numbers that was done through the year.

INTERVIEWER: Do you trust that you will be treated fairly through the OBB process?

INTERVIEWEE: Yes. I think there is always a bit of a… you will always think of it "what if" or "what not" and "what may be" and to give you an example, if you think about the profitability growth and you know someone with a bigger base that still has to grow 20% versus someone with a smaller base that has to grow 20% it is maybe a bit easier for that person to hit that profitability target than the guy that is already sitting on a… maybe like saying a guy that is growing 3 years in a row at 20% or 30% to still keep on versus a guy that

comes in new.   And now has to grow 20% off half the base.   So I think that there is always that little factor that might, that sometimes it does stick in your head that it is a bit difficult to keep up with those guys, but for me the overall experience is yes.

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INTERVIEWER: How do you define trust?

INTERVIEWEE: Trust for me is when, firstly it is something that is earned, and it is not given.   I think trust is when I can, you know, I almost want to say, hand something over, leave something that is not in my control over to someone else and not have to doubt or think twice that it will be done correctly or that it will be in order.   It is almost something that you cannot feel physically or see, but you know that it would be done.   I think it is something that is built over time.   Trust also comes with meeting promises.   I think that builds trust.   Staying committed to, keeping up with your commitments and not breaking any of the promises.   That is something that is built over time for me.

INTERVIEWER: Are there different forms of trust?

INTERVIEWEE: Good question.   I've never thought of it that way.

INTERVIEWER: So trust in your colleagues. Trust in your line manager, trust in your friends… Or is trust a generic?

INTERVIEWEE: I don't know if it is a different form of trust, but I do believe you feel comfortable with trusting certain people with only certain things, versus what you trust other people with.   I might trust my line manager to make sure my bonus and everything is according to what we have done for the year or make sure that OBB works, but I won't trust my friend with discussing that kind of thing.   So, yes, I think there are different levels of trust definitely.   So, yes. I am not sure how to define it, but now that you have said it, I believe there are different forms of trust yes.

INTERVIEWER: Mistrust.   What do you think are the sources for mistrust?

INTERVIEWEE: Communication.   I think transparency is a big thing.   As soon as things are not really transparent, it puts doubt in people's minds.   As soon as there is doubt in people's minds it causes, you know it can cause mistrust and people, I believe as soon as it is at that level it is difficult to get back to where you were at.   For me a big thing is transparency in terms of trust or mistrust.

INTERVIEWER: The role that information systems like the OBB toolkit plays in trust formation?

INTERVIEWEE: I think it plays a big role, because through the most extent you can, if the information systems are correct and if it is transparent, you can see where you are at, you can see what you have done and what you have not done, and the longer you work in the role or in the environment where information systems are correct, it builds trust. You trust the system that you can do what you need to do, and the processes and the systems will do what is needed from that side. So, I think it has got a big role to play. If you can't trust the fact that if I had to do something today and tomorrow from a scorecard perspective it will show, then it starts breaking the trust and also it starts breaking the confidence in the systems which again goes hand in hand whether you trust it or not.

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INTERVIEWER: We spoke about performance management, but how has the OBB programme changed your engagement with your line manager?

INTERVIEWEE: On a general level engagement, I'm trying to say it's been good, but you know, if I look at it from that perspective, I think what we must watch out for is that we don't disconnect from them because we are almost in our own business. Like I said earlier it is your business, you run with it, they don't really have much to say over it. But I still stay engaged with them because at the end of the day the OBB is based on targets as well and they are the ones that set the targets. I think to some extent the OBB can actually make you, and I want to say this with a pinch of salt, not worry too much about that engagement in terms of your performance, because if you do what you do it shows and you know it is not necessarily discretionary. It is more what you do is what you get.

INTERVIEWER: Has it created an opportunity where you can discuss your portfolio plans with your line manager, or what type of client you are looking for?

INTERVIEWEE: Yes it has and we do have those discussions. You know you have a strategy, like a portfolio strategy with the kind of clients that you want to take over.

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INTERVIEWER: Did you experience any angst as a result of the programme? Did it make you nervous?

INTERVIEWEE: Yes it did, but I had more angst when I had to sit in front of discretionary discussions, or receiving of letters versus this and the reason is during the year you can pretty much track where you are and where you are going. You might not know where you are going to end off. But you have an idea what you have done during the year and what the figures look like. But it did cause a bit of angst for me in the beginning, the first year because it was a bit new, I was not sure exactly how it is done. But I think over the last two

and a half years, I pretty much gotten to know how it works and I feel a lot more comfortable with the system.

INTERVIEWER: How did your line manager approach and deal with angst that you might have experienced?

INTERVIEWEE: It was the previous manager, but he… it was more of me asking a lot of questions and they tried to discuss it or to explain in the best possible way that they knew how.   So, it was trying to make you more aware of the do's and don'ts for OBB and try and get you a bit more comfortable with that.   I had a lot of discussions also with some of the other bankers.   And the thing is when I moved into this role, it was literally, the first year, I just missed the first year.   So, a lot of people just got on it, still pretty new to it.

INTERVIEWER: What type of support was offered with the programme in terms of questions, understanding etc?

INTERVIEWEE: There was your questions and answers that was sent out on e-mail.   Your scorecard packs and the OBB linked to OBB with the definition packs.   The managers to a large extent tried to explain the dynamics of it, but I don't think they could really explain in-depth dynamics like new clients give you more profitability that kind of thing. Sure, it is available somewhere, but the discussions wasn't really held.   I think there was a lot in your definition packs, your questions and answers, e-mails that went out. Some of the questions that were already asked and answered.   That is pretty much it.

INTERVIEWER: How did you cope with these changes?

INTERVIEWEE: For me it was exciting, but a bit stressful because it is a new way of doing things, but it was very exciting, to be honest. I found it exciting to know that your bonus is not based on maybe one or two people deciding what it is going to be.   It is based more on what you have done for the year.   That got me excited, but it also caused a bit of stress in case things were not going well during the year, then you know you might not benefit too much from it.   Which, I have always seen it as a fair programme, it's not always nice, but we feel it, I feel it, whether I was on the right or the wrong side of it, it feels to me like it is a fair programme you know.

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INTERVIEWER: Then my final question, what role do you think in systems play in enhancing collaboration and achievement of shared objectives?

INTERVIEWEE: Firstly, information is key, and I think the right information is even more important.   I think we are flooded with information these days from all over the place.   I

think it is important though, but the right information is key. I think it helps to link up people in business units within the bigger picture and I call it this big machine that we have to oil, the Bank, you don't know half the people that sit on the same floor as you. And you know for me there are so much opportunities within the different divisions within the Bank that we don't really ever get to tap into, although over the last few years this collaboration came up big and everyone is running with, we need to collaborate and so on. I think it plays a big role if people are open to sharing information that can be shared and to share information that can help your colleague do better in their role and maybe they can share with you to make it better for you. So, to me at the end of the day it should be a win for the Bank if everyone is one the right page with what is the goals, where are we going in future, so people don't pull in different directions. And that all comes down to having the right mindset and the right information in terms of what we want to do and what makes what tick, so yes, I think it plays a huge role.

....

INTERVIEWER: Okay, well XXX, that is the end of the interview. Thank you very much. Very good interview.

INTERVIEWEE: Pleasure. I hope I answered, in my own way to the best of my ability. So, yes.

INTERVIEWER: Appreciate it. So, the process is, I am getting this transcribed.

INTERVIEWEE: Okay.

INTERVIEWER: I then codify.

INTERVIEWEE: Yes.

INTERVIEWER: I do the thematic analysis and from there I might do follow up interviews.

INTERVIEWEE: Yes.

INTERVIEWER: So I might approach you again.

INTERVIEWEE: Hundred percent. Happy to do that.

INTERVIEWER: Any questions from your side?

INTERVIEWEE: No. Thank you very much. Thanks for the opportunity to be part of this programme of yours and yes, all the best.

INTERVIEWER: Thank you.

INTERVIEWEE: I'll definitely sit down again if you need to do another one.

INTERVIEWER: Thank you. I appreciate it.

INTERVIEWEE: Thanks.

H. Content storage and management

For the research study I used Mendeley software for literature storage, categorising, and reference management.
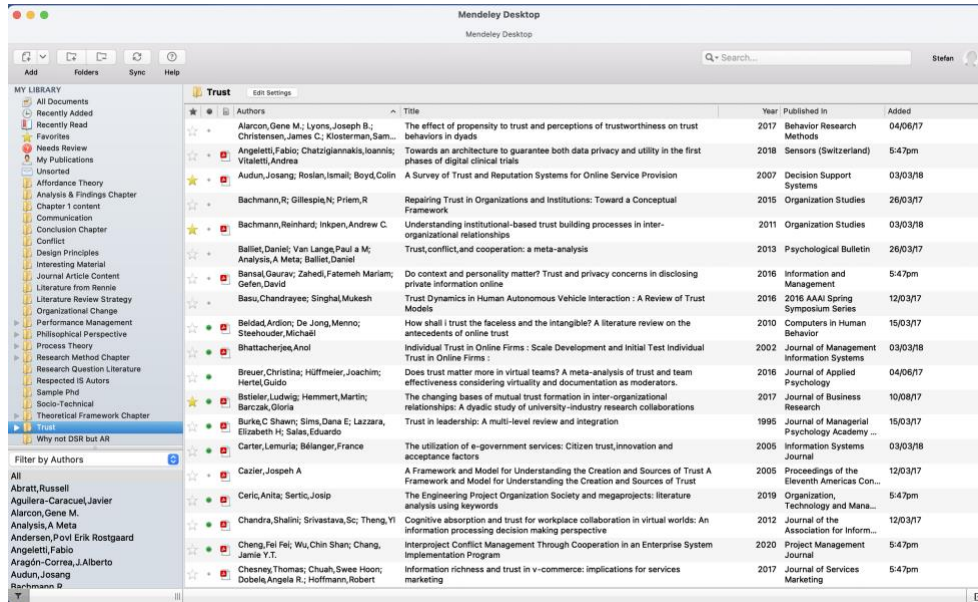
Figure G.0.1. Mendeley repository

The interview guides and consent forms are stored in separate files in a folder.
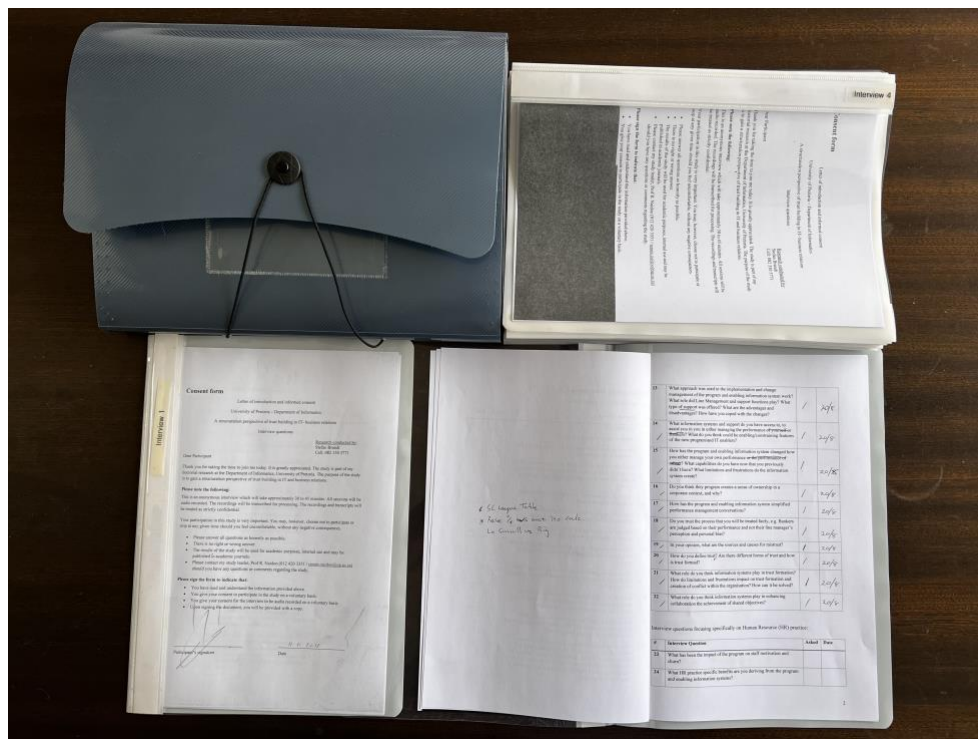
Figure G.0.2. Physical storage of the paper forms and notes

I used the Notability app for IOS to record observations.
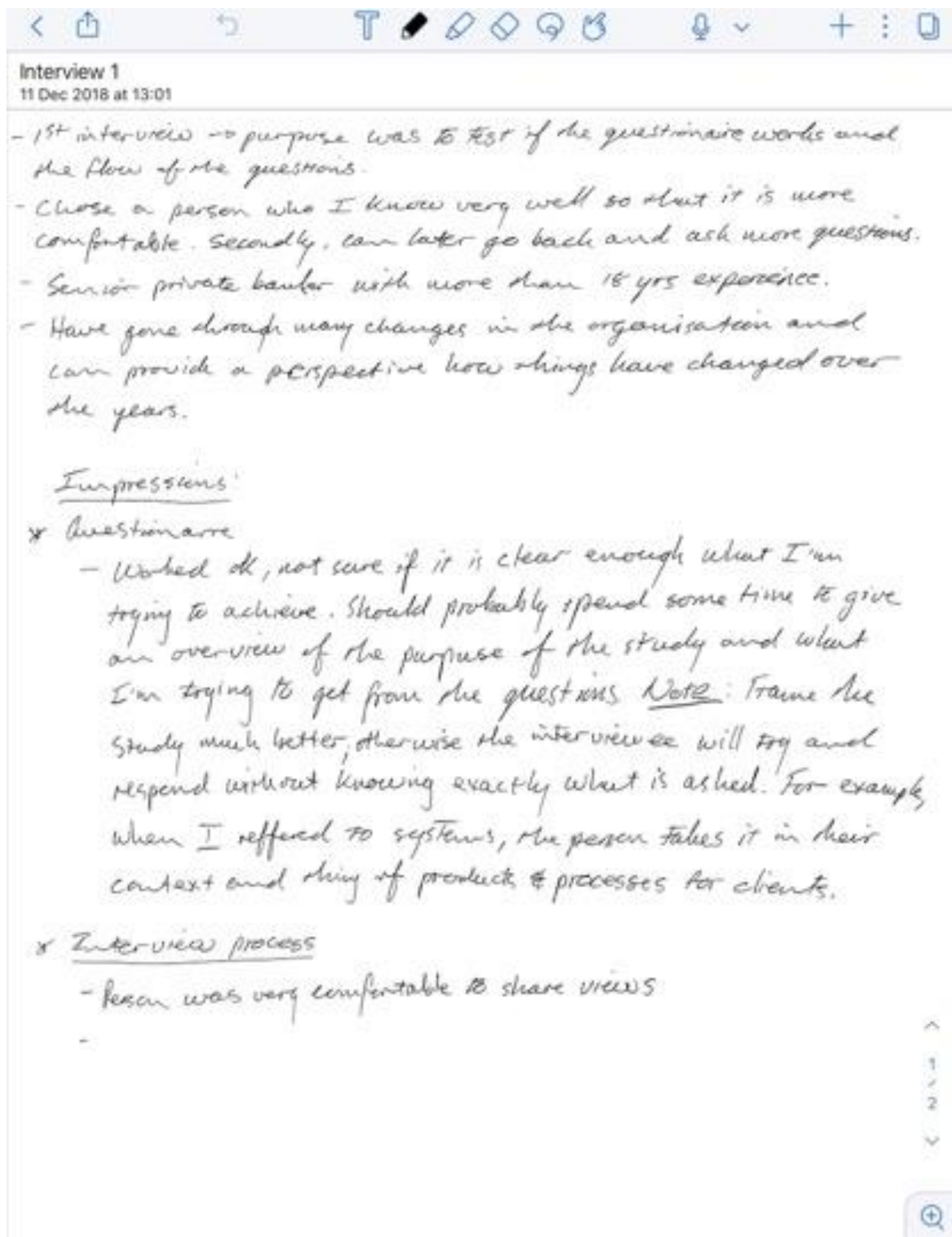
Figure G.0.3. Example of notes captured in the Notability app

I used MS OneDrive to store the content for the research study. The advantage of using a cloud-based storage solution is primarily in terms of a data back-up strategy and secondly the ability to share specific folders.
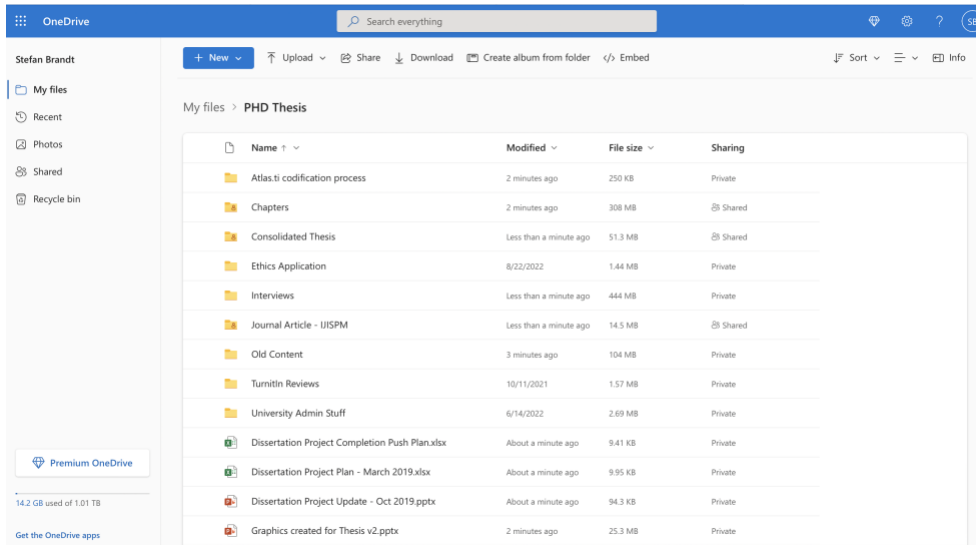
Figure G.0.4. MS OneDrive folder structure

I used the Atlas.ti application to manage and process interview content. The interview content (transcripts and recordings) was categorised based on the interview number and to protect the identity of the interviewees. I processed each transcript using various codes and code groups using the Atlas.ti functionality.
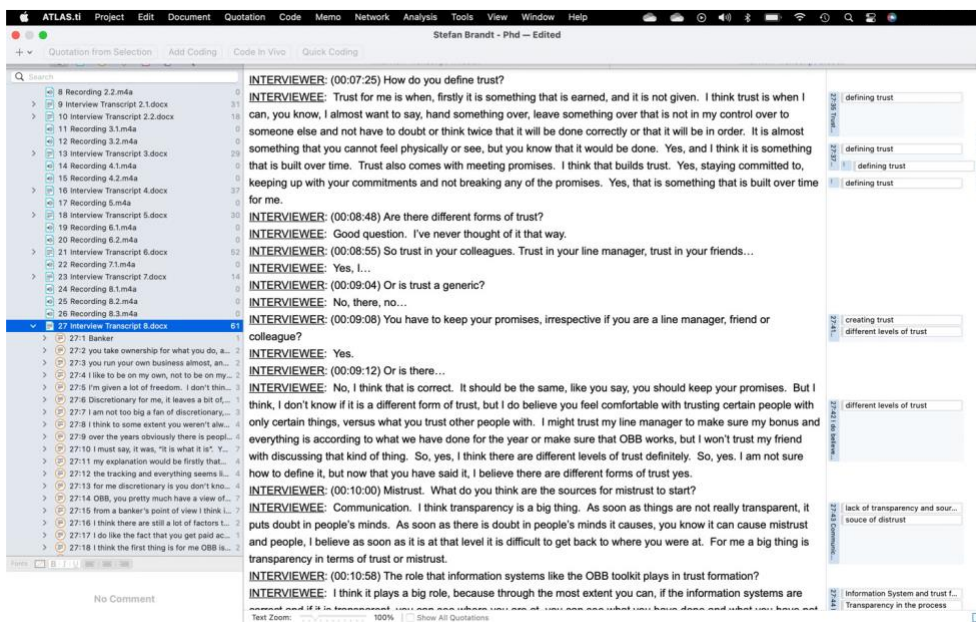
Figure G.0.5. Example of coding an interview in Atlas.ti

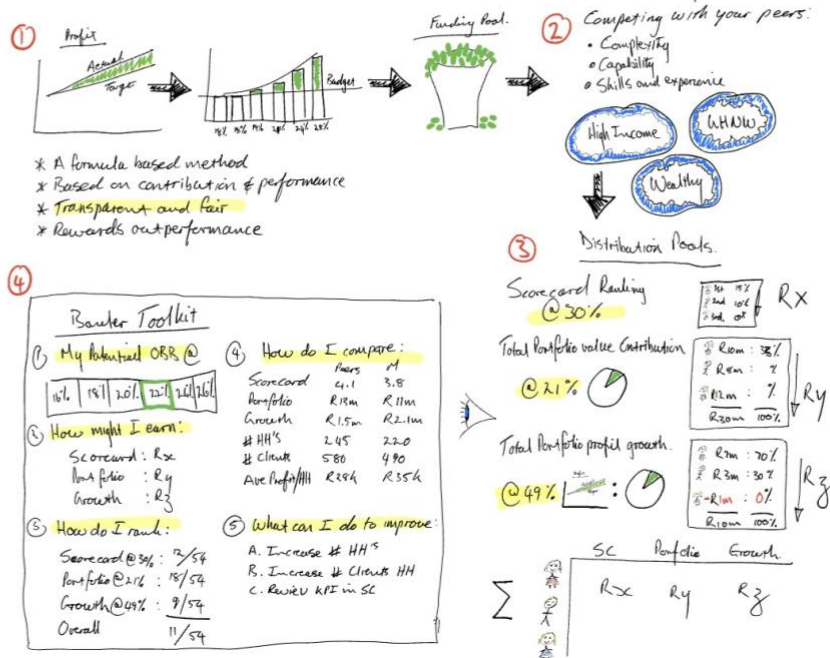**Figure G.0.6. Example of working with the code groups in Atlas.ti**

I. PM Programme infographic

The infographic poster of the PM programme that we used for the submission to the organisation's Innovation competition in 2019 with a top 10 finalist result.
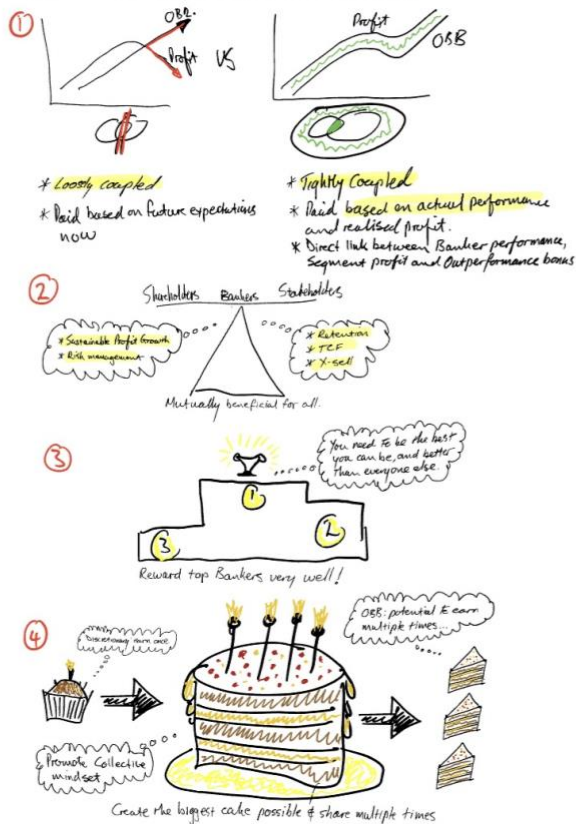
How did we innovate

✗ It wasn't about the Tech!
We used the donkey cart we had
and added horse power!

∴✗ Created ⊘ new processes, we alligned
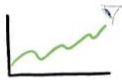and ◎ "what & why" we do to
create a compelling story.

✗ Automated rules engines, built in modules
using switches and dials to calibrate.

✗ We focused on "you" and "us" and
not "they".

✗ We flipped things (a little bit...) by focusing
on how to make a Banker successful
whilst ensuring shareholders & stakeholders
benefit.

✗ We refined ownership in a corporate
context — TASHA'S

✗ Created peer comparison
✗ Transparency in calculation
✗ Toolkits & portfolio & heat maps.
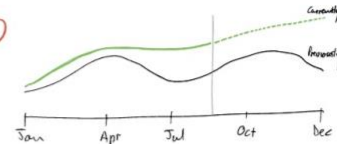
What are the impact & benefits

①
✗ 261 Bankers competed in 2017
✗ 58% portfolio's grew 18% +
✗ 56 Bankers x2 bonus vs. 2016
✗ 85% achieved 3+ scorecard rating

②
✗ Traditionally a dip post April ASR.
✗ This year a continuous increase.

Shareholders   Bankers   Stakeholders

③ (Think "Tasha's")
✗ Bankers taking ownership of portfolios.
✗ Focus on cost & revenue drivers.
✗ Leveraging sales channels & partners
✗ Value prop vs selected products

④
✗ Improved data quality Ho Segmentation
✗ Focusing on Household admin
✗ Cross selling & entrenching the HH.

⑤

	FY '16	FY '17	Lift
Segment Profit	1,008m	1,227m	21.7%
Profit Growth	168m	219m	51m
Profit Growth %	20.1%	21.7%	
# Household growth	4447	6033	1586
Cheque a/c sales	6409	10659	4250
Credit card sales	6075	8940	2865
% Households @ app	63.9%	72.7%	9%
Ave. Bonus per Banker	80k	98%	22%

Figure H.1. PM Programme infographic