Agile Project Management in South African Financial Service Organisation: A Case Study

Master's Dissertation by

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Declaration

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Abstract

Financial service organisations have traditionally utilised conventional project management approaches to execute software projects. However, with the emergence of the agile methodology, there has been a growing transition among these organisations towards adopting agile project management (APM) practices.

Scholars in the field have pointed out that traditional project management approaches are inadequate in meeting the dynamic demands of the financial service sector. This observation helps to explain the industry's inclination towards alternative approaches. The increasing trend of organisations embracing Agile Project Management (APM) highlights a pressing need to rethink the delivery mechanisms for software development projects.

Previous studies have focused on documenting employees' experiences during an agile transition, but there is a need for further examination of the experiences of management. This study analysed the perceptions of managers in a financial service organisation during an APM transition.

Utilising a case study methodology, perceptions, and experiences of 14 managers were analysed using a qualitative research paradigm.

The study showed that the financial service organisation transitioned to leverage the benefits of agile such as incremental delivery, reaching the market faster, gaining visibility on the product output, and increasing transparency. The findings revealed that value was immediately created by increasing visibility and transparency, meeting customer demands, and quantifying return on investment. Some managers associated “walking the agile journey together” with the different levels of management as a positive attribute towards transitioning.

The study found that executive management influenced decisions and drove change throughout the transition process. Additionally, a relationship between resistance to change and the absence of a change management plan was identified. The absence of a clear and communicated change management plan contributed to frustrations in persuasion, which resulted in some employees leaving the organisation. This study suggests that further research is needed to examine the consequences of transitioning without a change management plan.

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Acronyms and Definitions

Table 1: Abbreviation terminologies

Abbreviation	Full Name
ADM	Application Development Manager
APM	Agile Project Management
COO	Chief Operations Officer
CEO	Chief Executive Officer
CIO	Chief Information Officer
GHPM	Group Head of Project Management
HPE	Head of Project Engineering
HOD	Head of Department
IT	Information Technology
MAG	Molo Africa Group
MW	Molo Wealth
MI	Molo Insurance
PO	Product Owner
PPO	Project Portfolio Office
PMO	Project Management Office
PM	Project Manager
SM	Scrum Master

Table 2: The following represents the definitions chosen to reflect the formations within this study.

Unit	Descriptions
Organisation	Refers to MAG as a single group
Organisations	Refers to a group of organisation(s) that offer financial service products
Business	Refers to a division or a group of people within management at MAG that represent the interest of business
Business Unit	Refers to a department within MAG
Market	Refers to the product offering for willing buyer and willing seller
Industry	Refers to the collective of all financial service organisations

Chapter 1: Introduction, Background, and Research Motivation

Since the advent of software development, a plethora of project management approaches have emerged to address the distinctive needs of various industries in the realm of software product delivery. The concept of a project management approach was defined by Gemino et al. (2021) as a set of principles and guidelines which define the way a specific project is managed. Traditional, agile, and hybrid project management approaches are considered as the common approaches within project management.

Agile Project Management (APM) stands as a relatively flexible approach, as elucidated by (Hoeseb & Tanner, 2020). Novac and Ciochină (2018) expounded upon APM, defining it as a strategic approach that endeavors to fortify organisations' capacity to endow both customers and software development teams with value, predicated upon the tenets and ethos of the agile manifesto during the software delivery phase.

The agile manifesto outlines the agile values for software delivery (Delcheva, 2017). The essential values of agile, as noted by Obrutsky & Erturk (2017) and Delcheva (2017), include:

i. individuals and interactions over processes and tools.
ii. working software over comprehensive documentation.
iii. customer collaboration over contract negotiation; and
iv. responding to change over following a plan.

Using the values noted above by Obrutsky & Erturk (2017) and Delcheva (2017), APM has proven to deliver strong results in changing market conditions to manage uncertainties during software development. In a comprehensive study conducted by Johnston and Gill (2017), they examined the implementation of Adaptive Project Management (APM) by Standard Bank, a prominent South African financial institution, over a span of 2014 to 2016.

Remarkably, post the agile transition, the bank registered significant enhancements in operational metrics. Specifically, the duration required to launch an application was dramatically reduced from 700 days to a mere 30 days. Concurrently, there was a notable 50% surge in productivity, coupled with a 70% decline in the cost per function point. Furthermore, these operational improvements

were paralleled by a considerable escalation in the bank's Organisational Health Index in successive years, 2015 and 2016.

Some financial service institutions in South Africa have transitioned from traditional project management to Agile Project Management (APM), as delineated by Leau et al. (2012). Traditional project management typically employs a linear paradigm for software delivery (Marnewick & Marnewick, 2023). This linear methodology is fundamentally rooted in the precepts set forth by the Project Management Body of Knowledge (PMBOK) project lifecycle. Traditional project management approaches follow a fixed sequence of initiation, planning, execution, monitoring, and closure to manage projects (Marnewick & Marnewick, 2023). The emphasis is on linear processes, documentation, upfront planning, and prioritization (Kilu et al., 2018).

Johnston and Gill (2017) posited that traditional project management approaches must evolve to cater to the dynamic requirements of financial service institutions, thus substantiating the imperative for transition. Financial service institutions have transitioned from manual operations towards embracing technological platforms to cater to their clientele. Consequently, the evolving requisites of these financial entities underscore the imperative for continual technological advancements to satisfy client expectations (Hoeseb & Tanner, 2020). Given the imperative to introduce novel products, optimise internal operational efficiencies, and ensure the sustenance of existing offerings, these institutions find themselves in a position where their competitive differentiation hinges on the accelerated dissemination of advanced technological frameworks (Johnston & Gill, 2017).

The increasing pattern of Industries and financial service organisations moving towards APM reflects the need to change how software development projects are managed. Some organisations are moving to APM mainly because it becomes challenging for projects with many moving parts and technical complexities to plan from start to end using the traditional plan-driven approach (Miller, 2013).

Rigby, Sutherland, & Takeuchi (2016) contend that APM has fundamentally transformed the Information Technology (IT) domain, elevating the caliber of software development, expediting market reach, and fostering enhanced morale and productivity within software development contingents. A pivotal requirement of APM is the rigorous adherence to the agile tenets,

encompassing principles such as self-regulation, non-hierarchical organisational frameworks, empowerment of personnel, a pronounced customer-centric approach, dispersed decision-making processes, coordination characterised by self-integration, and adaptation to changing environments (Obrutsky & Erturk, 2017).

The following studies conducted on APM transition provide helpful background to this study. For instance, Burga et al. (2021) investigated how the aspect of project governance, and accountability, was understood for agile practices within IT projects. The study aimed to understand employees' experiences within the financial service sector when transitioning into agile. The outcome of their study found that APM places accountability on each member of the team. The hierarchical nature of financial service was broken down through de-centralising decision-making on agile projects, constant communication, and continuous trust, which promotes accountability.

Sithambabram, Nasir & Ahmad's (2021) study on impacting the successful management of agile projects captured 86 issues and challenges that 42 respondents encountered. The study categorised the issues and challenges into organisational, people, process, and technical aspects. Their study proposed preventative methods for most of the captured issues and challenges into a standard for businesses that intends to transition. The dominant challenges captured addressed administrative support, misalignment of agile, lack of understanding of the agile principles, poor teamwork and collaboration, and insufficient skill set of the project stakeholders.

As shown above, there are several studies that focus on APM transition experiences as opposed to management experience during agile transition. A need exists for a detailed analysis conducted on APM transition, which would allow researchers to refine the results and challenges experienced by financial service managers. Documenting and analysing APM transition will enable researchers and some financial service organisations to mitigate APM transition challenges.

This study provides positive and negative distinguishing factors based on management’s perceptions of APM. Different levels of management participated in the interviews, which makes this study different as it focused on a group directly affected by the APM transition. Consequently, scholars have called for research within the geographical setting with a more dynamic and diverse data collection method (see, for instance, Sithambabram et al., 2021; Rigby et al., 2016).

Against this background, the qualitative case study analysed the perceptions of MAG managers associated with the APM transition within a South African Financial Service organisation.

1.1. Problem Statement

APM promises flexibility in delivering software, reducing hierarchical management levels, decreasing time spent on administration, increasing collaboration and communication, and improving software quality (Kilu et al., 2018). Despite the revolutionary changes and different approaches to tackling problems and delivering results promised by the APM, some South African organisations still need help moving from traditional to APM. The issues encountered during an agile transition vary among managers who experience the change (Johnston & Gill, 2017).

The transition to APM presents certain challenges, primarily arising from the tensions encountered during the shift to agile, as documented by Leau et al. (2012). Literature appears to be limited in providing comprehensive accounts of the transition experiences of managers within South African financial institutions. A detailed exploration of the lived experiences of these managers could offer invaluable insights for other organisations contemplating a shift from traditional to agile approaches, facilitating more informed decision-making processes.

Therefore, this study analysed the perception and impact faced by the SA financial service organisations managers when moving from traditional to APM.

1.2. Purpose of the Study

This study aimed to analyse the perceptions of South African financial service managers that were part of a transition from traditional to APM. Analysing MAG managers' perceptions were necessary to understand better the different experiences encountered during the transition. Focusing on managers was necessary to capture the experiences of those meant to drive or champion the APM transition.

1.3. Research Question and Objectives

The section below outlines the research question and objectives of this study.

1.3.1. Main Research Question

How does the transition from traditional to APM impact managers within a South African (SA) financial service organisation?

1.3.2. Sub-Research Questions

The section below outlines the sub-research questions this study answered.

- What influenced the transition toward APM?
- How was the transition process managed?
- What were the challenges with the transition?
- What were the identified risks of the transition?
- What recommendations exist to improve APM transition within South African financial services?

1.3.3. Primary Research Objective

To understand the perceptions of MAG managers on their lived experience relating to the transition from traditional to APM.

1.3.4. Secondary Research Objectives

This study aimed to meet the following research objectives to respond to the research question adequately:

- To assess the transition process from traditional to APM within South African financial service organisations;
- To identify the factors that influenced management to move to APM;
- To analyse the transition process towards APM and the associated challenges;
- To make sense of how financial service organisations manage change during the APM transition; and
- To make recommendations for improving the transition towards APM within South African financial services.

1.4. Significance of the Study

The significance of this case study is based on the need for more empirical studies to be conducted on South African financial service organisations that took part in an APM transition. The lessons, perceptions, and challenges need to be defined and documented. Using a financial service organisation as a point of focus for this research was preferred to conduct a case study because of the continuous use of project management approaches to deliver software in-house within the financial service industry. The industry is renowned for its competitiveness through launching new products and satisfying customers' demands. Executing projects using the APM approach could enable financial institutions to better cater to the customer's needs under changing market conditions.

1.5. Contribution of this Study

This study contributes to the academic body of knowledge within the project management field. Empirical insights, lessons, and understanding of the barriers that exist when moving from traditional to APM distinguish this study from other studies conducted on APM transition. The benefit of the study aims to assist Project Managers (PMs), project practitioners, and organisations in transitioning towards agile. Project practitioners can use this research's findings and recommendations to reflect on the lessons learned by MAG in the case study and use valuable information to consider before transitioning. Documenting the experiences of MAG managers also creates a knowledge base for understanding the APM in the South African financial service industry.

Chapter 2: Research Design and Methodology

Research design is a "procedure for collecting, analysing, interpreting and reporting data in research studies," as Creswell & Plano Clark (2007, p.58) stated. The procedure includes understanding the chosen research philosophy, paradigm, strategy, data collection method, findings analysis tools, and the study's validity. The sections presented in this chapter highlight the steps used for conducting this study.

2.1. Research Philosophy

Research philosophies refer to beliefs and assumptions regarding the development and enhancement of knowledge (Saunders et al., 2009). Knowledge development can be based on a new theory or an addition to a theory that addresses a specific problem. Research philosophies are essential to knowledge development in information systems (IS) because of the need to solve human and system inquiries (Orlikowski & Baroudi, 1991).

Ontology focuses on the assumption made by researchers about the nature of reality (Boru, 2018). In essence, ontology directs the viewpoint in which a researcher engages with their research object. Saunders et al. (2009) argued that ontology is distinctive because of an objective and a subjective view. The objective view considers information, such as quantitative evidence, that supports the research (Saunders et al., 2009), while the subjective view focuses on interpretation. The difference between the objective and the subjective view is that the observer's viewpoint or perspective cannot influence the objective view because the objective view is centred on information. In contrast, the subjective view focuses on the observer and their perspective of a phenomenon (Boru,2018).

This research study used subjectivism as its ontological stance by drawing meaning from the interviews. Drawing meaning from the interviews was in line with the subjectivism stance, whereby the researcher recognised MAG managers' perceptions and transition experiences.

2.1.1. Epistemological Stance

"Epistemology concerns assumptions about knowledge, what constitutes acceptable, valid, and legitimate knowledge, and how we can communicate knowledge to others" (Saunders et al., 2009, p.127). The epistemological stance addresses what knowledge is and how knowledge is acquired

(Saunders et al., 2009). Epistemology encompasses three approaches: positivism, constructivism (interpretivism), and realism (Saunders et al., 2009).

Positivism, rooted in the belief that reality is independent of the researcher, emphasises the use of objective methods, typically quantitative, to study phenomena (Saunders et al., 2009). It asserts that knowledge is derived from observable and measurable facts. Realism, on the other hand, recognises the existence of an external reality independent of human thoughts but accepts that our understanding of this reality is always mediated by human sensory and cognitive faculties. Saunders et al. (2009) elucidate that both positivism and realism uphold the significance of scientific methods in research, but realism tends to be more accommodating of the idea that our perception and understanding of reality are inherently limited and potentially fallible.

Utilising an interpretive epistemological framework, this research sought to elucidate and comprehend the perceptions and experiences of MAG's managerial cadre. The adoption of an interpretative methodology enhanced the researcher's capability to critically analyse the efficacies and deficiencies encountered during the transition by engaging in qualitative interviews with MAG managers. Through analysis, the researcher was equipped to extrapolate salient inferences and discern patterns inherent in the lived narratives of the interview participants.

2.2. Research Methodology

A research methodology contains a clear description of the ingredients, approaches, and plans for conducting research (Saunders et al., 2009). These ingredients encompass the technic and justification of the strategy employed to conduct the research (Flyvbjerg, 2006). The section below provides the detailed steps.

2.2.1. Case Study Research Approach

A case study approach was chosen to investigate the MAG case. According to Flyvbjerg (2006), a case study entails using a qualitative method to ensure that the research is holistic. The characteristics of a case study encompass "holistic", "empirical", "interpretive" and "emphatic" (Yazan, 2015, p.8). The author validated their studies of case study approaches by reviewing studies conducted by Yin (2002), Merriam (1998), and Stake (1995). Case studies pose this

character because of holistic views of the phenomena and their context, while empirical focus on observation of the study (Yin, 2015). Case study research focuses on observations made at a particular time or over time. A case study's result necessitates narrating a case's event and providing interpretation (Flyvbjerg, 2006).

The approach was chosen because of the empirical nature of this study (Yazan, 2015). The combination of a case study and an empirical investigation enabled the researcher to conform and address the “how” and “why” questions concerning the APM transition perceptions of MAG managers.

Utilising a case study methodology was appropriate for this investigation, given its alignment with the rigorous processes of event documentation through interviews, subsequent data analysis, and derivation of findings. The outcomes of this study possess an element of generalisability, as the data gathered through interviews were grounded in the experiential narratives of MAG's managerial cohort. The findings provide an introspective lens into the subjective perspectives, thoughts, and perceptions of these managers. Significantly, the study encapsulated the nuanced lived experiences of MAG's management during the transitional phase.

2.2.2. Molo Africa Group Financial Service Case

It is important to note that the name Molo Africa is a fictional name that was introduced to protect the identity of the financial service organisation that was used as a case study for this research. All details and descriptions relating to Molo Africa are a true representation of the case study.

MAG, founded in 1994, is a distinguished financial service institution. This financial consortium offers an array of services, encompassing asset management, insurance provisions, and wealth management consultancy. The researcher developed a fictitious name for Molo Africa Group (MAG) to describe the holding organisation and Molo Wealth, Molo Insurance and Molo Asset to describe the entities under the Molo Africa Group. The researcher used these outlined fictitious names to protect the anonymity of the business used as the case for this research study.

MAG's operational presence extends across several regions, notably South Africa, Swaziland, and Botswana. A salient feature of MAG's reputable brand trajectory can be attributed to its adeptness

in proficiently managing clients' assets within high-performing funds, coupled with an unwavering commitment to prioritising client-centric objectives in its routine operations.

Structurally, MAG operates its trio of entities as distinct units, each overseen by its dedicated management cadre. While the financial reporting from these individual entities coalesces under the overarching MAG umbrella, each sub-entity retains its Chief Executive Officer and executive management team, vested with the autonomy to delineate their respective operational strategies. Notwithstanding this decentralisation, MAG maintains a supervisory purview, ensuring robust governance and oversight across all three entities.

2.2.2.1 Molo Wealth

MW stands as a preeminent entity in the financial services landscape, with a specialisation in Wealth and Financial platforms. Within MW's investment portfolio, offerings encompass Retirement Annuities, Voluntary Investments, Tax-Exempted Investment Vehicles, Securities Stock, Endowment Instruments, and Preservation Fund products. These investment instruments are primarily disseminated through financial advisory channels, facilitated by MW's adoption of a distribution paradigm. This specific distribution methodology empowers financial advisors with the autonomy to maintain their client investment ledgers and administer their respective offices. Concurrently, MW furnishes these advisors with a sophisticated trading platform and requisite support mechanisms. It is the prerogative of the Information Technology division within MW to ensure seamless accessibility of these products via the organisation's digital interface.

MW has 50 IT employees and the organisation shares resources with internal and external outsourced IT consultants. The organisation has three IT teams supporting different business units within MW, including the Funds platform, Securities platform, and Regulatory and Compliance.

The teams consist of at least three developers, two business analysts, and a Scrum Master.

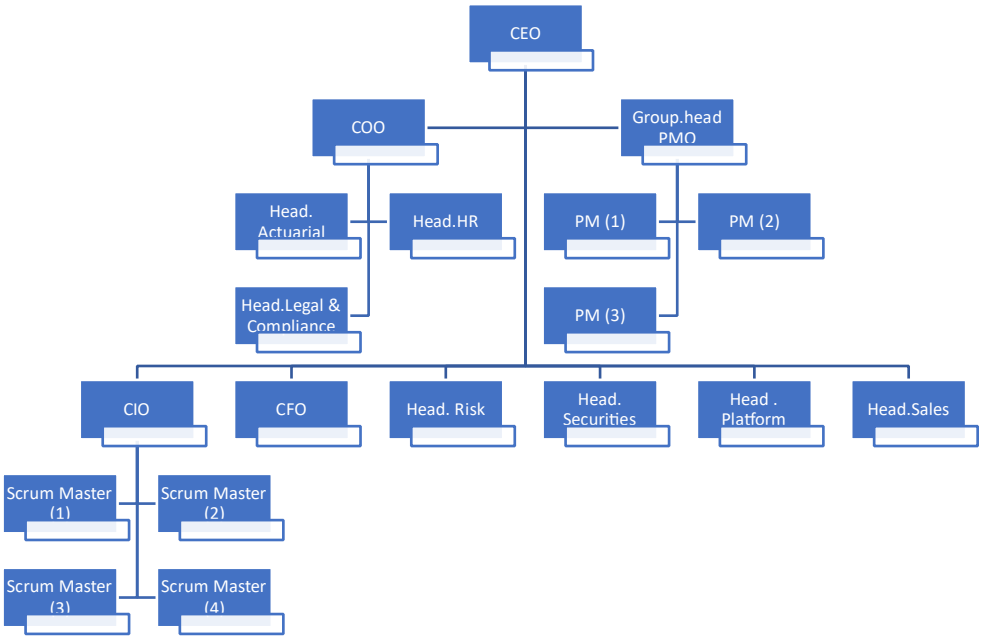


Figure 1: Molo Wealth Organisational Structure

2.2.2.2. Molo Insurance

MI operates as a paramount institution within the domain of short-term insurance, providing expert counsel and coverage solutions to safeguard both businesses and individuals against unforeseen contingencies. Through strategic alliances with leading insurance entities, MI facilitates access to a comprehensive spectrum of insurance alternatives tailored to cater to nuanced client specifications. Predominantly, the policies proffered by MI are commercial in nature.

MI predominantly resorts to an outsourced service model to optimize IT related operations. This approach facilitates a collaborative framework, wherein MI engages with multiple partners for diverse operational exigencies. Within the internal structure of the organisation, the Information Technology division comprises a cohort of ten professionals, encompassing the Management Information System (MIS) department, the IT support desk, and the dedicated software development contingent.

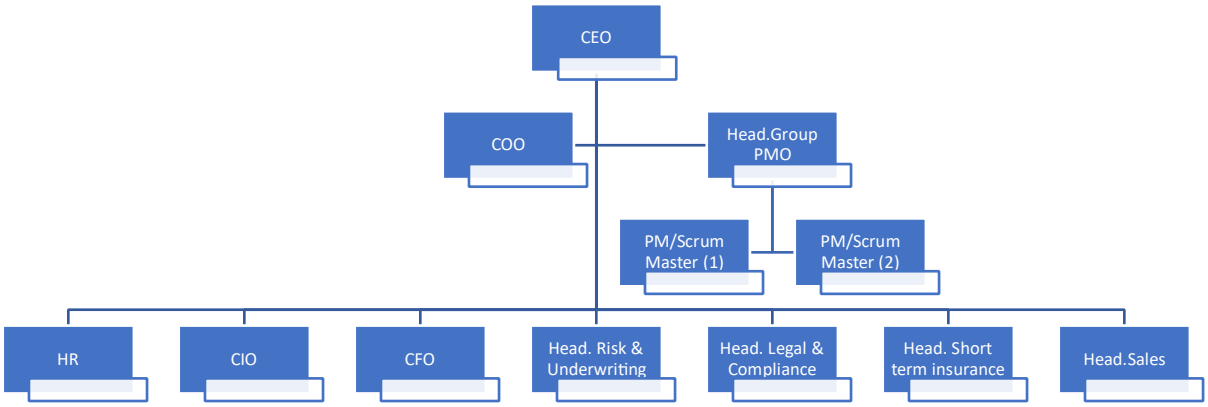


Figure 2: Molo Insurance Organisational Structure

2.2.2.3. Molo Africa Transitioning Journey

According to the Head of the MAG Project Management Office, MI was the first business that started introducing and running its projects using the agile approach in 2017, while the rest of the group companies followed other traditional and homegrown project management approaches to deliver software.

MI has been lauded for its judicious incorporation of agile across the organisation. The tangible efficacy derived from MI's agile integration acted as a catalyst for MAG's strategic decision to adopt the Agile Project Management (APM) paradigm, necessitating the recalibration of their subsidiary entities to conform to rigorous agile specifications.

In a testament to the successful implementation at MI, the individual serving as the Head of MI Project Management was subsequently elevated to oversee the Group Project Management Office (PMO). The initial phase of MW's agile metamorphosis was spearheaded by both the Chief Information Officer (CIO) and the Group Chief Information Officer (GCIO). Their astute leadership and visionary acumen provided the executive echelon with a lucid roadmap for transformation, leading to its efficacious instantiation within the Information Technology department.

2.2.3. Selection of the Case Study Sampling

For data collection in this investigation, a purposive sampling methodology was elected. Purposive sampling is characterised as a non-probabilistic sampling technique wherein participants are

intentionally chosen based on attributes pertinent to the research objectives (Creswell, 2018). As delineated by Creswell (2018), the merits of employing purposive sampling within a case study context encompass the capacity to derive a profound and intricate comprehension of the phenomenon under scrutiny, coupled with the opportunity to observe said phenomenon within its intrinsic environment. Furthermore, purposive sampling facilitates the acquisition of a sample that resonates authentically with the characteristics of the phenomenon in question.

This case study encapsulated the experiential narratives of managerial personnel from MAG, MW, and MI. The rationale for selecting managers as study participants can be distilled into the following two primary considerations:

i. The pertinence of their roles in a financial service business undergoing transition, especially given the study's emphasis on the APM transition, and
ii. The direct involvement or consequential impact of the transition on these managers, attributed to their firsthand acquaintance with the genesis and intricacies of the APM transition.

The data collection participants comprised **fourteen respondents** (managers) from MAG.

The participants were composed as follows, Chief Information Officers (CIOs), Chief Executive Officers, Project Managers (PMs), Scrum Masters (SM), and Application Development Managers (ADMs) from MAG. The participants selected for this study were best suited for the interviews because they all held managerial positions and were role players within the agile transition.

Table 3: Participants' Description

Location	**Organisation**	**Number of participants**	**Employment Position**
South Africa	Molo Wealth	8	COO CIO 2 Project Managers 3 ADMs Scrum Master
	Molo Insurance	5	CEO CIO Head of Project Engineering Project Manager Junior Project Manager
	Molo Group	1	Group Head of PMO

The participants stated the positions they held within MAG before the interviews. Results presented in Table 3 indicate that there were eight participants from Molo Wealth (MW), the chief operations officer (COO), the CIO, two project managers, three application development managers (ADM), and a scrum master (SM). From Molo Insurance, the CEO, the CIO, the head of project engineering, the project manager, and the junior project manager participated in the interviews. One participant from the Molo Group, the head of project management. Finding these respondents was significant in obtaining accurate information on agile project management and accessing qualitative insights from each respondent.

2.2.4. Unit of Analysis and Observation

A unit of analysis refers to a phenomenon that a researcher wishes to interpret (Sedgwick, 2014). The analysis process is commonly known as the focus of a research study (Sedgwick, 2014). At the same time, a unit of observation refers to a subject that a researcher observes, measures, or collects within learning about the unit of analysis (Sedgwick, 2014).

This study focused on the managers of both MI and MW as the unit of analysis. The study is about the perceptions of MAG managers; it was important for the researcher to analyse the perception of managers as the focus point. The unit of analysis consists of MAG managers.

Placing a focus on the managers as a measurement for the unit of analysis was motivated by the fact that transitioning to agile impacted how managers had to influence delivery using APM.

2.2.5. Data Collection Method

Data collection refers to the method used by a researcher to outline the technique used to gather and measure the information of interest during the research (Kabir, 2016). The data collection method assists the researcher in answering the stated research questions and hypotheses and evaluating outcomes (Saunders et al., 2009). The data collection method is essential because it captures the evidence that translates into rich data analysis and creates a step for credible answers to the research questions (Kabir, 2016).

There are two types of data collection methods: qualitative and quantitative. The qualitative research method is non-numerical, descriptive, or nominal (Saunders et al., 2009). Information collected using the qualitative method is in words and sentences (Bennett, 2015). The qualitative method is vital because it captures perceptions, emotions, and feelings. In addition, the method aims to address a phenomena's "how" and "why" to gather a deeper meaningful understanding (Kabir, 2016).

On the opposite, the quantitative uses numerical information as evidence to answer the questions of a research problem (Saunders et al., 2009). The quantitative method is essential because it provides hard facts based on numbers, calculation, and computerised mathematics to provide an analysis.

This study used the qualitative research approach to complete the investigation into the APM transition. A qualitative approach was chosen for the study because the research question lends itself to a qualitative approach and complements the case study approach chosen by this study. The qualitative approach empowered the researcher to interpret and make meaning of the perceptions

and experiences of MAG managers. This study used three qualitative sources of data (or evidence): interviews and questionnaires.

2.2.5.1. Interviews and Questionnaire

A structured interview protocol, comprising 28 questions, were employed as the primary data collection instrument. These questions included the respondent's job delineation, their influence within the organisation, and nuances of the transition process—these thematic areas underpinned the formulation of the questionnaire. The overarching intent behind these questions was to elucidate the participant's integral role throughout the agile transition trajectory.

Interviews were conducted for a two-week period, covering MAG, MI, and MI. The interviews were consented to by both the Human Resource department and the participants. See **Appendix B** that shows the letter that was sent for approval. All interviews were scheduled in the work calendar of the participants and conducted in a private room with each participant. The interviews lasted for an average of 20 to 30 minutes.

The questions in the interview guide measured respondents' perceptions relating to the objectives of the study. See **Appendix C** to view the research questionnaire that was used.

2.2.5.2. Review and Testing of the Questionnaire

Burns and Bush (2010, p.354) asserted that a sample size ranging between five and ten participants is sufficient for preliminary testing or pre-testing. In alignment with the guidance, this study's interview guide underwent preliminary testing.

The questionnaire was evaluated by five independents reviewers: academics and experts specialising in the domain of project management. The primary objective of this assessment was to ensure the questionnaire's suitability and validity, especially in its intended application of interviewing participants within MAG.

The researcher logged both the commencement and conclusion times for each questionnaire to gauge its duration. Observations were made regarding moments when participants exhibited hesitation or sought clarity on queries. After the retrospective interviews with the quintet of participants, the researcher observed:

i. A need for enhanced clarity in certain questions.
ii. A requisite for refining the sequence and flow of the research instrument's questions.
iii. Certain terminologies in the interview guideline necessitated simplification.
iv. Completion time for the retrospective interview differed among participants, averaging at twenty minutes.
v. Suggestions from some participants emphasised the need for question modifications.

Reviewing and testing the questionnaire using independent people was instrumental in assessing the research tool's efficacy in capturing the intended metrics. The insights from the preliminary testing informed refinements to the interview guide, culminating in the finalisation of the research instrument. In acknowledgment of their invaluable input, independent participants were apprised of the outcomes and expressed gratitude. Furthermore, measures were instituted to ensure their exclusion from the main study. The finalised questionnaire is cataloged in **Appendix C** of this research study.

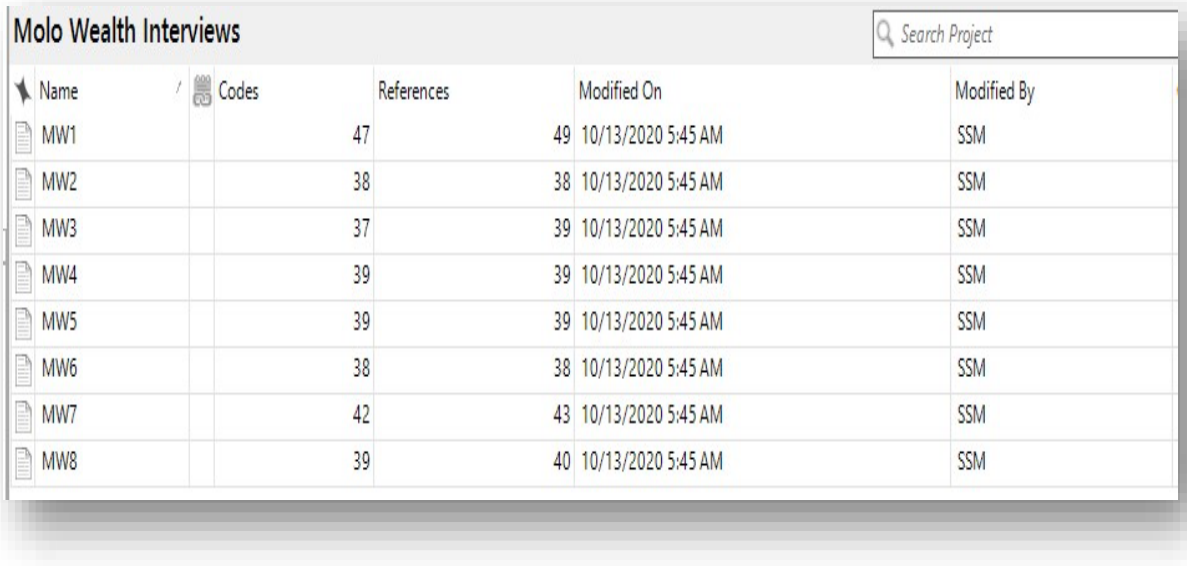
2.3. Data Analysis and Thematic Analysis Application

This section of the research method discusses the analysis phase on how data was captured, coded, analysed, and presented using the thematic analysis approach.

2.3.1 Data Transcription, Capture and Preparation

All interviews were recorded using a laptop, and all recordings were initially stored on the researcher's laptop and transferred to Figshare. Figshare is a cloud-based repository database provided by the University of Cape Town to store research data (Reed, 2016). The database enabled the researcher to transfer all the interview recordings and label them using the titles of the interviewees. The label description followed the following format "MW1" and "A1," as depicted

in Figures 3 and 4. The interview recordings were kept independent from the analysis and conclusions so that findings and conclusions could be traced back to the original raw data.

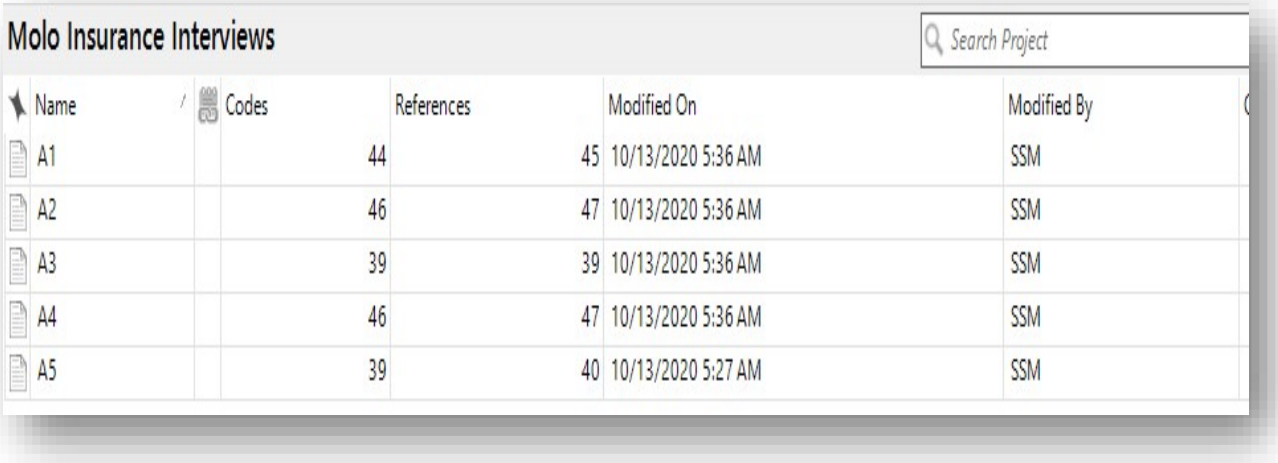


Molo Wealth Interviews

Search Project

Name	Codes	References	Modified On	Modified By
MW1	47	49	10/13/2020 5:45 AM	SSM
MW2	38	38	10/13/2020 5:45 AM	SSM
MW3	37	39	10/13/2020 5:45 AM	SSM
MW4	39	39	10/13/2020 5:45 AM	SSM
MW5	39	39	10/13/2020 5:45 AM	SSM
MW6	38	38	10/13/2020 5:45 AM	SSM
MW7	42	43	10/13/2020 5:45 AM	SSM
MW8	39	40	10/13/2020 5:45 AM	SSM

Figure 3: Molo Wealth saved transcript data on Nvivo



Molo Insurance Interviews

Search Project

Name	Codes	References	Modified On	Modified By
A1	44	45	10/13/2020 5:36 AM	SSM
A2	46	47	10/13/2020 5:36 AM	SSM
A3	39	39	10/13/2020 5:36 AM	SSM
A4	46	47	10/13/2020 5:36 AM	SSM
A5	39	40	10/13/2020 5:27 AM	SSM

Figure 4: Molo Insurance saved transcript data on Nvivo

Upon concluding all the interviews, the researcher transcribed the interviews to allow seamless coding and analysis. The researcher used word document to transcribe the interviews to document all data before analysis. The approach ensured that the nuances and intricacies of each participant's response were captured, thereby providing a robust foundation for the subsequent analysis.

The completed transcripts were stored using Nvivo software version 12, the Nvivo software program used for qualitative and mixed-methods research. Nvivo assists researchers in the analysis of "unstructured text, audio, video, and image data, including (but not limited to) interviews, focus groups, surveys, social media, and journal articles" (Davis, 2021, p.1).

The content and documents saved on Nvivo consist of a) interview transcripts, b) case study notes, and reflective remarks from interviews and observations.

2.3.2 Data Analysis Method: Thematic Analysis

The researcher examined and analysed the raw data transcripts to understand the contribution of each participant's response to the research questions. Maguire and Delahunt (2017) defined thematic analysis as determining patterns or themes within qualitative research data. The researcher followed Saldana's (2015, p.4 -113) definition to distinguish codes and themes.

Table 4: Illustrates the definition of code and themes.

Nvivo term	**Definition**
Code	A code in qualitative inquiry refers to "a word, short phrase that symbolica assigns a summative, salient, essence-capturing, or evocative attribute fo portion of language-based or visual data."
Theme	A theme is a pattern, concept, or trend from a data set.

For this investigation, the researcher used an inductive thematic analysis methodology. As elucidated by Maguire & Delahunt (2017), inductive thematic analysis does not rigidly adhere to pre-existing theories, structures, or frameworks when dissecting data. Instead, it relies on the emergent patterns and categories within the data to inform an analytical construct.

This research was underpinned by the principles of inductive thematic analysis. The subsequent section delineates the processes undertaken, encompassing data categorisation, theme identification, and the nuanced thematic analytic approach pursued.

2.3.3. Data Familiarisation

The collected data underwent a rigorous sorting procedure to consolidate recurring notions. It is posited that the likelihood of an element bearing significance in data analysis amplifies with its frequency of recurrence. In alignment with the questionnaire's design, themes were predetermined, facilitating the systematic categorisation of interview responses. These preemptive themes drew inspiration from Sankala's 2018 study, which employed a case study methodology to discern the advantages of an APM transition within the manufacturing sector. The study by Sankala (2018) inspired the researcher to understand if the same questions applied in the South African context. The themes identified were; Factors that influenced the need to transition, Reason to transition, The benefits of transitioning, Associated challenges of the transition, Managing change, and The risks of transitioning.

2.3.5. Thematic Data Analysis

The focal point of this section is to present and discuss the key themes identified. The key themes identified are as follows:

- *Factors that influenced the transition* as a theme describe the ability of staff to
- *Managing transition* is the third theme that explains the key elements MAG undertook to transition during their early phase after deciding to transition.
- *Associated challenges of transition* as a theme were identified to describe MAG's drawbacks during the transition to APM.
- *Managing change* is the fifth theme of data analysis. The respondents described and explained how they handled the transition from traditional to APM.
- *Risks of transitioning* were the final theme that emerged from the data analysis to show each respondent's perceived risk from the APM transitioning process.

2.3.6. Using Literature to Analyse Interview Data

The concluding section of the literature review significantly influenced the research approach. It served as a blueprint in shaping the questions poised during the interviews. This literature delved into pivotal themes that directly corresponded with the research inquiries, especially aspects like the "transition journey", the pivotal "role undertaken by managers during the transition", and their

"influence" throughout the process. As the data analysis progressed, it became evident that the literature needed fortification. Consequently, themes that emerged prominently from the data, such as the "challenges" encountered and the inherent "risks of transitioning", were integrated into the literature review for a comprehensive understanding.

Furthermore, pivotal insights derived from the literature found resonance with the actual experiences of MAG managers. These insights encompassed subjects like the significance of agile champions, the importance of securing employee buy-in, and the necessity of imparting appropriate education. The literature thus played an instrumental role. It not only enhanced the richness of the interviews but also enriched the subsequent analysis. The researcher, equipped with the insights from the literature, was better positioned to decipher and interpret the nuances stemming from themes that aligned seamlessly with the literature review.

This alignment was evident in areas such as:

- Resistance to change,
- Visibility and transparency,
- Change management,
- The necessity for a shift in mindset, and
- The intertwining of change management with the risks associated with agile transition.

By anchoring the interview questions firmly within the framework of the literature review, there was a seamless integration of established academic insights with empirical observations. This methodological synergy ensured that the questions were not only pertinent but also grounded in relevant theoretical contexts.

Furthermore, when responses from the interviews were received, the author was better equipped to interpret them. The literature review, having touched upon central themes such as the "transition journey" and the roles of managers, acted as a compass, guiding the interpretation of answers and allowing for a nuanced understanding. In essence, the strategic utilisation of literature fortified the research process, enabling a harmonious interplay between the interview questions and their subsequent interpretation.

2.4. Validation of Research Approach

Validity and reliability outline the rigor of an investigation (Thomas, 2010). Takahashi and Araujo (2020, p.8) defined validity as an internal, external, and construct. "External validity means identifying whether the findings of a study are generalisable to other studies using the logic of replication in multiple case studies. Internal validity is established through the theoretical underpinning of existing relationships, and it involves the use of protocols for the development and execution of case studies. Construct validity implies defining the operational measurement criteria to establish a chain of evidence, such as using multiple sources" (Takahashi & Araujo, 2020, p.8).

Reliability in case studies considers reviewing other case studies to avoid replicating results, minimise mistakes and bias in a study through case study protocols, and develop a case database (Yin, 2015).

The researcher took accurate notes and reviewed them to ensure the correctness of the information and data quality of the interviews. The questionnaire and interviews allowed the participants to answer in their way; this was in line with the case study approach, as case studies allow for individualised answers. Validation was also based on the questionnaire aimed at answering the research questions. Additionally, the literature review focused on APM transition, which validates this research's work in collaboration with other scholars on APM transition.

Validation was applied by reflecting on the literature used and comparing the literature against this study's findings. Comparing the literature against the findings was done to assess whether the responses received were like the literature.

2.5. Confidentiality and Ethics

This research study was granted an ethics clearance from the Faculty of the Commerce University of Cape Town. Approval was granted from MAG to participate in the study. Both entities (MW & MI), including participants, were sent a letter requesting their participation prior to the study. The researcher disclosed ethical considerations to participants and explained their right to privacy, obscurity, and voluntary participation.

Consent letters were attached to both the organisational and participant letters, and the letter explained the reason and expectation of the research study. Participants could choose to remove themselves from the study at any given point. The interview questions were designed to represent no potential perils to the participants, guaranteeing that the investigation is risk-free.

Participants remain anonymous, although their roles in the various business units were stated. Personal information was not gathered or published. The participants were not dependent on the researcher and were not offered payment or compensation.

When the interviews were conducted, the researcher was still an employee of MAG. When requesting participants and permission to conduct interviews, the researcher assured the business and participants of their rights while participating in the study. The researcher made the participants feel comfortable answering questions during the interviews and allowed them to respond in their way.

In addition, the researcher did not apply leading scenarios to persuade the participants to respond in a specific direction. The researcher stuck to questions from the questionnaire and recorded the interviews. The recording was done to ensure that the standard and credibility of the responses provided were maintained. Recording the interviews was done to maintain the nuances the participants provided. The researcher stored the interviews using the correct names after the interview, reflected, and transcribed the interviews to maintain the meaning of what was said.

2.6. Conclusion

In this chapter the research methodology was discussed. It was highlighted that the research utilised a case study format, incorporating both questionnaires and interviews to gather data from a group of 14 participants who held managerial positions. Predetermined themes, derived from the questionnaires, were used to organise the data. A subjective ontological stance was adopted to derive meaning from the narratives collected. To analyse the nuances of MAG's case study, an interpretive paradigm was employed. These findings were then supported and validated through relevant academic literature.

Chapter 3: A Review of Project Management and Software Evolution

Within the financial services sector, project managers (PMs) have the authority to choose from various traditional project management methodologies (Thakur & Kaur, 2013). Project management methodology encompasses a set of practices, techniques, procedures, and rules employed by professionals in a specific field (Gemino et al., 2021). For software delivery, traditional project management methodologies such as waterfall and PRINCE2 are commonly utilised (Thakur & Kaur, 2013).

Traditional methodologies typically espouse the "big bang" strategy, characterised by a comprehensive progression from project inception to its ultimate implementation (Gandomani et al., 2013). PMs adopt a sequential approach, underpinned by the process delineated through standards such as the Project Management Body of Knowledge (PMBOK), to navigate through various successive phases for software delivery (Thakur & Kaur, 2013).

The financial service industry used the traditional project management approach to deliver software, and understanding the evolution of project management within the industry is imperative to comprehend the shift to agile. The sections below discuss how project management evolved and improved through the different releases of project management methods. The chapter also provides an in-depth view of the traditional project management.

3.1. The Evolution of Project Management

The inception of project management can be traced back to 1910, finding its initial applications within niche sectors, most notably the military domain (Maric, 2017). It was not until the 1960s that project management garnered recognition as a distinct professional discipline (Bortolussi, 2016). After this acknowledgment, the realm of project management witnessed an ascending trajectory in its significance, contributing substantial value to the broader business milieu (Bortolussi, 2016).

According to Maric (2017), from 1910 to the 1950s, the first traditional project management method started with Henry Gantt’s chart for scheduling and developing critical path techniques. The Gantt charts approach uses a graph to execute project deliverables by illustrating each task's start and end dates through horizontal bar graphs (Al-turfi, 2017). They used these tools to create

a project schedule, identify critical tasks, and allocate resources (Project Management Institute, 2017). The focus was on completing the project on time, within budget, and to the required quality (Kerzner, 2013).

As technology advanced, project management became more computerised, with the introduction of project management software (Project Management Institute, 2017). The introduction of software allowed project managers to create schedules and track progress more efficiently, and it helped to standardise project management practices across industries (Kerzner, 2013).

3.1.1. PMBOK as an Overarching Project Management Framework

The late 1900s to 2000 saw the emergence of project management standards (Project Management Institute, 2017). Standards such as PMBOK was released to standardise a set of project management practices, guidelines, and terminologies, developed by the Project Management Institute (PMI) (Kerzner, 2013).

The PMBOK serves as a comprehensive guide for project management professionals, detailing processes and best practices that can be applied across various industries and project types (Karaman & Kurt, 2015). It provides a framework for managing projects more effectively, ensuring consistency, efficiency, and a higher likelihood of project success (Project Management Institute, 2017). The PMBOK Guide is frequently updated to reflect the evolving nature of the project management field and is considered one of the primary references for project management professionals globally (Project Management Institute, 2017).

The PMI provides training, education, licenses, research, and consultancy on project management methods (Weaver, 2007). PMBOK standards have been used by project management professional bodies to license PMs to apply these standards when delivering software projects (Papadopoulos, 2015). "PMBOK contains the globally recognised standard and guide for project management profession" (Karaman & Kurt, 2015, p.2).

The section below discusses traditional project management methods and how the method is used to deliver software.

3.2. Employing Traditional Project Management to Deliver Software

Kerzner (2013) refers to traditional project management as the early phase of project management practices, characterised by using sequential phases to complete a project. The author explained that the concept rests on predictable tools and experience. These phases include project feasibility assessment, planning, designing, implementing, and maintenance (Maric, 2017).

Maric (2017) noted that the common thread with the traditional approach concerns the focus on planning and setting software requirements in advance. Project requirements typically include eliciting the software development tasks, cost, scope, and time (Maric, 2017). The sequence that traditional project management follow is prescribed by the PMBOK standard (Karaman & Kurt, 2015).

The below discussion provides a detail overview of a renowned example of a traditional management approach method that utilises sequential steps to deliver software.

3.2.1. Waterfall Method

The waterfall project management method is a popular example under the traditional project management approach used to deliver software within the financial service sector (Hoeseb & Tanner, 2020). The waterfall method delivers projects by using sequential stages (Awad, 2005; Maric, 2017).

Figure 5 below depicts the waterfall sequential stages (Stoica et al., 2013). The stages are similar to the System Development Life Cycle (SDLC), complementing the waterfall sequence (Eason, 2016). The review discusses the SDLC later in the chapter to understand how the waterfall method aligns.

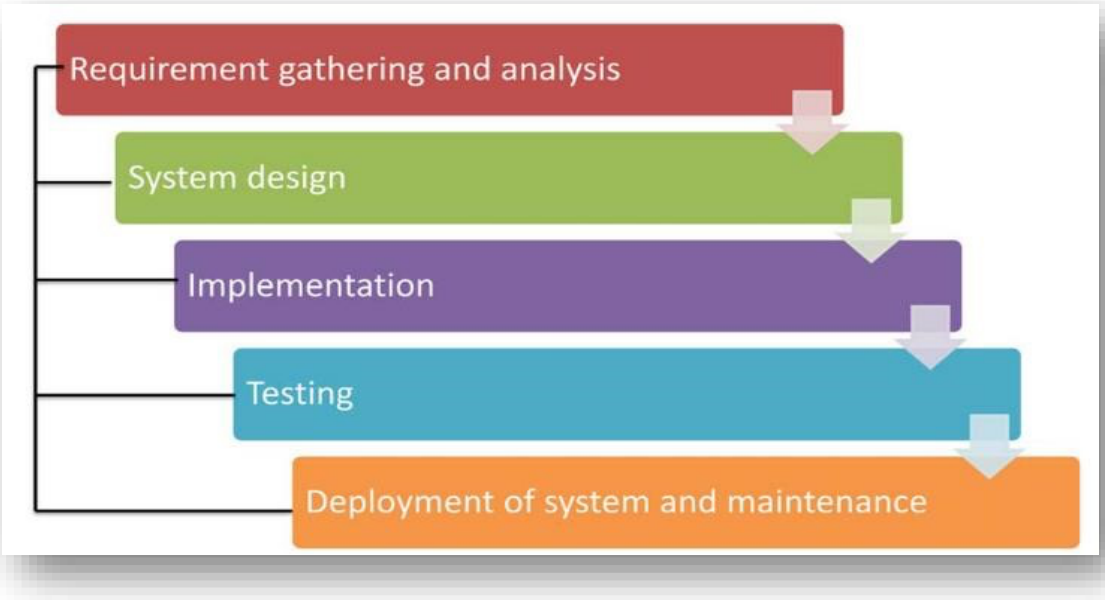


Figure 5: Phases of the waterfall model (Stoica et al., 2013, p,3)

The merits of the waterfall project management methodology are intrinsically tied to its comprehensive documentation practices (Sankala, 2018). The requisite documentation encompasses a diverse range, including the formulation of a business case, articulation of business requirements specifications, an exhaustive project plan, documented meeting minutes, periodic project update reports, and a conclusive project closure report (Sankala, 2018). Such methodological rigor facilitates the seamless integration of new team members into ongoing projects, attributing to the accessibility and thoroughness of the established documentation (Stoica et al., 2013).

Project management practices empower project management methods to deliver software. Gemino et al. (2021) defined project management practices as the technique, or procedure used to manage an aspect of a methodology within a project. Maric (2017) highlighted that PMs who use the waterfall method commonly start with planning and requirements gathering. System design follows requirements gathering, implementation, testing, deploying, and maintaining the system (Maric, 2017; Sankala, 2018).

The waterfall stages, as shown in Figure 5 above, was explained by Sankala (2018) and Stoica et al. (2013):

- **The requirement analysis stage** refers to the first phase of the project, whereby IT facilitates workshops to understand the commissioned project needs, vision, and requirements. During this phase, a business analyst would document a business requirement specification document (BRS). The BRS document includes the customer's needs, project expectations, background, and required resources.
- **The design stage** refers to the project's second phase, where IT does technical solution planning. During this phase, the IT team illustrates the technical aspect of the solution. The requirements have been signed off, and the solution can be moved to the development team for execution.
- **The implementation stage** refers to the project's third phase, where the development team creates the actual product or output. The development aims to achieve the desired functionality outlined by the requirements provided by the business analyst. Software developments with the direction of the PM and business analyst own up this project stage.
- **The testing stage** refers to the fourth stage of the project when development has been concluded, and the product is ready to be assessed if it meets the desired functionality. The business analyst and the tester commonly own this stage of the project. The aim of the stage includes assessing the performance and quality of the product developed.
- **The installation stage** is the fifth stage of the project, and the phase needs to be reflected in the diagram above as it is often combined with the maintenance stage. During this stage, the development team prepares the final product for deployment. It is crucial that the users are happy with the outcomes of the testing stage and provide a signoff for the deployment of the product.
- **Maintenance** refers to the enhancements and servicing of the implemented system or product post-deployment. Maintenance can be applied when the system does not function, when the business wants to add new functionality, or on an ongoing basis to meet client requirements.

A project manager (PM) employing the waterfall methodology for software project delivery oversees the systematic progression through distinct stages (Bortolussi, 2016). As elucidated by Stoica et al. (2013), the efficacy of the method is underpinned by its stringent adherence to the principle of completing each project phase prior to transitioning to the subsequent one. This

methodology precludes PMs from advancing to the ensuing phase should the deliverables of the current stage remain unfulfilled (Stoica et al., 2013).

3.2.2. The SDLC Process

Eason (2016) defines the Software Development Life Cycle (SDLC) process as a software development process that utilises sequential stages when developing a software application. SDLC stages are similar to the waterfall project management method because they are born from a similar concept (Eason, 2016). Hedman and Lind (2009) explained that SDLC encompasses five (5) sequential stages: requirements analysis, planning, design, implementation, testing, deployment, and maintenance. The primary purpose of the SDLC is to produce high-quality software that meets or exceeds customer expectations while being delivered on time and within budget (Kyeremeh, 2021).

The benefits of the SDLC process include simplicity, methodological support, concrete milestones, and assistance for each stage of delivery (Hedman & Lind, 2009). SDLC' shortcomings encompass a need for more relevance in the modern age of software, as it supports the waterfall method (Hedman & Lind, 2009). In addition, the model also bases software development on a straightforward process and minimises flexibility to include changes during the software development phase (Hedman & Lind, 2009). Other limitations of the SDLC model include a slow pace of addressing fast-changing business needs (Kyeremeh, 2021).

Analogous to the critiques directed at the Waterfall methodology for its perceived rigidity, the SDLC model has similarly been perceived, in certain scholarly discourses, as aligning closely with the tenets of the waterfall project management approach (Kyeremeh, 2021). A comprehensive examination of the inherent challenges associated with the waterfall project management methodology is instrumental in deciphering the increasing inclination of businesses towards the agile paradigm.

3.3. The Challenges of Using Traditional Project Management

Numerous challenges have been identified by scholars regarding traditional project management approaches. Almeida (2017) highlighted the complexities involved in the planning process,

specifically emphasising that the initial phase of requirement gathering may not fully consider future changes required due to evolving client needs during product development. This can result in projects having a limited scope, with little room for modifications to the initially approved requirements (Almeida, 2017).

Expanding on this criticism, Delcheva (2017) argued that this inflexible approach could lead to client dissatisfaction, particularly when the resulting solution fails to remain relevant in the rapidly changing marketplace. Building on this perspective, Gandomani et al. (2013) suggested that the rigidity in accommodating modifications during the development phase might inadvertently result in development teams providing solutions that are out of sync with the dynamic market and business environment.

The traditional approach mandates that enterprises engage in system testing subsequent to the completion of the developmental phase, invariably leading to the identification of defects and anomalies in the latter stages (Årvik & Karud, 2017). The culmination of a project in the delivery of an unsolicited product can be academically construed as a project aberration, given the ensuing squandering of both tangible and intangible resources on software that remains unutilised (Gandomani et al., 2013). Given the volatile nature of the contemporary business landscape, it is imperative for software solutions to exhibit a modicum of adaptability, facilitating requisite modifications and thereby precluding the manifestation of undesirable software outcomes (Årvik & Karud, 2017).

To encapsulate, the traditional project management approach presents several inherent constraints, as delineated by scholars including Bortolussi (2016), Maric (2017), Sankala (2018), and Liu et al. (2021):

i. The approach predicates an unwavering completion of preliminary requirements before progression.
ii. Subsequent to the ratification of software project requisites and scope, there exists a pronounced inflexibility in amending the initial stipulations.
iii. There is a palpable dearth of adaptability, particularly concerning alterations to the output during the developmental phase.

iv. Collaboration is notably underemphasised, potentially engendering communication lacunae and suboptimal project deliverables due to inadequate engagement between the developmental cohort and key stakeholders.
v. Testing of the resultant output is relegated exclusively to the terminal phase of software development.
vi. Temporally, the approach can be rather protracted, necessitating the exhaustive completion of one phase prior to the inception of the subsequent, potentially exacerbating project durations and concomitant financial exigencies.

This stringent and compartmentalised approach characteristic of the traditional project management approach can engender adverse repercussions on the organisational cadre, potentially manifesting in escalated stress indices, diminished job contentment, and obstacles in fostering efficacious communication and stakeholder congruence.

3.4. Conclusion

The traditional project management approach is widely recognised as a dominant method utilised in various industries for software delivery. Academic discussions suggest that this approach follows a strict, linear progression for software deployment. However, the inherent inflexibility of this approach can limit adaptability, especially in dynamic business environments. As a result, customer satisfaction may be compromised, and meeting client requirements may become challenging.

To illustrate this approach, the waterfall project management approach serves as an example, highlighting the sequential phases involved in software delivery. However, there is academic debate regarding the constraints associated with this traditional approach. It is argued that these constraints may lead to delayed software testing, resulting in applications that are not aligned with evolving market demands.

Chapter 4: A Review of the APM Approach

The financial service industry started adopting the agile project management (APM) approach in the early 2000s (Papadopoulos, 2015), mainly to take advantage of the immediate software development benefits leveraged by employing the agile approach (Karud, 2016; Kilu et al., 2018). The sections below discuss agile project management approach and the methodologies underpinned by the approach.

4.1. Agile Project Management Approach

The agile approach serves as a comprehensive umbrella encompassing a myriad of agile project management methodologies, including but not limited to Scrum, Extreme Programming, Adaptive Software Development, Crystal, Feature-Driven Development, Pragmatic Programming, and Kanban (Sankala, 2018). Obrutsky and Erturk (2017) have chronicled the evolution of agile, elucidating the foundational values and principles that permeate and underpin the diverse agile methodologies.

4.1.1. The History of Agile

In 2001, the "Agile Alliance" convened in Utah with the objective of conceptualising innovative methodologies for software delivery, de-emphasising an over-reliance on processes and documentation (Obrutsky & Erturk, 2017). The alliance designed a manifesto encompassing values to guide practitioners and businesses (Obrutsky & Erturk, 2017). The agile manifesto outlines the values that should be satisfied for a project to be called agile (Delcheva, 2017).

The essential values noted by Obrutsky & Erturk (2017) and Delcheva (2017) include

i. Individuals and interactions over processes and tools,
ii. Working software over comprehensive documentation,
iii. Customer collaboration over contract negotiation, and
iv. Responding to change over following a plan.

These values are complemented by a set of principles as outlined by Hekkala et al. (2017.p.P.2) and Obrutsky and Erturk (2017, p.4):

i. “The highest priority is to satisfy the customer through early and continuous delivery of valuable software,
ii. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage,
iii. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference for the shorter timescale,
iv. Businesspeople and developers must work together daily throughout the project,
v. Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done,
vi. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation,
vii. Working software is the primary measure of progress,
viii. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely,
ix. Continuous attention to technical excellence and good design enhances agility,
x. Simplicity is the art of maximizing the amount of work not done--is essential,
xi. The best architectures, requirements, and designs emerge from self-organizing teams,
xii. The team regularly reflects on how to become more effective, then tunes and adjusts its behavior accordingly”.

The principles of the agile paradigm set it apart from other existing project management methodologies (Novac & Ciochină, 2018). While various practices underlie each agile methodology, they all converge toward a common objective: to add value to software development and facilitate incremental product delivery (Sowaidan, 2016).

Moreover, these principles are inherently designed to enhance value for both clients and software development teams (Novac & Ciochină, 2018). By implementing shorter iterative cycles and fostering effective communication, software development teams strive to mitigate the risks associated with traditional, monolithic delivery approaches (Novac & Ciochină, 2018).

At the core of these agile principles lies the recognition and preparedness for uncertainties that may arise during a software project development (Novac & Ciochină, 2018). By promoting collaboration as a key instrument, these principles imply a higher effectiveness in navigating unforeseen events within collaborative team dynamics (Sowaidan, 2016).

4.2. Scrum Method

The scrum method is an example of a popular agile approach method that uses iterative, evolutionary, and incremental processes for delivering output (Sankala, 2018). The scrum method emphasises how the team members should function to produce system flexibility in a constantly changing environment (Dikert et al., 2016). The method aims to produce an artifact at the end of each iteration (Gandomani, Zulzalil, Ghani, Sultan, et al., 2013). Organisations can expect to see parts of the delivered product at the end of each sprint cycle (Gandomani et al., 2013).

Scrum, as a method, utilises user stories and ceremonies as a unique trait from the other agile methods (Gandomani et al., 2013). User stories refer to business requirements broken into smaller sized development tasks that can be achieved within an iteration (Gandomani et al., 2013). While ceremonies refer to agile events traditionally known as a meeting to plan, report, review, and reflect on the delivered product (Schwaber & Sutherland, 2020).

Organisations relate more to the scrum method because the method includes scrum ceremonies that organisations transitioning from traditional to agile can easily follow Kaprik, 2018). The scrum process is outlined below and highlights the team, ceremonies, and the process.

4.2.1. The Scrum Method Process

Scrum relies extensively on working in teams that comprise 3 to 9 members, referred to as the scrum team (Schwaber & Sutherland, 2020). The scrum team can span from other departments to create a cross-functional team that collaborates and shares information (Schwaber & Sutherland, 2020).

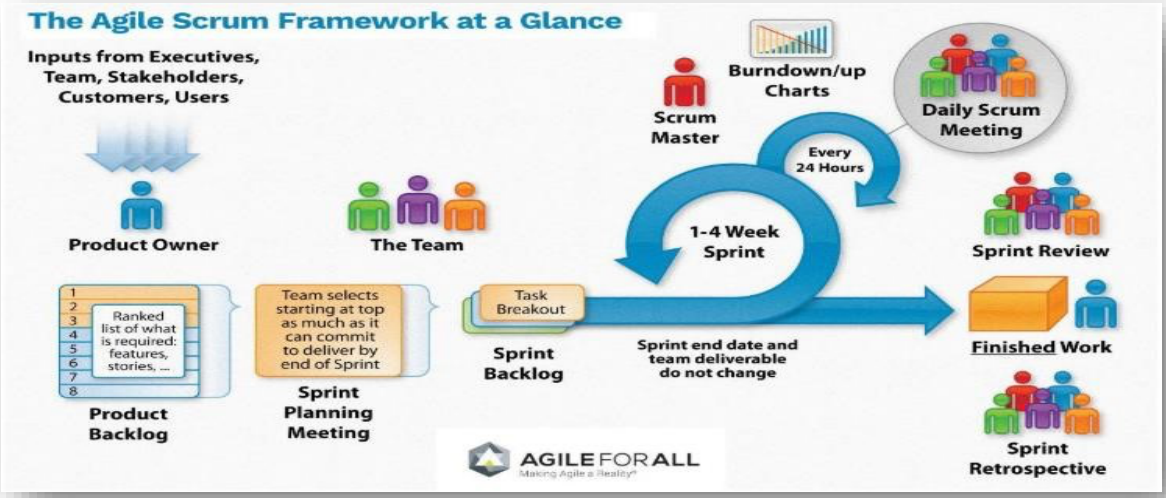


Figure 6: The Scrum Framework Process Depiction (Sankala, 2018, p.16)

The scrum process, as shown in Figure 6 above, was explained by Sankala (2018):

- **Product Backlog:** the product backlog refers to prioritising a list of what is typically known as software requirements on a board or software board. The list of requirements or user stories assists the scrum team in prioritising the requirements dedicated for each sprint (explained in the next point). The product backlog is the Product Owner's responsibility (PO) for maintenance.
- **Sprints:** sprints refer to the cycle of scrum meetings that must be achieved between 14 to 30 days. The different sprint meetings are regarded as a working tool of the team, including Sprint Planning Meetings, Sprint Backlog, and Daily Scrum meetings.

- **Sprint Planning Meeting:** the sprint planning meeting's purpose encompasses setting sprint goals and functionality for the agreed sprint cycle. The sprint planning meeting should be attended by the product owner, scrum master (SM), and the team.
- **Sprint Backlog:** the sprint backlog meeting presents a list of features assigned to a particular Sprint. Features are a list of requirements broken down into a story. When all the features are completed, a new system iteration is delivered.
- **Daily scrum:** the SM facilitates the daily scrum meetings with the scrum team for approximately 15 minutes. The meeting is organised to monitor the scrum team's progress and respond to any challenges the team encounters.
- **Sprint Review Meeting:** the sprint review meeting aims to demonstrate the functionality achieved over the sprint cycle by the scrum team. The team reviews the tasks that were initially committed and achieved over the sprint cycle.

4.2.2. The Scrum Roles

There are three roles within a scrum team (Schwaber & Sutherland, 2020). The scrum team composition includes the (PO), (SM), and development teams, as mentioned previously (Schwaber & Sutherland, 2020).

A **dedicated Product Owner (PO)** must account for the return on investment (Schwaber & Sutherland, 2020). The PO ensures that the project commissioned on behalf of the organisation meets the strategic direction of management (Sankala, 2018). In addition, the PO shares the vision and continuously provides and updates the requirements needed for user stories (Sankala, 2018). The PO sits with the team and interacts with them daily to clarify requirements, remove impediments, and guide the team on product quality (Sankala, 2018).

The role of the **Scrum Master (SM)** necessitates an individual adept in facilitation, mediation, motivation, and the impartation of scrum practices to the team (Schwaber & Sutherland, 2020). Pathak and Saha (2013) underscored that the duties inherent to the SM position should be distinctly delineated from those associated with a Project Manager (PM). Given the self-managing nature of

the Scrum team, it is imperative that the SM wields authoritative influence over the ensemble (Pathak & Saha, 2013).

The responsibilities of an SM include facilitating all the scrum ceremonies outlined above (Karud, 2016). The SM is responsible for removing impediments to the team and ensuring that the team is not disturbed (Karud, 2016). Agile requires the SM to foster good communication between the development team and the PO (Papadopoulos, 2015).

The **Team** consists of individuals working together to deliver a software product in alignment with the committed sprint goals (Shankarmani et al., 2012). The scrum team comprises cross-functional members who possess the skills and knowledge to achieve the sprint goals (Karud, 2016). The cross-functional members of the development usually include software engineers, software architects, software programmers, software or business analysts, system quality assurance experts, testers, and UI designers (Karud, 2016). The right mix within a cross-functional team empowers a project to have all the expertise required to deliver a potentially valuable product for each sprint (Karud, 2016).

The team is responsible for building the desired product that the PO and the team prioritised and agreed to be achieved incrementally within an iteration (Sankala, 2018). The development team is self-organised with high autonomy, accountability, and trust (Sankala, 2018). The user stories are packed on each sprint or iteration for the development team to decide on the number of items they can commit to delivering a product incrementally and meeting the sprint goal (Sankala, 2018).

4.2.3. Challenges of the Scrum Method

Organisations that introduce the scrum method to deliver projects will more than likely be met with some resistance to the introduction of a new method of work (Obrutsky & Erturk, 2017). Commonly documented reasons for this are organisational resistance to change, lack of training & knowledge transfer, and weak change management (Obrutsky & Erturk, 2017). The SM, in collaboration with management, can reduce these barriers by focusing more on the role of leadership and employee engagement throughout the process of introducing APM (Hussain et al., 2018).

The scrum method was criticised for not allowing the team to accept changes that deviate from the committed sprint tasks (Awad, 2005). The scrum method places less emphasis on project governance to deliver software. Project governance enables the minimum requirements each project should meet for auditing reasons to justify the project's existence and ensure that the organisation's benefits are realised (Bidgood & Gaim, 2017).

In traditional project management, PMs keep documentation for each phase and signoff achieved within a project (Bidgood & Gaim, 2017). Examples of the documentation required to meet the governance expectation include an email to start the project, business requirements signoff, solution design, progress status report, quality assurance testing signoffs, user acceptance signoffs, and a record of decisions & risks (Kilu et al., 2018).

4.3. Comparison of Traditional and APM Approach

"Drawing a comparison between the most popular used project management approaches such as the traditional and agile project management approaches, should make an easier choice for PMs in future when starting an agile project" (Maric, 2017, p. 6). Eason's (2016) study on comparing the waterfall and agile project management identifies the pros and cons of traditional versus agile project management approaches as shown in Table 5 below.

The comparison provided in table 5 above serves as a guide for scholars and project management practitioners to consider which types of projects are suited for execution using the traditional or agile approach (Eason, 2016). Financial service organisations transitioning from traditional to agile should consider the above factors to mitigate some of the challenges that will arise.

Table 5: Illustrates the pros and cons of traditional versus agile project management approaches (Eason, 2016, p. 12)

Aspect	**Traditional development**	**Agile development**
Fundamental hypothesis	Systems are fully specifiable, Predictable and are developed through extended and detailed planning	High-quality adaptive software is developed by small teams that use the principle of continuous

		improvement of design and testing based on fast feedback and change
Management style	Command and control	Leadership and collaboration
Knowledge management	Explicit	Tacit
Communication	Formal	Informal
Development model	Life cycle model (waterfall, spiral, or modified models	Evolutionary-delivery model
Organisational structure	Mechanic (bureaucratic, high formalisation), targeting a large organisation	Organic (flexible and participative, encourages social cooperation), targeting small and medium organisations
Quality control	Difficult planning and strict control. Difficult and late testing	Permanent control or requirements, design, and solutions. Permanent testing
User requirements	Detailed and defined before coding/implementation	Interactive input
Cost of restart	High	Low
Development direction	Fixed	Easily changeable
Testing	After coding is completed	Every iteration
Client involvement	Low	High
Additional abilities required from developers	Nothing in particular	Interpersonal abilities and basic knowledge of the business
Appropriate scale of the project	Large scale	Low and medium scale
Developers	Oriented on the plan, with adequate abilities, access to external knowledge	Agile, with advanced knowledge, co-located and cooperative
Clients	With access to knowledge, cooperative, representative, and empowered	Dedicated, knowledgeable, cooperative, representative, and empowered

Requirements	Very stable, known in advance	Emergent, with rapid changes
Architecture	Design for current and predictable requirements	Design for current requirements
Remodelling	Expensive	Not expensive
Size	Large teams and projects	Small teams and projects
Primary objectives	High safety	Quick value

The hybrid approach is another approach that emerged to assists organisations that did not fully commit to the agile approach. The hybrid approach has been viewed to leverage value from both traditional and agile (Jaziri et al., 2018). The discussion below provides detail on the hybrid method as an alternative approach to be considered when delivering software.

4.4. Hybrid Project Management Approach

According to Bidgood and Gaim (2017), the hybrid approach combines elements from both traditional and agile approaches to create an innovative project management method. The hybrid approach integrates methodologies and practices from various project management approaches at a foundational level (Gemino et al., 2021).

As explained by Bidgood and Gaim (2017), modern organisations are increasingly inclined to embrace both traditional and agile methods. This synchronisation allows financial service organisations to leverage the advantages offered by each approach. Project teams are adapting to their organisational dynamics and integrating methodologies and practices that align with their specific context. Gemino et al. (2021, p.3) highlight several reasons for organisations' inclination towards the agile approach while still incorporating elements of the traditional approach without fully abandoning it:

i. Governance and compliance requirements
ii. Safety and robustness requirements
iii. Documentation requirements
iv. Pre-set budgetary and time requirements
v. Managing large, complex projects

A typical hybrid approach to combine APM and traditional approaches uses the SDLC process to analyse the complexity of the project requirements and tasks and creates a work breakdown plan (Bidgood & Gaim, 2017). Each phase of the work breakdown plan gets created on the product backlog, similar to the scrum method (Bidgood & Gaim, 2017). Managing the project from an end-to-end perspective is the responsibility of the PM using the work breakdown structure (WBS) (Bidgood & Gaim, 2017). At the same time, the sprints for software development remain under the SM's remit (Shankarmani et al., 2012).

Some organisations have seen the value of combining agile and traditional project management methodologies into a hybrid methodology Bidgood and Gaim (2017). Benefits include detailed documentation, project governance, and a software-centered development delivery that is more responsive (Gupta, 2017). However, attempting to use two project management methods concurrently was viewed as challenging as project tasks and responsibilities collide within the organisational structure (Dikert et al., 2016).

4.5. Conclusion

In conclusion, this chapter reviewed the inception of the agile approach.

The agile approach encompasses various contemporary project management methodologies, including Scrum, Extreme Programming, Adaptive Software Development, Crystal, Feature-Driven Development, Pragmatic Programming, and Kanban. The focus of this review was primarily on the Scrum methodology, outlining its processes, ceremonies, and the responsibilities of key roles such as the Product Owner, Scrum Master, and development team.

A significant challenge identified in the chapter is the delayed accommodation of software modifications in the Scrum methodology, often occurring after a sprint cycle. To address this challenge, organisations have adopted a hybrid project management approach, integrating elements from both traditional and agile frameworks. This hybrid approach facilitates better documentation, reinforced project governance, and improved responsiveness to changes in software development.

To summarise, this review contributes to the understanding of agile project management, its origins, methodologies, challenges, and the potential benefits of adopting a hybrid approach. Agile methodologies present opportunities for enhancing software development practices, while integrating traditional project management elements can improve project governance and adaptability. By considering project characteristics and requirements, organisations can make informed decisions on the most suitable project management approach to achieve successful outcomes.

Chapter 5: Evaluating the Transitioning Journey to APM

Factors prompting the shift to agile differ across organisations. Predominantly documented motivations for such transitions encompass expedited time-to-market, phased delivery, and enhanced visibility coupled with transparency, as delineated by scholars such as Abrahamsson & Ronkainen (2002), Delcheva (2017), Karpik (2018), and Sankala (2018). The ensuing subsection elucidates and deliberates on the motivations, advantages, challenges, potential risks, and change management strategies imperative for contemplation during a transition to APM.

5.1. Reaching the Market Faster

One salient rationale underscored by Delcheva (2017) and Kilu et al. (2018) pertains to the expeditious market entry facilitated by APM. Such swift market access aligns with organisational imperatives to cater to customer requisites and adapt to market fluxes through prompt product introductions (Delcheva, 2017). Elaborating further, Kilu et al. (2018) posit that entities within the financial services sector are compelled to rapidly acclimate to market dynamics, particularly in light of the accelerated paradigm shifts ushered in by the emergence of Financial Technology (Fintech).

Fintech is at the forefront of the disruptive technologies within the financial service sector that constantly challenge traditional methods used to perform financial service activities (Coetzee, 2018; Hoeseb & Tanner, 2020). By using technological breakthroughs such as "Artificial Intelligence (AI), humanoid robotics, biotechnology, quantum computing, mobile Internet, drones, holograms, and predictive analytics" (Coetzee,2018, p.2). These organisations are revolutionising and redefining how financial services such as banks operate (Mungai, 2019).

Fintech organisations competitive edge lies in the small-scale products that address the needs of organisations and consumers within the society they operate within (Mungai, 2019). Fintech businesses rely on something other than an extensive suite of products to launch within the market (Mungai, 2019), but rather on releasing products into the market faster and creating dominant positions within a market segment (Coetzee, 2018).

This literature highlights several benefits that can be achieved by using agile for financial service businesses (Stoica et al., 2013; Kilu et al., 2018). These benefits include delivering software incrementally, fixing defects early, and increasing transparency and visibility.

5.1.1. Incremental Delivery

Incremental software delivery facilitates the expeditious release of functionalities in smaller increments (Abrahamsson et al., 2002). Incremental delivery not only augments the capabilities of software development contingents but also enables them to enhance extant functional software (Noruwana & Tanner, 2012; Sankala, 2018). Additionally, the cyclical nature of incremental delivery accentuates the utilisation of recyclable software codes, thereby optimising efficiency and engendering superior results throughout the developmental phases (Noruwana & Tanner, 2012).

In the realm of financial service organisations, the advantages of incremental software delivery manifest through the capacity to evaluate software functionality, discern failures at preliminary stages, rectify, manage risks, and enhance throughout the developmental process (Abrahamsson & Ronkainen, 2002). Such a modality bolsters the scrum team's capability to pinpoint potential vulnerabilities as software iterations are dispatched (Sankala, 2018). Within the development cycle, this team possesses the acumen to recognise quality discrepancies that could jeopardise a project's trajectory (Alami, 2015). During the quality assurance phase, determinations regarding defects, anomalies, or absent prerequisites are made (Alami, 2015). Concurrently, throughout the developmental phase, these risks are assessed and attenuated through collaborative engagement with the Product Owner.

5.1.2. Visibility and Transparency

Transparency refers to the availability of information amongst individuals, organisations, and societies (Ball, 2009). Transparency emanates from the collective conviction that individuals possess the capacity to perceive and interpret phenomena in a congruent manner (Albu & Flyverbom, 2016). Within the agile approach, transparency denotes the mutual comprehension shared among agile teams engaged in a particular project (Minárik, 2014). This mutual comprehension is bolstered by the team's capability to access and disseminate consistent information (Minárik, 2014).

Albu and Flyverbom (2016) explained that transparency and visibility complement one another. Visibility compliments transparency, making available information visible (Albu & Flyverbom, 2016). Visibility addresses the notion of being able to see, being seen, and being acknowledged (Mateus, 2017). Similar to transparency, visibility creates trust as people can view the same information (Mateus, 2017). Visibility and transparency are two concepts embraced within agile teams (Minárik, 2014; Rigby et al., 2016).

5.1.2.1. Visibility and Transparency in Agile

Visibility delineates the capacity of agile teams to observe the accomplishments within a project by its participants (Rigby et al., 2016). Agile tenets champion the enhancement of intercommunication among team members and endorse their authority to inspect the tasks undertaken by their peers, concomitant with the dissolution of hierarchical configurations (Minárik, 2014).

The agile approach augments intra-team feedback and fosters consistent collaborative efforts (Minárik, 2014). Visibility and transparency thrive when increased communication occurs (Delcheva, 2017). As a result, client engagement and satisfaction improve (Rigby et al., 2016). Agile teams have a shared responsibility to enable visibility and transparency by creating a shared understanding during the product backlog, sprint refinement, sprint planning, and daily stand-ups where each team member reports on the progress of their dedicated task (Rigby et al., 2016).

The SM is responsible for creating and maintaining the agile board to ensure that task progress is visible to everyone (Delcheva, 2017). JIRA is an example of software that supports the visibility and transparency of the agile process. Scrum teams can use JIRA to create, maintain, and track software development tasks from analysis to deployment, thus increasing information awareness (Minárik, 2014).

JIRA users with the appropriate authority and access can create, prioritise, size, estimate, and comment on tasks (Minárik, 2014). The disadvantages of using JIRA include difficulty incorporating user interface (UI) into user stories, limited feature releases, and high frequency of enhancements (Minárik, 2014).

Software platforms, like JIRA, enable discussion when a task progresses through each development stage, demonstrating how visibility and transparency are embraced throughout the sprint cycle (Rigby et al., 2016; Delcheva, 2017). Clients remain at the centre of the transparency requirement. The section below explains how visibility and transparency incorporate by clients in an agile approach.

5.1.2.2. Transparency and Visibility for Clients

End-users of software development outputs are conceptualised as clients within the academic context (Delcheva, 2017). Such clients may manifest as a distinct business entity, a managerial figure representing a particular business division, or a Product Owner (PO) acting on behalf of the client. The pressing requirement for software solutions to cater to client specifications underpins the rationale promptly and precisely for organisations adopting an agile approach, facilitating incremental product deliveries to the market (Kilu et al., 2018).

The PO usually represents clients in the agile process through effective communication, creating user stories, and clarifying requirements for the team (Schwaber & Sutherland, 2020). The PO has the capability to assess the task board, thereby ascertaining the alignment of agile team deliveries with stipulated client specifications (Sankala, 2018). Through sprint review sessions, the progress achieved by the team is rendered both visible and transparent to the PO (Gustavsson, 2016). These sessions facilitate an evaluative framework for the PO, allowing them to discern potential discrepancies in the intended functionality, and evaluate the merits of introducing specific functionalities or elucidating requirements for given tasks (Gustavsson, 2016).

The principles of transparency and visibility play a pivotal role in facilitating informed decision-making by clients, ensuring alignment with anticipated benefits (Delcheva, 2017). The absence of these principles can precipitate adverse consequences such as diminished product quality, tarnished team reputation, and potential damage to the organisational brand (Minárik, 2014). Moreover, transparency and visibility serve as instrumental tools in minimising risks associated with unmet client expectations, eradicating misinformation, and mitigating the likelihood of product non-delivery (Gustavsson, 2016). Within the agile framework, data sourced from both the team and the client is harnessed to enhance the overall software quality (Betta & Boronina, 2018).

5.2. The Process towards Transition

There are several steps that organisations should consider when transitioning towards agile. These steps encompass appointing an agile champion, understanding the existing environment, persuading stakeholders, providing education, and tailoring agile (Sankala, 2018). Agile transition necessitates businesses to change their past habits, create room for flexibility and embrace change (Sankala, 2018).

5.2.1. Understanding the Organisational Environment

Understanding the organisation's environment provides a microscope view for management to decide on the transition (Hekkala et al., 2017). Management needs to conduct an analysis that distinguishes the pros or cons of a particular inquiry (Hekkala et al., 2017). Organisations need to analyse and assess the impact of an agile transition on the existing organisations environment, processes, and employees (Gandomani et al., 2013).

An evaluative study can furnish organisational leadership with pertinent insights to discern the appropriateness of adopting an agile approach considering the institution's specific requisites (Gandomani et al., 2013). Armed with a comprehensive understanding of the prevailing environment, the organisation can address queries related to requisite risk mitigation and change management strategies and cater to the demands of ongoing projects prior to initiating the transition process (Årvik & Karud, 2017).

Organisations are necessitated to comprehend the transformative capacity of agile and the value they introduce (Hekkala et al., 2017). Transitioning without a thorough analysis of agile's potential ramifications may culminate in project failures, particularly if agile is not the optimal approach for the given context (Hekkala et al., 2017). To facilitate this transition, organisations might consider designating an agile advocate to engender support and consensus among other key stakeholders (Sankala, 2018).

5.2.2. Persuasion and Changing Mindset

Organisations should persuade and obtain buy-in from employees on the need to transition towards agile (Gandomani et al., 2013). Persuasion is a step toward changing the mindset of stakeholders to view themselves as agile (Karpik, 2018).

Agile influence various tiers of management (Karpik, 2018). Similarly, it is imperative that management comprehends and is convinced by the advantages and underlying reasoning for transitioning to agile practices (Rasnacis & Berzisa, 2016). A study on agile transition by Delcheva (2017) revealed that persuading middle management to transition was more complex than top-level management. The same author justified that the agile champion has the role of persuading middle management of the benefit, principles, and values of agile methods. Understanding the value of agile would enable middle management to appreciate the change in mindset and better influence the decision to move towards agile in their respective areas (Delcheva, 2017).

Delcheva (2017) posited that articulating the benefits in quantifiable terms on a presentation can effectively persuade senior management, especially when the advantages to both the end client and the organisation are delineated (Stoica et al., 2013). The author further contended that securing senior management's endorsement becomes more straightforward once they discern the merits of the agile approach.

The aim of persuasion in agile transition is to alter the mindset of employees. Persuasion fosters a mindset that supports the change being introduced (Delcheva, 2017). Organisations bear the responsibility of elucidating the advantages of embracing an agile methodology to their workforce (Mako, 2019). While imparting knowledge is an instrumental avenue (Mako, 2019), it necessitates more than education. Employees should exhibit both the inclination and capability to accommodate organisational alterations (Mako, 2019). Delcheva (2017) underscores the imperative of fostering persuasion and altering mindsets to mitigate potential resistance against managerial propositions.

5.2.3. Using an Agile Champion during the Persuasion Stage

Some organisations appoint an agile champion to lead and educate different stakeholders on agile and the importance of transition (Eason, 2016). The purpose of the champion includes building trust with different teams, employees, and business units to enable collaboration and the exchange of ideas (Sankala, 2018).

Agile champions can be formally or informally appointed (Parizi et al., 2014). Formal appointments include hiring an external expert such as a consulting firm, independent consultant, or educational specialist. Informal appointment can be exemplified by hiring an individual directly from the businesses who possess knowledge on the subject (Parizi et al., 2014). Both formal and informal appointments share the same vision of persuading stakeholders to become more agile (Parizi et al., 2014).

Some organisations place reliance on consulting firms' proficiency in agile implementation, valuing their autonomous stance and adeptness in engaging with diverse stakeholders, teams, and managerial hierarchies (Eason, 2016). However, the contributions made by such external professionals might be ephemeral, contingent upon the fiscal resources allocated to them (Gandomani et al., 2013). The ramifications of temporarily engaging an agile champion encompass persisting challenges post-transition and a potential regression to indigenous project management techniques in the absence of expertise to supervise the transition (Gandomani et al., 2013).

5.2.4. Education

Educational initiatives are pivotal in agile transitions. The literature underscores three predominant rationales for organisations gravitating towards agile-oriented education during agile transition (Kilu et al., 2018). Initially, providing education seeks to garner endorsement from the organisations post comprehensive employee enlightenment regarding agile. Subsequently, there is a focus on discerning the implications of agile on varied business sectors. Conclusively, there is an emphasis on comprehending the anticipated deliverables in an agile milieu (Kilu et al., 2018).

Providing education to different levels of management and employees ensures that no employee is left out (Årvik & Karud, 2017). Education allows managers and employees to be informed and confident about how agile would provide value for the business (Kilu et al., 2018). Managers who are unclear on agile principles are likely to feel left out (Årvik & Karud, 2017).

Agile principles advocate for self-organised teams, which means that all members of an agile team are equal, self-managed, and share responsibilities for delivering a product (Kilu et al., 2018). The definition of a self-organised team remains blurred for some organisations, employees, and managers that are not informed about agile (Årvik & Karud, 2017). Some organisations that are accustomed to traditional project management have challenges in understanding the concept of a self-managed team because of the reliance and responsibility placed on the PM to manage and account for software delivery (Leau et al., 2012). On the other hand, agile places shared responsibility on the scrum team to ensure that all the committed tasks are fulfilled within the committed sprint cycle (Årvik & Karud, 2017).

The efficacy of an agile transition can be compromised by managerial deficiencies in comprehending the approach (Årvik & Karud, 2017). For example, a manager that is uninformed about agile may incorrectly implement its principles and values, leading to inconsistent application and mismatched expectations among agile teams or employees (Årvik & Karud, 2017). Targeted pedagogical initiatives and training can rectify such misconceptions, facilitating a uniform adoption of the methodology throughout the establishment (Dikert et al., 2016).

Some organisations have combined agile and traditional project management methods to suit their needs (Gandomani et al., 2013). This "tailored agile" approach allows them to take advantage of the benefits of both methods.

5.3. Challenges Faced When Transitioning to APM

Papadopoulos (2015) underscores the necessity for certain organisations to address the impending obstacles inherent to the transition process for successful implementation. A synthesis of scholarly literature delineates three predominant challenges faced during this process (Kolzow, 2014;

Papadopoulos, 2015; Delcheva, 2017). These challenges encompass lack of trust, resistance towards change and change management.

5.3.1. Lack of Trust

Agile transition necessitates convincing different levels of management to have confidence in the transition (Delcheva, 2017). Demonstrating trust in agile implies that the team provides honest feedback during agile ceremonies and throughout the development cycle (Delcheva, 2017). Agile teams build effective communication and nourish trust by providing progress updates, explaining challenges, and taking ownership (Delcheva, 2017; de Pinho, 2020).

A deficit in trust can adversely impact team morale during the software product delivery phase of the transition (Sankala, 2018). The decline in morale can be attributed to the dissemination of disparate versions of information, subsequently compromising team efficiency (Auerbach & Mccarthy, 2014). Various factors can precipitate this erosion of trust, including inadequate communication, delayed deliveries, overcommitment to assignments, and failure to articulate potential challenges and risks that could impede the completion of a task or sprint (Delcheva, 2017).

The SM is responsible for creating an environment of trust (McHugh et al., 2012). The SM can encourage communication and collaboration to increase the team's confidence and ability to rely on each other (McHugh et al., 2012). Employees who exhibit trust in the change process typically demonstrate a receptivity to transformation, whereas those lacking such trust are often perceived as exhibiting resistance to change. This resistance is attributed to certain employees' reluctance to embrace alterations. The nuances of resistance during the agile transition are further delineated in the subsequent sections.

5.3.2. Resistance Towards Change and Change Management

Resistance to change was a common challenge when transitioning (Mako, 2019). Resistance to change refers to individuals opposing, struggling, or revolting against modifications that change the status quo (Kolzow, 2014). Resistance to change can come from individuals or a collective

(Kolzow, 2014). There are different nuances that causes resistance to change during agile transition.

Concerns surrounding employment stability have been identified as a potential catalyst for resistance to change (Mako, 2019). During periods of 62pecialized62al transformation, issues such as job security, performance evaluations, and role clarity emerge as prevalent concerns (Dikert et al., 2016). Mako (2019) posits that the inherent principles of agile, which prioritise human collaboration, autonomous teams, and reduced hierarchical oversight, can exacerbate resistance sentiments. Manifestations of this resistance are evident when employees revert to traditional approaches in response to challenges encountered during the transition phase (Dikert et al., 2016).

Agile changes how people work, think, and apply themselves to their work. Employees who disagree with the changes are likely to resign or accept the change (Almeida, 2017). Kolzow (2014) advised that messages from top management need to pass down to the middle and lower management to avoid resistance to change. The author equally advocated that message from lower management needs to be able to filter to top management to understand and resolve difficulties encountered during the transition.

Alshehhi (2014) underscores the significance of change management as a strategy for mitigating resistance to specialised shifts. Change management entails the systematic approach to addressing complications that arise during transitional periods (Alshehhi, 2014). Key facets of this approach encompass human aspects, current operations, and technological dimensions (Årvik & Karud, 2017). Implementing an appropriate change management framework is imperative for organisations navigating the intricacies of transitioning to agile (Minárik, 2014). Notable challenges encountered during such transitions include resistance, effective communication of the impending changes, and resolving issues stemming from these changes (Minárik, 2014).

Organisations can overcome challenges by formulating a change management plan (Brisson-Banks, 2010). A change management plan refers to consulting and documenting the activities, roles, and phases of change with those affected by the change (Rasnacis & Berzisa, 2016). Alshehhi (2014) explained that all changes should be thoroughly communicated. Communicating a change

provides a platform for consultation between management and employees affected by the change (Alshehhi, 2014).

Management, change managers, and the agile champion can incorporate employees to manage the change (Alshehhi, 2014). The author posits that empowering employees to proffer solutions can serve as a mechanism to navigate uncertainties, simultaneously fostering an environment conducive to ideation for task execution. To facilitate such transitions, organisations might consider integrating specialised training sessions tailored for change management (Akinyi, 2016). Such training endeavors establish an avenue for both managerial staff and employees to collaboratively engage with subject matter experts, facilitating discourse on the implications of the impending changes (Akinyi, 2016).

5.4. The Risk of Transitioning to Agile

Some risks arise due to the agile transition, which needs to be understood and managed (Delcheva, 2017). Hopkin (2012, p.11) defined risk as "a chance or possibility of danger, loss, injury or other adverse consequences."There are many definitions of risk, as risk means different things to organisations and people (Šotić & Rajić, 2015). The common theme around the definition of risk is uncertainty, urgency, and the need to remedy a situation (Šotić & Rajić, 2015).

Risks stemming from an agile transition can be attributed to change, more specifically change in method, change in the way of work and the organisational structure (Buganová & Šimíčková, 2019). Buganová & Šimíčková (2019) listed several examples of risks that can develop during an agile transition; the risks included,

i. Large agile teams need to improve the ability to perform quality assessments on the product. This can cause a disconnect from the expected delivery. Some organisations assign fewer members to deliver a product to mitigate and prevent too many moving parts from being delivered without quality assurance.
ii. An insufficient change mindset during the transition can prevent agile from being used and implemented incorrectly.

iii. There is a risk that employees may return to using previous methods. Reverting previous project management methods can cause a setback to the agile transition.

Albanese (2020) provided additional risks that other organisations have reported during an agile transition:

i. Organisations will likely lose talented employees who prefer continuing to work as they have always done. Employees may feel that the change to agile may threaten the need for their role in the company.
ii. Business managers need help to embrace the new way of leading and working.
iii. Organisations may need to let some people go as they may need to find a different fit for the new roles.
iv. Organisations lose some clients because of clients who need to appreciate the strategy, direction, and changes being implemented.

Buganováa and Šimíčkováa (2019) argued that the agile approach does not use an intentional strategy to reduce software development risks. "The agile methods such as the scrum method do not possess sufficient formal procedures for risk management" (Buganováa & Šimíčkováa, 2019, p.991). The method relies on constant feedback provided during agile ceremonies. The scrum method highlights and solves the risks for a specific task within a sprint. The risks mitigated on tasks are applied to other projects to prevent the risk from occurring in the future.

The scrum method does not provide the team with formal procedures to tackle risk management (Buganováa & Šimíčkováa, 2019). On the other hand, the traditional project management approach relies on the risk register to document risks that arise within the project. The PM uses the risk register to outline the risks for mitigation to internal and external stakeholders. Traditional project management extend the use of a risk register to govern all the project risks through a steering committee of management and key stakeholders to remove risks (Jaziri et al., 2018).

The Advance Workplace Consultancy (2020) used an example to identify transition risks. They created a risk assessment model for transitioning organisations which evaluates the severity, likelihood, and impact to prioritise risks. The impact of risk assessment can be measured using a

scoring system where the likelihood and impact are scored on a scale of 1 to 3, with 1 being the least risk and three being the most severe. The severity of risk is calculated by multiplying the scores of likelihoods and impact.

Identified Risks to Transition to an Agile World	Likelihood	Impact	Severity
Lack of top management / stakeholder enthusiasm / engagement	2	3	6
Evidence for agile working not accepted	1	2	2
Lack of clarity about the change	1	2	2
Overconfidence in ability to effect behavioural change	2	3	6
Silo nature of IT, HR and FM departments	2	2	4
Impact upon normal business during change process	2	1	2
Just another FM project rather than an organisational change project	1	2	2
Unsupportive IT strategies/plans	3	3	9
Insufficient time & resources given to complete and embed the behavioural changes	3	3	9
Lack of Performance metrics to judge success	2	2	4
Overall Risk Severity			**46/90**

Figure 7: Illustrates the potential risks of transition for organisations transitioning into agile (Advance-workplace, 2020)

The example provided by the consulting firm reveals that the risks in agile are similar to the risk of bringing about change in any organisation.

Notably, it is worth considering the opportunities associated with the risk. For example, the financial service sector can benefit from the risk of transitioning by creating employment opportunities, developing employees, and achieving quicker software development results (Albanese, 2020). Organisations should continuously exploit the opportunities emerging from the risks of transitioning to agile (Albanese, 2020).

Agile has been widely adopted in developed countries with advanced systems and technology since the early 2000s. However, the application of agile in the South African context is worth examining, especially regarding financial service organisations transitioning from traditional to agile project management. The literature highlights one example of a South African bank that documented its

transition experience due to the limited studies on this topic in the South African financial service industry.

5.5. Transitioning within SA Financial Service Institutions

Software development has been the core focus for some financial service organisations since the late 1990s. The sector invested in developing in-house and specialised IT business units that can address challenges in the South African sector (Karpik, 2018). Some financial services organisations have adopted a similar approach to technology & consultancy firms with an increased focus on product and software development (Karpik, 2018). Financial services complement the demand for software with the required IT employees to build the software (Johnston & Gill, 2017).

Delivering software products in-house mandates that financial service organisations follow project management approaches (Mako, 2019). These organisations need to understand what they can achieve by implementing agile practices within their organisation in this context (Mako, 2019).

Deloitte's (2015) report on market disruptions on the position taken by the South African financial service regulator, the South African Reserve Bank (SARB), has created an opportunity for the financial service industry to be more progressive in implementing software delivery. Karpik (2018) argued that the regulator relaxed some laws to encourage minimum viable product (MVP) delivery. MVPs can be tested and rebranded without the risk of regulatory fines and penalties (Karpik, 2018). The move by the regulator enabled some of the financial service businesses' rules to be relaxed and encouraged them to adopt an agile test-and-learn approach (Karpik, 2018).

Several factors need to be considered by a financial service organisation before deciding on moving towards agile (Deloitte, 2015). An independent, in-depth case study by Johnston and Gill (2017) revealed the journey of agile transition for Standard Bank (Standard Bank is one of the top five (5) big banks in South Africa). The study explained that Standard Bank had invested in developing its IT capacity. The bank had traditionally used the SDLC model with a waterfall project methodology to deliver software products.

The bank's transition started after an investigation into IT performance revealed lower productivity levels. Johnston and Gill (2017, p.4.) stated that the investigation made the following suggestions:

i. “The bank’s IT performance was well below that of competing banks,
ii. The average time to deliver applications was well over 300 days,
iii. Overall performance was 12% below the worst-performing bank,
iv. Long lead times, since new projects could not be initiated until resources became available in the pool,
v. Defects in production software, resulting from developers and testers rushing software into production to avoid falling behind on project schedules,
vi. Budget overruns, as the process inefficiencies led to workforce demands exceeding what was originally projected for most projects".

Johnston and Gill (2017) documented the following benefits that the bank achieved following the agile transitioning pilot phase:

i. Tight collaboration with actual users of the products it developed.
ii. Rapid releases of product versions, each was improving on prior releases in small increments.
iii. Adopted highly transparent and collaborative programming practices, with frequent meetings to assess progress.

The authors explained that the benefits associated with implementing agile began to be recognised across the IT group. Johnston and Gill (2017) and Mako (2019) all agreed that using agile within the banking group created value by reducing the number of days to deliver software products, improving administrative and client efficiency, and lowering the cost of producing software.

5.6. Conclusion

Considering the presented discourse in Chapter 5, the chapter made it evident that the transition to agile is not just a matter of preference but a critical strategic move for organisations, especially within the financial services sector. The compelling need for an accelerated time-to-market, phased

delivery, and a boost in visibility and transparency has made agile an indispensable approach for businesses to stay ahead. Grounded in the works of eminent scholars like Abrahamsson & Ronkainen, Delcheva, Karpik, and Sankala, this chapter illuminated the intricate mosaic of motivations and advantages juxtaposed against challenges and potential risks in the transitioning journey.

An essential finding from this analysis is the relationship between Agile Project Management (APM) and the dynamic nature of market conditions. The shift towards agile methodologies can be seen as a response to organisations' aspirations to swiftly adapt to evolving market trends, particularly within the realm of Financial Technology (Fintech).

With Fintech reshaping the financial sector through the use of advanced technologies, it becomes crucial for institutions to embrace an agile approach. This not only helps them remain relevant amidst disruptive innovations but also allows them to leverage these changes to improve operational efficiencies and prioritise customer-centric strategies. By adopting agile methodologies, organisations position themselves to effectively navigate the rapidly changing landscape of the financial industry enhanced by technological advancements.

The chapter sheds light on the software-driven focus of financial service organisations, particularly since the 1990s. This evolution demonstrates the interconnectedness of the financial sector and technology, underscoring the importance of skilled IT professionals who can effectively integrate software development into the financial domain. As organisations navigate the complex terrain of agile transitions, a deep understanding of the organisational context emerges as a crucial factor, enabling informed decision-making and adaptive practices in a rapidly changing business landscape.

Chapter 6: Research Findings and Discussion

This chapter presents the research findings and an overview of the qualitative analysis of this case study. The findings are for MAG and include research findings from both the MW and MI subsidiary groups of MAG.

Coding consistency was kept by developing names, rules for setting a given code and examples manually. Similarly, the coding manual then established rules that outlined theme properties. These could be equally used to validate each interview data assigned to the theme and provide a basis for replication in future research.

Likewise, the coding consistency of the sample was regularly tested through the re-examination of the assigned coding. In the same way, two more interviews were coded in the same manner, and the coding was compared to the sample coding. Adjustments to the coding manual were made, and the remaining transcripts were coded. During the data analysis stage, themes, names, definitions, and rules were developed, and they continued to progress as other interviews were analysed. The process of re-examining the coding procedure, during and after the transcripts was coded, was carried out for all thirteen interview transcripts.

Thematic analysis, as described by Maguire and Delahunt (2017), entails identifying patterns or recurrent themes in qualitative research. This study employed Saldana's (2015, p.4-113) guidelines for discerning codes and subsequent themes. An exhaustive data sorting process was undertaken, emphasizing recurring concepts, with the underlying premise being that data elements with higher recurrence rates typically hold more analytical weight. Themes were predefined in coherence with the questionnaire structure, streamlining the classification of responses. These pre-established themes took cues from Sankala's 2018 research on the merits of APM transition in manufacturing. Such a structure aimed to gauge the applicability of Sankala's findings within the South African financial service.

The core themes derived encompassed:

- Factors that influenced the need to transition,
- Managing transition,

- Managing change,
- Challenges of the transition,
- Risk of transition.

The key themes identified are as follows:

• The theme of "Factors that influenced the transition" encompasses the examination of the influence exerted by staff members in facilitating the transition from traditional project management to Agile Project Management (APM).

• "Managing transition" as a theme delves into the core elements that were implemented by MAG during the initial phase of the transition, outlining the strategies and measures undertaken to facilitate a smooth transition process.

• The theme of "Associated challenges of transition" highlights the obstacles and limitations faced by MAG during their transition from traditional project management to APM, shedding light on the potential drawbacks and difficulties encountered.

• "Managing change" serves as the fifth theme, focusing on the strategies and approaches utilized by the respondents to effectively manage the process of transitioning from traditional project management to APM, providing insights into their experiences and practices.

• The theme of "Risks of transitioning" examines the perceptions and concerns of each respondent regarding potential risks associated with the process of transitioning to APM, highlighting their individual assessments of the inherent risks involved in the transition.

6.1. Factors that Influenced the Need to Transition

Influence, responding to the market faster, and delivering software incrementally were identified as a concept in the literature that justified the APM transition. As a theme, it was associated with individuals who had the power to influence the business to transition or the value leveraged from APM.

The first concept addressed the motivation to influence stakeholders within the business to transition. When asked about the level of influence that the participants possessed within the business, respondents stated that:

> *"I think my level of influence in the company is relatively low because I am still junior and still learning*." – **Respondent 1**

> *"I am part of the management committee, and to a certain extent, I assist business with advisory on which technology can be sourced by the business and the IT strategy to align to the business units according to the goals of MAG*." – **Respondent 2**

Individuals in management positions exerted a greater level of influence over the transition, in comparison to respondents occupying lower positions within the organisation. The study observed that the influence level was determined by participants' respective roles and positions within the business. Notably, participants from both entities indicated that proximity to the executive level played a pivotal role, as those in closer proximity to management exhibited a higher degree of influence over the transition process.

It is not surprising that employees that found themselves in lower positions have little influence on those who are in management positions. Hekkala et al. (2017) validated that staff in managerial positions are encouraged to make decision, review, and improve business processes, and engage in managerial forums where decisions are made. Influencing business strategy is part of most executives and management's key performance areas; hence the need to be innovative and review business processes is integral to their success.

Lower-level employees have minimal influence over the business's policy, strategy, and decision-making. Lower-level employees usually receive communication on what was decided by management and have little influence over directing the decisions of the business.

As much as the respondents in the lower management could suggest change, their impact could have been more impactful. This revelation was supported by respondent seven, who said:

> *"Well, in terms of the business, I suggest things. Management has the last say; whatever management says, goes".* – **Respondent 7**

Management influence points to a hierarchical organisational structure, which is not surprising in the traditional financial sector. MAG as a financial service provider operates within a highly regulated market. The South African Reserve Bank (SARB), Prudential Authority (PA), and Financial Sector Conduct Authority (FSCA), amongst other regulatory bodies, have imposed controls within the organisation structures of financial service organisations. Some controls include management roles and responsibilities that each financial service needs to follow as part of their license and maintaining governance.

A hierarchical organisational structure translates into challenges with agile implementation in that agile assumes that all participants have an equal voice and form part of the team. By allowing senior management to influence the decision to transition, it enabled management to have a vested interest in implementing agile faster and safeguarding the interest of the decision.

Most respondents agreed that the reason for transitioning to APM was the value achieved through incremental delivery.

> *"I think it is because of quicker results, and another thing you can achieve using agile is how you can manage your resources better. Management previously could not view how much work and resources were used".* – **Respondent 11**

> *"I think the idea from a strategic point of view is to deliver projects in smaller increments. So that you can track it better; with that being said, I do not think that everyone is aligned*

with what agile is. Everyone has a different version of what agile is supposed to be". – **Respondent 5**

"I cannot speak for the management team that chose to transition; however, it is an industry thing. I have worked for other companies and other financial service institutions. Even with them, the vision has always been to transition from waterfall to agile. From my experience, it is all about delivering quickly to the market. If your competitors use agile and incrementally enhance and develop their features as a financial service institution, you always want to deliver quickly. If we use the waterfall method, which requires delivery in a longer period, we lose the competitive advantage to our competitors". – **Respondent 12**

"*I do not know the reasoning behind it, but it is not driven from the top, but it is driven from the PMO because of the value that agile brings. My thinking is that the PMO is selling the idea to the business. I also do think that there is a lot to be learned and communicated. I know that it is still in the early phases".* – **Respondent 13**

Delivering software incrementally enabled the organisation to release pockets of software frequently aimed at meeting a specific strategic goal.

The data from the different stakeholders who responded to this question validated the literature on agile transition by Delcheva (2017) and Kilu et al. (2018); the responses show that responding to market needs and meeting changing customers' needs were directly related. MI's CIO believed that transitioning to APM methods would enable the business to respond faster to the market. The CIO asserted that

"Agile allows the business to deliver bits of value into the business and market continuously. We have many customers; our customers are continuously evolving, so you need to stay abreast of everything as technology. Consumers' demands keep changing, which puts much pressure". – **Respondent 2**

This study suggests that MI aimed to track the value of ICT deliverables and meet customer demands early in the transition to APM methods. Delivering software incrementally not only adds value to the market and industry, but also provides monetary value and customer satisfaction as

customer feedback is prioritized in each deliverable. Delcheva (2017) supports this by explaining that faster market release directly addresses the need for companies to respond to customer demands and market changes.

The CIO from MW shared a similar viewpoint with the MI CIO, stating that delivering software incrementally allowed for early detection of software issues before reaching the market. This approach, known as "fail and fix early," enables businesses to detect problems within a sprint cycle and consider changes before deploying the software. Årvik and Karud (2017) also confirm this finding.

Early testing during sprint cycles forces agile teams to fix problems before moving on to the next sprint, saving time and resources that would have been spent fixing defects at the end of the project cycle. This incremental delivery method enabled MAG to reach the market faster and better meet customer needs, giving South African financial service businesses a competitive advantage.

The reasons by MAG to transition were not new, as they were validated in literature through other case studies conducted by Abrahamsson & Ronkainen, 2002; Albu & Flyverbom (2016), Sankala (2018), Delcheva (2017), and Kilu et al. (2018).

The reason to transition was not supported by all employees as some did not understand why the organisation transitioned. There were differing opinions on whether MAG was in the transition process; the disparities in the respondents' opinions render the reasons to transition as a wish list from the organisation. The finding was confirmed by respondent ten, who said,

> *"We have not; the business is not running agile at all. The IT team is the only unit that tries to focus on agile; business is doing their own thing".* – **Respondent 10**

Some respondents needed to understand why the businesses transitioned and the transition process, which showed a need for more communication and participation across the organisation's middle and lower management levels.

6.2. Managing APM Transition

Managing the transition was essential to ensure that the decision by the executive committee was carried out across the organisation. The approaches to managing the APM transition as informed by literature included providing internal education, understanding the existing business environment, transparency, reporting, and understanding the skills and roles required in agile. These approaches were informed by literature from (Årvik & Karud, 2017; Gandomani et al., 2013; Hekkala et al., 2017; and Kilu et al., 2018).

The journey towards agile started with the three CIOs of MAG; the CIOs became the champions that campaigned for agile. The CIOs persuaded and provided internal education to management before the transition was made. This study found that management wanted to navigate the changes with employees who had agile experience and those without experience.

> *"We wanted to create the experience of [walking the journey] together."* – **Respondent 2**

Walking the journey together was at the centre of closing the gaps between senior managers and the development team that already possessed agile skills. It is not surprising that management would want to close the gap as project management maturity differs from person to person in the organisation. Gandomani et al. (2013) confirmed this finding in their study on agile transition; the authors explained that internal education and persuasion enable employees and management, with or without agile expertise, to experience the transition together.

Likewise, having agile champions played a vital role in persuading MAG towards agile. CIOs often become agile champions. In addition, CIOs directly influence IT strategy and the approaches adopted by IT to deliver software.

Internal education is intended to persuade, share understanding, close gaps in knowledge, and encourage employees to feel comfortable engaging.

> *"We had quite a lot of internal business education, and we sat with Manco members and talked them through why we wanted to make the change and how the new approach would look like."* – **Respondent 2.**

The journey taken by the agile champions reveals that the CIOs intended to advance knowledge sharing informally within the business. Providing internal education and persuading different business layers corroborates with Dikert et al.'s (2016) study on agile; the study posits that an agile champion is expected to possess expertise in agile to empower them to share and persuade others.

The CIO from MW highlighted the need to understand the business operating model and the impact of the transition as the second approach used to manage the transition. The need to link the core divisions of IT and business was seen as essential.

> *"Management undertook a thorough analysis of the current business environment before transitioning into agile."* – **Respondent 2.**

The CIO's response showed the need to view how each function would change due to implementing agile. Reviewing each business environment would allow management to assess the viability of using agile across projects and different business entities. Sankala (2018) and Bider & Jalali (2016) verified the need to understand the business operating model and its impact before implementing an agile transition. Sankala (2018) and Bider and Jalali (2016) posit that scanning the business environment before an agile transition would provide businesses with the comfort that the decision to transition was taken considering all the factors that could impact the operations of a business.

Likewise, the case study by Johnston and Gill (2017) demonstrated that understanding the business environment includes analysing the current business processes, the to-be business processes, and the impact of transition. Through their study, the authors found that the CIO justified the reason to transition after scanning the business environment and identifying that IT was operating at an inefficient level in releasing products into the market.

Determining existing agile skills within the business was identified as another step towards managing the transition through increasing knowledge transfer and visibility. Analysing the

existing skills was driven in both organisations by management to determine whether the company needed more skills to match the skills set out in agile. MW and MI first considered the skills within their businesses to determine if some of the employees could be promoted to occupy agile roles. ‘

> *" Management analysed existing roles to determine whether the business needed more skills to match the skills that were set out in agile."* – **Respondent 2.**

Not surprisingly, employees with agile knowledge were seen to play a vital knowledge transfer role by explaining the roles and responsibilities of agile to other employees. Karpik (2018) confirmed this finding through their study of agile transformation; the finding states that organisations must analyse the skills required in agile before moving towards the method to understand the existing skills gap.

The findings do not reflect on the skills that existed and the skills that were missing due to the decision to transition. However, analysing the existing roles was seen in a positive light by those that benefitted from it as some were promoted to agile roles.

6.3. Challenges of Transitioning to APM

MAG was confronted with many challenges in its transition to APM. Participants mentioned the following common challenges: the inability to understand agile, change management, communication, and migrating to a new way of doing business.

> *"There is a misconception of what agile is because people think that I can put in work at any time. People think they can just come and give work because you are working on agile. They want to push in work without taking something out. I also come from another organisation who did exactly that; they sent everyone on agile training while senior management did not understand what agile is."* – **Respondent 13**

It was found that MAG management decided to embark on an agile transition without fully understanding what agile is. This finding reveals that management needed to appreciate the discipline required by agile. As a result, management started pushing an agenda of projects that

needed to be completed without following the procedures required by agile such as prioritising projects against resources available. Dikert et al. (2016) highlights that agile requires business to prioritise projects before committing to them.

The reason for the lack of discipline among management and other managers in the business may be due to a lack of agile maturity. As MAG is still in the early stages of transitioning to agile, it is likely that mistakes and learning opportunities will occur (Årvik & Karud, 2017). To address this, management should attend agile training to fill any knowledge gaps and ensure that they are implementing agile correctly.

It was found that the effects of the change led to some staff resigning due to resistance to change. The respondent explained how the business had to hire new staff to fulfil the transition.

> *" MAG started with a small complement of staff; not many people wanted to change their ways of working, and there were many resignations, but we started growing our IT base, and we started changing the unit's structure. ".* – **Respondent 7**

The resignation of some employees highlights different levels of resilience to changes. Research has previously revealed that change is perceived to influence career paths (Burga et al., 2021). This finding reveals a lack of changing mindset, resulting in resistance towards change.

Employees who demonstrated resistance to the change ultimately opted to leave the organisation. Resistance to change was correlated with barriers within the organisational culture, as employees who were accustomed to the traditional approach found it challenging to break away from established practices. The transition to Agile Project Management (APM) entailed a transformation of employees' roles, where managers assumed the role of team leaders, and all team members were equally accountable. It remains uncertain whether the employees who departed were provided with training and education on Agile methodologies, as such interventions might have influenced their perspectives and potentially led to a change in their decision to leave.

The duration of the transition emerged as another notable challenge. Some employees were confused about the timeframe since there was no clear indication of when the transition would be completed. Interestingly, the transition was not perceived as a distinct project within the

organisation, leading to uncertainty regarding its timeline. This finding underscores the importance of effective communication and change management, which were lacking in the case of MAG.

For South African financial services organisations seeking to undergo a transition, several pillars need to be considered. These include training and education, addressing resistance to change, establishing effective communication channels, and implementing a well-defined agile rollout strategy. By addressing these critical areas, organisations can enhance their chances of successful and smooth transitioning.

Change management was identified as a challenge during the transition. The challenges were found to stem from conflicting opinions, with some respondents feeling that the change management process was insufficiently visible and that a proper understanding of APM was lacking due to a lack of training.

> *"Change management, in general, seems to be overlooked. It was well adapted in the system area. The business areas were willing to adopt it; however, they lacked an understanding of agile. I think training, educating, and mentoring were lacking in the beginning. Partly because we did not have the skills or capacity to do it and the right people to champion the change. You need champions to drive the change"* – **Respondent 8**

> *"In my honest opinion, not very well because you need a dedicated person to do change management. You need to have sessions with teams and explain what you are embarking on".* – **Respondent 5**

> *"Very poorly, it is like we go on a meeting, and something is decided without any plan. Management decided to go agile, and everyone had to go agile".* – **Respondent 7**

The lack of emphasis on change management during the transition can be attributed to absence of sufficient training, education, and mentoring. The absence of change champions can be attributed to a gap in management's understanding of agile, as previously mentioned. Initially, three CIOs

advocated for agile at the executive level, but their support for change management throughout the organisation diminished, resulting in individual teams managing the change without a comprehensive plan. This underscores the importance of having a well-defined change management plan to guide the organisation's approach to change.

The findings indicate that internal education efforts were surface-level and not comprehensive. There was a need for enhanced communication, as some employees felt that the organisation's journey was not adequately explained. This contradicts the principles and values of agile, which emphasise increased communication and collaboration (Thakur & Kaur, 2013). While some respondents maintained a positive attitude towards change management, it is evident that greater insights and involvement from employees in the change management rollout were necessary.

> *"Most of the teams were positive towards the change. Most teams get frustrated because the change is not happening fast enough or as it should be. The process takes time because the entire business is changing. So, it takes a while for everybody to get used to it and understand the new way of working. We try to develop a change management plan with each project. We do not have a formal change management department. We try to roll it out by identifying change agents from each team that will assist us with the change".* – **Respondent 4**

> *"I do not think the organisation has stopped with the change management process. I think they see change management as phases. They are getting the delivery managers upskilled into an agile framework that suits each team's area. However, for the rest of the organisation to catch up, it will focus on change management."* – **Respondent 6**

Change management plans were created for each project using agile, but it is unclear why the plans were only created at the project level instead of addressing the overall change management needs of the business.

Interestingly, some employees were aware of how the business would handle change management, possibly because they were on management committees or acted as change agents. However, it's possible that the communication of the change management plan to the rest of the employees was omitted for strategic reasons.

Alshehhi (2014) validated that a change management plan is helpful because the process allows businesses to plan carefully, embrace transparency, communicate, create a roadmap, and provide training before transitioning so that employees do not feel left out of the change. On the other hand, the lack of a change management plan can be seen to have contributed to a perpetual state of misunderstanding of agile, lack of communication, employee resignation, and training deficit.

6.4. Risk of Transition

Risks identified in both business entities included a lack of skills to implement APM, a lack of strategy, and employees bypassing the outlined transitioning process.

> *"I think the big risk is that the people do not have the correct skills to do it and that we are introducing this methodology, and it might not fit for the business*." – **Respondent1**

> *"Strategy and business objective becomes a driver for agile. However, our business does not understand why they implemented agile and what agile means for the business. The lack of strategy makes everyone not understand what business is trying to achieve". –* **Respondent 10**

> *"People are still bypassing the process; the project managers end up not knowing what initiatives are being worked on*." – **Respondent 9**

The findings highlight a risk in the implementation of agile methodology as some employees lack full understanding of its values. To correctly implement agile, both employees and management need to understand its purpose and goals for the business. The need for training and guidance is emphasized as some employees may not have the necessary skills to implement agile properly.

The findings also indicate a lack of discipline among management, who view agile as a selective process rather than a comprehensive approach.

The early phase of agile transition is prone to mistakes and learning. A risk of project interruption was also identified as APM was found to be incompatible with ongoing projects at MAG.

> *"So, there were projects that had already been started using the waterfall project management methodology. The projects had timelines. The risks to those projects became high because we now start afresh, freeze those projects, or have relevance. Thus, we had to apply a hybrid approach for a while. It takes a while to mitigate some of the risks that were foreseen".* – **Respondent 8**

Projects in the execution phase became high risk because the development teams were asked to use agile immediately without considering the impact of introducing a new project management method on delivery. The development teams mitigated this risk by applying a hybrid project management approach which allowed the team to deliver existing projects both agile and waterfall.

Other risks encountered during the transitioning process that stood out from the analysis include the lack of uniformity, resistance to change, and the IT department's failure to deliver an end-to-end solution. The following responses validate these findings.

> *"People did not understand the methodology. Each team executed agile in their way without any uniformity".* – **Respondent 7**

> *"I think the business gave people who used to focus predominantly on providing IT solutions with the capability to try to deliver an end-to-end solution where they are failing. IT is failing to deliver an end-to-end component. However, it delivers the IT component in isolation. This is a risk because they do not involve the other teams".* – **Respondent 6**

> *"So, obviously, for individuals who do not like change, we might lose them. However, to be honest, we have had been working together for more than three years without a change in management. So, that at least sets the right foundation, but I mean, there is a risk that people may leave".* – **Respondent 4**

The risks identified depended on the participants' position and their requirements for fulfilling a particular job. In addition, risk identification depends on the impact the transition would have on the participant. This finding speaks to a personalisation of the transition; for example, some staff saw it negatively impacting their work.

The presence of risks during the transition was expected as change often leads to transformation and uncertainty for the future. Effective management of the transition requires expertise and a plan to mitigate risks. The findings suggest a lack of risk mitigation, change management, and a change champion, which are crucial in a highly regulated financial service industry.

6.5. Conclusion

In summation, the findings highlight the intrinsic challenges and complexities of transitioning to agile within the financial sector like MAG. The entrenched hierarchical structures, heavily influenced by regulatory mandates from bodies such as SARB, PA, and FSCA, play a pivotal role in shaping management decisions and operational paradigms. This structural rigidity can, at times, be at odds with the principles of agile, which advocate for an egalitarian approach, where every team member's voice is equally valued. However, the study also underscores the benefits of senior management's involvement, which can accelerate the agile transition, ensuring its alignment with organisational objectives.

The emphasis on incremental software delivery, as echoed by the views of CIOs from both MI and MW, reiterates the advantages of early defect detection and prompt market responsiveness. Such an approach, corroborated by Delcheva (2017) and Årvik and Karud (2017), underscores the importance of catering to customer feedback, thus ensuring not only market relevance but also enhanced customer satisfaction.

However, the transition to APM is not devoid of challenges. From a knowledge gap in understanding agile to the nuances of change management and effective communication, the path to adopting APM is strewn with multiple obstacles. The findings made it noteworthy that the perception of risks and challenges during this transition is deeply personal, varying based on individual roles and anticipated impacts. Yet, the universality of resistance to change, especially in a sector as regulated as finance, brings forth concerns of uncertainty and apprehension.

The findings indicate a pressing need for better risk management, proficient change leadership, and the presence of an adept change champion. These elements are indispensable, especially in sectors where regulatory compliance and governance are paramount. The evident gaps in risk mitigation and change management strategies underscore the imperative for organisations to invest in these areas, ensuring a smoother, more effective transition to APM.

The conclusions drawn in the preceding analysis are anchored in various theoretical frameworks. The involvement and influence of senior management in the agile transformation process align with Lewin's (1947) three-step model of change: unfreezing, changing, and refreezing. In the context of our study, the 'unfreezing' phase was initiated by the senior management's recognition of the need for change. Their vested interest acted as a catalyst for the 'changing' phase, ensuring the alignment of agile principles with organisational objectives. However, for the 'refreezing' or consolidation phase to be successful, the findings hint at the need for more robust change management strategies.

The emphasis on incremental software delivery reinforces the benefits of early defect detection and prompt market responsiveness, enhancing customer satisfaction and market relevance. However, the transition to Agile Project Management (APM) faces obstacles, including knowledge gaps in agile understanding, change management nuances, and effective communication. Resistance to change is a universal concern, particularly in regulated sectors like finance, leading to uncertainty and apprehension.

To address these challenges, improved risk management, proficient change leadership, and the presence of change champions are crucial, especially in highly regulated industries. Investing in robust change management strategies is essential for a smoother and more effective transition to APM.

Chapter 7: Conclusion

The research questions for this study were:

1. How does the transition from traditional to APM impact managers within a South African (SA) financial service organisation?

The sub-research questions of this study were to:

1. What influenced the transition toward APM?
2. How was the transition process managed?
3. What were the challenges associated with the transition?
4. What were the identified risks of the transition?
5. What recommendations exist to improve APM transition within South African financial services?

The remainder of this chapter discusses each research question and answers the research questions.

7.1. What Reasons Influenced the Transition towards APM?

In the presented case study, it was observed that the three Chief Information Officers (CIOs) played a pivotal role in persuading the executive committee to undergo a transition. Owing to their authoritative roles and close association with the executive committee, these CIOs were instrumental in propelling the transition initiative, acting as stalwart advocates for the transition.

The paramount influence in the decision-making process was vested in the senior management, a consequence of the pre-existing hierarchical configurations. While the agile approach typically challenges traditional hierarchical configurations, the senior management's involvement within the executive committee effectively persuaded the committee to adopt agile for software delivery.

Predominantly, the financial service sector is characterised by a pronounced hierarchical setup, which can be attributed to the requisite control mechanisms and managerial architectures. This structured hierarchy in financial services is primarily driven by regulatory mandates, implying that such institutions have a limited array of agile principles at their disposal.

The executive committee's endorsement of the transition was predominantly rooted in the anticipated advantages agile methodology would confer upon the organisation. However, these advantages were articulated as experiential insights rather than measurable outcomes. The underlying value propositions that steered the decision towards transition encompassed:

i. Influence,
ii. Phased delivery,
iii. Expedited market penetration.

In response to the protracted software delivery timelines associated with APM, senior leadership sought more expedient feedback mechanisms on return on investment (ROI). The transition to APM enhanced the capacity to monitor ROI, as projects were segmented into smaller releases under the Minimum Viable Product (MVP) framework. This allowed for prompt evaluations of the value contributed by each segment. The stepwise approach of agile delivery at MAG not only simplified the benefits tracking for each software iteration but also harmonised the business's objectives with customer anticipations. By instituting specialised agile squads for distinct business segments, MAG was able to oversee budgetary allocations and the consequent value for every software venture initiated across various divisions.

MAG's newfound capability to scrutinise the ROI for every release and utilize client feedback as a compass for enhancements enabled the enterprise to make informed decisions about resource distribution and prioritise indispensable features or projects. The agility to rapidly respond to market dynamics and cater to consumer requisites further buttressed the rationale for the shift. APM emphasizes the primacy of customer feedback, channeling it as the foremost directive. Feedback was amassed through client interactions facilitated by MAG financial consultants, as well as via mandated internal compliance frameworks. However, during the period this research was undertaken, a definitive metric to evaluate the efficacy in fulfilling customer requisites was absent, given the nascent phase of agile implementation within the business.

Upon examining the motives for the transition, this investigation deduced that these motivations were in alignment with the overarching objectives senior leadership aimed to achieve through the adoption of agile. However, disparities in perspectives concerning the impetus for the chnage were evident across managerial strata.

Middle and junior management perceived the rationale and decision for the transition as being articulated differently to them. Communication strategies appeared to be predicated upon one's hierarchical position, culminating in a spectrum of understanding, ranging from unawareness to perplexity. The onus of galvanising and enlightening middle and junior tiers of management was perceived as an oversight by both the proponents of the transition and the executive leadership. This oversight engendered reluctance, disenchantment, and feelings of marginalisation among employees, ultimately manifesting in staff attritions and organisational ambiguity.

7.2. How was the Transition Process Managed?

As previously mentioned, the decision to transition was immediate. The process to transition also had to be instant, thus requiring all levels of management to manage the move to agile. This means that the journey and activities occurred concurrently to adjust to the decision by Exco. For example, the notice of changing the software delivery modus to an agile approach was issued without warning.

7.2.1. Walking the Journey Together

The research discerned that while agile proponents expressed a commitment to collaboratively "navigate the transition," the observed actions suggested that the Chief Information Officers (CIOs) predominantly concentrated their efforts on securing the endorsement of the executive committee for agile implementation. This focus overshadowed the inclusion of the broader organisational constituency. An authoritative top-down strategy was employed to mandate the change to agile, conspicuously bypassing comprehensive consultations with the staff. This oversight precipitated communication fissures, ensuing in organisational disarray and subsequent staff departures. The agile transition was largely perceived as a privilege extended exclusively to

a privileged cohort that underwent formal training, rather than an inclusive organisational endeavor.

Middle and junior managerial tiers within MAG articulated a desire for more substantive engagement in the transition discourse, underscoring the need for a comprehensive understanding of the merits of the agile shift. The efficacy of the transition hinges on the holistic engagement of the organisational fabric, transcending a mere privileged subset. Integrating all managerial echelons and staff in the agile transition cultivates an organisational ethos that champions iterative betterment and pioneering initiatives.

For South African financial entities to adeptly navigate the transition to agile modalities, it is imperative to integrate every stratum of managerial and employee engagement into the transformational process.

7.2.2. Role of the Agile Champions

The study found that the agile champions prioritised convincing the executive committee and overlooked the rest of the organisation.

However, it is essential to recognise that the success of an agile transition depends on the support and participation of all levels of management, not just the executive committee. If the agile champions do not take the time to educate and involve other levels of management, the transition may not be fully embraced or implemented effectively. This could lead to resistance and a lack of buy-in from the rest of the organisation, making it difficult to achieve the desired outcomes of the transition.

To ensure a successful transition, the agile champions must communicate the benefits of agile to all levels of management and involve them in the process. This could include conducting training sessions, providing resources and support, and encouraging collaboration and open communication. Additionally, it is essential to continuously assess and adjust the implementation of agile to ensure it is meeting the needs of the organisation and delivering value.

By involving all levels of management and ensuring everyone understands the transition's significance, the organisation can create a culture of agile that supports continuous improvement and innovation.

7.2.3. Scanning the Business Environment

The lack of a change management plan reveals that the executive committee's assessment of the impact of the transition on the organisation needed to be completed. To fully understand and mitigate the adverse effects of change, it was crucial to analyse the business environment and create a change management plan that addressed all functions. Focusing on skills alone needed more extensive and overlooked vital issues such as resistance to change, employee reassurance, and a shared transition experience.

Employees were trained for new roles without sufficient opportunities for engagement and reflection on the organisational change. This resulted in increased anxiety and reduced support for the change. Additionally, the restructuring of teams during the transition to an agile approach went against the agile principles of collaboration and cooperation in software development.

7.3. What were the Challenges with the Transition toward APM?

A salient challenge confronted during the transition was the difficulty in changing mindset. This inertia in changing mindset was largely attributed to apprehensions about change, employment security concerns, prevailing confusion, and a perceivable deficit in stakeholder consultation.

Notably, resistance was predominantly observed among development team members who experienced an immediate impact of the change. This reluctance to adapt is indicative of suboptimal transition management, with senior leadership not sufficiently engaging with the workforce to attain their endorsement and commitment. Consequently, the adoption of APM was perceived by some as a unilateral managerial decree rather than an inclusive organisational journey.

The absence of a structured change management blueprint further exacerbated the prevailing mindset resistance. The transitional process appeared to be orchestrated predominantly at the

project level. A comprehensive change management strategy would have offered a systematic modus operandi to address the myriad challenges emergent from the abrupt decision to transition.

7.3.1. Project Prioritisation

This research delineated a relationship between the rigour inherent in agile and the level of project management maturity. Organisations exhibiting advanced proficiency in agile practices manifest this discipline by adhering to established agile protocols, while also adapting them to cater to unique organisational exigencies; however, MAG exhibited divergent tendencies. In the context of project prioritisation, managerial practices at MAG involved registering projects with the anticipation of rapid outcomes, stemming from a misconceived notion that agility inherently equates to expedited delivery.

Traditional project management approaches too necessitate a hierarchical ordering of projects, facilitating an understanding of precedence and resource allocation for optimal delivery. This observation underscores the pre-existing challenges MAG confronted pertaining to project prioritisation, even prior to their transition to APM. The imperative of project and resource prioritisation remains consistent across both traditional and APM approaches.

7.3.2. Resistance to Change

Some studies have affirmed that the adoption of agile induces transformative changes within organisation. This phenomenon was similarly observed in MAG, where middle and lower managerial levels grappled with discontentment among employees, many of whom sought enhanced clarity pertaining to their professional responsibilities. The absence of cogent advocacy precipitated a sense of ambivalence among certain employees, leading some to vacate their positions.

The implementation of change management elicited a spectrum of responses, attributed to varying degrees of communication efficacy. While some teams were entrusted with the responsibility of managing this change, others were relegated to making speculative assumptions. Such disparate perspectives on the change underscored a palpable communication deficiency during the transition to agile, extending from the upper echelons of the organisation to lower managerial level.

7.4. What was the Risk of Transitioning?

The potential risks of transitioning to APM became evident when the business communicated the decision to implement APM. Projects that were initially designed using the traditional approach faced immediate implementation challenges. To mitigate the likelihood of project failure, development teams integrated a hybrid methodology, drawing upon pre-existing competencies to adhere to agile principles and fulfill required deliverables.

Upper-level management demonstrated their commitment by actively engaging in each project. This involvement translated into a strategic reorganisation of the development teams, aimed at catering to the distinct requirements of individual business units. This structural realignment ensured the active participation of each business unit leader in agile ceremonies, further facilitating the decomposition of deliverables.

Additional vulnerabilities emerged in the form of employee attrition, with departures resulting in a loss of the organisation's institutional knowledge. Replacing such expertise is a formidable challenge, especially considering that some of the departing employees possessed years of familiarity with the organisation's intricate business processes.

7.5. How did the Transition from Traditional to APM Impact (MAG) South Africa's Financial Service Managers?

This study recorded different perceptions of what the MAG employees thought about the transition to APM. Their perceptions varied from positive experiences to negative experiences for some.

7.5.1. Positive Experience

The participants who reported affirmative experiences during the transition were previously acquainted with APM. Their antecedent professional exposures significantly shaped their favourable perceptions upon affiliating with MAG. These individuals manifested a proclivity for adaptability, exuded confidence in their redefined roles and employment stability, endorsed agile principles, and were proactive in disseminating their knowledge. Their agile acumen, rooted in first-hand experiences, endowed them with the requisite comfort to navigate similar transitions in distinct organisational contexts.

The research underscored that some employees derived maximum advantage from the APM transition. A notable subset of these professionals ascended to specialised agile positions and underwent targeted training sessions. In the South African context, acquiring agile certification is often perceived as a considerable financial investment by both individuals and corporate entities. Consequently, the opportunity to partake in such training sessions conferred personal advantages to those who embarked on these courses. Furthermore, the possession of an agile certification not only enhances employability in diverse organisations but also positively influences compensation packages. Given the prevailing demand for agile expertise, these certified individuals demonstrated enthusiastic concordance with the transitional objectives.

It was discerned that all the participants with favourable experiences were well-informed about the organisation's rationale behind the transition. This understanding empowered them to ardently support the transition. A fraction of these individuals gleaned insights into the management's aspirations through structured training. Their prior agile experiences facilitated a smoother transition trajectory, empowering them to aid the management in identifying and effectively countering challenges. Such proactive measures encompassed strategic re-organisation of development contingents, adoption of hybrid approaches to safeguard ongoing projects, and onboarding new talent proficient in agile.

Supplementary positive feedback emanated from the managerial echelons, who discerned tangible benefits subsequent to the agile transition. The expedited delivery timelines invigorated managerial confidence, reinforcing the prudence of migrating from conventional project management paradigms to agile frameworks. The empirical findings of this research underscored the value proposition of agile for both the business and IT domains, characterised by heightened visibility, consistent communication channels, transparency, and the systematic release of incremental outcomes.

7.5.2. Negative Experience

The research underscores that a predominant sentiment of dissatisfaction among employees was attributed to managerial inadequacies in establishing clear communication channels, formulating a structured change management strategy, and inadvertently marginalising certain employee segments during the transition.

A discernible faction of the workforce expressed a profound need for a comprehensive rationale behind the organisational change to agile. There was a palpable sentiment that they could not fully endorse the transformative direction without a nuanced understanding of how the adoption of agile would engender organisational value. The findings highlighted an initial fervent advocacy by agile proponents to influence the managerial decision-making. However, this momentum waned post the resolution to transition. The empirical findings elucidate pronounced communication discrepancies between the managerial echelons and the broader workforce. These communication voids underscore profound issues in the dissemination and operationalisation of executive mandates.

Such communicative deficits exacerbated feelings of unease among several employees, precipitated by ambiguity surrounding the transition's purpose and its potential ramifications. This communicative lapse directly cultivated an environment permeated by uncertainty. The research delineates that these factors, combined with the absence of a change management blueprint, catalysed resignations stemming from apprehensions, informational deficits, and the lack of strategic transition planning. An efficacious change management strategy could have potentially ameliorated these concerns, fostered a more inclusive dialogue, and fostered a sense of collective ownership of the transformational journey.

Project Managers (PMs) articulated disenchantment, predominantly due to their exclusion from the transition trajectory. Entangled in a complex political milieu, these PMs were precluded from actively participating in the transition, despite their potential as agile proponents, given their experiential backgrounds, leadership roles, and entrusted responsibilities in software delivery.

Another dimension of dissatisfaction emanated from the managerial ranks, stemming from the erosion of institutional knowledge due to the departures of seasoned professionals. These

resignations not only cast a pessimistic shadow over the organisation but also manifested in tangible challenges, such as reduced IT staff retention rates, gaps in knowledge continuity, and a self-inflicted skills deficit.

Irrespective of these multifaceted perceptions, MAG remained resolute in its transitional endeavors, reinforcing restructured teams, and ensuring the inculcation of agile competencies among new recruits. The organisation persisted with varied agile ceremonies and prioritisation frameworks, spearheaded by the PMO head, who subsequently emerged as a unifying force in this transformative odyssey. MAG's transitional voyage persists, with an overarching goal of attaining project management excellence.

7.6. Limitations and Recommendations for Further Study

This research aimed to understand how transitioning from traditional to APM impacted employees within the SA financial service sector – these objectives were achieved. The research design for this study was carried out through a case study by interviewing the employees that worked at MAG, MW, and MI during the transition.

7.6.1. Limited Views from Product Owner

This study was limited to obtaining the views of the PO from MW and MI. The new PO are business heads that run the daily operations within the business. The availability of the product owner(s) was limited due to their engaged schedules. There is a need for further studies to be conducted on the role fulfilled by a partial PO. Obtaining the views of the PO is essential to understand how the partial role of the PO was fulfilled and how the partial availability of the PO influenced the team.

7.6.2. Engaging the Change Management Plan

This study found no change management plan within MW and MI. The findings above revealed that the software development teams had to apply their change management plan to address the need to be agile since agile is more centred around software development. However, this study

does not link the impact of not following a change management plan to the transition results because the study was undertaken during the early phases of the agile transition. It would be beneficial for further studies to understand the connection between transitioning without a change management plan and the results of not having a change management plan in place.

7.6.3. Explore the Concept of Employee Resignation

The findings in this study do not reflect if management tried to prevent some of the employees from resigning. This study could be expanded to investigate the risk of people leaving because of an agile transition and consider the methods management uses to prevent employees from leaving. The risk of people resigning and leaving the business should be managed as it can negatively affect the business. When people leave a business such as the financial service sector, they leave with their organisational knowledge and product knowledge which will be necessary.

7.6.4. The role of Traditional Project Managers in Agile

The role of traditional project managers was seen as not adding value to the transition; however, traditional PMs possess the skills and influence to lead teams to deliver IT software. Therefore, it is recommended that a study be taken to understand traditional project managers' roles during the agile transition.

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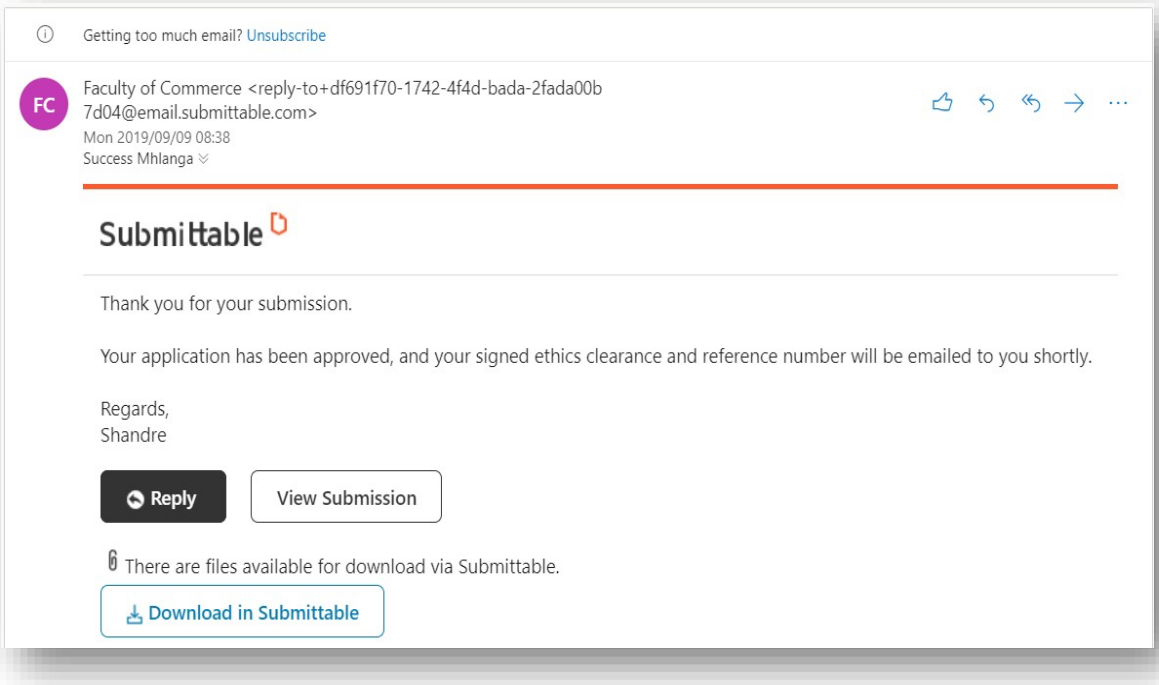
List of Appendix

The list of appendixes presents all the appendix and additional information that was used to gather data, interview participants and governance approvals for the study to be conducted.

Appendix A: Ethics Approval from the Faculty of Commerce



Appendix B: Interviewee's participants request and consent letter

Engineering Mall, Upper Campus
OR
Private Bag X3 - Rondebosch - 7701
Tel: +27 (0) 21 650 2261 Fax: +27 (0) 21650 2280
Internet: http://www.commerce.uct.ac.za/informationsystems/

30 August 2019

Request to conduct research and interview request letter

Dear Sir/Madam,

In terms of the requirements for completing a Master's degree in Information Systems at the University of Cape Town, a research study is required.

The researcher, Mr Success Mhlanga is conducting a research study entitled "The Challenges Faced by South African Financial Service Organisations when Transitioning to Agile Project Management Methods: A South African Case Study". You have been selected to participate in an interview to this research study.

The objectives of the research study seek to answer the research question "why are South African medium sized Financial Service business organisations transitioning from using traditional Project Management methodologies to New Project Management methodologies". In addition, this research aims to gain a better understanding on how South African Medium sized financial service organisation transition from traditional to agile project management methodologies.

Interviews

The data will be collected using one-on-one interviews. As an alternative, an email communication with a questionnaire will be sent to some participants due to limited time for the study. The interviews will be conducted either at your organisation or at a venue of your own choice that will enable you to be most comfortable. The interview is estimated to last for 15 to 20 minutes with each participant.

You are free to decline to participate in the study and may withdraw at any time. There will be no negative consequences if you decide not to participate or to withdraw from the study.

Confidentiality

No individuals or organisations will be identified in any publication and responses will never be quoted by the real name of the individual. Responses will be kept anonymous.

The findings of the study will be shared with you.

Should you have any questions regarding this research, please feel free to contact me on 073 916 2441 or email: mhlsip032@myuct.ac.za

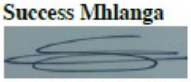
Certificate of Consent

I have read the foregoing information, or it has been read to me. I consent voluntarily to be a participant in this study and understand that I have the right to withdraw from the study at any time.

Name of participant:
.....

Date (day/month/year):
.....

Signature:
.....

Success Mhlanga

Researcher M.Com Masters Student, (UCT)
Department of Information Systems
University of Cape Town
Cell: 073 9162441
Email: mhlsip032@myuct.ac.za

Prof Ulrike Rivett
Research Supervisor: Prof Rivett
Department of Information Systems
University of Cape Town
Tel.: 021 650 4213
Email: Ulrike.Rivett@uct.ac.za

Appendix C: Research Questionnaire

The case of three medium sized Financial Service organisation using Project Management methods. This questionnaire is being carried out in connection with research I am undertaking to determine Why are South African medium sized Financial Service business organisations transitioning from using traditional Project Management methodologies to New Project Management methodologies?

Date: _____ Interviewer Name: _____

Time: _____ Interviewer position: _____

1. What is the name of the organisation you work for?
2. How long have you been with the organisation?

1 - 3	
3 - 5	
6 - 10	
10 - 15	
Above 15	

3. What Years of work experience do you possess?

1 - 3	
3 – 5	
6 – 10	
10 – 15	
Over 15	

4. What role do you play within the organisation?
5. What influence do you have on the organisation?

Project Management

6. What kind of IT Projects do you work on?
7. How big is your project management team?
8. Describe the roles that exists within the Project Management team?

PM Role TEAMS	Indicate
Project Manager	
Business Analyst	
Developer	
Quality tester	
Scrum Master	
Delivery Manager	
Product Owner	
Project Sponsor	

9. What systems do you use to run your projects?

Project Management method

10. What Project Management method is your organisation using?
11. Why did your organisation choose to apply this method on your projects?
12. What are the benefits of this method?
13. Who decided on the Project Management method?
14. What was managements role in transitioning?
15. How did you transition from the previous method to the method that you are using?
16. How was the decision communication to the Project management team?
17. How did the chosen project management method assist the organisation with reporting?
18. Were there any challenges with deciding or moving towards the chosen method?
19. How are the different teams using this method now?

Change Management

20. What were the change management mechanism employed when implementing this project management method?
21. Who decided on the change management mechanism?
22. How open was the team to the above-mentioned mechanism?
23. What were the end results of the mechanism employed?

Risks

24. What were the risks of transition or not transition to a Project Management method?
25. How were the risks documented?
26. What are some of the risks?

27. How were the risks resolved?

Other Comments

28. Any other comments with regards

Appendix D: Word Frequency

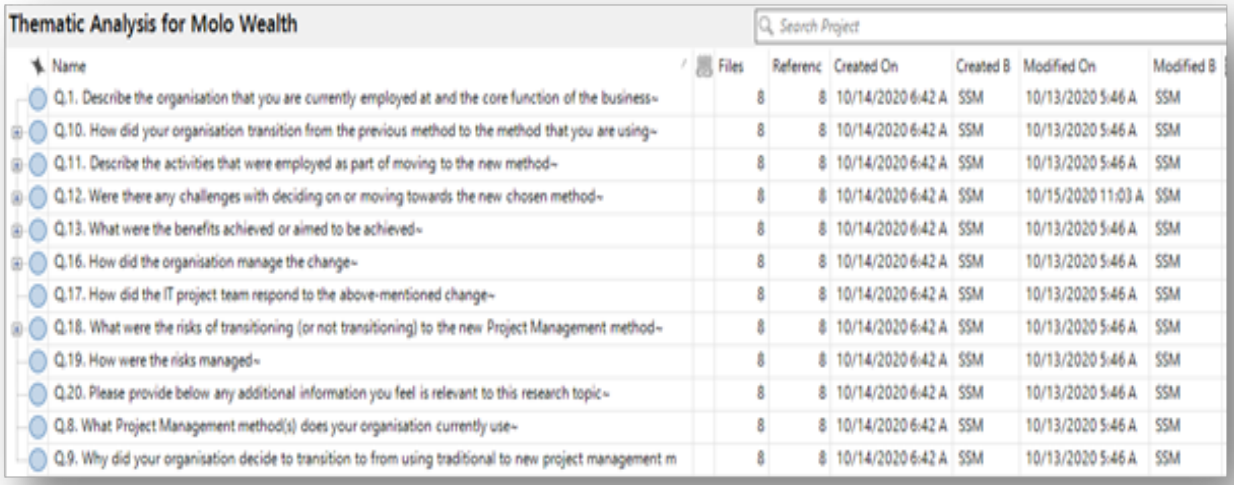
Appendix E: Molo Insurance Code

Thematic Analysis for Molo Insurance

Search Project

Name	Files	Referenc	Created On	Created B	Modified On	Modified B
Q.1. Describe the organisation that you are currently employed at and the core function of the business~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.10. How did your organisation transition from the previous method to the method that you are using~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.11. Describe the activities that were employed as part of moving to the new method~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.12. Were there any challenges with deciding on or moving towards the new chosen method~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.13. What were the benefits achieved or aimed to be achieved~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.16. How did the organisation manage the change~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.17. How did the IT project team respond to the above-mentioned change~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.18. What were the risks of transitioning (or not transitioning) to the new Project Management method~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.19. How were the risks managed~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.20. Please provide below any additional information you feel is relevant to this research topic~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.8. What Project Management method(s) does your organisation currently use~	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM
Q.9. Why did your organisation decide to transition to from using traditional to new project management m	5	5	10/14/2020 4:23 A	SSM	10/13/2020 5:47 A	SSM

Appendix F: Molo Wealth Code



Thematic Analysis for Molo Wealth

Search Project

Name	Files	Referenc	Created On	Created B	Modified On	Modified B
Q.1. Describe the organisation that you are currently employed at and the core function of the business~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.10. How did your organisation transition from the previous method to the method that you are using~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.11. Describe the activities that were employed as part of moving to the new method~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.12. Were there any challenges with deciding on or moving towards the new chosen method~	8	8	10/14/2020 6:42 A	SSM	10/15/2020 11:03 A	SSM
Q.13. What were the benefits achieved or aimed to be achieved~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.16. How did the organisation manage the change~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.17. How did the IT project team respond to the above-mentioned change~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.18. What were the risks of transitioning (or not transitioning) to the new Project Management method~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.19. How were the risks managed~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.20. Please provide below any additional information you feel is relevant to this research topic~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.8. What Project Management method(s) does your organisation currently use~	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM
Q.9. Why did your organisation decide to transition to from using traditional to new project management m	8	8	10/14/2020 6:42 A	SSM	10/13/2020 5:46 A	SSM