THE NATURE OF PROJECT MANAGEMENT IN SOUTH AFRICAN SMEs: A LOOK AT INSURTECH IN THE WESTERN CAPE PROVINCE OF SOUTH AFRICA

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Abstract

Background: Project management is essential for organisations, especially for achieving goals and creating value. However, the literature on project management is biased towards large enterprises (LEs), which differ fundamentally from small to medium enterprises (SMEs) in their structures, processes, procedures, and characteristics. Thus, SMEs have different project management needs, which the literature barely addresses.

Given the importance of SMEs in economic development, job creation, and innovation, a growing area of research is aiming to develop simpler versions of project management for SMEs. A significant part of this development is understanding the nature of project management in SMEs. However, most studies explore American, Australian and European SMEs; none explore South African SMEs.

Objectives: This study investigates the nature of project management in South African SMEs - to contribute to the growing area of research.

Methodology: This study began a literature review - focusing on SMEs and their characteristics, project management concepts, project management in SMEs, and an overview of the fintech landscape. Using case research, semi-structured interviews, and thematic analysis, four insurtech SMEs in the Western Cape province of South Africa were investigated. The investigation looked at how they perceived and understood project management, the factors to its adoption and utilisation, its benefits and drawbacks, and how they practised it.

Results: The results show that SMEs had a positive perception of project management and its necessity; however, they only identified the short-term, internal values.

The factors affecting project management adoption and utilisation in SMEs were: active owner-manager involvement, corporate culture and flat organisational structure, education and experience, the desire for workplace flexibility, and smaller project sizes.

Overall, the SMEs had simpler, less formal practices and lacked formal project managers. Their practices firmly focused on planning, emphasising collecting requirements, breaking down the work, and compiling the schedule. Monitoring and control practices were the second most common (after planning), emphasising monitoring the scope and schedule. Other practices in the initiation, execution and closing process groups were not common – only the larger SME had practices in these process groups.

Findings: The findings in this study agree with the literature, which shows that SMEs have simpler, less formal project management practices. Moreover, larger SMEs tend to have more formal processes compared to smaller SMEs.

Conclusion: South African SMEs have simpler, less formal project management practices that owner-managers highly influence. Moreover, SMEs typically do not have formal project managers. Therefore, simpler versions of project management need to account for these factors.

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Dedication

I dedicate this research work to my mom – she has always believed in me since I can remember. Your character, faith, prayers and love for people have truly shaped the man I have become. Thank you for always being there for me.

I love you, mom.

Table of Contents

List of figures

List of tables

Abbreviations

AMPBoK	Association for Project Management Body of Knowledge
APM	Association for Project Management
B2B	Business To Business
BAFM	Bodies of knowledge, approaches, frameworks and methodologies
CAPM	Certified Associate in Project Management
CEO	Chief Executive Officer
CIPC	Companies and Intellectual Property Commission
COVID-19	Corona Virus Disease 2019
CPM	Critical Path Method
CRM	Customer Relationship Management
EEF	External Environmental Factors
ERP	Enterprise Resource Planning
EVM	Earned Value Management
GDP	Gross Domestic Product
GWP	Gross Written Premium
ICT	Information and Communications Technology
ISO	International Organization for Standardization
IT	Information Technology
JHB	Johannesburg, South Africa
JSE	Johannesburg Stock Exchange
LE	Large Enterprise
MBA	Masters in Business Administration
NDP	National Development Plan
NGO	Non Governmental Organisations
NQF	National Qualifications Framework (in South Africa)
OECD	Organisation for Economic Co-operation and Development
PERT	Program Evaluation and Review Technique
PMBoK	Project Management Body of Knowledge
PMI	Project Management Institute
PMIS	Project Management Information Systems
PMM	Project Management Methodology
PMOE	Project Management-oreiented Employment
PMP	Project Management Professional
PRINCE2	Projects In Controlled Environments

PRM	Project Risk Management
ROI	Return On Investment
SA	South Africa(n)
SME	Small to medium enterprises
SMME	Small, Micro and Medium Enterprises
TQM	Total Quality Management
UCT	University of Cape Town
UK	United Kingdom
USA	United States of America
WBS	Work Breakdown Structure
WC	Western Cape, South Africa

Chapter 1: Introduction and overview

1.1 Introduction to the chapter

This study examines the way small to medium enterprises (SMEs) perceive and practice project management in the Western Cape province of South Africa.

This chapter gives an overview of the study. It presents the background to the research, a description of the research problem, and the research's value. Furthermore, this chapter presents the research questions, objectives, an overview of the methodology, and the study's limitations.

1.2 Background

1.2.1 Background to the research problem

Project management is essential in enterprises (Turner, Ledwith & Kelly, 2012) because it drives organisational change and enables value creation (Project Management Institute, 2017b). However, the literature on "traditional project management" is biased towards large organisations (Engwall, 1998; Murphy & Ledwith, 2007; White & Fortune, 2002) and large projects (Turner, Ledwith & Kelly, 2010b). Moreover, traditional project management does little to assist SMEs in project management (Turner, Ledwith & Kelly, 2012). Due to traditional project management's lack of attention to SMEs, scholars have initiated research to develop simpler versions of project management for SMEs and small projects (Turner, Ledwith & Kelly, 2012). An essential aspect of developing simpler versions entails understanding the nature of project management in SMEs.

Extant literature on the nature of project management in SMEs mostly look at American, European and Australian SMEs (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2010b; Turner, Ledwith & Kelly, 2009). Unfortunately, at the time of writing, no studies exist on the nature of project management in South African SMEs.

1.2.2 Importance of small to medium enterprises (SMEs)

SMEs play a critical role in social and economic development (Floyd & McManus, 2005; Hallberg, 1999; Millnuex, 1997). SMEs create jobs, contribute to economic growth, stimulate the spirit of innovation and entrepreneurship (thereby increasing competitiveness), and serve as an essential catalyst to the growth of large enterprises (European Commission, 2015; Leboea, 2017).

In member countries of the Organisation for Economic Co-operation and Development (OECD), SMEs constitute 99% of all businesses, generate between 50% to 60% of gross domestic product (GDP), and

employ 70% of private-sector employees (Organisation for Economic Co-operation and Development [OECD], 2019).

In South Africa (SA), the estimates on SME contribution to the economy and employment vary widely due to the absence of a standard definition of what constitutes a small or medium enterprise (Berry et al., 2002; Leboea, 2017; Small Business Institute, 2018b).

Despite the broad-ranging estimates on SME contribution to SA, there is a consensus that SMEs contribute significantly to SA's GDP and employment (Berry et al., 2002; Leboea, 2017). Consequently, the SA government has started formulating initiatives and policies to promote the growth of the SME sector (Bushe, 2019; Leboea, 2017). For example, SA's national development plan (NDP) places SMEs at the epicentre of SA's economic growth (Qubeka, 2019).

The importance of the SME sector is also evident in non-governmental organisations (NGOs), who are working on developing the SME landscape through providing skills, research, funding, mentorship, access to business networks, and lobbying power for policy reformation. For example, the Small Business Institute (2018a) is lobbying the SA government to create national definitions for small, micro and medium enterprises (SMMEs).

1.2.3 High SME failure rates

While government and NGO initiatives progress, South Africa faces one of the highest SME failure rates compared to global standards (Berry et al., 2002). Even compared to other developing countries, SA has high failure rates (Bushe, 2019; Leboea, 2017). For example, Lings (2014) estimates that of all new businesses created in SA, 60% will make it past its first year of existence, and only 40% will make it past its second year.

If the high failure rates are left unaddressed, the SME sector will not fulfil its touted role as a significant social and economic driver of SA (Berry et al., 2002; Bushe, 2019) – which puts SA at risk of economic stagnation (Olawale & Garwe, 2010).

By conducting an empirical literature review with a specific focus on SMEs in SA, Bushe (2019) proposes a framework for analysing the causes and impacts of SME failure. The framework groups SME failure causes into three perspectives: (1) entrepreneur incapacity, (2) environmental inauspiciousness, and (3) enterprise incompetence – as shown in Table 1 (below).

Moreover, Sheldon (1994) categorises SME failure factors under two dimensions: (1) origin – internal or external to the firm, and (2) corrective response – a strategic response or an administrative response.

The first dimension helps describe whether the factors leading to failure originate from within or outside the enterprise. Arguably, entrepreneur incapacity and enterprise incompetence originate from within the organisation; and environmental inauspiciousness originates from outside the organisation.

Table 1: Framework for analysing SME business failure (Adapted from Bushe (2019)

Perspective	Description	Examples	Origin
Entrepreneur incapacity	Lack of knowledge, skill and aptitude to form and run a business	Lack of business skills, inability to execute plans, lack of process	Internal
Environmental inauspiciousness	External support mechanisms that make it possible to operate and grow a business	Access to business skills, funding, markets and institutional support structures	External
Enterprise incompetence	How well an enterprise manages itself to achieve its objectives and adapt to the external environment	Strategic management, project management and operations management	Internal

Many of the SA government's strategic initiatives on growing the SME sector focus on creating a conducive environment for establishing and sustaining SMEs. That is, the NDP's resolutions for growing the SME sector have a strong focus on targetting external factors. For example, "protect[ing] firms from rand volatility" (National Planning Commission, 2012:137), "lowering the cost of doing business" (National Planning Commission, 2012:139), and "reducing barriers to entry in various value chains" (National Planning Commission, 2012:139) to improve the external environment in which SMEs operate.

SA government and NGOs acknowledge the need for more interventions and work to grow the SME landscape. However, no government intervention can entirely absolve an SME's responsibility towards dealing with or preventing internal issues. SMEs are responsible for addressing their internal issues, achieving their strategic objectives, and adapting to market changes. Moreover, while the government can implement initiatives to create a conducive environment for SMEs, the market is continuously changing, and SMEs need to adapt to survive (Makatsela, 2001) – let alone grow.

When it comes to an organisation achieving its goals, project management is vital (Project Management Institute, 2017). Citing Turner, Ledwith & Kelly (2012), the Project Management Institute (2017b) states that projects are essential in enterprises because they drive organisational change and enable value creation. Organisations use projects to change from their current state to a desired future state to create business value (Project Management Institute, 2017b).

1.2.4 Projects

The Project Management Institute (2017b:4) defines a project as "a temporary endeavour undertaken to create a unique product, service, or result." Put differently, a project is an endeavour to achieve a specific objective and involves a series of resource-consuming tasks and activities (Munns & Bjeirmi, 1996).

Enterprises initiate projects in response to four categories of factors that act upon the organisation (Project Management Institute, 2017b):

1. To meet external requirements – regulatory, legal, or social;
2. Stakeholder satisfaction – satisfy their needs and requests;
3. Business change – implement or change business or technological strategies;
4. Constant improvement – create, improve, or fix products, processes, or services.

As mentioned, projects drive organisational change and enable enterprises to create business value (Project Management Institute, 2017b), which refers to the enterprise's net value, including tangible and non-tangible elements (Phillipy, 2014). To survive and ultimately create business value, enterprises must adapt and respond to the continually changing business environment and the factors which act upon the organisation (Phillipy, 2014; Project Management Institute, 2017b).

Enterprises that fail to adapt to the changing environment eventually lose market share and become obsolete (Makatsela, 2001). Therefore, successful projects are lifelines (Phillipy, 2014) that provide value to enterprises (Besner & Hobbs, 2006).

De Wit (1988) distinguishes between project success and project management success. Project success is "measured against the overall objectives of the project," while project management success is measured against the "traditional measures of performance against cost, time and quality" (Cooke-Davis, 2002:185)

While a project can succeed despite a failure in project management, successful project management can increase the success potential of a project (Murphy & Ledwith, 2007). That is, successful projects and successful project management are complementary (Munns & Bjeirmi, 1996) and improve the ability of a firm to create value.

1.2.5 Project management

Project management is the "application of knowledge, skills, tools, and techniques to project activities to meet the project requirements" (Project Management Institute, 2017b:10). Whereas a *project* is a

temporary endeavour to achieve a specific objective (the what), *project management* is the process of controlling the achievement of said objectives (the how) (Munns & Bjeirmi, 1996).

The benefits of project management are well documented in the literature. From an organisational perspective, project management improves performance (Abbasi & Al-Mharmah, 2000), productivity (McHugh & Hogan, 2011), effectiveness (Shenhar et al., 2001), efficiency (Stimpson, 2008), and innovation (Georg Gemünden, 2014). Moreover, project management assists the firm in achieving its strategic objectives (Martínez Zamorano & van Bohemen, 2009) - which is essential towards adapting to market changes and contributes to the growth of an organisation (Turner & Ledwith, 2018).

At least in an informal sense, project management's origins are often traced back to early civilisations with feats like the Egyptian Pyramids and the Great Wall of China (Murphy & Ledwith, 2007). However, "formal project management", also known as "modern project management", is relatively recent. It traces back to the 1950s (Stretton, 2007) – with its origins in the heavy engineering industries like aerospace, construction and shipbuilding (Engwall, 1998; Morris, 1994).

The companies that influenced the foundations of modern project management are primarily large enterprises that primarily undertook large scale projects (Engwall, 1998; Stretton, 2007). The companies include Bechtel, the United States Navy, and Civil and Civic (Stretton, 2007). Until the late 2000s, most of the project management literature focuses on large enterprises (Engwall, 1998; Murphy & Ledwith, 2007; White & Fortune, 2002) – that predominantly undertake large projects (Turner, Ledwith & Kelly, 2010b).

With the introduction of methodologies like PRINCE2 (Office of Government Commerce, 2005), the project management literature evolved from predominantly addressing large projects to addressing medium-sized projects (Office of Government Commerce, 2005; Turner, Ledwith & Kelly, 2010b). However, due to the bureaucratic nature of its procedures (Turner, 2008; Turner, Ledwith & Kelly, 2010b), PRINCE2 is contextualised around large enterprises (Payne & Turner, 1999).

It is tempting to view SMEs as "smaller versions" of large enterprises (Welsh & White, 1981). However, SMEs differ fundamentally from large enterprises (LEs) (D'Amboise & Muldowney, 1988; Ghobadian & Gallear, 1997; Welsh & White, 1981). Ghobadian & Gallear (1997) describe some of the main differences between SMEs and LEs – as shown below in Table 2.

In light of the differences between SMEs and LEs, there is general agreement that traditional project management – mainly addressing large enterprises and large projects, is not suitable for use in SMEs (Adnot, 2012; Alves, Tereso & Fernandes, 2019; Borštnar Mirjana & Pucihar, 2014; Murphy & Ledwith,

2007; Payne & Turner, 1999; Pollack & Adler, 2016; Thomas & Mullaly, 2007; Turner, Ledwith & Kelly, 2010b; Turner, Ledwith & Kelly, 2012).

Table 2: Differences between SMEs and large enterprises (Adapted from Ghobadian & Gallear (1997))

Dimension	SME characteristics
Structure	• Flatter and more flexible organisational structures • Better communication • Quicker response to environmental changes • Higher prevalence of people who fulfil multiple, overlapping, and undefined roles
Procedures	• Less formal and less bureaucratic procedures • Low degree of standardisation • Fewer decision-makers
Processes	• Simpler processes that are result-oriented • Shorter decision-making chains
People	• People have a lower resistance to change • Creativity is encouraged amongst their people

1.2.6 Project management in SMEs

Projects are essential in SMEs (Turner, Ledwith & Kelly, 2012), and hence, the literature must provide adequate support for managing projects in SMEs (Alves, Tereso & Fernandes, 2019).

Thomas & Mullaly (2008a) show that for an organisation to obtain value from project management, there needs to be a fit between the nature of the organisation (i.e. people, culture, infrastructure), the nature of the projects undertaken (i.e. complexity, pace, size) and the project management practices adopted.

Since large organisations (LEs) and SMEs differ in their nature (Ghobadian & Gallear, 1997; Turner, Ledwith & Kelly, 2009) and the nature of their projects (Besner & Hobbs, 2006; Turner, Ledwith & Kelly, 2009; Turner, Ledwith & Kelly, 2012), it follows that SMEs and LEs have different project management needs (Kerzner, 2013b; Turner, Ledwith & Kelly, 2012). Consequently, traditional project management, with its heavy focus on large organisations (Engwall, 1998; White & Fortune, 2002), fails SMEs (Alves, Tereso & Fernandes, 2019; Borštnar Mirjana & Pucihar, 2014) on several counts – as shown below in Table 3.

Table 3: Why traditional project management fails SMEs (Adapted from Ghobadian & Gallear (1997); Turner, Ledwith & Kelly (2010b))

Dimension	Features of project management that fail SMEs
Structure	• Has well-defined roles
Procedures	• Is biased towards standardisation • Encourages specialisation and formal decision making
Processes	• Has formal processes that are often bureaucratic
People	• Focuses on systems and not on people • Stifles creativity (Keegan & Turner, 2002)

Relative to traditional project management, the literature addressing project management in SMEs is scarce (Marcelino-Sádaba et al., 2014; Pollack & Adler, 2016; Turner, Ledwith & Kelly, 2012). The Project Management Institute (PMI), one of the global leaders on project management knowledge and research, emphasise that research is necessary to tailor the PMBoK (Project Management Body of Knowledge) for SMEs (Turner, Ledwith & Kelly, 2012).

Owing to the constantly evolving nature of the project management field (Crawford, Pollack & England, 2006) and the increasing importance of SMEs, a growing body of research explicitly addresses SMEs.

Payne & Turner (1999) show that projects have a better chance of success if the project management procedures are tailored to the size of the project. Using questionnaire responses from 280 European SMEs in various industries, the paper by Turner, Ledwith & Kelly (2009) investigates the extent to which SMEs use projects and project management. The paper concludes that SMEs require simplified versions of project management that specifically target micro (10 or fewer employees), small (11 – 50 employees) and medium (51 – 250 employees) enterprises. The paper also suggests that different industries may need different versions of project management.

SMEs need more than just a list of tools and techniques to choose from (Turner, Ledwith & Kelly, 2008). They need guidance on how to manage projects (Turner, Ledwith & Kelly, 2010a). Unfortunately, the project management community offers little guidance for SMEs (Turner, Ledwith & Kelly, 2012). However, various scholars are expanding the literature on SME project management to offer guidance to SMEs.

Ledwith (2004) and Murphy & Ledwith (2007) conduct initial investigations into the project management practices of SMEs in Ireland, specifically in the high-tech and service industries. They suggest that SMEs should follow a systematic approach in selecting their project management practices by identifying:

1. Their strategic objectives
2. Appropriate success criteria and success factors for their projects
3. Project management tools and techniques that meet the above.

Turner, Ledwith & Kelly (2010b) initiate research to understand the nature of project management in SMEs to develop simplified versions of project management that are suitable for SMEs – "lite" and "micro-lite" versions for small and micro companies, respectively. They conduct semi-structured interviews with 18 SMEs in four European countries (Republic of Ireland, Austria, Romania, and Sweden) across various industries and different sizes. They conclude that across industries, SMEs use similar project management approaches. Moreover, the most significant differences in the way the SMEs approach project management occur across two factors:

1. Company size
    a. Firms with fifty or fewer employees have one or two levels of management and have procedures that focus on people. Hence project management tends to be laissez-faire.
    b. Firms with fifty or more employees require structure and tend to be more autocratic – thus requiring specialist project managers.
2. Country
    a. Ireland and Sweden prefer laissez-faire management styles in projects.
    b. Austria and Romania prefer more autocratic project management styles.

These findings suggest that in addition to company size and industry, it is vital to consider the country that SMEs operate in – primarily due to cultural differences.

Using semi-structured interviews and surveys, Turner & Ledwith (2018) explore the nature of project management practices adopted by nineteen SMEs in North America across various industries. The paper shows that the SMEs' project management practices mainly entail templates and integrated project management methodologies – usually based on proprietary software such as Microsoft Project.

The paper notes that whereas North American SMEs consider scope management the most critical practice, European SMEs consider requirements management as most important. Moreover, the paper notes the cultural differences and highlights the importance of developing simplified versions of project management.

As scholars progress towards developing simplified versions of project management for SMEs, it is essential to consider the project management practices of other countries – particularly developing countries.

While capitalising on the experience of developed countries is important, developing countries may need to adapt project management to their needs (Abbasi & Al-Mharmah, 2000). The studies above focus on North American, European and Australian SMEs. At the time of writing, no studies look at the project management practices adopted by SMEs in South Africa.

1.3 Description of the research problem

Project management is essential in enterprises (Turner, Ledwith & Kelly, 2012). It drives organisational change and enables value creation (Project Management Institute, 2017). However, the literature or "traditional project management" is biased towards large organisations (Engwall, 1998; Murphy & Ledwith, 2007; White & Fortune, 2002) and large projects (Turner, Ledwith & Kelly, 2010b). Moreover, traditional project management does little to assist SMEs in project management (Turner, Ledwith & Kelly, 2012).

Consequently, scholars have initiated research to develop simpler versions of project management for SMEs and small projects. An essential aspect of developing simpler versions entails understanding the nature of project management in SMEs.

Extant literature on project management in SMEs only represents and considers American, European and Australian SMEs – SMEs in developed countries. At the time of writing, no studies exist on the nature of project management in South African SMEs. While the learnings from these developed countries are beneficial, South African SMEs will likely have to adapt the practices to suit their needs.

1.3.1 Problem statement

The problem statement is:

- Scholars are progressing towards developing simplified versions of project management for SMEs. However, there is a lack of research on the nature of project management in South African SMEs, which hinders the development of simplified project management versions that will benefit South African SMEs.

1.4 Research question

The research question is:

- What is the nature of project management in South African SMEs?

1.5 Research objectives

With this context, the objectives of this research are:

1. Determine what SMEs perceive and understand about projects and project management
2. Determine the factors that may affect the adoption and practice of project management in SMEs
3. Determine the benefits and drawbacks that SMEs experience when using project management
4. Determine the project management practices and procedures that SMEs use

1.6 Research propositions

The following proposition is formulated:

- South African SMEs have simple and informal project management practices that are heavily influenced by owner-managers.

1.7 Methodology

The objectives of this study were achieved through the following research methodology.

1. A literature review of the matters in this study.

A literature review was conducted on three broad yet interlinked topics. Firstly, a review on SMEs was conducted to understand their importance, characteristics and to select an appropriate SME definition criterion. Secondly, a review on project management looked at the importance of project management and related key concepts, which helped assess the respondents' knowledge and perceptions on project management.

Finally, a review on project management in SMEs discusses the importance and prevalence of project management in SMEs – it includes a discussion on the barriers to entry and the practices of SMEs in Europe, North America, and Australia. The review also helps identify the appropriate research instrument for gathering the data.

The papers used were sourced from peer-reviewed journals – including the Project Management Journal, The International Journal of Project Management, and the Journal of Small Business Management. The keywords used to identify the relevant papers include: "defining SMEs", "characteristics of SMEs", "the importance of SMEs", and "project management in SMEs."

2. Semi-structured interviews to gather data.

Based on the nature of the study and the literature, semi-structured interviews were used to understand the nature of project management in four South African SMEs in the technology insurance industry. All the interviews were conducted and recorded via Microsoft Teams. The interview recordings were converted to voice format (.mp3) and anonymised with Audacity. The audio interview data were then transcribed with Otter.ai and imported into NVivo for analysis.

3. Analysis and interpretation of data

The data was analysed and interpreted with thematic analysis. Then, using NVivo, the data was explored, and initial codes were generated. With the initial codes, themes were generated and tested against the data. After a period of refining the codes and themes, a final set of themes were identified.

Each theme was interpreted and discussed in light of the literature review.

4. Conclusions and recommendations

Conclusions were made on the data, and further research recommendations were made.

1.8 Value of the research

From a South African perspective, this study will contribute to our understanding of the SME project management landscape. Moreover, this study contributes to broader research in understanding the characteristics of South African SMEs. The Small Business Institute (2018b:1) puts it succinctly :

> *"Persistent low rates of job creation, policy uncertainty and a stagnant economy mean that it is now more important than ever to understand the number, size and characteristics of micro, small and medium enterprises if they are to assist South Africa in overcoming poverty and inclusive, transformative growth."*

1.9 Limitations

The study focused on fintech insurance (insurtech) SMEs in the Western Cape Province of South Africa

Chapter 2: Literature Review

2.1 Introduction

This chapter presents the literature on project management in SMEs. It aims to establish the topic's significance and provide a foundation for the rest of the study. This chapter synthesizes extant scholarship, justifies the study and places the study within the context of extant literature.

The chapter has six parts:

1. **Importance of SMEs**: justifies studying and providing insights to improve SMEs.
2. **Defining SMEs:** explores standard SME definitions and provides a definition that will the study uses.
3. **Characteristics of SMEs:** explores the features of SMEs – which plays a vital role in understanding the practices of the SME.
4. **Projects and project management:** explains the differences and justifies the need for projects and project management – particularly in SMEs
5. **Project management in SMEs:** explores the usage of project management in SMEs, focusing on how prevalent it is in SMEs, the barriers to its adoption, and the typical practices.
6. **Fintech and insurtech landscape in SA:** defines and explores the fintech and insurtech landscape in South Africa

2.2 Defining SMEs

2.2.1 SME definition in the literature

Various authors and organisations usually highlight the economic importance of SMEs through statistical analysis. However, the statistics are sensitive to the criteria used in defining SMEs (Rodriguez Meza, 2015; Senderovitz, 2009). Therefore, before defining SMEs, it is worth noting that an enterprise is "any entity engaged in economic activity, irrespective of its legal form" (European Commission, 2015:9).

"SME", as the acronym suggests, is an umbrella term for small and medium enterprises. Simply put, it refers to enterprises that are not large. There are many "official" definitions of what constitutes an SME (Ghobadian & Gallear, 1997). The sources of these definitions include various countries, SME agencies, governmental institutions, and statistical bureaus (Senderovitz, 2009). However, despite the plethora of definitions, many articles use the term as if there is a universal, unambiguous definition (Senderovitz, 2009).

SME definition deals with using a set of criteria to distinguish SMEs from large enterprises and divide SMEs into classes – usually micro, small and medium. That is, to classify enterprises by size (Wach, 2015). In addition, SMEs can be distinguished from large enterprises through qualitative and quantitative criteria (Senderovitz, 2009).

2.2.1.1 Qualitative criteria

Qualitative criteria describe the enterprise's characteristics. While there are many qualitative criteria used in the SME classification literature, Łuczka (2013, quoted by Wach, 2015:78) suggests that the most common are:

1. **Ownership:** SME owners have legal independence (founders tend to own the majority share)
2. **Owners role:** The SME owner plays an essential role in the management of the organisation
3. **Structure:** SMEs have a simple, flat organisational structure
4. **Finances:** SMEs have a separate financial economy and type of financing

Qualitative criteria are easier to recognise once seen in operation (Stokes & Wilson, 2006), and they display universality (Berisha & Pula, 2015). That is, they can be applied across sectors and countries because the main features of SMEs are qualitative (Wach, 2015). However, qualitative criteria tend to be more subjective and are more challenging to measure and represent statistically (Wach, 2015).

2.2.1.2 Quantitative criteria

Quantitative criteria classify enterprises using absolute and relative size measurements (Wach, 2015). Just like qualitative criteria, there are many quantitative criteria in the literature – with the most common being (Muriithi, 2017; Wach, 2015):

- Employment size
- Annual turnover (sales)
- Balance sheet total
- Fixed asset value
- Nett annual income
- Age of organisation

Quantitative criteria are used more frequently in the literature (Senderovitz, 2009) due to their objectivity and ease of capturing – especially for governmental institutions (Berisha & Pula, 2015; Wach, 2015). However, the utter reliance on quantitative criteria to define SMEs draws criticisms for:

- Being inadequate measurements of the "true differences between large and small" enterprises (Senderovitz, 2009:985) by ignoring the main qualitative features of SMEs (Organisation for Economic Co-operation and Development [OECD], 2005). For example, quantitative criteria do not consider the ownership structure of firms, which leads to distortions (OECD, 2005).

- Leading to a heterogeneous collection of businesses that are labelled "small" – when using a single quantitative criterion (Curran et al., 1991, cited in Senderovitz, 2009)
- Ignoring industry to industry differences. For example, the economics of construction LEs (large enterprises) is typically higher than agriculture LEs. However, as noted by Lee-Ross & Lashley (2009), various definitions recognise and incorporate industry to industry differences into the quantitative criteria – the SA National Definition of Small Enterprise being one of them.

2.2.2 SME definition in this study

The SA national definition of SMEs was updated to be more consistent with international practice (National Small Enterprise Act, No. 102 of 1996. *Regulation, 2019:110*). The SA definition uses two proxies to define SMEs, namely, (1) number of full-time equivalent of paid employees, and (2) total annual turnover – see Table 4 below.

The thresholds in the first proxy, number of employees, correspond with the European Commission (2003) definition and remain consistent for all SA sectors. However, unlike the European Commission (2003), the total annual turnover thresholds depend on the sector.

Table 4: European vs South African SME classification criteria

	Annual turnover			**Number of employees**		
Classification system	**Micro**	**Small**	**Medium**	**Micro**	**Small**	**Medium**
European Commission (2003)	≤ € 2m	≤ € 10m	≤ € 50m	≤ 10	≤ 50	≤ 250
National Small Enterprise Act, No. 102 of 1996. Regulation, 2019:110 (Financial services sector)	≤ R 7.5m	≤ R 35m	≤ R 85m	≤ 10	≤ 50	≤ 250
National Small Enterprise Act, No. 102 of 1996. Regulation, 2019:110	Varies depending on the sector			≤ 10	≤ 50	≤ 250

Before selecting an appropriate SME definition for this study, it is essential to note that there is no universally accepted definition (Berisha & Pula, 2015).

By studying SME definitions in 124 articles, Senderovitz (2009) recommends using a definition based on the study approach (qualitative vs quantitative) and the overall purpose of the study (societal purpose, policy purpose, management purpose, and theoretical/technical purpose).

For a qualitative study that focuses on studying management issues in SMEs – such as this study, Senderovitz (2009) recommends adopting a set of qualitative criteria. However, an analysis of the leading papers in the SME project management literature suggests otherwise.

Table 5 (below) shows some papers that study the nature of project management in SMEs. The table shows that the most frequently adopted criterion is the employment size (Metric 2). This observation is consistent with that of other authors (Alazemi & Adesta, 2018; Muriithi, 2017; Wach, 2015) – who show that in the literature, authors use quantitative criteria (specifically employment size) more frequently. However, it is also worth noting that most of the studies in Table 5 are quantitative.

Table 5: SME classification systems used in studies addressing SME project management

	Sales or Turnover (Metric 1)			Number of employees (Metric 2)			Studies			
Classification system	**Micro**	**Small**	**Medium**	**Micro**	**Small**	**Medium**	**Authors**	**Metric used**	**Country of SMEs**	**Instrument**
European Commission (2003, 2005)	≤ € 2m	≤ € 10m	≤ € 50m	≤ 10	≤ 50	≤ 250	Adnot (2012)	1 & 2	Sweden	Interviews
							Murphy & Ledwith	1 & 2	Ireland	Survey
							Turner et al (2009)	2	Ireland	Survey
							Turner et al (2010)	2	Ireland, Austria, Romania, Sweden	Survey
							Turner et al (2012)	2		Survey
							Aquil (2013)	2	Pakistan	Survey
							Kozlowski & Matejun (2016)	2	Within EU	Survey
Australian Bureau of Statistics (2008)	-	-	-	≤ 4	< 20	< 200	ABS (2008)	2	Australia	Survey
							Pollack (2014)	2	Australia	Survey
							Pollack (2016)	2	Australia	Survey
Unspecified	-	-	-	-	-	< 250	Sdrolias et al (2005)	2	Greece	Survey
Macedonian Stock Exchange (2012)	-	-	-	≤ 10	≤ 50	≤ 250	Tasevska et al (2014)	2	Macedonia	Survey
SME Corporation Malaysia (2013)	≤ RM 300k	≤ RM 15m	≤ RM 50m	≤ 5	≤ 75	≤ 200	Alazemi & Adesta (2018)	2	Malaysia	Survey
US International Trade commission (2010)	-	-	-	≤ 20	≤ 100	≤ 500	Turner & Ledwith (2018)	2	North America	Interviews
Eurostat (n.d)	-	-	-	< 10	< 100	< 500	Ghobadian & Gallear (1997)	2	Within UK & EU	Interviews, Observations

This study uses employment size according to the European Commission (2003, 2005) as the primary criterion to define SMEs and their various classes. The reason is fourfold.

Firstly, it is consistent with many other studies investigating the nature of project management in SMEs - as shown above in Table 5 (above). Secondly, it allows for comparisons with similar studies in other countries. Thirdly, it is an easy and objective way to classify organisations (Kaczmarek, Byczkowska & Czyrka, 2016; Wach, 2015). Finally, there is an exact correspondence between the employment size thresholds in the European Commission (2003, 2005) and SA's Departments of Small Business Development (National Small Enterprise Act, No. 102 of 1996. *Regulation, 2019:110*).

Since this study is explorative and aims to uncover the actual practices of SMEs, it will not consider the qualitative aspects of SMEs.

In summary, this study defines SMEs as enterprises that have 250 employees or less – with the following classes: micro (0 – 10 employees), small (11 – 50 employees) and medium (51 – 250 employees).

2.3 Characteristics of SMEs

SMEs generally have fewer employees, lower annual turn-overs and have been operational for fewer years when compared to large enterprises. It is thus tempting to view SMEs as miniature versions of large enterprises (Welsh & White, 1981). However, SMEs are fundamentally different and exhibit unique characteristics (D'Amboise & Muldowney, 1988; Ghobadian & Gallear, 1997; Welsh & White, 1981). Therefore, research involving SMEs should take note of these differences in characteristics (Southern & Tilley, 2000).

Moreover, projects and project management occur in a much broader context than the project itself and are affected by factors beyond the project team's control (PMBOK 2013). Therefore, a deeper understanding of SME characteristics will help illuminate the broader context and lay the foundation for exploring the project management practices in SMEs.

The literature has numerous frameworks that aid in identifying the characteristics of enterprises and their corresponding influences on other phenomena. For example, D'Amboise & Muldowney (1988) and Storey (1994) propose frameworks that analyse the SME from three perspectives. However, at a basic level, any enterprise can be assessed from two distinct but interrelated perspectives – (1) the endogenous or internal perspective and (2) exogenous or external perspective (Storey, 1994).

The endogenous perspective refers to the characteristics and factors within the firm's control (Crutzen, 2010) and includes the firm's structure, leadership, processes, and culture. The exogenous perspective refers to the characteristics and factors beyond the firms' control – which arise from the "external environment" or outside the firm (Crutzen, 2010). Collectively, these external factors refer to the market and include competitors, customer needs, and regulatory requirements (Crutzen, 2010).

By examining the works of other authors, Ghobadian & Gallear (1997) propose a table showing the significant differences between SMEs and large enterprises - with a specific focus on characteristics relevant to the design and actuation of total quality management (TQM). Arguably, the same characteristics, shown in Table 6 (below), help understand the project management context of SMEs. Three main reasons follow.

Firstly, there is a two-way link between TQM and project management (Bryde, 1997; Mir & Pinnington, 2014). TQM is a continual improvement initiative that authors often describe as a general management philosophy (Price & Chen, 1993) and traditionally focuses on the organisation - not projects. However, on the one hand, project management effectively implements TQM practices in organisations (Bryde, 1997). On the other hand, TQM assists in creating an enabling environment for

organisations to use project management successfully (Bryde, 1997). Moreover, TQM can improve the quality of the project's result (Price & Chen, 1993; Project Management Institute, 2017b).

Secondly, project management methodologies often contain TQM (Kerzner & Saladis, 2009). Moreover, TQM and project management share some of the same fundamental principles. For example, continual improvement, quality assurance and customer satisfaction are fundamental principles in TQM (Stevenson, 2015) and project management – as shown in the PMBoK (PMI, 2017b), AMPBoK (Association for Project Management [APM], 2012), ISO 10006 (International Organization for Standardization, 2017), and other project management texts.

Finally, the categories in Table 6 (below) serve as inputs to many of the project management processes in the PMBoK (PMI, 2017). Projects and project management occur in a broader context than the project itself and are affected by conditions beyond the project team's control (PMI, 2013). These conditions, also known as enterprise environmental factors (EEFs), "need to be considered if the project is to be effective" (PMI, 2017b:38).

The PMBoK (PMI, 2017) lists several EEFs, including the organisation's structure, infrastructure, marketplace conditions, existing human resources, and culture. These EEFs encapsulate the categories shown in Table 6 (below) and serve as inputs to many of the project management processes in the PMBoK (PMI, 2017).

Table 6: SME characteristics relevant to project management (Adapted from Ghobadian & Gallear (1997))

Category	Characteristics	Large enterprise	SME
Structure	Organisational	Hierarchical, several managerial layers	Flat, very few managerial layers
	Division of activities	Extensive and clear	Limited and unclear
	Degree of specialisation	High	Low
	Information flow	Rigid structure	Flexible structure
	Top management	Far from the point of delivery	Close to the point of delivery
	Visibility	Limited top management visibility	Highly visible top management
	Number of cites	Multi-sited, possibly multinational	Single-sited
	Interest groups	Many	Very few
	Environmental change	Slow response	Fast response
	Innovativeness	Low incidence	High incidence
	Culture	Diverse	Unified
Procedures	Activities and operations	Governed by formal rules	Not governed by formal rules
	Standardisation	High degree	Low degree
	Processes	System-dominated	People-dominated

	Processes	Rigid and unadaptable; formal	Flexible and adaptable; informal
	Decision making	High prevalence of fact-based	High incidence of intuition
	Decision-makers	Multiple, fragmented	Few, direct
Behaviour	Relationships	Mostly bureaucratic	Mostly organic
	Mind-set	Departmental/functional	Corporate
	Corporate culture	Cultural inertia; Meritocratic	Fluid culture; Patronage
	Influenced by	Rigid corporate culture	Owners' ethos and outlook
Processes	Decision-making chain	Extended	Short
	Planning and control	Complex	Simple
	Strategic process	Deliberate and formal	Incremental and heuristic
	Evaluation, control & reporting	Formal	Informal
	Orientation	Control-oriented	Result-oriented
People	Personal authority	Mainly low	Mainly high
	Individual creativity	Stifled	Encouraged
	Employees	Many professionals and technocrats	Many pioneers and entrepreneurs
	Management styles	Directive, participative, paternal, etc	Directive, paternal
	People's endeavours	The result is usually not visible	The result is usually visible
	Resources	Ample human, financial	Modest human, financial
	Staff training	Planned, large scale	A*d hoc,* small scale
	Training budget	Specified	Unspecified
	Unionisation	High incidence	Low incidence
	Resistance to change	High degree	Negligible
	Internal change catalysts	Many	Very few
Contact	Span of activities	Wide span	Narrow span
	External contacts	Extensive	Limited
	Customer base	Large customer base	Limited customer base

The characteristics in Table 6 (above) are not exhaustive. Other lists like that of Poznańska & Schulte-Zurhausen (1994, cited by Wach, 2015:79) show similar characteristics but include other categories like financing, sales and supply.

The characteristics in Table 6 (above) are predominantly endogenous, which suggests that the factors influencing the adoption of TQM are predominantly internal. The same holds for project management. The factors influencing the adoption of project management in SMEs are predominantly internal. For

example, the owner-manager's experience, skillset and attitudes strongly affect the adoption of project management in SMEs (Sdrolias et al., 2005).

However, it is worth noting that enterprises do not operate independently of their environment (Thomas & Mullaly, 2007). The environment shapes the internal characteristics of enterprises and vice versa. Moreover, the relationship between the environment and the SME is a "complex issue and not explained by any single substantive theory" (Fuller & Moran, 2001:58).

In summary, SMEs are simpler, less formal and closer to the customer. Moreover, although SMEs are quicker to react to environmental changes (Bakhtiari et al., 2020), they are more vulnerable to the shocks of environmental changes (D'Amboise & Muldowney, 1988; Senderovitz, 2009).

2.4 Projects and project management

2.4.1 The need for project management

Now more than ever, enterprises are operating in an unprecedented environment characterised by rapid changes and constant disruption. Owing to fast technological advancements (Cascio & Montealegre, 2015), intense competition (Tushman, Newman & Romanelli, 1986), and changing customer expectations, change and adaption are now necessities for long term enterprise survival (Gordon et al., 2000). The COVID-19 pandemic catalyzes the changes in the enterprise environment. As a result, many enterprises, especially in South Africa, are in survival mode where change is non-negotiable.

Merely adapting to the environment is not enough. Enterprises need to metamorphose to become agile, creative and change-ready (Project Management Institute, 2020). The latest edition of PMI's (2020) annual Pulse of the Profession report, a global survey of over 3000 project professionals, reveals that 53% of organisations place a high priority on building a culture that is receptive to change.

In an increasingly rapidly changing environment, Frankehoff & Granger (1971) emphasise the distinction between operational and strategic management while emphasising the latter.

Operations management enables enterprises to operate efficiently and meet customer demands (PMI, 2017b) through gradual changes with minimum risk (McElroy, 1996). On the other hand, strategic management enables enterprises to align with the forces that shape changes in their environment (Gordon et al., 2000; Olsen, Tse & West, 2008) through step changes (McElroy, 1996). While both are important, strategic management is the mechanism that copes with the dynamic environment.

The strategic management process entails analysing the situation (environment), choosing a direction, formulating a strategy and, implementing the strategy (Harrington & Ottenbacher, 2011). However, the strategy is worthless without implementation, and the company will not realise the much-needed change to adapt to its environment.

Unlike gradual changes, implementing strategy, specifically step changes, requires "overthrowing" the firm's status quo – by bypassing its existing systems, processes, structures, and behaviours (Kerzner, 2013a; Pellegrinelli & Bowman, 1994). That is, enterprises require an alternative approach for initiating, directing and realising change, which is separate from the status quo of daily operations management. Projects and project management offer this alternative approach to implementing change (Pellegrinelli & Bowman, 1994).

Project management is generally shorthand for projects, programs, portfolios, and management (Project Management Institute, 2010). However, there is a difference between project management and projects.

2.4.2 Work as processes

Organisations produce and offer products and services by doing work. The American Society of Quality (Gardner, 2004) and other authors argue that work can be viewed as one or more processes. A process is a systematic series of activities that produce an identifiable output from inputs (PMI, 2017b; Zwikael & Smyrk, 2011). Processes are goal-oriented, transformational (turns inputs into outputs) and value-adding (Zwikael & Smyrk, 2011). See Figure 1 (below).

Using this "process view or work", Zwikael & Smyrk (2011) argue that the outputs result from one of two processes: (1) repetitive processes (operations) or (2) unique processes (projects). They use two dimensions to help conceptualise processes according to the management rules that guide its execution – (1) complexity and (2) the work's uniqueness.

Since the dimensions are used for conceptual purposes and not for classifying work, definitions of the dimensions are not necessary (Zwikael & Smyrk, 2011).

As shown in Figure 1 (below), operational processes are best for complex work that is repetitive. Ad hoc processes and projects are more suitable for delivering once-off outputs. While ad hoc tasks are best for small, simple tasks, they are unsuitable for complex projects regardless of novelty. Projects, on the other hand, are suitable for complex and novel work.

Note, the "project view of work" does not necessarily imply that projects are processes. Scholars are clear that projects, although containing processes, are not processes (Pinto, 2016).

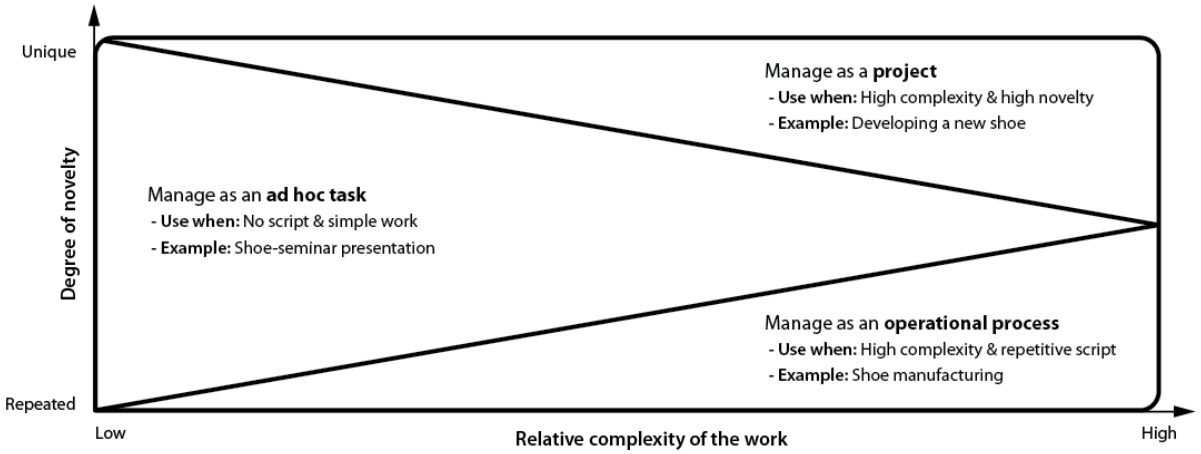

Figure 1: Process view of work (Adapted from Zwikael & Smyrk (2011) and Gardner (2004))

2.4.2.1 Projects

A project is a temporary undertaking to create a unique product, service or result (PMI, 2017b). It is distinct from other organisational processes – the ongoing daily activities that firms engage in while producing goods and services (Pinto, 2016). For some enterprises, projects are the primary way they generate their income — for example, construction companies and consulting companies.

Projects are the critical building blocks in designing and executing strategies (Cleland & Ireland, 2002). Moreover, projects are the vehicles for achieving change (Pellegrinelli & Bowman, 1994) and moving the enterprise from its current state to a future desired state (Project Management Institute, 2017b) – enabling it to adapt to its environment by responding to threats and ceasing opportunities (Pinto, 2016). Thus, projects ultimately contribute to organisations' long term survival and success (Shenhar et al., 2001). Shenhar et al. (2001:700) put it succinctly: "Without projects, organizations would become obsolete and irrelevant, and unable to cope with today's competitive business environment."

Although operations management is traditionally linked to delivering continual change, projects can also assist in delivering continual change.

Using the general definition of projects as unique, time-limited endeavours to achieve a specific objective (Engwall, 2003), then, as argued by Larson (2004), projects (or potential projects) exist in all organisations. Kerzner & Saladis (2009) share the same sentiment and argue that every significant activity in an organisation can be viewed as a project – whether these endeavours are identified as projects or not.

Many organisations fail to recognise said endeavours as projects – particularly for smaller projects, which results in organisational inefficiencies or objectives not being met (Larson, 2004). However, even companies that use projects as vehicles for change do not always meet their objectives or achieve project success.

Shenhar et al. (2001) provide a conceptual framework to assess project success through four dimensions:

1. Project efficiency (meeting constraints – time, budget)
2. Impact on customer (meeting performance objectives, functional requirements, specifications, customer satisfaction)
3. Business and direct success (increasing business results, e.g. gaining market share, increasing profits)
4. Future preparedness (building skills, ability to adapt and absorb external shocks and challenges)

Shenhar et al. (2001) emphasise that "one size does not fit all" when it comes to project success – different projects emphasise different success dimensions in differing degrees.

The PMI (2019) estimates that organisations waste approximately 12% of their investment in projects due to poor performance. This statistic, along with others in the literature, raises an important point. The use of projects alone does not guarantee that the objectives will be met. Projects need to be coupled with effective project management to increase their success potential (Murphy & Ledwith, 2007).

2.4.2.2 Project management

Continuing with Pellegrinelli & Bowman's (1994) analogy of projects as vehicles of change, it follows that project management is the driver of this vehicle. The driver has to plan the route, drive the vehicle, and perform other tasks to ensure that the vehicle gets to its destination. Like a vehicle unable to reach its destination without a driver[1], a project will likely not fulfil its intended purpose without project management.

De Wit's (1988) distinction between project success and project management success points to the focal point. Project success is measured against the projects overall objectives, and project management success is measured against the traditional triple constraint of time, cost and quality (Cooke-Davis, 2002).

Projects focus on achieving a specific objective through a series of resource-consuming tasks and activities (Munns & Bjeirmi, 1996). In contrast, project management's focus is on effectively using resources (Kerzner, 2013a) to control the achievement of project objectives (Munns & Bjeirmi, 1996) by applying knowledge, skills, tools and techniques (PMI, 2017b).

[1] Or the software in the case of autonomous vehicles.

Put differently, projects concern defining and selecting activities of work that will result in an overall benefit to the organisation (Munns & Bjeirmi, 1996; Serrador & Turner, 2015) – whether tangible or not. These benefits often far outlast the project's duration and have broader implications for the firm (Turner & Zolin, 2012). Moreover, different stakeholders assess the success of the project and its benefits differently and at different timeframes (Turner & Zolin, 2012).

In contrast, project management fundamentally concerns planning and controlling resources and activities to ensure timely delivery within budget and meets standards (and expectations) (Munns & Bjeirmi, 1996). Its success is usually measured at the end of the project (Turner & Zolin, 2012).

Many scholars argue that project management is a form of management that occurs within a relatively short period compared to the timespan that users derive benefits from the project's outcome (Munns & Bjeirmi, 1996). After project delivery and handover, a different form of management takes over to operate, control, and extract benefits from the project's outcome (Munns & Bjeirmi, 1996).

Notably, assessing success is time-dependent (Shenhar, Levy & Dvir, 1997; Turner & Zolin, 2012). As time passes after project delivery, it matters less whether the project management effort was a success and becomes irrelevant after about a year (Shenhar, Levy & Dvir, 1997). In contrast, delivering benefits and satisfying the customers becomes more relevant after the project is delivered (Shenhar, Levy & Dvir, 1997). Consequently, some scholars (Jugdev & Moller, 2006; Shenhar, Levy & Dvir, 1997; Turner & Zolin, 2012) argue for project managers (and the project management effort) to concentrate on the bigger picture instead of only focusing on getting the job done within the constraints.

Due to the slightly different focal points of projects and project management, it is possible to succeed in one and not the other (de Wit, 1988). However, by surveying 1386 projects in multiple countries, Serrador & Turner (2015) show that successful project management (meeting the triple constraint) is 60% correlated with project success (meeting the strategic goals of the organisation). This correlation gives strong evidence for the complementary relationship between projects and project management (Munns & Bjeirmi, 1996).

2.4.3 Projects vs operations

Operations fall outside project management scope and concern the ongoing production of goods and services that allow an enterprise to continue doing business (PMI, 2017b). Unlike projects, operations are repetitive, ongoing, and have a higher certainty regarding cost, performance and schedule (Pinto, 2016; Turner, 2009). In routine operations, enterprises produce goods or offer services and get relatively instant feedback on how well they are doing (Turner, 2009). They can then make continual incremental improvements to steer the enterprise's operations in the direction they want to achieve

a target profit (Turner, 2009). In addition, due to the repetitive nature of operations, there is higher certainty in terms of performance, costs and schedules (Pinto, 2016).

On the other hand, projects seek to produce a desired result, in which benefits may only be derived long after the project team is disbanded (Turner, 2009). Consequently, projects the project team cannot make minor adjustments to achieve the desired benefit (Turner, 2009). Unlike operations that focus on the work, projects must focus on the desired results to ensure that the work delivers on the project objectives (Turner, 2009).

Whereas projects violate the status quo of how a business runs, operations support the status quo. In many ways, operations and projects are opposites of each other. For example, Pinto (2016) describes projects as "temporary operations." Table 7 below summarises the differences between projects and operations.

Table 7: Comparison of projects and operations (Adapted from Pinto (2016))

Item	Projects	Operations
Product, process or end result	Repeated	New
Number of objectives	Several	One
Duration	Ongoing	Limited
People	Homogenous	Heterogenous
Systems	Well established	Must be created
Certainty of performance, cost, schedule	High	Low
Part of the organisational line	Yes	No
Established practice	Bastions	Violates
Supports status quo	Yes	No - disrupts
Focus	Work	End result

2.4.4 Business value

As mentioned earlier, the PMBoK (PMI, 2017b) offers four categories of reasons why enterprises initiate projects: – (1) to meet external requirements, (2) to satisfy stakeholders, (3) for business change, and (4) to continuously improve.

Palmer-Trew & Taylor (2020) offer two broad reasons why organisations initiate projects: (1) to address issues that should not be there, and (2) to take advantage of opportunities. These reasons can be distilled to one concept: the creation of value.

Enterprises initiate projects with the ultimate goal of creating value (PMI, 2017b; Shenhar et al., 2001) or protecting against a loss of value (or both). For example, in the context of consumers shifting more

towards e-commerce, especially during the COVID-19 pandemic, a retailer may launch a project to develop e-commerce capability. This project will create value (capturing new customers via digital means) and protect against a loss of value (future revenue loss as consumers shift towards e-commerce). Note that this value, also known as business value, can be tangible (e.g. increasing market share), intangible (e.g. increasing brand reputation), or both (Phillipy, 2014; PMI, 2017b).

Various scholars categorise business value in different ways. For example, Kerzner & Saladis (2009) use a balanced scorecard approach to categorise business value, as shown in Table 8 (below). They contrast SME and LE perceptions of value and offer several reasons for these differences in perception – two of which are relevant in this study.

Firstly, SMEs are generally more resource-constrained and have to select the projects they embark on carefully. This observation agrees with other authors (Bakhtiari et al., 2020; OECD, 2017) who report that SMEs are generally more resource-constrained – underpinned by inabilities to reap from economies of scale, skill and knowledge deficits, and lower access to financing.

Secondly, the risks of failure are more prominent in SMEs. This point agrees with other scholars (D'Amboise & Muldowney, 1988; Senderovitz, 2009) who note that SMEs are more vulnerable to shocks that come from a changing environment – despite being able to adapt quicker than large enterprises.

Resource constraints and higher vulnerability to risk make SMEs perceive value in surviving and growing – with a particular emphasis in the short term. In contrast, LEs' perception of value is centred around maximising return on investment and has a longer-term focus.

Business value can change over time and is assessed differently by different stakeholders (Kerzner & Saladis, 2009). Moreover, Kerzner & Saladis (2009) suggest that for a typical company, the timing order of values is as follows:

1. **Internal values** – to create some sort of internal success that is repetitive
2. **Customer values** – to develop a meaningful customer base
3. **Future values** – to enable the long term satisfaction (in turn retention and growth) of customers
4. **Financial values** – to remain solvent in the long term

A typical enterprise may incur short term financial losses to achieve internal values, customer values, and future values. However, at some point, the enterprise must become financially successful to continue operating.

Table 8: Balanced scorecard contrasting the perceptions of value in SMEs and LEs (Adapted from Kerzner & Saladis (2009))

Financial values		**Future values**	
LEs	SMEs	LEs	SMEs
• Multiple product lines • Paying dividents • Projects that result in "cash cows" and "stars"	• Maintain market share growth for survival • Short-term profit-driven strategy • Affordable cost of quality and R&D	• Successful innovation • Being a market leader • Product development (Innovation, patents, and trade secrets) • Reputation and image	• Maintaining independence • Having a single goal that supports a niche strategy • Selective bidding
Internal values		**Customer values**	
LEs	SMEs	LEs	SMEs
• Product development process • Structured project review process • Identifying exit champions	• An EMP system focusing on enhancements rather than product development • Well structured risk management process	• Customer satisfaction • Maintaining customer relations • Customer partnerships	• Customer satisfaction • Customer retention

It is one thing for organisations to implement projects with the ultimate aim of creating or protecting business value. However, it is another thing for organisations to realise this value. Therefore, a critical follow-up question to the preceding statement is whether or not project management offers value to organisations – particularly for SMEs.

2.4.5 The value of project management to organisations

Today's competitive economic environment places insurmountable pressure on firms to heavily weigh the value of their investments and endeavours (Pennypacker & Crawford, 2002; Thomas & Mullaly, 2008a). This pressure also exists for many firms looking to adopt project management or improve their project management capability – especially for SMEs, who are more resource-constrained (Pollack & Adler, 2016). Consequently, organisations may adopt project management if they see tangible value in doing so (Pennypacker & Crawford, 2002).

A significant body of research focuses on improving project management to improve project success and deliver objectives more effectively (Pollack & Adler, 2016). However, the focus is mostly on project success and not on organisational success - which is usually left to implication (Pollack & Adler, 2016). Moreover, many authors comment on project management's positive effect on organisational success (Pollack & Adler, 2014). However, with relatively scarce research on the topic and many anecdotal

stories, these comments are predominantly unexamined (Pennypacker & Crawford, 2002; Thomas & Mullaly, 2008a).

The return on investment (ROI) is a simple way to understand the value of project management to enterprises. It compares the costs and returns from adopting, maintaining or improving a project management environment. Notably, the costs of adopting and maintaining project management are not insignificant, particularly for SMEs - who often cite high costs as the most crucial barrier to implementing project management (Abbasi & Al-Mharmah, 2000; Sdrolias et al., 2005).

For project management to have value to organisations, the returns should be greater than the costs. Although simple to understand, computing the ROI is complex. This complexity stems from primarily three things: (1) project management has intangible value, and (2) in most enterprises, expenditure on increasing project management capability does not have a direct impact on profits and revenue (Thomas & Mullaly, 2007). Moreover, (3) project management costs vary wildly depending on several factors such as project type, size, and the enterprise's maturity level (Archibald, 2003). Thomas & Mullaly (2008b:50) note that assessing project management's value to enterprises "is not a simple accounting exercise."

There exists a growing body of research on the value of project management in recent years. However, until the early 2000s, only a few rigorous and undisputable studies exist on the measurable value of project management (Thomas & Mullaly, 2008b). Moreover, scholars criticise many of these studies for their limited sampling, which raises questions about their broad relevance (Thomas & Mullaly, 2007).

Due to the criticism and lack of studies, the PMI sponsored a major international, three-year, cross-disciplinary research project designed to quantify the value of project management in organisations that implement it appropriately (Thomas & Mullaly, 2008b). The research demonstrates that more than half of their 65 case study organisations derive tangible value from implementing project management.

Irrespective of whether the value of project management can be quantified, there is consensus that project management has value and contributes to organisational success (Cooke-Davis, 2002; Pollack & Adler, 2014). If it did not, people would not use it (Rose, 2009), and it would not see exponential growth in adoption.

Since projects are undertaken with the ultimate goal of creating business value (PMI, 2017b; Shenhar et al., 2001), then arguably the ultimate benefit of project management to enterprises is improving its ability to create value. This argument resembles Caliste's (2013) view that project management aims

to improve the firm's competitive position – by implementing a value-creating strategy that competitors are not simultaneously implementing. Similarly, Cooke-Davis (2002) notes that the literature clearly illustrates the existence of direct and indirect links between project management and corporate success.

Kerzner & Saldanis' (2009) balanced scorecard helps illuminate the value of project management to enterprises by categorising studies according to the areas that affect organisational success - See Table 9 (below). Depending on how one classifies the studies, there may be overlap. For example, improving productivity and efficiency can be a financial value because the resulting cost decreases; and may contribute to the firm's ability to remain solvent.

Table 9: Project management value matrix (Adapted from Kerzner & Saldanis (2009))

V4. Financial values	**V3. Future values**
• **Improved margin and profitability** (Jiménez-Jiménez, Martínez-Costa & Martínez-Lorente, 2012; Pollack & Adler, 2016; Stimpson, 2008; Turner & Ledwith, 2016) • **New product success** (Jiménez-Jiménez, Martínez-Costa & Martínez-Lorente, 2012) • **Growth and improved market share** (Yazici, 2020) • **Return on investment** (Kwak & Ibbs, 2000; Lappe & Spang, 2014; Patah & de Carvalho, 2007)[2]	• **Future preparedness** (Shenhar et al., 2001) • **Competitive advantage** (Caliste, 2013; Jugdev & Thomas, 2002; Yazici, 2020) • **Facilitates organisational learning** (Turner & Ledwith, 2016)
V1. Internal values	**V2. Customer values**
• **Productivity and performance improvement** (Abbasi & Al-Mharmah, 2000; McHugh & Hogan, 2011; Patah & de Carvalho, 2007; Pollack & Adler, 2014; Stimpson, 2008) • **Effectiveness** (Shenhar et al., 2001) • **Better internal communication** (Abbasi & Al-Mharmah, 2000; Peterson, 2000; Thomas & Mullaly, 2008a) • **Increased motivation for project personnel and better work/life balance** (Turner & Ledwith, 2016) • **Improved organisational culture** (Thomas & Mullaly, 2008a) • **Improved risk management** (Lima & Verbano, 2019b) • **Better prioritization of investments** • **Alignment of projects with strategy** (Turner & Ledwith, 2016) • **Continuous improvement**	• **Reputational integrity and repeat business** (Shenhar et al., 2001; Thomas & Mullaly, 2007; Turner & Ledwith, 2016) • **Better client communication** (Abbasi & Al-Mharmah, 2000) • **Client satisfaction** (Patah & de Carvalho, 2007; Stimpson, 2008; Thomas & Mullaly, 2007; Turner & Ledwith, 2016; Yazici, 2020)

While the benefits in Table 9 (above) are essential for all enterprises, they are particularly crucial to SMEs because of their small size, inability to afford project cost overruns, and higher vulnerability to

[2] However, scholars criticise these studies for their relatively small sample, and non-representative sample sizes (Thomas & Mullaly, 2008).

risk (Leopoulos, Kirytopoulos & Malandrakis, 2006). Although scarce, some studies focus on the benefits of project management to SMEs.

The study by Pollack & Adler (2014) shows that project management significantly affects business productivity in SMEs. The study models the relationship between productivity and business skills using binary logistic regression. However, the study relies on survey data where SMEs self-interpret what is meant by "using project management" – unlike other studies which provide a list of standard project management tools, techniques and approaches to choose from.

In a subsequent study, Pollack & Adler (2016) use multiple linear regression and binary logic to describe the relationship between project management, IT skills, profitability and total sales. The study shows that SMEs see measurable value when investing in project management.

Turner & Ledwith (2016) show that American SMEs perceive that the benefits of project management outweigh the costs. Moreover, their study shows that SMEs perceive project management to improve profitability, project predictability, customer satisfaction, and more.

2.5 Project management in SMEs

2.5.1 The need for project management that suits SMEs

Project management is necessary for SMEs, and as a discipline, it should address the needs of SMEs for two broad reasons. Firstly, projects require an element of tailoring – not all approaches work on all projects. Secondly, other areas have received attention, and given the significance of SMEs to the economy, it follows that SMEs should receive the appropriate attention.

2.5.1.1 Tailoring project management practices to the project

The preceding sections highlight the importance of projects and project management to enterprises. Not only is there value in adopting or improving project management ability, but scholars recognise project management as a critical organisational competency – for both SMEs and LEs alike. Indeed, there is no doubt that project management is vital to SMEs (Turner, Ledwith & Kelly, 2012).

However, merely adopting project management does not necessarily result in an organisation deriving benefits and seeing success. Kimberly & Evanisko (1981) emphasise that organisational initiatives should fit with the organisation's strategy and competitive environment. Otherwise, it is unlikely that the initiative will deliver desirable results.

In a project management context, Thomas & Mullaly (2008a) show that for an organisation to obtain value from project management, there needs to be a fit (or an alignment) between the three dimensions shown below.

1. **Organisational nature:** The nature of the organisation – e.g. culture, people, infrastructure, structure,
2. **Project nature:** The nature of the projects undertaken – e.g. the number of projects, type, duration, performance,
3. **Project management practices adopted**: The elements that "an organisation introduces to manage projects (Thomas & Mullaly, 2008a:11)."

Building on Thomas & Mullaly (2008a) and Miles and Snow (1984), the study by Mullaly & Thomas (2009) introduces two terms – fit and value direction. Fit is the degree to which an organisation's project management implementation and practices align with its strategic goals and external environments. Value direction is the degree to which the project management implementation (or practices) continues to deliver value to an organisation.

Using 59 in-depth case studies from all over the world – each study having a combination of qualitative and quantitative data, the study shows a strong correlation between fit and the value direction. Enterprises with a misfit between the three dimensions have a negative value direction. That is, firms realize decreasing project-management-derived value when their project management practices do not fit with its organisational context. In contrast, organisations with a "tight fit" show a positive value direction.

It is worth acknowledging that the three dimensions do not operate in isolation. The external context also influences the practices that an enterprise adopts and uses (Thomas & Mullaly, 2007).

Payne's (1995) literature review shows that companies often manage multiple projects simultaneously – many of which are inhomogeneous - projects differ by size, skill requirement, and degree of urgency. Payne (1995) concludes that organisations who use consistent project management practices across all inhomogeneous projects exhibit less success than organisations that tailor their practices.

Building on the work of Payne (1995), the paper by Payne & Turner (1999) offer reasons as to why tailoring project management practices to projects may improve success – two of which are helpful:

1. Projects of different sizes emphasize different things. For example -
    a. **Small and medium-sized projects** emphasize the prioritisation of resources across projects and are not compatible with bureaucracy.
    b. **Large projects** emphasize coordinating complex activity sequences, balancing resources to prevent resource constraints, and executing tasks on the critical path – all of which require a greater degree of data management.

c. **Major projects** emphasize coordinating the activities of people across several sub-projects and the risk that project failure may sink the parent organisation.

2. Projects have different resource requirements and consequently require different approaches. For example, engineering-type projects have well-defined goals and lend themselves to activity-based planning approaches. In contrast, product development type projects are better suited to product breakdown structures and milestone-based planning (Payne & Turner, 1999).

Other scholars offer similar sentiments on tailoring project management practices to suit the needs of the project. For example, enterprises need to tailor processes (Turner, 2009), standards, methodologies (Kerzner, 2013b) and agile approaches (PMI, 2017b) to the needs of the project. However, while some tailoring is beneficial, too much tailoring will result in a high likelihood of mistakes (Turner, 2009).

As shown in Section 2.4, SMEs and LEs have different characteristics, specifically in their organisational and project nature. Moreover, SMEs operate in a different external context. Given that these dimensions affect enterprises' practices, it follows that SMEs likely have different project management needs compared to LEs (Thomas & Mullaly, 2007).

Currently, finding suitable project management practices that match the needs of SMEs is arduous for two reasons. Firstly, navigating the plethora of extant literature on “traditional project management” may overwhelm SMEs – since they are already resource-constrained (Pollack & Adler, 2016) and have a shorter-term focus. Arguably, SMEs would much instead dedicate their resources to more urgent and essential matters than fishing the literature for suitable approaches, methodologies, and tools. Where would they start? In addition, project management research struggles to adequately convey the importance of project management to the general management community – outside of the project management community (Kwak & Anbari,2009).

Secondly, and more importantly, traditional project management has a significant bias towards large enterprises (Engwall, 1998; Murphy & Ledwith, 2007; White & Fortune, 2002) and large projects (Turner, Ledwith & Kelly, 2010b).

This bias would not be an issue for SMEs if they could easily use or adapt traditional project management for their needs. However, traditional project management draws criticisms on being inappropriate for SMEs (Murphy & Ledwith, 2007; Payne & Turner, 1999; Turner, Ledwith & Kelly, 2010b; Turner, Ledwith & Kelly, 2008; Turner, Ledwith & Kelly, 2009; Turner, Ledwith & Kelly, 2012)

Given the importance of project management in SMEs, it is essential to have project management solutions that are "SME-friendly" - solutions that are "simple, quick, relevant and practical" (Meister, 2006:2). Also, SMEs need guidance on managing projects (Turner, Ledwith & Kelly, 2010a) – and not just another list of tools and techniques to choose from (Turner, Ledwith & Kelly, 2008).

Fortunately, the literature exploring project management in SMEs is slowly growing – despite its relative scarcity in the litany of traditional project management.

Murphy & Ledwith (2007) offer a systematic process to assist SMEs in selecting their project management processes - SMEs should identify:

1. their strategic objectives,
2. appropriate success criteria and success factors for their projects,
3. project management practices that meet the above.

2.5.1.2 Other areas receive appropriate attention

The discipline of project management is continuously growing and evolving (Crawford, Pollack & England, 2006). In its growth and evolution, the literature addresses projects in various organisational contexts. For example, the literature gives attention to the application of project management in:

- Organisations with project vs non-project structures (Kerzner, 2013b),
- Organisations with predictive vs non-predictive projects (APM, 2012; PMI, 2017b). For example, agile in the Information Technology (IT) industry.
- Governmental vs non-governmental organisations (Antonio Silva, Marcos & Bruno, 2016; Golini, Kalchschmidt & Landoni, 2015)
- International organisations and projects (Mishra, 2016; Sachin & William, 2012)
- Organisations in specific industries. For example, construction, IT, defence.

Without undermining the importance of the topics above, the sheer number of SMEs and their importance to the economy is a strong motivation for the literature to address SME project management specifically.

2.5.2 Prevalence of project management in SMEs

When exploring project management in SMEs, an important initial question is: how many SMEs use project management and what exactly do they use? Given the lack of readily available "SME-friendly" project management literature, it is reasonable to predict a low usage of project management. However, the importance of project management in SMEs (Turner, Ledwith & Kelly, 2012) and its role in small business success (Marcelino-Sádaba et al., 2014) suggests that there could also be a relatively

good project management adoption in SMEs. Unfortunately, the literature is not conclusive, and few studies offer insight into this.

According to respondents, the studies in Table 9 (below) show the number of SMEs with identifiable project management practices.

While the studies are not very similar, they offer insights on project management adoption in SMEs – particularly by country. Compared to Europe, Australia seems to have a significantly lower prevalence of project management in SMEs. This lower prevalence may have something to do with the SME thresholds in the studies. The Australian studies use 200 employees as a threshold for SMEs, while the European studies use 250. Scholars have shown that project management adoption in larger enterprises is greater (Hyväri, 2006).

The higher subjectivity in Australian studies may also affect the statistics. For example, respondents subjectively self-interpret the meaning of "using project management", which likely leads to variation in interpretation (Pollack & Adler, 2014). In contrast, other studies provide a literature-based list of standard tools, techniques and other identifiers to aid respondents in identifying whether they use project management in their SMEs.

Nonetheless, more studies are needed to investigate the SME adoption of project management in various countries.

Table 10: Studies exploring the number of SMEs that use project management

Author	Country	Instrument	Sample	Response rate	PM adoption rate
Murphy & Ledwith (2007)	Ireland	Survey	200	20%	60%
Sdrolias et al. (2005)	Greek	Survey	430	37%	53%
Turner, Ledwith & Kelly (2009)	Ireland	Survey	600	20%	53%
Australian Bureau of Statistics (2013)	Australia	Survey	Unclear	6500 responses	12.5%
Pollack & Adler (2016)	Australia	Survey[3]	10791	95%	11%
Pollack & Adler (2014)	Australia	Survey[4]	10161	Unclear	11%

[3] Using survey data from the Australian Bureau of Statistics from 2004 - 2006
[4] Using survey data from the Australian Bureau of Statistics from 2004 - 2007

2.5.3 Barriers to adoption

Despite the substantial research supporting the value of project management, not all firms use project management (Burgan & Burgan, 2012) – particularly SMEs. Moreover, compared to LEs, the project management adoption rate is relatively low (Turner, Ledwith & Kelly, 2009).

2.5.3.1 The influence of owner-manager

There is a consensus that owner-managers (founders) generally run their SMEs and have a significant influence on the practices of their SMEs (Pennypacker & Crawford, 2002; Pollack & Adler, 2016; Sdrolias et al., 2005). This influence can be a significant barrier towards adopting project management – especially when the owner-manager has negative perceptions (see section *2.5.3.3)*. Turner, Ledwith & Kelly (2010b) note that the owner-manager's lack of interest is the main barrier to project management adoption in project-based SMEs. However, in cases where the owner-manager lacks interest, knowledge workers with previous experience in SMEs may still use project management, regardless (Turner, Ledwith & Kelly, 2010b). This observation suggests that the knowledge workers should play a vital role in uncovering project management practices in SMEs.

2.5.3.2 Higher overhead costs

Scholars suggest that project management presents higher overhead costs in SMEs (Sdrolias et al., 2005; Turner & Ledwith, 2016).

In their study, Turner & Ledwith (2016) explore SME perceptions and overhead costs of project management in North American. The SMEs in their study perceive the value of project management to outweigh the costs. However, project management's overhead costs in SMEs range from 10% to 30% of the project – compared to the often quoted 5% for LEs.

For resource-constrained SMEs (Bakhtiari et al., 2020; OECD, 2017), higher overhead costs can be a barrier – especially if SMEs do not understand the value of project management.

2.5.3.3 Unfavourable perception

While all the SMEs in Turner & Ledwith's (2016) study perceive project management's benefits to outweigh the costs, it is likely that not all SMEs share the same sentiment.

Thomas et al. (2000) show a diverse range of attitudes and perceptions towards adopting project management. The perceptions range from seeing project management as easy and valuable to overkill, expensive, untrustworthy (Thomas et al., 2000) and more work (Burgan & Burgan, 2012).

Sdrolias et al. (2005) note that some companies see project management as a risk in itself. Moreover, some companies view project management as a "threat-based risk approach" that focuses on listing

reasons why projects are unfeasible – instead of looking at opportunities to maximise value-creation and limit value-loss (Thiry & Duggal, 2005).

Scholars offer several reasons behind the differing perspectives, such as lack of project management understanding and resistance to change (Burgan & Burgan, 2012; Thomas et al., 2000). However, a vital issue that contributes to unfavourable perceptions and low adoption rates is the mismatch between what project management promises to offer and the outcomes that they deliver (Thiry & Duggal, 2005; Thomas et al., 2000; White & Fortune, 2002). While ambassadors are selling the tactical features of project management, company decision-makers want to know the merits at the business and strategic levels. Consequently, some executives perceive project management as having a tactical and operational worth – instead of strategic worth (Thomas et al., 2001; 2002).

2.5.3.4 Personnel shortages and technical immaturity

Personnel shortages and technical immaturity (Sdrolias et al., 2005) may lead SMEs to think they do not have the capacity and capability to implement project management. Although not referring to SMEs, Burgan & Burgan (2012) note a lack of capacity and resulting pushback from employees as barriers to implementing enterprise project management.

2.5.3.5 The unsuitability of "traditional" project management

As shown above (See section 2.5.1.1 *Tailoring project management practices to the project*), SMEs need project management practices that suit their projects and organisations. Moreover, traditional project management draws criticisms for being bureaucratic and unsuitable for SMEs – which acts as a barrier to its adoption.

2.5.4 Practices adopted

Although there is little research focusing on the ways SMEs use project management (Pollack & Adler, 2014), the existing studies offer valuable insights. Table 11 (below) shows the practices that SMEs use the most and the least.

Where possible, the table groups the practices into the PMBoK's (PMI, 2017) five main process groups – which represents a "logical grouping of project management inputs, tools and techniques, and outputs" (PMI, 2017a:18). The five process groups are:

1. **Initiation**: Processes that define a new project or phase by obtaining authorisation to start
2. **Planning**: Processes that establish the project's scope, objectives, and course of actions to achieve the objectives.
3. **Executing**: Processes to complete the work set out in the project management plan – to meet the project's requirements.

4. **Monitoring and control**: Processes that track and regulate the progress and performance of the project; identify and initiate changes to the plan.
5. **Closing**: Those processes performed to formally complete or close the project, phase, or contract.

In addition to the process groups, the PMBoK has various knowledge areas – which the PMBoK defines as an: "identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques" (PMI, 2017b:18). The knowledge areas are:

- Project integration management
- Project scope management
- Project schedule management
- Project cost management
- Project quality management
- Project resource management
- Project communication management
- Project risk management
- Project procurement management
- Project stakeholder management

Table 11 (below) suggests that SMEs gravitate towards planning related processes and less towards monitoring and control processes. This suggestion echoes Abbasi's (2000) observation that SMEs spend a significant amount of time and money on project planning and not enough on reporting and controlling (monitoring and controlling).

Despite the relatively common use of planning processes, the low usage of Gannt charts and risk planning (Tasevska, Damij & Damij, 2014) suggests informal planning (Turner, Ledwith & Kelly, 2009).

Tools such as CPM, EVM and stage-gating are more sophisticated and bureaucratic – with their low usage suggesting that SMEs derive little to no value (Turner, Ledwith & Kelly, 2008; Turner, Ledwith & Kelly, 2009). Interestingly, the most used practices do not contain processes from the initiation, executing, and closing process groups – which may suggest an element of bureaucracy or complexity in some of these process groups. It could also suggest that the SMEs are not aware of or find the processes unnecessary/unsuitable.

Table 11: Most and least used project management tools and techniques in SMEs

Authors and countries of study	Most used practices	Process group					Least used practices	Process group				
		Initiating	Planning	Executing	Monitor	Closing		Initiating	Planning	Executing	Monitor	Closing
Sdrolias et al. (2005)	· Performance analysis				●		· PMIS				●	
Greece	· Risk assessment		●				· PERT/CPM		●			
	· Work breakdown structure		●				· Gannt chart		●			
Murphy & Ledwith (2007)	· Project teams						· EVM				●	
Ireland	· Project plans		●				· Stage-gating		●			
	· Microsoft project		●		●		· CPM		●		●	
Turner, Ledwith & Kelly (2009)	· Project plans		●				· Stage-gating		●			
Not mentioned, but within	· Project control				●		· EVM				●	
the European Union							· CPM		●		●	
Turner, Ledwith & Kelly (2010b)	· Requirement gathering		●				· Cost		●			
Ireland, Austria, Romania, Sweden	· Work breakdown structure		●				· Quality management		●			
	· Work schedule		●				· Integration management		●			

Lisi Romano & Delgado Da Silva (2015) conduct a case study on the use of scrum within a Brazilian software development SME. Although the case study is limited and focuses on a particular approach (agile), which was developed explicitly in the context of software development, the study provides interesting insights – two of which are relevant to this study.

Firstly, the SME had staff who fulfilled multiple roles. Consequently, projects were often interrupted because employees needed to fulfil other functions – outside of the project. This observation is consistent with the literature's description of SMEs lacking clearly defined roles for employees.

Secondly, the SME lacked formal structures and complex documentation, which made the SME effortlessly adapt the agile method – and saw an overall satisfaction on various parameters. Interestingly, Borštnar Mirjana & Pucihar (2014) notes that agile is complex and not widely adopted in smaller organisations.

2.5.4.1 Initiation

The PMBoK (PMI, 2017b) lists two processes under the initiation process group: (1) develop a project charter and (2) identify stakeholders. See Table Table 28 in Appendix C.

The use of initiation practices amongst SMEs is generally low in the literature. Sdrolias et al. (2005)'s study shows that 38% of Greek SMEs identify stakeholders in their projects. Bresner & Hobbs (2006)'s study investigating the contribution of various project management practices to project success identifies stakeholder analysis as an underutilised tool – stakeholder analysis is critical because it helps manage the expectations of all stakeholders. However, the study is not explicitly addressing to SMEs.

Other studies investigating the project management practices in SMEs list numerous practices – none of which fall into the initiation process group (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Notably, the study Sdrolias et al. (2005) did not explicitly mention whether Greek SMEs compiled project charters or similar documents that authorise projects and allow project managers to apply organisational resources.

The low usage of initiation practices in SMEs suggests one of the following:

a. SMEs see these practices as bureaucratic and lack the resources to practice them (Turner, Ledwith & Kelly, 2010a), or
b. SMEs are unaware of these practices (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010).

2.5.4.2 Planning

The PMBoK (PMI, 2017b) lists 24 processes under the planning process group – See Table 29 in Appendix B. Compared to other process groups, planning has the most processes.

As shown in Table 11 (above), SMEs' most widely used project management practices fall into the planning process group (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). This observation makes sense given that project management is "usually primarily associated with [] planning and controlling project execution" (Bresner & Hobbs, 2006:38). Moreover, Abbasi (2000) observes that SMEs spend a significant amount of time and money on project planning and not enough on reporting and controlling (monitoring and controlling). Finally, Sdrolias et al. (2005)

However, despite the high usage of planning, SMEs use simpler and less formal planning (Turner, Ledwith & Kelly, 2009). SMEs tend to centre their planning practices around gathering requirements, breaking down the work, and scheduling the work; they rarely use the more sophisticated planning practices such as PERT, CPM, Gannt Charts, stage-gating, project management plans (with all subsidiary plans) and quality management (Murphy & Ledwith, 2007; Tasevska, Damij & Damij, 2014; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). SMEs perceive these practices as bureaucratic (Turner, Ledwith & Kelly, 2008), and their low usage suggests that SMEs derive little or no value from these tools (Turner, Ledwith & Kelly, 2009).

It is worth noting that SMEs lack planning practices that fall into the following PMBoK (PMI, 2017b) knowledge areas: integration, cost, resource, communications, risk, procurement and stakeholder management.

Interestingly, both Turner, Ledwith & Kelly (2010a) and Sdrolias et al. (2005) show a high prevalence of risk planning practices in European SMEs – particular for larger medium-sized SMEs. However, Lima & Verbano (2019a) show a low diffusion of project risk management in European SMEs across ten countries and 18 sectors primarily due to a lack of literature addressing PRM in SMEs. Nevertheless,

scholars argue that SMEs should adopt project risk management in their planning because they are especially vulnerable – with lower bargaining power, higher sensitivity to external changes, and fewer resources (Blanc Alquier & Lagasse Tignol, 2006; Dallago & Guglielmetti, 2012).

2.5.4.3 Execution

Under the execution process group, the PMBoK (PMI, 2017b) lists ten practices – see Table 30 in Appendix B.

As shown in Table 11 (above), there is a low prevalence of practices in the execution process group. Arguably, the low prevalence can be explained by the lack of planning practices in some of the other knowledge areas. For example, if SMEs do not plan for procurement and quality, then it is likely that their execution practices will not include procurement and quality related practices.

2.5.4.4 Monitoring and control

The PMBoK (PMI, 2017b) lists 12 practices under the monitoring and control process group – see Table 31 in Appendix B.

As shown in Table 11 (above), monitoring and control practices are the second most widely used by SMEs – after planning practices. In addition, the literature shows that SMEs have a strong focus on tracking overall progress, monitoring the scope and schedule (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Notably, Turner, Ledwith & Kelly (2009) describe scope change as a sophisticated practice that SMEs tend not to practice – particularly for micro-SMEs and small-SMEs.

Like the execution practices, a similar argument can be made for monitoring and control practices. For example, if planning does not cover certain knowledge areas, the monitoring and control practices will likely ignore these same areas.

2.5.4.5 Closing

The PMBoK (PMI, 2017b) lists one practice under the monitoring and closing process group – see Table 32 in Appendix B.

The literature shows a low prevalence of project closing activities. In particular, documenting lessons learnt is rarely practised in SMEs but has the most significant potential to increase future project success rates Bresner & Hobbs (2006).

2.5.5 Impact of size, industry and country

So far, the papers above identify the general project management practices in SMEs as if SMEs are a homogenous bunch. However, various authors have shown in other fields of study that SMEs are not

a homogeneous bunch. Most SME definitions in the literature subdivide the SME into various sizes. Moreover, many definitions have different quantitative thresholds for different industries – which acknowledge the non-uniformity of SMEs. SMEs differ in practices according to their countries and size.

Hyväri (2006) reports a relationship between critical success factors and the size of the company. The study by Turner, Ledwith & Kelly (2009) investigates project management in SMEs by further segmenting SMEs into size[5] (micro, small, medium) and industry (Hi-tech, lo-tech and service). The industry does not affect the project management practices of SMEs. However, size does. The study shows that smaller companies generally undertake smaller projects. Moreover, as companies grow, they do not undertake more projects - instead, the sizes of their projects increase. The study also shows that as the company size increases, so does the likely hood that the firm has identifiable project management practices.

Interestingly, the study shows that the probability of one or more project managers in the SME increases with SME size - 20%, 50%, and 77% respectively for micro, small and medium enterprises. This observation is somewhat contradictory to Murphy & Ledwith (2007) – who argues that companies invest more in project management (and hence in project managers) when projects become more invasive – i.e. occupy a more significant proportion of the firm turnover.

In a follow-up study, Turner, Ledwith & Kelly (2010b) segment the SMEs into sizes and look at the practices in four different European countries. The study finds that small and micro-sized firms prefer people-focused approaches and support their family culture. Small and medium-sized firms need more formal processes than micro-sized firms – "to support the work of generalists working in small teams" (Turner, Ledwith & Kelly, 2010b:12). They conclude that size affects the relationships between people and the way enterprises apply project management. Consequently, the study argues that SMEs require two versions of project management: (1) a micro-lite version for micro-sized firms and (2) a lite version for both small and medium-sized firms[6].
Turner, Ledwith & Kelly (2010b) agree with Bresner & Hobbs (2006), who shows that large enterprises prefer procedural and systems-oriented tools - and hardly use people-oriented tools.

Studies also show that countries have a significant effect on project management practices. For example, SMEs in Greece show a high occurrence of performance analysis – a tool under the monitoring and control process group (Sdrolias et al., 2005). In Ireland, SMEs show higher usage of practices in the planning process group (Murphy & Ledwith, 2007). In addition, Turner, Ledwith & Kelly

[5] According to the European Commission (2003) definition – see Table 4 on page 16
[6] According to the European Commission (2003) definition – see Table 4 on page 16

(2010b) show that countries have different leadership style preferences, influencing firms' decision-making, decision-taking, and flexibility.

2.5.6 Other SME project management studies

Other studies look specifically at aspects of project management within SMEs. For example, risk management in SME enterprise resource planning (ERP) projects (Iskanius, 2010; Xu, Rondeau & Mahenthiran, 2011), project risk management in SMEs (Lima & Verbano, 2019a), planning practices in ERP projects (Tasevska, Damij & Damij, 2014), project management in start-ups (Adnot, 2012), project management information systems (PMIS) in SMEs (Borštnar Mirjana & Pucihar, 2014), quality control in software projects (Solyman, Ibrahim & Elhag, 2015), the use of agile in SMEs (Bin-Hezam, Bin-Essa & Abubacker, 2018; Garcia, 2005).

2.5.7 Project managers

The project manager's primary responsibility is to achieve the project objective (PMI, 2017) by leading the project team and working with stakeholders (Brewer, 2005; Müller & Rodney Turner, 2010).

As the nature of work changes and project management becomes increasingly important, the job market sees an increasing demand for project managers (Richardson, Earnhardt & Marion, 2015). The PMI (2017a) estimates that the job market will need nearly 88 million individuals in project-oriented roles by 2027 – especially in the seven project-intensive industries: manufacturing, finance and insurance, business services, information services, oil and gas, construction, and utilities (Hodgson & Cicmil, 2006; Kate, 2014).

However, despite the demand for project managers, professionals find themselves working as project managers without applying for that position (Ensworth, 2001; Hunsberger, 2011). Instead, project managers enter the profession by accident (Darrell, Baccarini & Love, 2010). Scholars refer to this phenomenon as the “accidental project manager.”

In non-project intensive industries, there is a higher prevalence of accidental project managers (Darrell, Baccarini & Love, 2010). Given the limited, unclear division of job activities and roles in SMEs, arguably SMEs may have a higher incidence of accidental project managers when compared to LEs. However, further research is required to validate this (Ghobadian & Gallear, 1997).

Typically, project managers start their careers doing something other than project management (Ensworth, 2001). First, they acquire technical and subject matter expertise. After that, they get promoted into the role of project managers, primarily because of their potential and subject matter expertise (Richardson, Earnhardt & Marion, 2015). When starting as project managers, they typically

have little to no formal training and education on project management (Darrell, Baccarini & Love, 2010).

Accidental project managers often find themselves with a set of new responsibilities as part of their workload. Their work shifts from delivering technical solutions to managing projects, requiring a different set of competencies (Hunsberger, 2011). In the context of project managers, competency refers to the knowledge, personal attitude, and experience that is essential for a person to practice as a project manager (Do Vale, Nunes & De Carvalho, 2018)

González, Casas & Coronado (2013) point out the numerous studies showing the importance of project manager competencies to project success. Crawford (2005) adds that project manager competencies impact project management performance and, ultimately, organisational performance. However, the connection between project managers and success requires further investigation (Berssaneti & Carvalho, 2015).

Many studies exist on the competencies (Richardson, Earnhardt & Marion, 2015). Moreover, various project management institutions have guidelines, standards and frameworks on project management competencies (Do Vale, Nunes & De Carvalho, 2018).

In their study, Do Vale, Nunes & De Carvalho (2018) compare project manager competencies in the literature with job-market advertisements in Brazil and identify four categories of competencies as shown below in Table 12.

The study shows that leadership, organisational context, product knowledge, technical knowledge and software knowledge occur most frequently in the literature for project management competence. Notably, the study shows that 64% of job advertisements require experience. The study concludes that while the literature identifies these necessary competencies, the job market hardly mentions them in advertisements.

Notably, project manager competency requirements may differ according to project types (Takey & Carvalho, 2015) and organisations (Chipulu et al., 2013).

While Table 12 provides excellent insight into project manager competencies, it is not exhaustive. The study by Loufrani-Fedida & Missonier (2015:1221) shows that the list of competencies is growing in the literature and is causing a shift “toward evaluating project managers' competencies on the basis of extensive ‘shopping lists’.” The study argues that project managers are seen as “heroes” who carry the responsibility of success or failure on projects and recommends that organisations also focus on integrative organisational competencies. The study suggests that project managers are not wholly

responsible for project success or failure; organisations also have a responsibility towards developing collective and organisational competency.

Table 12: Summary of identified competencies (Adapted from Do Vale, Nunes & De Carvalho (2018))

Category	Competence	Number of occurrences	Rank in category[7]	Overall rank[7]
Behavioural	Leadership	1 323	1	1
	Communication	734	2	7
	Emotional intelligence	426	3	14
	Motivation	189	4	16
	Influence	164	5	18
	Dynamic	121	6	22
	Creative	114	7	25
	Flexibility	114	7	25
	Ethical	94	9	28
	Sensitivity	57	10	31
Technical	Product	908	1	3
	Technical	875	2	4
	Software	868	3	5
	Industry	694	4	8
	Engineering	685	5	9
	Test	269	6	15
Managerial	Planning	474	1	12
	PMP	132	2	20
	Resource management	124	3	21
	Certification	120	4	23
	Change management	118	5	24
	Monitoring	99	6	27
	Negotiation	84	7	29
	Risk management	84	8	29
Contextual	Organisation	973	1	2
	Business	853	2	6
	Relationship	484	3	10
	Environment	477	4	11
	Process	472	5	13
	Marketing	177	6	17

[7] Based on the number of occurrences

Influence	164	7	18

Despite the increasing demand for project managers and the general acceptance of the importance of project managers (Bredillet, Tywoniak & Dwivedula, 2015; Crawford, 2005; Richardson, Earnhardt & Marion, 2015), not all organisations have project managers. For example, Turner, Ledwith & Kelly's (2009) study surveys 280 European based SMEs. It shows that smaller SMEs have a lower likelihood of having full-time project managers – see Table 13 below. Moreover, Turner, Ledwith & Kelly (2010b) add that SMEs with fifty or more employees tend to be autocratic and thus require specialist project managers.

Table 13: Prevalence of project managers by the size of the company (Adapted from Turner, Ledwith & Kelly (2009))

SME classification	Number of employees	Annual turnover	Employ at least one full-time project manager
Micro	≤ 10	≤ € 2m	21%
Small	≤ 50	≤ € 10 m	50%
Medium	≤ 250	≤ € 50 m	77%

Buckley (2018) emphasises the importance of timing when hiring full-time project managers – organisations should start looking for project managers before they get into desperate situations; otherwise, the organisation may compromise. Buckley (2018) recommends that organisations hire full-time project managers when the organisation is facing any of the following problems:

- Teams are struggling to meet deadlines
- The organisation is experiencing financial losses in projects
- The organisation is facing severe disagreements on how to do work

2.5.8 Types of frameworks, approaches and methodologies (BAFMs)

Project management methodologies (PMMs) are generally believed to increase the chances of completing projects within constraints and to the satisfaction of all stakeholders (Josler & Burger, 2005; Milosevic & Patanakul, 2005; Munns & Bjeirmi, 1996) if used appropriately and shaped to fit the project (Chin & Spowage, 2012).

Charvat (2003) defines PMMs as a set of principles and guidelines that can be applied to a specific situation. Notably, there is no general agreement on what constitutes a methodology in project management (Chin & Spowage, 2010). Moreover, various scholars have developed different systems to classify PMMs (Karaman & Kurt, 2015).

Chin & Spowage (2010) classify methodologies into five categories with increasing degree of specificity:

- L1: Best practices and guides (E.g. PMBoK, PRINCE2, ISO 21500: 2021 – Project, programme and portfolio management and APMBOK)
- L2: Sector-specific methodology (E.g. Agile, Rapid Applications Development, Waterfall)
- L3: Organisation specific methodology (E.g. Microsoft Solution Framework)
- L4: Organisation specific methodology
- L5: Individualised methodology

Chin & Spowage (2010) argue that resources such as the PMBoK and ISO 21500 fall into the L1 category. However, opinions vary, and numerous authors such as Bolles (2002) support the view that these resources are "encyclopaedias of best practice" and not methodologies (Chin & Spowage, 2010).

Regardless of what we call these resources, scholars show their importance in projects – for example, improving communication, clarifying roles and responsibilities, and improving project control (Chin & Spowage, 2012; Jovanovic & Beric, 2018; Milosevic & Patanakul, 2005). Therefore, to accommodate the difference in opinion, this paper will adopt an umbrella term to reflect all bodies of knowledge, approaches, frameworks, methodologies: BAFMs.

Notably, the PMBoK, PRINCE2 and APMBoK are the most popular and widely known BAFMs (Chin & Spowage, 2012; Karaman & Kurt, 2015)– with the PMBoK known as the "de facto standard in the field" (Blomquist & Söderholm, 2002:35).

Given the importance and widespread use of BAFMs in project management, project managers and practitioners must be aware of them – they are an essential asset that assists in conducting project management appropriately (Starkweather & Stevenson, 2011). In addition, some professional associations require candidates to take examinations to prove their knowledge of specific BAFMs to get certified – which further emphasises the importance of understanding BAFMs.

2.6 Fintech and insurtech landscape in South Africa

The finance and insurance (FI) industry is the third-largest industry in terms of project management-oriented employment (PMOE) with over 9.5 million PMOE employees – following (1) manufacturing and construction, and (2) information and publishing (Project Management Institute, 2017a; Project Management Institute, 2021). Furthermore, the PMI estimates that this figure will grow to over 11 million by 2030 – a growth rate of 14.9% - the second-highest after information and publishing (15.2%) (Project Management Institute, 2021).

While Sub-Saharan Africa (South Africa and Nigeria) lags behind other parts in current PMOE job openings, it has the highest projected growth rate of 40% by 2030 (PMI, 2021).

Fintech is a portmanteau of "finance" and "technology" and refers to companies that use information technology to enhance financial services and operations (Gai, Qiu & Sun, 2018).

Fintech organisations hold the potential to significantly improve the financial industry by (International Monetary Fund, 2018):

- reducing operating costs – which the customers often benefit from
- allowing convenient, real-time customer interaction
- driving hyper-personalisation by improving the ability to understand customer behaviour and needs
- allowing greater access to financial services – particularly for customers in previously excluded financial segments
- allowing customers to manage better their wealth and risk, which ultimately enhances their financial health and security

South Africa has a small but growing fintech industry that is considered world-class – it is dominated by SMEs (Genesis Analytics, 2019). The South African fintech industry has eight market segments (Genesis Analytics, 2019):

- Payments
- Insurtech
- Capital raising
- Lending
- Investments
- B2B tech providers
- Savings and deposits
- Financial planning

This study focuses on insurtech – which is a portmanteau of "insurance" and "technology" and refers to fintech organisations that leverage technology to provide some or all of the insurance value chain functions - instead of using traditional methods (Genesis Analytics, 2019).

The insurance industry is dominated by traditional (non-insurtech) companies that generate approximately R183 billion in gross written premium (GWP) (Genesis Analytics, 2019). GWP is the total premium that insurers are contractually entitled to receive from customers.

Although insurtech has a low uptake in South Africa, generating a GWP of R1.6 billion in 2019, the insurtech market is projected to grow faster than the traditional insurance market (Genesis Analytics, 2019). Moreover, South has a relatively high insurance customer digital awareness compared to the UK (41% vs 38%) – which shows the opportunity for growth (Genesis Analytics, 2019).

As of May 2019, South Africa has 174 traditional insurers and 217 active fintech companies – of which 22 are insurtech (Genesis Analytics, 2019). The geographic distribution of these insurtech companies are as follows:

- 16 in Johannesburg, South Africa (73%)
- 6 in Western Cape (Cape Town), South Africa (27%)

2.7 Conclusions

The literature review shows the importance of project management in SMEs. However, despite this importance, there are significant barriers to its adoption in SMEs – underpinned by the influence of the owner-manager, higher overhead costs, unfavourable perceptions, personnel shortages and the unsuitability of traditional project management.

Traditional project management has a strong focus on large enterprises and draws criticism for its unsuitability in SMEs. It is often referred to as complex and too bureaucratic for SMEs. Notably, SMEs and LEs are vastly different in how they operate and the problems they face. SMEs are more flexible, have simpler processes, fewer resources and are most susceptible to environmental changes.

Since most of the project management literature is geared towards LEs, scholars agree that SMEs need more attention. In particular, they make a case that simpler versions of project management are required for SMEs – potentially catering to various SME sizes (micro, small, medium) and different industries.

Chapter 3: Methodology

3.1 Introduction

All research has inherent philosophical assumptions that influence the researcher's decisions, observations, and results (Bhattacherjee, 2012). The set of important decisions a researcher has to make includes putting together an appropriate research design that will answer the research questions. This chapter discusses the philosophical underpinnings and the design of this study. It has two parts:

1. **Research paradigm**: Discusses the paradigmatic building blocks of this study
2. **Research design:** Describes the action plan that guided the researcher in this study

3.2 Research paradigm

Bhattacherjee (2012:43) summarises scientific research as "an iterative process of observation, rationalisation, and validation." Underpinning the practice of research are research paradigms - a fundamental set of beliefs, values and assumptions that guide the researcher's actions (Creswell, 2014; Guba, 1990).

While paradigms influence research practice, they are often implicit, taken for granted and assumed (Bhattacherjee, 2012; Creswell, 2014). In project management, studies often skip or rush through the paradigms, making it difficult for the reader to follow the philosophical underpinnings of the study (Smyth & Morris, 2007). Therefore, it is no surprise that many scholars advocate investigating the theoretical and paradigmatic underpinnings of the project management field (Gauthier & Ika, 2012).

Scholars like Creswell (2014) and Bhattacherjee (2012) recommend the practice of explicitly stating paradigms in research. This recommended practice has several benefits. It helps the researcher:

- locate their study within the available paradigms (Creswell, 2009);
- understand the importance and relevance of their study (Rehman & Alharthi, 2016);
- reconcile the different perceptions that other researchers have on the same phenomenon (Bhattacherjee, 2012);
- design, justify, and make their research approach easier to follow (Biedenbach & Müller, 2011; Creswell, 2014; Smyth & Morris, 2007), enabling easier review and criticism (Pasian, 2015).

Brown & Dueñas (2020) propose six building blocks to assist researchers in understanding, selecting and communicating their research paradigms. See Figure 2 (below).

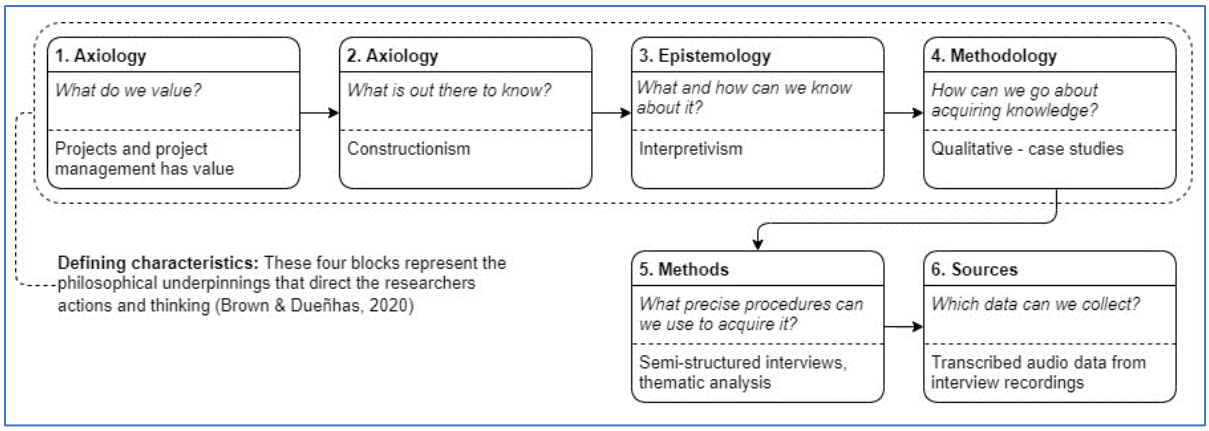

Figure 2: Grix's (2002) paradigmatic building blocks showing this study's paradigmatic stances (Adapted by Brown & Duenas (2020) to include axiology)

The first four building blocks consist of the philosophical assumptions that direct the researchers' thinking and actions (Brown & Dueñas, 2020); and help distinguish between different paradigms (Grix, 2002; Guba, 1990). That is, the distinguishing characteristics.

3.2.1 Axiology

Traditionally, authors characterise a paradigm with three dimensions: ontology, epistemology, and methodology. However, authors are moving towards including axiology as a fourth dimension to characterise a paradigm (Brown & Dueñas, 2020; Grix, 2002; Guba, 1990).

Axiology involves ethical considerations and is an important starting point in research (Brown & Dueñas, 2020). Biedenbach & Jacobsson (2016) emphasise the importance of axiology in research to advance the field of project management and strengthen its legitimacy; however, despite its importance, it is taken for granted and rarely discussed in project management research.

Describing the axiological position of a study involves reflecting upon the following (Biedenbach & Jacobsson, 2016; Brown & Dueñas, 2020):

- What the researcher finds valuable (i.e. what the researcher believes in)
- What motivates the researcher
- What conflicts of interest exist

The central axiological stance that underpins this study is that projects and project management have inherent value for organisations, including SMEs. However, due to project management literature's bias towards large enterprises, SMEs can still extract more value from project management if the literature focuses on SMEs. Part of the effort towards focusing on SMEs involves understanding the current state of project management. The inquirer is driven by optimising business performance by

effectively managing its operations and projects. There are no conflicts of interest, and the study is not funded.

3.2.2 Ontology

Ontology concerns the conscious and unconscious assumptions on what we believe reality entails (Biedenbach & Jacobsson, 2016). In research, reality is the social world where researchers wish to conduct research (Blaikie, 2019). In the project management field, ontological assumptions concern the beliefs that constitute project reality (Gauthier & Ika, 2012).

Gauthier & Ika (2012) describe the concept of ontology as a "slippery concept." In addition to the confusion between ontology and epistemology (Grix, 2002; Pasian, 2015), several traditions exist for naming and describing different ontologies and epistemologies (Pasian, 2015).

In addition to the confusion, there are many ontological paradigms – each defining the nature of reality differently (Brown & Dueñas, 2020). Consequently, a discussion of each ontological position is beyond the scope of this study.

Following the recommendation of Pasian (2015), this study bases its tradition on Bryman (2012), who identifies two major opposing ontological stances in social research: (1) objectivism and (2) constructionism (sometimes referred to as constructivism).

On one end, objectivism asserts that social phenomena and their meanings exist independent of social actors (Bryman, 2012). On the opposite end, constructionism asserts that social actors construct and give meaning to social phenomena (Bryman, 2012). That is, the social world is internal to the actor, and different actors perceive the social world differently.

Brown & Dueñas (2020:547) suggest the following question to assist researchers in understanding their ontological stance:

- Does the researcher *"believe there is one verifiable reality [objectivism], or that multiple socially constructed realities exist [constructionism]?"*

This study assumes that multiple socially constructed realities exist, which follows the ontological stance of constructionism.

3.2.3 Epistemology

Epistemology concerns the relationship between the researcher and the known or knowable (Guba, 1990). As mentioned earlier, there is confusion between ontology and epistemology (Grix, 2002; Pasian, 2015). Authors often use the following questions to illustrate their differences:

- Ontological question: Does God exist? (Taking a stance on what exists in the world)
- Epistemological question: How do we know if God exists? (Investigating what counts as knowledge and how we can know about the world that was ontologically defined)

Put simply; epistemology concerns how we acquire knowledge of the world that was ontologically defined.

A central issue in acquiring knowledge about the social world is whether or not researchers can and should study the social world using the same principles and procedures as the natural world (Bryman, 2012). The epistemological stances affirming and opposing the importance of imitating the natural sciences in social phenomena are positivism and interpretivism, respectively (Bryman, 2012).

While there are other epistemological stances, positivism and interpretivism are major (Bhattacherjee, 2012).

Positivism advocates treating social sciences in much the same way as natural sciences. That is, it seeks to explain and predict social reality by searching for "regularities and causal relationships between constituent elements" (Burrell & Morgan, 1979:5). In addition, it assumes the possibility of perceiving and measuring social reality in an objective way (Cassell, 2018).

Interpretivism seeks to understand and explain the meanings of social reality from the subjectivity of the participants (Cassell, 2018). It assumes one can only understand social reality from the perspective of its social actors brown (Brown & Dueñas, 2020).

This study bases its epistemological assumptions on interpretivism – which is consistent with similar studies—for example, that of Turner & Ledwith (2018).

3.2.4 Methodology (Research strategy and design)

With an understanding of ontology and epistemology, it is easier to select an appropriate methodology. A methodology, also known as a research strategy, is a general guide or plan which helps the researcher gather knowledge within a paradigmatic context (Brown & Dueñas, 2020; Wahyuni, 2012).

Many authors find it helpful to distinguish between qualitative and quantitative research strategies (Bryman, 2012). The fundamental difference between qualitative and quantitative research can be summarised from three perspectives – as shown below in Table 14.

Table 14: Fundamental differences between quantitative and qualitative research (Adapted from Bryman (2012))

Perspective	Quantitative	Qualitative
Main orientation to the role of theory in research	Deductive testing of theory	Inductive, generation of theory
Ontological inclination	Objectivism	Constructionism
Epistemological inclination	Positivism	Interpretivism

It is important to note that while the distinction is helpful, it is not fixed or immutable. For example, some studies may exhibit broad characteristics of one research methodology and some characteristics of another (Bryman, 2012). Moreover, many authors argue that the two research strategies can be combined in a research project – referred to as mixed-methods research or multi-strategy research (Bryman, 2012).

Due to the nature of this research – which is trying to uncover the project management practices in a subset of South African SMEs, a qualitative research strategy is suitable. Moreover a qualitative research is best suited to studies that are exploratory in nature, such as this study. Additionally, other authors who conducted similar studies in Europe, Australia and USA have also adopted qualitative research.

3.2.4.1 Research design

Going a step deeper, a research design is a structure that guides the execution of methods (See section 3.2.5) and the subsequent data analysis and can be used for theory building or theory testing (Bryman, 2012). Typical research designs include comparative designs, case studies, experiments, and cross-sections. This study uses a case study design.

3.2.5 Methods

Another area of confusion by novice researchers is the distinction between methodology and methods (Wahyuni, 2012). While methodologies are the theoretical and ideological foundations for selecting methods (Wahyuni, 2012), methods are precise techniques for gathering and analysing data (Brown & Dueñas, 2020). It is important to note that methods are independent of methodologies and paradigms (Wahyuni, 2012).

There are numerous methods that scholars use to gather and analyse data. Examples of methods include structured interviews, questionnaires and focus groups. This study uses semi-structured interviews (See Section 3.3.2 for a discussion on why Semi-structured interviews are appropriate for this study).

3.2.6 Sources

Sources refer to the data which we can collect. Examples of data sources include exam scores, transcribed audio data from interviews, field notes and open survey responses. This study uses transcribed audio data from interview recordings.

3.2.7 Summary: Paradigmatic building blocks of this study

The table below summarises the paradigmatic building blocks that underpin this study.

Table 15: Summary of paradigmatic building blocks for this study

Paradigmatic building block	**Stance**
Axiology	See
Ontology	Constructionism
Epistemology	Interpretivism
Research strategy	Qualitative – case research
Methods	Semi-structured interviews, thematic analysis
Sources	Transcribed audio data from interview recordings

This study fits within the constructivist paradigm, where conclusions emerge inductively from data and can be further validated through deductive study. This paradigm is consistent with Turner & Ledwith (2018), who explore the nature of project management practices in nineteen American SMEs.

3.3 Research design

All research has a design, whether implicit or explicit (Yin, 2009). Research design is the logical sequence or plan that enables a researcher to progress from research questions to gathering empirical data to concluding on these questions (Yin, 2009). It is the master plan that lays out the actions on how to go about the research and effectively answer the research questions (Bhattacherjee, 2012). Figure 3 below shows the design of this study.

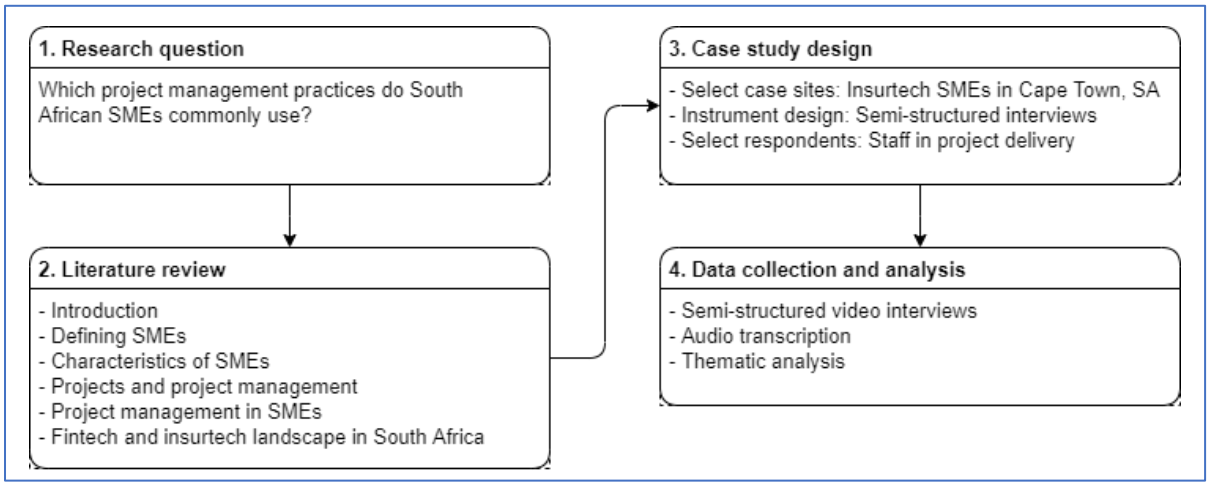

Figure 3: Research design of this study

3.3.1 Case study

A case study or case research is an in-depth exploration of a phenomenon (case) within its naturally occurring context (Bhattacherjee, 2012). A case can refer to, amongst other things, a person, a group of people, a location, or a unit (Heale & Twycross, 2018).

Bhattacherjee (2012) highlights four advantages of case studies over other research designs. Firstly, case studies can be used for theory building or testing, compared to positivistic research designs that only test theory.

Secondly, case studies allow researchers to modify research questions during the research process if the initial questions become less relevant – this is not possible with positivistic designs. Thirdly, case research can help gather richer, more contextualised, and more authentic interpretations of a phenomenon than other research designs. Finally, case research allows scholars to investigate a phenomenon from the perspective of multiple participants and use multiple analysis levels – for example, from the individual perspective to the organisational.

However, case research does have inherent weaknesses. The main weaknesses include (1) weak internal validity of inferences due to the lack of experimental control; (2) the quality of inferences are heavily dependent on the researcher's skill and abilities – novice researchers may miss concepts and patterns in the case data; and (3) the inferences may be difficult to generalise due to the heavily contextualised nature of the data (Bhattacherjee, 2012).

This study focused on Western Cape-based fintech SMEs in the life insurance industry (also known as insurtech). The insurtech industry was selected for two main reasons. Firstly, insurtech falls under the

financial and insurance (F&I) industry, the third-largest industry in terms of project management-oriented employment (PMOE). Moreover, the F&I industry has the second-highest projected PMOE growth for 2030 at 14.9% - second to the information and publishing industry (15.2%) (Project Management Institute, 2021).

Secondly, insurtech in South Africa, a subset of the F&I industry, is dominated by SMEs and shows a higher growth potential than traditional insurers (Genesis Analytics, 2019).

As of October 2019, South Africa has 196 insurance companies – 22 insurtech and 174 traditional insurance companies (non-insurtech). Of the 22 insurtech companies, 6 have headquarters in the Western Cape (WC) province of South Africa, and 16 in Johannesburg (JHB). See Figure 4 below.

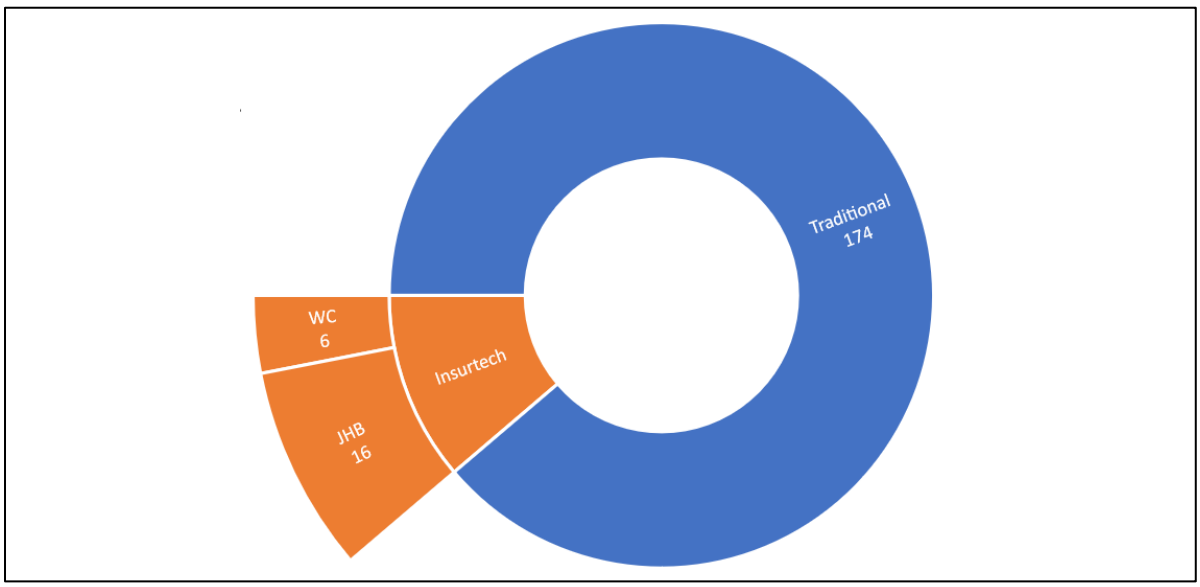

Figure 4: South African insurance landscape

All six insurtech companies in WC are SMEs. However, four SMEs were selected in this study, representing 67% of all the insurtech companies in the WC and 27% of all insurtech in South Africa. Notably, not all 22 insurtech companies in SA are SMEs.

The target person for each company was someone who worked in project delivery – preferably a project manager if the title existed in the SME. Ideally, this was the person who was close to project delivery. The unit of analysis was at the sector level (insurtech), and the unit of observation was at the organisational level. See Table 16 below for a description of the case.

Table 16: Description of case, unit of analysis, and unit of observation

Item	Description	Notes
Case	Insurtech SMEs in Western Cape (WC), South Africa	Four WC insurtech SMEs were selected, representing 67% of all WC insurtech, and 27% of all insurtech in SA
Unit of analysis	Sector level	Insurtech sector
Unit of observation	Organisational level	Four Individual SMEs

3.3.2 Semi-structured interview design

As mentioned earlier, this study uses semi-structured interviews as the method to gather data. A semi-structured interview is a hybrid between structured and in-depth interviews (Wahyuni, 2012). It uses predefined themes and questions (like in structured interviews) yet affords the respondent enough flexibility to talk freely about any topic raised during the interview (like in-depth interviews) (Wahyuni, 2012).

Bryman (2012) recommends using semi-structured interviews in the following cases:

1. If the researcher begins the research with a clear focus and wants to address specific issues instead of a general investigation.
2. If more than one person will be conducting interviews – to ensure comparability
3. If the researcher is conducting multiple case study research – to ensure cross-case comparability.

This study resembles point 1. Moreover, the choice of using semi-structured interviews is consistent with Turner & Ledwith (2018). They adopt a mixed-method approach by first conducting semi-structured interviews to identify the practices of SMEs. They then conduct web-based surveys to explore further the conclusions emerging from the interviews. As mentioned earlier, time constraints will limit the study to conducting semi-structured interviews only.

The semi-structured interview for this study was into four discussion areas – each with an objective that will contribute to building a picture of the data and help address the research questions (See Appendix A for interview schedule). The four discussion areas are:

1. **Respondent experience:** Understand the experience of the respondents, which will help contextualise their knowledge and perceptions.

2. **Company background:** Get general information about the company like size, number of employees and core business. This information will help categorise the SME And contextualise the practices.
3. **Respondent knowledge and perceptions:** Gain insight into the respondents' perceptions and knowledge of project management – which will help contextualise their answers to the following discussion area.
4. **Company project management practices:** Understand the company project management practices. This discussion area links directly back to the research question and objectives.

3.3.3 Data collection and analysis

The semi-structured interviews were conducted and recorded online via Microsoft Teams on the 20th November 2020 (SME A) and 15th December 2020 (SME B and C).

The audio files were then anonymised with Audacity – a free and open-source audio editing and recording application. The anonymised audio files were transcribed with Otter.ai – an online speech to text application that uses artificial intelligence and machine learning.

The anonymised transcription files were then uploaded into NVivo, a software package that helps researchers organise, analyse, and gather insights from qualitative data. See Appendix B for the Anonymised transcription files.

The transcripts were then prepared by coding. A thematic analysis was then performed and analysed in light of the literature presented in Chapter 2 (See page 12). The thematic tree breakdown is shown below in Figure 5.

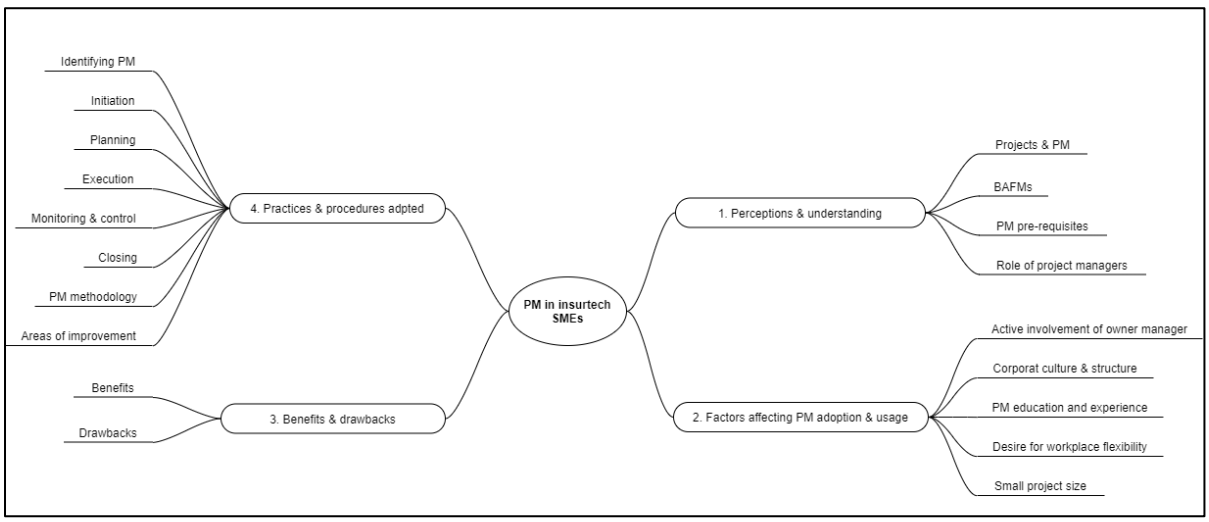

Figure 5: Thematic tree breakdown

3.3.4 Role of the researcher

While the author did ask clarifying questions, the author did not influence the respondents; and did everything to maintain ethical conduct during the study.

3.3.5 Limitations of the research

All research design has inherent limitations that may influence the outcomes and conclusions of the research (Bhattacherjee, 2012; Ross & Bibler Zaidi, 2019).

This study focused on four companies within the same industry and region, which poses generalisability issues for other industries and regions. The concentrated choice of companies may not offer a broad range of views on how South African SMEs practice project management. However, the concentrated selection of companies may offer generalisations on how insurtech SMEs practice project management in Cape Town.

In addition, the views expressed were from one person per company. However, in two of the SMEs, respondents were the only people responsible for project delivery.

3.3.6 Ethical considerations

The SMEs in the study all had public reputations to maintain. Care was taken to maintain the privacy and anonymity of the data.

Before collecting or analysisng any data, UCT's ethics in research process was followed to ensure that the study complied with the highest ethical standards in research.

In the context of this study, UCTs ethics in research process included the following:

1. Submitting a filled in Ethics in Research application form which included the following:
    a. The research proposal
    b. The proposed questionnaire for the semi-structured interviews
    c. The letter of consent that would be sent out to respondents
    d. An analysis of the ethical considerations of the study – which in this case involved how the data anonymisation was to be carried out.
2. Having the submission reviewed by the Engineering and Built Environment's Faculty Ethics in Research Committee.
3. Upon receiving an ethics clearance, each resepondent was sent a consent form, which asked for consent for them to participate in the research. The consent form emphasised the following:
    a. The purpose of the research and how the interview would be conducted

b. The respondent was free to refuse answering any question at any time
c. The respondent was entitled to seeing their transcribed or recorded intereviews
d. The interview data would be anonymised and all confidential information would be destroyed

The author carried out the research in such a way that:

4. There was no apparent legal objection to the nature or the method of research; and
5. The research did not compromise staff or students or other responsibilities of the University;
6. The stated objective was achieved, and the findings have a high degree of validity;
7. The limitations and alternate interpretations were considered;
8. The findings could be subject to peer review and are publicly available; and
9. The research complied with copyright conventions and avoided any practice that constitutes plagiarism

3.3.7 Credibility of research

Dependability: without giving away the respondent and SME identities, the researcher has adequately provided details of the phenomenon, its environment and the methodology to be independently authenticated by other researchers.

Credibility: the extensive literature review and method used as described above for data collection, transcribing of interviews, accurate record-keeping, and auditable data findings add to the credibility of this report.

Confirmability: refers to the extent to which the research report findings can be independently confirmed but others. Review of any of the data and transcription is possible on request.

Transferability: The author provides rich, detailed descriptions of the research context and thoroughly describes the structures, assumptions, and processes revealed from the data so that readers can independently assess whether and to what extent the reported findings are transferable to other settings.

Chapter 4: Data analysis and findings

4.1 Introduction

This chapter presents the research obtained during the data collection phase of the project. First, the chapter describes the case study chosen to assess the research, followed by the findings from the conducted interviews. Finally, an analysis was made, and the emerging themes from data collection were assessed, analysed and compared to the information discussed in the literature review.

This chapter has two parts:

1. **Case background and overview:** presents the general information of each company in the study.
2. **Emerging themes:** presents and discusses the themes and subthemes that emerged from the interview data

4.2 Case background and overview

As stated in Chapter 3, this study focuses on SMEs in the life insurance industry that operate primarily in the Western Cape province of South Africa. All the SMEs in the study are insurtech.

The target person for each company was a person who worked in project delivery –the person responsible for and close to project delivery.

4.2.1 Company overview

All the participating SMEs were in the financial services sector, with their primary business in the insurance industry – all insurtech. SME D was a subsidiary of a large enterprise bank listed on the Johannesburg Stock Exchange (JSE). Table 17 (below) summarises the company background information.

Table 16 (below) shows that all four companies qualify as SMEs according to the criteria adopted in chapter 2. SMEs A and D are medium-sized SMEs, while SME B and C are both small SMEs. Notably, while SME D had fewer than 250 employees, it did benefit from being wholly owned by a large enterprise.

Table 17: Interview results - company background summary

Item	SME A	SME B	SME C	SME D
Classification	SME - Medium	SME - Small	SME - Small[8]	SME - Medium

[8] Based on the number of employees only. The interviewer did not disclose the approximate turnover.

Inure-tech?	Yes	Yes	Yes	Yes
Head office location	Cape Town, SA	Cape Town, SA	Cape Town, SA	Cape Town, SA
Number of offices	2	2	1	1
Number of employees	60	42	29	237
Approximate annual turnover	R60 million (For 2020)	R13.4 million (For 2020)	Undisclosed	R2.2 billion (For 2020)
CIPC registration	2011	2011	2016	1992
Project-based?	No	No	No	No
Layers of staff	4	4	3	> 5
Typical project budget	Not tracked (R2 million)	Unclear	Not measured	R2– R5 million
Typical project duration	1 - 2 months (3months)	Unclear	1 – 6 months	24 months
Typical project team size	3 – 6 people (15 people)	2 people	6 people	15 people
Specialists involved in projects?	Yes	No	Yes	Yes
Typical reason for initiating projects:				
• Meet external requirements				●
• Stakeholder satisfaction		●	●	
• Business change				●
• Constant improvement	●	●	●	●
• Take advantage of opportunities	●	●		

Unlike the SMEs in literature, SMEs A and B have two office locations – one Johannesburg and one in Cape Town. With the onset of the COVID-19 pandemic lockdowns, all four companies adopted a fully remote working model. However, SME A and B both had remote work setups even before COVID-19.

4.2.2 Respondent overview

Table 18 (below) summarises the respondent information – one respondent per company.

Table 18: Summary of respondent background

Company	Respondent A	Respondent B	Respondent C	Respondent D
Education	• BSc Mechanical Engineering (Hons) - UCT • MBA - Kellogg University	• BCom (Hons) Marketing - Northwest University	• BSc computer sciences (Hons) – Wits University	• BCom (Hons) Business Management - Unisa
Previous Work Experience	• Mechanical Engineer • Management consultant • Founder and CEO	• Marketing assistant • Bond origination agent • Business owner	• Management consultant • Business analyst	• Administrator • Executive personal assistant • Project administrator
Total work experience	25 years	9 years	8 years	11 years
Gender	Male	Female	Female	Female
Joined company in	2016 (As CEO)	2013 (As account manager)	May 2019 (As a scrum master)	Johannesburg, SA
Current role	CEO and cofounder (5 years)	Account Manager (6 years)	Scrum master (2 years)	Project manager (5 years)
Project management experience	Approximately 5 years	Unknown	5 years	8 years
Industries	• Mining • Brewing • Financial services	• Financial services • Import/Export	• Information and Technology • Financial services	• Financial services
Project management education and certification	No	No	Certified scrum master	CAPM, PRINCE2, Project management (NQF level 5) Working towards PMP-CPM

4.3 Emerging Themes

4.3.1 Theme 1: SME perceptions and understanding of projects and project management

4.3.1.1 Understanding of projects and project management

All respondents (100%) understood projects, project management, and their differences. Three respondents (75%) identified projects as temporary endeavours with constraints and as a vehicle to drive change within organisations. Moreover, all respondents (100%) believed in the necessity of projects – with their main reasoning around achieving objectives within a specific timeframe.

Only one respondent (25%) identified the unique nature of projects, and none identified the value creation aspect that projects bring about.

Respondent C and D respectively defined projects as a *"translation of company goals defined by some sort of milestone or timeline or cost constraint"* and *"unique temporary endeavour [] with a defined start and a defined end [] that introduces change."* Respondent C acknowledged that projects have a finite duration, budget, and a common, defined goal.

Notably, two respondents (50%) confused projects with operational activities when asked to give examples of projects within their organisations. Respondents A and B respectively gave examples of *"open-ended"* and *"ongoing projects"* – in both cases, referring to projects that continue indefinitely.

When asked to define project management, all four respondents (100%) agreed that project management requires the planning and controlling of activities and resources. For example, respondent A defined project management as *"coordination of all the efforts and activities to make a project successful."* His description of project management revolves around timely delivery by properly sequencing the activities and managing the plan.

Two respondents (50%) agreed that project management involves ensuring that projects are delivered within budget, and only one respondent (25%) recognised the stakeholder management aspect of project management. Respondent C described project management as *"working closely with the team", "tracking progress", "understanding risks and constraints",* and *"managing stakeholder expectations and understanding".*

None of the respondents mentioned the "ensuring delivery within budget" aspect of project management. Moreover, none of the respondents mentioned that project management involves applying knowledge, skills and techniques.

While all respondents understood projects and project management, the discussion of success showed a lack of understanding. For example, three respondents (75%) confused project success and

project management success – they used the terms interchangeably. Respondent C, on the other hand, showed a better understanding of project success, which she described as *"whatever is agreed at the early stage of the project [-] it is different for every single project, [for example,] end-user satisfaction."*

Two respondents (50%) identified that a shared vision, strong communication and meeting the triple constraint contribute to project success. For example, respondent D described project success as having good *"communication [and a] shared vision among the project team."*

None of the respondents recognised stakeholder buy-in as a contributor to project success.

Table 19 below shows a summary of how the respondents defined projects, project management and success.

Table 19: Summary of what respondents understood as projects and project management; and its success

Item	Description	A	B	C	D
Projects	Temporary endeavour		●	●	●
	A unique product, service, or result				●
	Drive change	●	●		●
	Have constraints	●	●	●	
	Enable business value creation				
Project management	Planning and controlling resources	●	●	●	●
	Planning and controlling activities	●	●	●	●
	Ensuring timely delivery	●		●	
	Ensuring delivery within budget				
	Meeting stakeholder expectations			●	
	Applying knowledge, skills, and techniques		●		
Project success	Clarity around project objectives and vision	●			●
	Strong communication	●			●
	Choosing the right project team	●			
	Stakeholder buy-in on project plan and outcomes	●			
	Meeting the constraints		●		
	It depends on the project and its overall objectives (agreed upfront)			●	
	Satisfaction of end-user			●	
Project management success	Strong communication and reporting		●		
	Ability to manage timeline, dependencies, and progress (concerning the plan)	●	●		
	Clear, well-articulated planning	●			

Completing the project within constraints	●			●
Ensuring task and project completion		●		●
Meeting strategic objectives				●
It depends on the project and its overall objectives (agreed upfront)			●	
Satisfaction of end-user			●	

Discussion

The respondents had a basic understanding of projects and listed at least two project characteristics consistent with the literature. However, none of the respondents mentioned the value creation that projects bring about – which suggests that the respondents underestimate the value of management by projects.

This underestimation of value may stem from the project team not having sight of the derived benefits. The end result of many projects derive benefits long after the project team is (Turner, 2009).

This underestimation of value may also stem from a lack of relevant experience or education on project management (particularly for respondents A, B and C, who have no formal education in project management).

The lack of formal education in project management may also contribute to the confusion between projects and operations in respondents A and B. For example, they both described projects as "ongoing" or "open-ended." While they did not define these terms, they contextually implied that some projects could continue indefinitely with an indefinite scope. Of course, there is no doubt in the literature that projects are temporary and have defined scopes (PMI, 2017a).

In their description of project management, all respondents (100%) mentioned planning and controlling resources and activities. However, despite having three respondents (75%) that mentioned the constraint nature of projects, none of the respondents mentioned that project management involves ensuring delivery within budget. This omission suggests that managing the budget is unimportant or does not fall within the respondents' responsibilities. The lack of budget control is consistent with the literature (Abbasi & Al-Mharmah, 2000; Turner, Ledwith & Kelly, 2009). For example, Turner, Ledwith & Kelly (2009) show that only 25% of the European SMEs in their study utilise project control (which includes budget control). This lack of budgetary planning and control may stem from SMEs finding it difficult to estimate activity costs - which Abbasi & Al-Mharmah (2000) identify as the biggest obstacle in the efficient utilisation of project management. This difficulty in

estimating budgets is ironic for the SMEs in this study since they are all insurtech – they work with complex financial models.

Similarly, three respondents (75%) did not mention meeting stakeholder expectations in their description of project management. This omission suggests that stakeholder expectations may not be a priority in their SMEs – especially since most projects are internal and the stakeholder with the most influence is usually the owner-manager – who typically initiates the project.

Three respondents (75%) did not mention anything about project management concerning the "application of knowledge, skills and techniques." Whether intentional or not, this omission may suggest that the respondents view project management as a role that anyone could fill – even if they do not have training or formal education. Three respondents claim to have project management experience, despite no formal education, which also lends credence to this suggestion. Interestingly, respondent B (who has done some unofficial courses) recognises that project management involves applying skills. The recognition of skill would be more expected from respondent D (who has formal education in project management).

While the respondents generally understood projects and project management, they showed a lack of understanding of project success and project management success criteria. As mentioned earlier, de Wit (1988) distinguishes between project success (measured against the project's overall objectives) and project management success (measured against the triple constraint of time, cost and quality) (Cooke-Davis, 2002). However, none of the respondents clearly understood the differences between the two – they used both interchangeably to mean the same thing.

Two respondent descriptions each pointed towards one of Shenhar et al. (2001)'s project success dimensions. Respondent B described project success as "delivering on time and achieving (budgetary) targets," which resonates with the project efficiency dimension. Moreover, respondent C's description of "end-user satisfaction" resonates with the impact on the customer dimension. Respondent C also acknowledged that success is different for different projects – which resonates with Shenhar et al.'s (2001) emphasis that "one size does not fit all" when it comes to project success.

Since three respondents (75%) described delivering the project within constraints, arguably, when viewed under the lens of Shenhar et al. (2001)'s project success dimensions, the respondents' understanding of success is more project success biased.

Respondent A's and B's description of project success resembled competencies of a good project manager and not necessarily that of a successful project. For example, "strong communication" and

choosing “the right people on the project team” are skills that may be identified in good project managers (Radujković & Sjekavica, 2017).

From a project management success perspective, managing the timeline and completing the project within constraints were identified by 50% of the respondents. Interestingly all the respondents used the terms project success and project management success interchangeably to mean the same thing. This observation suggests confusion between the two – which may be understandable given the lack of project management education. Moreover, due to numerous models in the extant literature and the mutual relationship between project success and project management success, it is not easy to strongly differentiate the criteria between the two (Radujković & Sjekavica, 2017).

4.3.1.2 Familiarity with project management approaches, frameworks, methodologies (BAFMs)

Three respondents (75%) were familiar with at least one project management framework, body of knowledge, approach, framework, or methodology (BAFM). However, two of these three respondents showed possible confusion about what the PMBoK is – they thought it was an approach or methodology. Table 20 shows a summary of the responses.

Respondent A admitted that he had never used and did not know any BAFMs.

Respondent B was familiar with the agile methodology - she claimed to have done some unofficial online courses and read up on project management. Moreover, she showed some confusion as to what BAFMs are. She listed Gantt charts, CRM systems, and Kanbans as AFMs – which is incorrect – they are tools and not AFMs. Moreover, it is unclear whether she understands what the agile methodology entails.

Respondent C stated that she *“has worked with various different frameworks and processes [including] PMBoK and PRINCE2.”* Moreover, she was a certified scrum master. Despite not having certifications from PMI or PRINCE2, she claimed to have used these resources at the beginning of her career. It is unclear whether she understood that the PMBoK is a guide to the body of knowledge and not an approach like agile and PRINCE2.

Respondent D was familiar with three BAFMs. She stated that she was familiar with *“traditional waterfall, which [she learnt] in a number of project management training initiatives.”* She also mentioned her familiarity with *“the more flexible, agile methodologies [like] scrum [] and Kanban.”* Moreover, she had a PRINCE2 certification.

Respondent D, who had the most project management education and direct experience, was familiar with all four BAFMs.

Table 20: Respondent familiarity with project management bodies of knowledge, approaches, frameworks, and methodologies (BAFMs)

Project management body of knowledge, framework, or methodology (BAFM)	A	B	C	D
Agile methodologies		●	●	●
PRINCE2			●	●
Waterfall				●
PMBoK			●	●

Discussion

Both respondents C and D were aware of more BAFMs and happened to be the more "educated" in project management – with both having certifications. This awareness suggests a correlation between project management education, experience, and knowledge of BAFMs. However, the extent of the respondent's BAFM knowledge and experience was untested.

Unsurprisingly, agile methodologies, PRINCE2 and PMBoK were identified the most. The literature shows that PRINCE2 and PMBoK are the most widely used BAFMs (Chin & Spowage, 2012; Karaman & Kurt, 2015). Moreover, in technology, agile methodologies are prominent. Although the companies are not in the technology sector per se, they are insurtech, which means that technology forms a substantial part of their operations and processes.

4.3.1.3 Perceptions on prerequisites to project management

Two respondents (50%) believed that SMEs have no pre-requisites to start using project management. The other two (50%) believed that there are pre-requisites to using project management.

Respondents B and C respectively stated that *"anyone can use [project management]" and "even if a company is one person, [there are] definitely principles from project management that are useful."*

At first, respondent A started with *"no, I do not think so"* when answering whether there are any requirements for SMEs to start using project management. After a while, however, respondent A expressed his belief that companies at least require *"someone [] capable of thinking logically and coordinating."*

Respondent D mentioned two primary prerequisites to using project management. Firstly, the company needs to *"sell"* project management to its employees by emphasizing the *"benefits it will bring to the company."* Secondly, it needs to select an approach to project management that *"complement[s] the change [that the organisation is trying to deliver]"* and sits well with employees.

That is, the company should consult the employees on which approach is *"best for the business"* since they will be using the approaches.

Discussion

Two respondents (50%) believed that there are prerequisites to practising project management. Respondent A's prerequisite entails having the right person. Conversely, respondent D's prerequisite centres around getting buy-in from employees and selecting an appropriate approach that resonates with the SME. This second requisite of having an appropriate approach resonates with Thomas & Mullaly (2008b). They argue that organisations need approaches tailored to their projects and organisations to obtain value from project management. However, for Thomas & Mullaly (2008b), this alignment is a prerequisite for obtaining value from project management and not necessarily for practising it.

The other two respondents (50%) believed that no prerequisites are necessary for SMEs to practice project management. Whether they believed that SMEs could obtain value from any practices is unclear.

4.3.1.4 Perceptions on the role and necessity of project managers

All respondents (100%) believed in the necessity of project managers – and had a generally positive sentiment towards project managers – none mentioned reasons against using project managers in SMEs. Three respondents (75%) highlighted the accountability that project managers bring to projects. Moreover, three respondents (75%) believed that SMEs should hire project managers when the SME starts growing and no longer has the internal capacity to manage projects.

The most common role of the project manager (provided by three respondents - 75%) revolved around tracking and evaluating the project's progress by managing the team, budget, schedule and scope. Moreover, two (50%) respondents believed that the project manager is partially accountable for a project's success or failure.

All respondents (100%) believed that communication and people skills make a project manager successful. However, none of the respondents mentioned education and experience when describing a successful project manager.

Table 21 (below) summarises the respondents' perceptions of a project manager's.

Table 21: Respondent perceptions on the role, characteristics, and necessity of a project manager

Item	Description	A	B	C	D
Role of project manager	• Plan the project (create project plan; assign tasks)	●	●		
	• Track and evaluate progress (manage budget, schedule, team, scope)		●	●	●
	• Deliver the end goal within budget, time, scope				●
Accountability of project success or failure	• Partially accountable	●			●
	• Fully accountable		●		
	• No answer			●	
Reasons for project manager	• Brings accountability to projects	●		●	●
	• Brings structure to projects		●		●
	• Better coordination of activities and people	●			●
Reasons against Project manager	• None	●	●	●	●
Characteristics of a successful project manager	• Communication	●	●	●	●
	• People skills	●	●	●	●
	• Conflict resolution ability & courage	●		●	●
	• Problem-solving	●			●
	• Business domain context			●	
	• Bringing teams together (around the project objectives)			●	●
	• Ethical			●	
	• Discipline	●			
	• Experience				
	• Education				
When should an SME hire a project manager?	• When projects become complex (and cross-functional)	●			●
	• When SMEs can afford to	●			
	• When SME grows or does not have enough internal capacity to manage projects		●	●	●
	• When SME undertakes projects for external clients		●		

Respondent A viewed the project manager as someone responsible for *"pull[ing] together the plan"* by *"coordinat[ing] the inputs from multiple areas."* He believed that project managers are necessary for SMEs because they *"bring accountability"* to projects and are a "*key component of the success [or failure] of a project.*" He believed that what the project manager does is *"an art."*

Respondent B viewed the project manager as the person who *"allocates tasks"* and *"tracks and evaluat[es] progress on [] projects."* She did not mention whether the project manager is fully responsible for the success of projects or not. However, she believed that project managers are necessary because they bring *"structure and help teams understand [their project] responsibil[ities]."*

Respondent C believed that the project manager's role entails managing a "projects timeline, milestone [] budgets, [] scope or goal, [] and team." She also believed that project managers are "fully accountable" for the success or failure of a project.

Respondent D stated that the *"project manager coordinates resources and people to deliver an end goal within a defined timeline, [] budget, [and] scope."* She believed that project managers are necessary because they offer a *"more structured and disciplined approach to delivering mass change."* Moreover, project managers are *"partially accountable for the success or failure of the project."*

Respondent A believed that successful project managers are good *"communicators"* with *"problem-solving"* abilities and *"good people skills."* He also believed that successful project managers are logical, quantitative, disciplined and courageous enough to deal with different stakeholders – especially when the project is behind.

Respondent B believed that a successful project manager exhibits *"strong communication and people skills."*

Respondent C believed that successful project managers are good communicators, *"comfortable working with people,"* and resolve conflicts. She also adds that having a good business domain context is essential. Moreover, a successful project manager should be able to *["transparently] provide single visibility [and] organise teams [around project objectives]."* She does not mention "ethics" – she implies it by saying that a project manager should provide transparency on where the project is.

Respondent D describes an effective project manager as *"an effective communicator [] who is able to bring people together [and exert] high influence"* to deliver projects. Moreover, successful project managers are *"good with people, [] good problem solver[s] [and are able] to navigate difficult situations."*

Each respondent had a different view on when an SME should hire a dedicated person to manage projects.

Respondent A believed that SMEs should hire a project manager upon satisfying two conditions: (1) when the SME can afford to, and (2) when the SME undertakes cross-functional projects.

Respondent B also had two conditions that necessitate an SME hiring a project manager: (1) when the SME does projects for external clients and (2) when the SME does not have the internal capacity to manage projects.

Respondent C had a slightly different philosophy. She believed that SMEs should consider hiring a project manager when employees *"no longer manage all of the work [they] have to do with management responsibilities added to it."* She suggests that employees naturally take on some amount of project management responsibility in addition to their functional duties. Once the employees can no longer manage these extra duties, it is time to get a person to take up these duties full-time.

Respondent D believes that a company should consider hiring a project manager *when "there is a lot of complex change [the company] needs to deliver"* or when the company *"starts growing [into a] large organisation*" and has *"very big strategic goals."* The point at which an SME Becomes large is unclear.

Discussion

The respondents had a narrow view of project managers because they perceived the role to centre around planning, assigning tasks and monitoring progress against the plan. From a planning perspective, the respondents identified breaking down the work, scheduling it and assigning it. The general bias towards planning could be a result of the SMEs being more planning oriented. The literature shows a higher proclivity towards planning when compared to other project management practices (Abbasi & Al-Mharmah, 2000; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2009) – which is evident in the respondents' understanding of the project manager's role. Moreover, Bresner & Hobbs (2006) show that project managers are most involved in the project's planning phase, followed by the execution and finalisation phases. The closing off phase has the least project manager involvement (Bresner & Hobbs, 2006).

None of the respondents mentioned anything related to initiating the project, closing the project, and selecting or managing the project team, which also suggests a narrow understanding of project managers and the role they fulfil.

The respondents' perceptions on what project managers do may stem from how *"project managers"* within their small enterprise function and the fact that the "project managers" do not hold official project manager titles (except for SME D). For example, the project manager's role in SME A mostly focused on putting the plan together and managing the activities against the plan. The project

manager of SME A did not work with budgets and did not directly lead or control the project members who undertook the work.

However, despite the respondents' narrow view on the role of project managers, two respondents recognise that project managers are partially (and not wholly) responsible for project success or failure. This recognition agrees with Loufrani-Fedida & Missonier's (2015) idea that project managers should not be viewed as heroes and are not wholly responsible for project success or failure. Moreover, organisations have an essential role to play when it comes to contributing to project success.

The principal reason for using project managers is their accountability on projects, followed by the structure and coordination of activities and resources. For resource-constrained SMEs with an unclear division of activities and roles, these benefits make sense for SMEs. Interestingly, none of the respondents provided reasons against hiring or using project managers, which suggests that they see value in project managers and their skillset to organisations. In contrast, Sdrolias et al. (2005) identify high cost (associated with hiring project managers) as a significant obstacle towards practising project management in Greek SMEs.

On the characteristics of project managers, all respondents identified successful project managers with good communication and strong people skills, which is somewhat intuitive given the nature of what the project manager has to do. These characteristics fall under the behavioural category in Do Vale, Nunes & De Carvalho (2018)'s list of project manager competencies (See Table 12 on page 44). However, the top three competencies in the list are leadership, organisational context, and technical product knowledge. Moreover, communication ranks 7th and the qualities that resemble "people skills" like emotional intelligence, influence, sensitivity, rank 14th, 18th, and 31^{st,} respectively. Thus, arguably, the respondents underestimate the benefits of employing full-time project managers.

Notably, none of the respondents mentioned education and experience as aspects contributing to successful project managers. In Do Vale, Nunes & De Carvalho (2018)'s study of 843 project management job ads, 64% required prior project management experience. Moreover, 30% required PMP certification and 24% required graduate degrees in project management. The respondents did not mention experience and education may suggest a prevalence of accidental project managers.

The last section of this theme explored respondents' perceptions on factors that dictate when SMEs should hire full-time project managers. Three respondents (75%) identified personnel constraints attributed to SME growth, and two respondents (50%) identified project complexity. These factors centre on the "state of the company." For example, when the company does not have enough internal

capacity, when the company can afford to, and when the company starts undertaking complex projects. In contrast, Buckley (2018)'s recommendations on when to hire full-time project managers centre on poor project performance – for example, when:

- Teams are struggling to meet deadlines
- The organisation is experiencing financial losses in projects
- The organisation is facing severe disagreements on how how to g about doing work

However, as shown by Turner, Ledwith & Kelly (2009), bigger SMEs have a higher likelihood of having full-time project managers. The bigger SME (D) had a full-time project manager under its employ, and the other SMEs did not, which agrees with Turner, Ledwith & Kelly (2009).

4.3.2 Theme 2: Factors that may affect the adoption and usage of project management in SMEs

4.3.2.1 Active involvement of owner-manager

Three SMEs (75%) had actively involved founders serving as CEOs of their respective SMEs at the time of interview. Moreover, all three owner-managers (75%) were influential in their SMEs' management and direction of projects. However, the largest SME (D) did not have an owner-manager.

All SMEs (100%) had owner-managers or senior executives who endorsed and had positive perceptions on the use of project management.

Discussion

The active involvement of the owner-manager agrees with the consensus in the literature (Murphy & Ledwith, 2007; Pennypacker & Crawford, 2002; Pollack & Adler, 2016; Sdrolias et al., 2005). For example, Murphy & Ledwith's (2007) survey of 200 European SMEs shows that owner-managers have more influence on projects than project managers and functional managers. As previously mentioned, one of the main barriers to adopting project management in SMEs is the influence of the owner-manager (Pennypacker & Crawford, 2002) – particularly if the owner-manager has negative perceptions or disinterest (or both) in project management.

Fortunately, the respondent data suggests that the owner-managers of SMEs (A, B, and C) endorsed and had positive perceptions of project management. Moreover, the executives of SME D also endorsed project management.

In addition to affecting the adoption of project management, the owner-managers may also influence the way SMEs practise project management – which includes everything from the selection of approaches, frameworks, and staff members to the selection of tools (Pennypacker & Crawford, 2002; Pollack & Adler, 2016; Sdrolias et al., 2005). This was certainly the case with SME B and C. For example, The owner-manager of SME B often advised and assisted the team and respondent B on how to run projects. Respondent B said that the owner-manager *"takes the time to talk [] about what he thinks about project management and how he sees [the team] implementing it.*" Moreover, the owner-manager of SME B gave *"guidelines and a structure on how he would like to see it."*

Respondent C mentioned that the owner-managers of SME C *"work[ed] very closely with the [project] teams."* Moreover, the owner-managers had a great deal of influence on projects. However, it is unclear as to what extent the owner-managers influenced the project management practices.

Based on the findings, it is recommended that simpler versions of project management consider the owner-managers influence. For example, SME versions of project management should be simple enough for owner-managers to understand and good enough to earn their buy-in.

4.3.2.2 Corporate culture and flat organisational structure

Three SMEs (75%) had relatively flat organisational structures with four layers of staff and decision-making power concentrated in the first two layers. The same three SMEs (A, B and C) had organisational cultures synonymous with the literature's SME corporate culture. SME A and C both had a strong sense of purpose. Their employees felt *"committed to"* and were *"driven by"* the company's vision and purpose.

SME A, B and C all had cohesive and collaborative environments. The respondents used words like *"gel"*, *"collaborative", "cohesive",* and *"caring"* to describe the fact that the employees at their SMEs generally got along well. Moreover, the founders of each company were actively involved in running their companies and were easily accessible by their respective employees.

The staff responsible for managing and doing the project work in companies A, B, and C were all level three staff.

One SME (25%), the largest in the dataset (SME D), had more than five layers of staff. SME D's culture was described as *"nurturing [] but also not very flexible."* It had *"too much red tape [,] is very regulated [,] very traditional [and] is the opposite of progressive."*

Discussion

Aside from SME D, all SMEs exhibited a relatively flat organisational structure with few layers of staff – which agrees with the literature (Ghobadian & Gallear, 1997). The layers of staff (in companies A, B and C), in order of decreasing authority, were:

1. Founder(s)
2. Heads (or executive committee members)
3. Staff members working under each head
4. Call centre staff (For SME A and B)

Although the call centre staff had the lowest authority in the SMEs, they reported to their head – who sat in the executive committees. Thus, effectively, one could consider the call centre staff "level 3" staff since none of the level 3 staff had people reporting to them. Moreover, level 4 staff reported into their respective heads – just like the level 3 staff.

Essentially, the decision-making power was concentrated on the founders (or owner-managers) and the various heads or executive committee members (layers 1 and 2) – who had a great deal of influence on projects. This concentration of power or the limited number of decision-makers is characteristic of SMEs (Ghobadian & Gallear, 1997).

This flat organisational structure with a few concentrated decision-makers agrees with the literature (Ghobadian & Gallear, 1997) and may affect how projects are managed in three ways.

Firstly, the "project managers" may have the same authority as the project team – which may cause conflict if the "project manager" tries to assert authority over the team. In SME A, B and C, the people responsible for managing projects were in layer 3, along with project team members who typically executed tasks.

Secondly, the relatively flat organisational structure may decrease the formality and rigour of project reporting. The project manager and project team are all in one organisational layer, and for reporting purposes, the executive committee is on another reporting layer. So, the reporting is just for one layer above (from layer 3 to layer 2).

Finally, the flatter organisational structure may speed up decision-making processes within projects since the decision making is concentrated in the executive layer (which includes the founders). This concentration and speed of decision making are shown in the literature (Ghobadian & Gallear, 1997).

Organisational structure has a mutual relationship with organisational culture – organisational culture legitimises decision making and behaviour, while organisational structure institutionalises the culture (Janićijević, 2013).

When assessing the culture of the SMEs, the most pertinent characteristic across the three smaller SMEs (A, B and C) was the easily accessible owners. Any staff member in the SMEs could easily access the founder(s) – which is also a characteristic of culture and a consequence of the flatter organisational structure. Moreover, all three SMEs exhibited a relaxed and flexible environment that valued autonomy. People had the liberty to do things in ways that suited them – which may have a downstream effect on the SME adopting project management practices. Moreover, this relaxed and collaborative environment may affect the way projects are managed. For example, project reporting and meetings may be less formal if people are constantly collaborating and in the loop with what is happening.

The cohesive and collaborative environment (in SMEs A, B and C) may be valuable. For example, it could potentially disarm conflicts stemming from the "project manager" trying to assert authority over project team members on the same organisational layer.

For the more mature SME (D), there were more layers of staff (greater than six), which makes sense given the relative size of the company (237 employees). More layers of management may require more formal and rigorous reporting, better stakeholder management, and slower decision making. Interestingly, respondent D's description of the culture resembled that of LEs instead of SMEs. This LE type of culture could be due to the relative size of the organisation (employee count and revenue) and the influence that the parent company (an LE) exerts on the SME. As shown by Turner, Ledwith & Kelly (2010b), medium-sized SMEs need more formal processes than micro-sized firms. LEs require even more formal processes. Interestingly, SME D is 13 staff members away from being considered an LE.

4.3.2.3 Project management education and experience

All four respondents (100%) had experience in project management and stated that their experience contributed to their adoption of project management and how they practised it. However, only two respondents (50%) had formal education or certifications in project management, and only one respondent (25%) had an official project manager title. Table 22 (below) summarises the responses on experience and education.

Respondent A and B both had no formal education or certifications in project management. However, respondent B stated: *"I did not study any project management courses. [] I have done a few online seminars, and "I have read up a lot about it."*

Notably, respondent A had the most project management experience. Ten of his twenty-five years' work experience had a strong project management focus. He mentioned that his experience is not *"as people think of it as like a project manager on IT teams, but [he] do[es] have quite a bit of experience in managing projects and making sure that [] objectives are achieved [] in time [and] on budget."*

Respondent C had a scrum certification and mentioned that she *"picked up a lot of [her] knowledge on project management"* at her first place of work – which subsequently *"played a big role in the way [she] managed projects."* However, she mentioned that she *"never really held a project manager position even though [she] worked like one."*

Respondent D had certifications in PRINCE2 and CAPM (PMI's Certified Associate in Project Management). At the time of interviewing, the CAPM certification expired. During her role as a project administrator, respondent D's exposure to projects influenced her. She stated that her *"exposure to projects definitely got [her] more interested and had an influence on the way [she] practised."*

Respondent D planned *"to do [her] PMP in the new year [2021],"* while the other respondents showed no desire to further their project management education via formal channels and certifications.

Table 22: Summary of responses on experience and education

Item	Description	A	B	C	D
Certifications	• PMP (Project Management Professional)				
	• CAPM (Certified Associate in Project Management)				●
	• Scrum			●	
	• PRINCE2 (Projects In Controlled Environments)				●
Education	• Has formal project management education				●
	• Has done informal learning on project management		●		
	• Plans to further project management knowledge through formal education or certification				●
Experience	• Has project management experience	●	●	●	●
	• Currently or previously held the project manager title				●
	• Experience contributed to the adoption of project management and influenced the way they practised	●	●	●	●

Discussion

The results show the importance of prior experience in adopting and shaping project management – particularly in SMEs. All respondents have prior experience in project management, which may influence their perceptions of project management. The literature shows that an unfavourable perception is one of the barriers to project management adoption (Thiry & Duggal, 2005; Thomas et al., 2000; White & Fortune, 2002). Moreover, SMEs tend to value experience and education – based on job advertisement requirements (Do Vale, Nunes & De Carvalho, 2018). For example, Do Vale, Nunes & De Carvalho's (2018) study of 843 job ads in Brazilian SMEs shows that 64% and 24% of SMEs required project management and education in project management.

Having education and experience in project management may lead people to understand better the value of project management, which may positively influence its adoption (Burgan & Burgan, 2012; Thomas et al., 2000).

The employees who "managed" projects in three SMEs (A, B and C) had project management experience yet did not have official project manager job titles. This finding suggests that their roles were not clearly defined – which is consistent with the literature's description of SMEs lacking clearly defined roles for employees (Ghobadian & Gallear, 1997). These employees managing projects without formal training or certifications could also be a case of the accidental project manager. The literature shows that in non-project intensive industries, there is a higher prevalence of accidental

project managers (Darrell, Baccarini & Love, 2010). However, the insurance industry is a project-intensive industry (Hodgson & Cicmil, 2006; Kate, 2014; Project Management Institute, 2017a; Project Management Institute, 2021). Moreover, as shown by Turner, Ledwith & Kelly (2009), smaller SMEs are less likely to employ full-time project managers.

Three respondents (75%) showed no desire for getting further certifications or education in project management. Arguably, they may not need to because they did not have official "project manager" job titles. Moreover, as CEO, respondent A may not need to. Do Vale, Nunes & De Carvalho's (2018) study shows that education is only a requirement in 24% of Brazilian SME project manager job advertisements. On the contrary, experience is a requirement in 64% of advertisements. This lower emphasis on education suggests that education is not as crucial as experience.

Respondent A and B's lack of education in project management may influence their perceptions and knowledge about project management – potentially in a negative light because they will not be fully aware of the benefits of project management. However, their experience may compensate for their lack of project management education.

4.3.2.4 The desire for workplace flexibility

Three respondents (75%) were dissatisfied with work in large enterprises. They were particularly dissatisfied with the lack of flexibility and long working hours that are characteristic of LEs.

Two respondents (50%) mentioned the *"long working hours,"* and one respondent (25%) alluded to it. Respondent B did not explicitly mention long working hours, but she did say that the corporate environment she was in was *"very strict"* – resulting in strict monitoring of her hours. Moreover, after moving to a service provider for an LE, a regulation change required her to work from the office of the LE instead of home. Unwilling to give up her home working situation, she quit the job and started her consultancy.

Respondent C mentioned not having sight of the impact of her work. She felt like she was bouncing around, undertaking projects for multiple companies, but she did not feel like she was "*contributing to the company's success"* – despite making good revenue.

Discussion

Respondents A, B and C showed an aversion to rigidity and a desire for flexibility in work hours and location.

Respondent A also showed an aversion to rigidity. In his case, he quit his role as CEO of the LE, which grew from SME under his leadership. He quit because he felt *"like an employee"* and felt unable to do *"the entrepreneurial stuff [he] wanted to do."*

The lack of flexibility, bureaucracy, and the inability to see the direct impact of their work may result in employees' dissatisfaction with large enterprises. Consequently, this dissatisfaction may push employees from LEs to SMEs – which the literature shows is more flexible and less bureaucratic. In addition, this push from LEs to SMEs may cause a transfer of skills that may affect the adoption of project management and the way SMEs practise project management.

Moreover, this desire for flexibility should be considered when developing simpler versions of project management for SMEs – they should be flexible and non-bureaucratic – as suggested by Turner, Ledwith & Kelly (2010b). Notably, traditional project management has been criticised for having bureaucratic processes (Turner, 2008; Turner, Ledwith & Kelly, 2010b).

4.3.2.5 Small project size in SMEs

Three SMEs (75%) had projects that lasted less than six months. Table 17 (on page 61) shows the typical project characteristics of the companies in the study. All four SMEs (100%) started projects for constant improvement. Moreover, two SMEs (50%) also initiated projects to satisfy stakeholders – respondents from both companies mentioned their intent on *"satisfy[ing] customers."*

SME A typically did not "set up [or track] formal budgets for internal projects." Moreover, projects had 3 – 6 members and lasted about 1 – 2 months. However, SME A's external projects were bigger – with more staff, longer durations and a higher budget. Respondent A stated: *"we use formal project management, whether it involves projects with third parties or for third parties."*

For SME B, it was unclear whether they set up and tracked project budgets or not. Respondent B described the typical project budget as *"a revenue of 1.5 million on average for account managers",* translating to *"3.5 million a month"*. Even after trying to clarify, respondent A remained confident that this figure is for projects.

SME C did not set up project budgets. Respondent C stated: *"budgets aren't really defined by cost, but more by time"* because *"we're still in a start-up phase where we're supported by investors."* SME C's project teams have a maximum of 6 people.

SME D, the larger SME, had bigger and longer projects.

Discussion

The results suggest somewhat of a correlation between SME size and project size – which is consistent with the findings of Turner, Ledwith & Kelly (2009). The larger SME (D) had bigger and longer projects than the smaller SMEs. On the other hand, the SME projects in SMEs A, B and C had smaller teams (maximum six people), shorter durations (no longer than six months) and typically did not set up or track project budgets. These characteristics may have a bearing on the type of project management practices the SME chooses to adopt. As expected, SME D had bigger projects with more staff and longer durations.

Unfortunately, the respondent data did not reveal the average annual expenditure on projects. In the literature, SMEs spend approximately 30% of their revenue on projects – which is relatively more significant than LEs, who spend approximately 5% (Turner, Ledwith & Kelly, 2009).

Respondent B's use of the words *"monthly"* and *"revenue"* sounded like the quoted figure represented an operational instead of a project budget – especially when considering the company's revenue was R13.5 million per annum. A budget of R3.5 million per month would amount to R42 million per annum – far greater than the stated R13.5 million.

When assessing reasons for starting projects, unlike SME D, none of the SMEs mention business change and meeting external requirements as reasons for initiating projects. Notably, insurance is a highly regulated industry and as such, meeting external requirements is vital to remain regulatorily compliant.

Sdrolias et al. (2005)'s study of Greek SMEs shows that sales and product development are the main reasons SMEs initiate projects. These two reasons fall under the constant improvement category in the PMBoK's (PMI, 2017b) list of why organisations initiate projects.

4.3.3 Theme 3: Benefits and drawbacks that SMEs experience on using project management

4.3.3.1 Perceptions of project management: Benefits

All respondents (100%) had a generally positive perception of project management and believed that project management is necessary. A common thread among all respondents regarding the necessity of projects was that project management is a way to deliver the project. Without it, people would not know what to do, and projects would not get delivered.

The three main benefits of project management, each identified by two respondents, are: (1) increasing the chance of project success, (2) increasing the return on project efforts, and (3) increasing accountability. The other benefits were only identified by one respondent (25%).

Table 23 summarises the respondent's perceptions of the benefits of project management.

Table 23: Respondent perceptions on the value of project management to enterprises

Benefits of project management	**A**	**B**	**C**	**D**
Increase the chance of project success	●	●		
Increase return on effort; productivity, speed	●			●
Better internal communication	●			
Increase accountability	●		●	
Increase task prioritisation		●		
Alignment of projects with strategy		●		
Improve risk management		●		
Track progress			●	
Deliver change and continual improvement				●

Respondent A believed that project management increases the chance of project success and the return on effort. Without project management, the efforts in a project would be wasteful and not have a good chance of making the project succeed – especially in SMEs, which are typically resource-constrained. Respondent A also believed that project management improves internal communication and ensures people are *"pulling their weight"* and are accountable for tasks and actions that fall into their areas of responsibility.

Respondent B believed that project management increases the chance of project success by increasing the likelihood of delivering the result. Moreover, she believed that project management helps companies align projects and business strategies; it helps with risk management by selecting strategically safe projects. Finally, she believed it helps with task prioritisation which can help achieve the project objectives sooner.

Respondent C believed that it improves accountability and helps track progress towards the project goal.

Respondent D believed that project management helps deliver change and operate faster while maintaining control.

Discussion

The three main benefits (in Table 23) agree with Sdrolias et al. (2005), who show that project management's main benefit in Greek SMEs is cost reduction and quality improvement. Sdrolias et al. (2005) also mention schedule management as one of the main benefits of project management. Conversely, none of the respondents in this study mentioned "schedule management."

However, two and one respondent respectively identified the benefit of increasing project speed and tracking progress. These two benefits arguably contain aspects of schedule management.

Mapping the respondent responses in Table 23 against the project management value matrix (See Table 9 on page 29) offers insight into what the respondents perceive as value in project management. Table 24 below shows the four quadrants of project management value with the responses.

All respondents had a limited, short-term view of the value of project management. They only perceived some of the internal values of project management – mostly around improving effectiveness, productivity, and performance.

These results also show agreement with Kerzner & Saladis' (2009) suggestion that companies typically time their values from Internal to Financial (V1 – V4 in Table 23). The SMEs in this study were relatively young and were arguably still focusing on replicating their internal success. The fact that none of the respondents mentioned the project management values in the other three quadrants (V2, V3 and V4 in Table 23) supports this idea. Moreover, Sdrolias et al. (2005)'s study of Greek SMEs shows that sales and new product development are the main reasons for initiating projects. These reasons fall under the continuous development category in the PMBoK (PMI, 2017b) – which also lends credence to the idea that SMEs are more focused on replicating internal success.

The fact that none of the respondents identified values in other quadrants suggests one of two things: (1) Either they do not know of the value of project management in other quadrants, or (2) they do not think it has more value than what they mentioned. Based on their relatively basic understanding of project management and their generally positive sentiment towards it, the latter sounds more plausible.

While all respondents see value in project management, their perception of value is only a fraction of the touted value that the literature portrays. Consequently, there is an opportunity to increase the perception of project and project management value in SMEs.

Table 24: Respondent perceptions on the value of project management

V4. Financial values	A	B	C	D
Improved margin and profitability				
New product success				
Growth and improved market share				
Return on investment				
Improved margin and profitability				

V3. Future values	A	B	C	D
Future preparedness				
Competitive advantage				
Facilitates organisational learning				

V1. Internal values	A	B	C	D
Productivity and performance improvement	●	●	●	●
Effectiveness	●	●		●
Better internal communication	●			
Increased motivation for project personnel; better work/life balance				
Improved organisational culture				
Improved risk management		●	●	
Better prioritization of investments				
Alignment of projects with strategy		●		
Continuous improvement				●

V2. Customer values	A	B	C	D
Reputational integrity and repeat business				
Better client communication				
Client satisfaction				

4.3.3.2 Perceptions of project management: Drawbacks

Despite having a generally positive perception of project management and its necessity, all respondents (100%) perceived some drawbacks on project management, as shown in Table 25 below.

The main drawback identified by two respondents (50%) was micromanagement.

Table 25: Respondent perceptions on drawbacks of project management

Project management drawbacks	**A**	**B**	**C**	**D**
Bureaucracy	●			
"Micromanagement"	●		●	
"Time-consuming without the right tools"		●		
"Internal disruptions if no buy-in on tools"		●		
"Losing sight of the bigger picture"			●	
"Illusion of control"				●

Respondents A and C both believed that project management can lead to micromanagement when the team breaks down the tasks into *"too much detail"* and results in what respondent C described as *"focusing on the wrong thing."* Respondent A added that teams can sometimes spend so much time in project meetings that it *"takes as many hours getting the work done."*

Respondent D mentioned that one of the drawbacks of project management is the *"illusion of control,"* which she described as classifying an operational initiative as a project. That is, the initiative has a *"start [date] but never seems to end – [it] morphs into BAU [business as usual]"* Moreover, these initiatives have an assigned project manager, which gives the SME a false sense of control over an operational activity that was erroneously classified as a project.

Discussion

Some of the drawbacks in Table 25 look similar to the typical characteristics of LEs. For example, LEs are bureaucratic and have rigid processes and structures. Moreover, the result of people's endeavours is usually not visible, leading to them losing sight of the bigger picture. LEs also have a high resistance to change, so if there is insufficient buy-in, it may cause internal disruptions when trying to adopt something new.

These drawbacks suggest that the respondents' negative perceptions of project management may have been shaped by their project management experience in large enterprises – which all respondents have. In addition, their project management practices (as presented in the next section) show that their SMEs' project management practices are basic compared to LEs in the literature.

Moreover, the drawbacks may not necessarily be drawbacks per se; they could be examples of what happens with inadequate project management or reflect the organisational culture. For example, having internal disruptions when trying to bring about change may signify the organisation's resistance to change and not necessarily a drawback of project management.

Unlike the findings of Sdrolias et al. (2005), none of the respondents perceived project management as expensive or difficult. On the contrary, respondent C believed that *"project management can be performed by any members of the team."* In addition, respondent A acknowledged that SMEs have resource constraints but did not see it affecting their capacity to implement project management.

While three respondents (A, B and C) acknowledged the influence of the owner-manager on project management, none of them saw this as a drawback. Based on the involvement and support of the owner-managers, it is safe to assume that they have a positive perception of project management.

Sdrolias et al. (2005) mention other drawbacks to project management adoption in SMEs. For example, unfavourable perception, personnel shortages, technical immaturity, and the unsuitability of "traditional" project management. However, none of the respondents highlighted these aspects.

4.3.4 Theme 4: Project management practices and procedures in SMEs

The SMEs in this study had simple project management practices.

4.3.4.1 Identifying project management practices

Table 26 (below) summarises the responses on the practices that suggest SMEs are using project management. Where possible, each practice is matched to a process group.

All respondents (100%) identified a planning practice, and three (75%) identified a monitoring and control practice. Practices in other process groups were only identified by one (25%) or two (50%) respondents.

From most recognisable to least, the order of the process groups was: planning (100%), monitoring and control (75%), initiation (50%), execution (25%) and closing (25%).

Notably, respondent D mentioned practices in all process groups.

Table 26: Respondent perceptions on practices that suggest SMEs are using project management

Process group	Project management practice	A	B	C	D
Initiation	Recognition of project and its objectives	●			●
	Defining success				●
	Creating the project charter			●	
Planning	Producing and committing to a project plan	●	●	●	●
	Assigning a budget			●	
Monitor & control	Managing the plan	●	●		●
Execution	Executing the plan and doing the project work				●
Closing	Closing the project				●
N/A	When people work in teams (project teams)				
	Having a structure or approach to managing the project				●

Discussion

Every respondent described a planning process, suggesting that planning tools and processes are the most recognisable aspects of project management to SMEs. This suggestion agrees with studies in other countries which show that SMEs use planning processes more than those in other process groups (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009) (See Table 11 on page 38). However, like in the literature, these planning practices centre around gathering requirements, breaking down the work and scheduling. They do not include

the more "difficult" practices like EVM, cost management, quality management, integration management, stage-gating, and PERT.

The second most recognisable aspect of project management was monitoring and control – specifically monitoring the plan and ensuring task delivery. Again, this corresponds to the literature – the second most used project management practices in SMEs fall into the monitoring and control process group (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Initiation processes came third in the list of top process groups. It is worth noting that respondent A's remark on "recognition of a project and its objectives" is not formal. That is, in SME A, there is no formal project charter or project initiation document. It is interesting to note that SMEs hardly use practices that fall into the initiation process group in the literature.

Like in the literature, three of the SME respondents mentioned processes that fall into the executing and closing process groups (except for respondent D). Respondent D also happened to have the most project management education and had CAPM certification. This higher education may explain her ability to identify processes in all PMBoK's process groups.

The coincidence between the practices that respondents would identify with project management and the most used practices in SMEs suggests that when SMEs think of project management, they generally think of the processes that fall into the planning, and monitor and control process groups.

4.3.4.2 Initiation

Three SMEs (75%) exhibited simpler, less formal initiation processes with fewer decision-makers when compared to LEs in the literature. One SME (25%) had formal project initiation processes and identified and analysed information on project stakeholders.

The owner-managers of three SMEs (75%) had the most influence in deciding which projects to undertake and how the project progressed. For example, respondent A admitted to having a *"disproportionate vote"* on deciding which projects the company takes on, and he believes he is in the *"best place to do that."*

Three SMEs ran used project managers to run projects (75%). However, only one SME (25%) had a formal project manager (employed as a project manager). The other two SMEs (50%) had "informal project managers" that mainly fulfilled operational duties – projects were just an additional responsibility.

Three SMEs (75%) did not prepare project charter (or similar) documents or identify stakeholders during project initiation.

Notably, all SMEs (100%) compared project alternatives and pre-analysed the projects before beginning. However, not all the comparisons and pre-analyses were formal.

Table 27 (below) summarises the responses regarding the initiation practices of the companies.

Table 27: Initiation practices of companies in this study

Initiation practices	**A**	**B**	**C**	**D**
Performs pre-project analysis (● = formally; ○ = informally)	○	●	○	●
Compares project alternatives (● = formally; ○ = informally)	○	○	○	●
Project approval by:				
- Founder(s)/Owner-manager(s)	●	●	●	
- Project forum (with executives)				●
- Chief Technology Officer (CTO)	●			
Projects run by:				
- Project manager (● = formal; ○ = informal)	○	○		●
- Scrum master (team lead)			●	
Most influence on projects				
- Founder(s)/Owner-manager(s)	●	●	●	
- Product managers			●	
- Project sponsors (Executives)				●
Develops project charter				●
Identifies stakeholders				●

For external projects, SME A did not compare alternative projects because they came as opportunities. They took on the external project as long as it made financial sense without comparing alternatives. However, the company was reaching its capacity regarding the number of partnership projects it could take on. Consequently, the company planned to assess the various opportunities for value.

However, for internal projects, the executives assessed various project alternatives before starting a project. Notably, these assessments were informal, and the CEO (respondent A) admitted to having a "disproportionate vote" on deciding which projects the company took on. However, he believed that he was in the "best place to do that."

In general, the CEO, co-founder and CTO had the most say in which projects SME A undertook. Whereas the co-founders had the most influence on SME A's projects, the CTO decided on the budgets

(for external projects) and durations since the project team mainly consisted of staff that reported to him.

Notably, SME A did not compile a project charter or similar document that approved the project. Instead, the company had a project kick-off meeting with the CEO, project manager and relevant stakeholders.

Once the three executives made the initial decision, SME A would then involve their one and only "project manager," who would run the project. Notably, the project manager's official work title was "Commercial manager." However, the company did see the person as a "project manager."

SME B did do initial analysis before undertaking a project – despite it being informal. Since many of their projects were marketing related, their pre-analysis focused on creating a marketing plan by investigating competitors, strengths, weaknesses, opportunities, threats and building the objectives for the project.

SME B also compared alternative projects to assess which projects were best to achieve strategic objectives. Respondent B did not describe the formality and rigour of these comparisons. The founder (CEO) made the comparisons and decided on which projects were necessary. After approval, the CEO then involved the "project head" and "project manager," who aligned the project with the strategy and ran the project. Officially, the "project head" and "project manager" had the following titles respectively: "delivery manager" and "senior account manager."

While SME B did compile a marketing plan (or similar document) before undertaking a project, they did not have official project charter's or any formal document that approved the project. Instead, they had a project kick-off meeting with the CEO, project head and project manager.

SME C was a data-driven company – they collected and analysed vast amounts of data based on how their customers interacted with them and how the business performed. The company used this data to track high-level metrics on how it performed, forming the basis of what it decided to do and the projects it initiated. The tracking of these metrics and investigation of the underlying data formed part of the initial investigations before they initiated projects.

SME C compared project alternatives by doing a rudimentary cost-benefit analysis on the various alternatives. The cost refers to the hours of effort it would take to undertake the project, and the benefit is the perceived impact on the metrics they wanted to track. Examples of the metrics they tracked include customer retention and the cost of acquiring new customers.

Every quarter, SME C had a two-day planning session where they decided the goals for the next quarter – in alignment with their strategic goals. The co-founders mainly set the goals, which then guided the projects that the company undertook. While the co-founders approved the projects, all staff members had an opportunity to voice their opinions and concerns on whether SME C should embark on specific projects or not.

After approval by co-founders, projects would get handed to a scrum master or team lead (second layer of management) depending on the project nature. For example, scrum masters ran software related projects, and team leads ran non-software related projects.

Like SME A and B, the people who ran projects in SME C did not have official "project manager" titles. However, unlike the previous two companies, SME B did not refer to the people who ran projects as "project managers."

SME C did not have an official project charter or related document that approved projects.

The co-founders and product managers had the most influence in projects at SME C - the co-founders often acted as product managers. Whereas the scrum master focused on whether the team was happy and performing productively, the product manager ensured that the product was developed

according to business goals.

SME D followed initiation processes similar to those in the PMBoK (PMI, 2017b). Prior to starting a project, they *"need[ed] to do some research or customer research [and] analysis."* Depending on the project's nature, the analysis would be done with or without the project manager's (at the executive level). Once a need was established, the project was formally initiated; a business case was drawn up and sent to a project forum – which consisted of executives. The project forum scrutinized the business case and either approved or rejected the project. Once approved, the relevant project executive served as the project sponsor and appointed a project manager.

Discussion

The PMBoK (Project Management Institute, 2017b) lists two processes under the initiation process group: (1) develop a project charter and (2) identify stakeholders. See Table Table 28 in Appendix B.

The results show that only one SME (D) performed both PMBoK's initiation processes in projects. Notably, this SME was the largest in the study.

This low incidence of initiation processes is consistent with the findings in the literature. For example, in the study by Sdrolias et al. (2005), 38% of the SMEs identified stakeholders. However, the study is not explicit on whether the SMEs compile project charters or similar documents to authorise projects

formally and allow project managers to apply resources. Other studies (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009) list a bunch of SME practices – none of which fall into the initiation process group.

All SMEs (100%) perform some analysis before starting the project and assess other project alternatives. However, only two SMEs formally document these analyses and have procedures for them. Sdrolias et al. (2005) report that 64% of SMEs perform a financial analysis when initiating projects. Compared to SME A and C, the pre-analysis of SME C seems a lot more comprehensive – possibly due to the involvement of external companies, since SME B offered business to business services (along with business to customer services).

The low incidence of initiation practices in this study, particularly for the smaller SMEs (A, B and C), suggests that SMEs view these practices as bureaucratic. Turner, Ledwith & Kelly (2010a) argues that SMEs tend not to use formal and bureaucratic practices because they lack the resources to do so or are unaware of the practices (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010).

While not explicitly directed towards SMEs, Bresner & Hobbs (2006) list stakeholder analysis as an underutilised tool.

As mentioned earlier, the owner-managers of SMEs A, B and C influence projects selection. This result is consistent with Sdrolias et al. (2005), who reports that the executives decide 56% of SME project scopes and directions. Notably, the executives of SME D had the most influence on the project. However, unlike SMEs A, B and C, the influence was more around the direction of the project and not necessarily on the project management practices in the project.

4.3.4.3 Planning

While all four SMEs (100%) were technologically oriented – SME A, B and D had a more traditional "waterfall" type approach to project management, and SME C had a more agile approach. All SMEs (100%) had planning processes centred around breaking the work down and scheduling it. For example: Collecting requirements, creating WBS, defining activities, and developing the schedule. See Table 29 in Appendix B.

All the planning practices of three SMEs (75%) fell under two process groups: project scope management and project schedule management.

Only SME D (25%) had planning practices in other process groups and compiled project management plans (with subsidiary plans). Notably, the output of the planning processes is the schedule, which all SMEs (100%) used to monitor progress.

Moreover, only SME D (25%) had practices under the risk management process group. While SME D did identify risks and plan responses, it did not perform analyses (quantitative or qualitative) on the risks.

For SME A, the planning began when the project manager called in the relevant stakeholders to compile a list of project activities in line with the project objectives. After the project manager compiled a list of tasks and dependencies, he put it into Microsoft Project. Finally, the project manager met with the relevant stakeholders to run through the tasks, dependencies, timelines, and responsible parties. The CTO used the project schedule tasks to estimate the effort for external projects, which formed a basis for how much SME A charged the partner for setting up the partnership white label project.

SME B had a similar process where the project manager compiled a list of tasks in line with the project objectives and assigned responsibilities. SME D then inputted these tasks, dependencies, and responsible people into a Gantt chart in Microsoft Excel.

SME C had a more iterative planning process. They used JIRA - a proprietary issue tracking product that is suited for agile project management. They spent a lot of time upfront analysing the dependencies and risks associated with the objectives they were trying to achieve in a project. Once they had a good idea of the risks and dependencies, they would group the tasks into similar categories and switch to a more agile approach. They broke the work down into two-week sprints. At the beginning of each sprint, they planned the tasks and the steps needed to execute them. SME D also identified risks as part of the planning process.

SME D had more formal planning processes. They compiled “project management plan[s],” that were “slightly different [to that described in the PMBoK] and tailored to the way [they] work.” These plans could include all the subsidiary plans that the PMBoK describes – “depending on the project's complexity.” Moreover, they also leveraged the knowledge on similar previous projects. Respondent D admitted that “some of these plans are time-consuming and feel like a corporate requirement just to tick a box.” Moreover, she added that “for bigger and complex projects, it’s so important.”

Discussion

The most frequently used planning practices identified in this study agree with the literature. Requirements gathering, work-breakdown structures, work schedule, project plans are the most used practices in literature (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). When planning, it appears that SMEs want to mainly understand what the project entails (scope/breakdown of work) and how long it will take to complete (schedule).

The larger SME (D) had more formal planning processes – they compiled the project plan and its subsidiaries. However, as mentioned earlier, SME D was a medium SME - which may explain the higher formality and number of planning practices. This explanation is supported by Turner, Ledwith & Kelly (2010a), who shows that medium SMEs have a higher prevalence of planning practices when compared to micro SMEs and small SMEs.

Due to its low usage in this study, SMEs may view the project management plan as bureaucratic, especially when it includes all the subsidiaries. These results suggest that SMEs want to start with projects as quickly as possible, so the planning strongly emphasises gathering requirements, scoping, and preparing a schedule. However, they either ignore or are unaware of (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010) planning practices that fall into the other PMBoK (PMI, 2017) knowledge areas – like integration, cost, resource, communications, risk, procurement and stakeholder management.

The low prevalence of risk management practices in this study contradicts Turner, Ledwith & Kelly (2010a) – who show that micro-SMEs and small SMEs have a higher prevalence of risk management practices when compared to medium SMEs. Moreover, Sdrolias et al. (2005) also show a relatively high number of SMEs who perform risk assessments, suggesting that they practice risk management on their projects. However, Lima & Verbano (2019a) shows a low diffusion of project risk management in European SMEs across ten countries and 18 sectors primarily due to a lack of literature addressing PRM in SMEs.

Scholars argue that SMEs should adopt project risk management because they are especially vulnerable – with lower bargaining power, higher sensitivity to external changes, and fewer resources (Blanc Alquier & Lagasse Tignol, 2006; Dallago & Guglielmetti, 2012).

4.3.4.4 Execution

All three SMEs (75%) directed and managed the project work. In SME C, the scrum master, who served as the project manager, ensured that the team was happy, which resembles the "manage project team" process. See Table 30 in Appendix B

Otherwise, none of the other processes that fall into the execution process group were identified in three SMEs (75%). Only one SME (25%) had more than one process under the execution process group.

Discussion

Three SMEs exhibited simpler execution practices. All these SMEs were relatively small compared to D. This finding suggests that the smaller SMEs had simpler execution practices that correspond with the literature findings. Aside from the practice of doing the project work, the literature shows a low

SME prevalence of practices that fall into the execution process group (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Moreover, other than SME D, the SMEs in this study did not have any execution processes that focused on managing the team, communications, project knowledge, and project quality. Since the SMEs did not plan for these aspects, it makes sense that their execution practices do not focus on these. Moreover, given that the three SMEs had smaller projects, fewer staff, shorter durations, and operated less formally, arguably, they perceived these other practices as bureaucratic. Alternatively, the SMEs may have been unaware of these practices (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010).

4.3.4.5 Monitoring and control

All SMEs (100%) had monitoring and control practices that focused on tracking overall progress to meet objectives, monitoring the scope, and monitoring the schedule. Three SMEs (75%) had relatively simple monitoring and control practices.

Two SMEs (50%) controlled quality. See Table 31 in Appendix B for a summary of the results.

Notably, three SMEs (75%) had no effective change control process.

SME A tracked and reported the overall progress of the project. While the acceptance of completed project deliverables was informal, there was email correspondence amongst the relevant stakeholders when project deliverables were complete. This correspondence served as an acknowledgement. SME A also managed changes to the schedule by constantly reviewing progress and re-adjusting the project schedule. However, SME A did not control the costs, quality, communications, and other aspects of the project.

Similarly, SME B tracked and reported the overall progress of the project. They managed changes to the schedule. However, they dealt with scope changes informally.

In addition to tracking schedule changes, SME C tracked scope changes. To some extent, SME C tracked the quality - they defined the requirements upfront with user stories.

Only SME D (25%) had more sophisticated and formalised monitoring and control practices that included keeping track of change requests, tracking project budgets, monitoring quality, monitoring risks, and monitoring procurement.

Discussion

The monitoring control practices in all SMEs focused on tracking overall progress, monitoring the scope and schedule. These focus areas agree with the literature (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Since three SMEs did not plan for risks, procurement, quality, and budgets, they understandably did not monitor and control these aspects.

All SMEs monitored and controlled the project work by tracking, reviewing, and reporting the overall progress to meet the performance objectives. However, three SMEs (A, B and C) dealt with change requests poorly. Although changes to scope were actioned and documented, there were no formal processes to assess and accept or reject change requests. Instead, change requests were added to the list of tasks. If the change request significantly impacted the completion date, it was shelved for action after the "launch date."

All companies tracked and reported overall progress. They also tracked changes to the schedule and informally tracked changes to the scope. However, scope changes for three SMEs were dealt with informally. This informality agrees with Turner, Ledwith & Kelly (2009), who describe scope change as a more sophisticated practice that micro-SMEs and small SMEs tend not to practice.

4.3.4.6 Closing

4.3.4.6.1 Closing activities

All SMEs (100%) performed testing to ensure the result functioned as intended. Moreover, all SMEs (100%) checked that the activities were complete. However, except for SME C, there was a minimal reflection on the project management effort – which could help manage future projects. See Table 32 in Appendix B for a summary of the results.

Both SME A and B had loose definitions on project closure since many of their project team members stayed along and transitioned into the operational "phase," which blurred the line between project closure and operations.

Before closing out an external project, SME A would typically run a series of tests to ensure the white-label system was branded and worked correctly. Once the partner gave the official "sign-off" via email, the product would be ready for launch, then released into the market. The project then slowly transitioned into operations. Since the project team would assist in the operations, the line between project closure and operations was unclear.

Respondent A described the closing phase as *"when the product is ready to go to market and [SME A was] ready to invoice for the entire project."* The only formal documentation which signalled project closure was the final invoice – which SME A then billed to the partner. The partner and SME A had an

initial agreement on when the final "project invoice" would come in. After that, the *"maintenance, administration and consulting fees"* kicked in. There were no lessons learnt meetings or final reports.

The demarcation between project closure and the transition to operations was also unclear with SME B. Their project closure activities mainly revolved around ticking off the list of activities that were on the schedule. Again, respondent B showed some confusion around projects and operations.

SME C had a stricter definition of project closure. For software projects, the project closed when the result (typically a software functionality) was in production, and the customer could use it. However, respondent B acknowledged that different business areas (that run different projects) had different definitions of project closure. Their project closure activities included reviewing the features, the team's effort and seeing how they could incorporate the learnings in the future. Whether or not they produced formal documentation around the lessons learnt is unknown.

SME D had more formal processes at project closure that included reviewing the work, handing over to the operations team, having closeout meetings, documenting lessons learnt, making sure payments were complete, aligning stakeholders and officially closing the project. Respondent D said that this process usually took around one or two months and could sometimes take three months to close the project officially.

Discussion

This blurring of the lines between projects and operations in SMEs A and B may also explain the previous comments from both companies regarding "projects as ongoing."

Only SMEs D and C had "formal" project closure practices.

The lack of lessons learnt documentation in SMEs A and B could make learning from the past a challenge and cause avoidable mistakes. Moreover, the informal nature of SMEs likely results in project experiences and lessons staying in people's minds and not codified. Bresner & Hobbs (2006) reveals that although lessons learned have limited usage, it has tremendous potential to increase project success rates.

The lack of formality and practices around the closing process group agrees with the literature Sdrolias et al. (2005).

4.3.4.6.2 Assessing Success

SME A considered two aspects when determining the success of a project:

1. When the white-label platform was live and the first policy sold, the platform (the project's result) functions as intended. SME A assessed this shortly after launching the product and selling the first policy.
2. When the partner decided to continue with the partnership after the predefined "pilot period." SME A and the partner jointly agreed on metrics to track the partnership's success. The initial trial period was usually one year. After a year, both parties could exit. If the partnership did not make targets after a year, the partner would likely cancel the partnership.

However, there was no formal process to decide the success factors upfront and whether the project was a success or failure.

From a project management aspect, SME A assessed the efforts after each project, despite the assessment being informal.

SME B did not assess project failure or success. They deemed a project successful if they were able to cover the cost. For them, profitability was important. From a project management perspective, the effort was not directly assessed. Instead, they conducted semi-annual performance reviews on the staff based on the performance of the partnerships that they looked after. SME B did not assess the project management effort. However, they assessed the operational effort.

SME C defined success upfront and put metrics in place to track its success. Depending on the project, success could take months and even a year to realise. Some of the metrics included customer retention, growth in customer base, and sold premium. They were more diligent at tracking success than SMEs A and B. SME C also assessed the project effort to improve their ability to manage projects incrementally. However, using the agile framework, these assessments and reflections did not all happen at the end – they happened after every sprint (fortnightly). SME C emphasised this constant assessment of the effort because they realised that they operate in a unique environment and wanted to constantly improve their processes to best operate in their unique environment.

SME D also defined success upfront and reviewed the project after project closure. SME D measured the success of the project delivery – for example, was the desired result delivered within time, budget, and scope? In addition, they assessed the benefits of the project. For example, if they released a new product aimed to sell 80 policies, did they achieve this target? Although the second metric can be considered operational, SME A assessed it as part of the project. However, respondent D admitted that people tend to forget about benefits tracking and relating the project to the strategy at the end.

Discussion

For SME A, the second element of success has more to do with benefits realisation – the platform and the partnership were started to sell policies and grow revenues and customer bases; it is more reminiscent of operational success or failure. Similarly, SME B's assessment of successes is more an operational assessment of whether the project was successful or not.

4.3.4.7 Project management methodology

Three SMEs (75%) did not follow a framework, approach, or methodology on running projects.

Respondent B remarked: "We don't have anything specific. We just go on *redacted* [founder and CEO]'s list of references."

SME C loosely followed the agile framework – even though they did not formally document or prescribe any framework, approach and methodology.

On the other hand, SME D had prescriptions on how agile or waterfall type projects should be run. Respondent D stated that there is *"definitely a document or something documented that outlines how projects should be run."* Moreover, it appeared that these guides were specific to SME D.

Discussion

While SME B did not have any specific guides on running projects, it did take recommendations from the owner.

Respondent C remarked that they *"are small enough"* to figure *out "what works for [SME C] at any given time."* This remark suggests that versions of project management catering to SMEs need to have enough structure for SMEs to get guidance but flexible enough for SMEs to tailor it to their unique project circumstances.

The fact that SME D prescribed how projects should be run is no real surprise given that its culture and organisational structure resemble an LE. Moreover, SME D is 13 staff members away from being classified as a LE.

The fact that three of the SMEs did not follow a particular approach may be a consequence of the lack of project management guides that are simple and tailored towards the needs of SMEs.

The literature does not describe the prevalence of BAFMs in SMEs. However, the literature does show that the PMBoK, PRINCE2 and APMBoK are the most popular and widely known BAFMs (Chin & Spowage, 2012; Karaman & Kurt, 2015)– with the PMBoK known as the "de facto standard in the field" (Blomquist & Söderholm, 2002:35). The higher

4.3.4.8 Company identified areas of improvement

All respondents (100%) identified areas in which their SMEs can improve their project management ability.

Respondent A mentioned that he would like to see their internal projects implemented with the same rigour as external projects. Respondent A commented*: "we've got good project management when it comes to external projects, because third parties need timelines, but we're not very good at project management internally and sharing internal timelines."* Notably, these external projects were for large enterprises.

Respondent B stated that there could be more support from the rest of the business when deciding which tools to use for project management. Moreover, respondent B felt that they should have a dedicated person looking after projects – which is interesting because even though there are people with "project manager" roles, all of them have operational duties. She speculated she we will be taking on a full-time project management role later in 2021 – which she thought showed the need and importance that SME B placed on project management.

Respondent C believed that SME C could improve by creating "more structure and fullness" around its project management practices. She believed that discussions (like the interview for this paper) pointed out the informality of their processes and showed the need for improvement. However, she believed that constant improvement is a moving target.

SME D currently struggled to fully implement agile practices because they had too *"much governance in place, prohibiting flexibility."* Moreover, many stakeholders had unrealistic expectations in their assumptions that since SME D was using agile approaches, they should be more flexible and deliver projects more rapidly. Respondent D commented: the *"shortcoming is that we are not just being honest with ourselves in what we can and can't achieve."*

Respondent D felt their SME could improve its ability to give project managers "more of a voice in terms of [] the type of projects they choose to work on" and allocate project managers to projects based on their skill, capacity and availability.

Moreover, respondent D felt that SME D could improve its ability to plan. She stated how SME D was fond of issuing often-unrealistic timelines before planning – instead of coming up with the timeline during or after the planning. She stated that "there is no honesty and transparency" because people commit to unrealistic timelines "so [the project team] does not relax." For respondent D, this showed that "we [SME D] need to get a lot more mature than we are."

Discussion

Respondent B's comment on having more support from the rest of the business when it comes to deciding on appropriate tools for project management suggests they have difficulty finding the correct tools. Arguably, this could be due to the lack of guides and information that specifically deal with SMEs. Abbasi & Al-Mharmah (2000) identified that lack of knowledge is one of the leading causes of inefficient use of project management in Jordanian SMEs.

Despite SME D being bureaucratic and having prescriptive project management practices, people do not follow the prescriptions properly. They often used backwards planning. However, using a "backwards" planning approach by starting with the project delivery date should only be done in cases where the delivery date is not negotiable. For example, if a regulation change comes into effect on a particular date.

Arguably, all the areas of improvement are "basic" project management practices. For example, setting timelines, providing progress updates, having more structure, and having a dedicated person manage projects. Moreover, these areas of improvement could point to aspects that should be in the SME versions of project management.

Moreover, respondent B felt that they should have a dedicated person looking after projects – which is interesting because even though there are people with "project manager" roles, all of them have operational duties. Her comment suggested that the operational duties made it more difficult to manage projects in conjunction with her project management duties.

Chapter 5: Conclusion and recommendations

5.1 Introduction

This chapter summarises the research and concludes the report. It includes a discussion on the significance of the research, limitations, and recommendations for further research.

5.2 Summary of the research

The focus of this study was to determine the nature of project management of insurtech SMEs in the Western Cape province of South Africa.

SMEs constitute a high proportion of businesses in most countries and play a critical role in economic development, job creation, and stimulating innovation. While estimates vary on the number of SMEs in South Africa, there is consensus on its importance – NGOs and governmental organisations have started multiple initiatives to develop this sector.

However, South Africa still faces one of the highest SME failure rates compared to global standards (Berry et al., 2002). While government and NGO intervention can help, SMEs are also responsible for their performance – particularly by controlling their internal aspects and adapting to changes in the external environment.

There is consensus in the literature that project management is essential for organisations, especially regarding achieving goals (Project Management Institute, 2017) and creating value. However, the literature on project management is biased towards LEs (Engwall, 1998; Murphy & Ledwith, 2007; White & Fortune, 2002) and large projects (Turner, Ledwith & Kelly, 2010b).

This bias towards LEs poses a problem for SMEs because LEs and SMEs differ in their nature and their projects' nature (Besner & Hobbs, 2006; Turner, Ledwith & Kelly, 2009; Turner, Ledwith & Kelly, 2012). That is, SMEs and LEs have different project management needs. Unfortunately, the literature offers little to assist SMEs.

Owing to the importance of SMEs, there is a growing body of research that explicitly addresses project management in SMEs. Authors have identified the need for developing simpler versions of project management for SMEs. Part of this investigation entails exploring the current nature of project management in SMEs – in different countries, different industries and at different SME sizes - since SMEs are not a homogeneous bunch. The extant literature exploring project management nature predominantly focuses on North American, European and Australian SMEs. At the time of writing, no studies explore the nature of project management in South African SMEs.

This study set out to answer the following main research question:

- What is the nature of project management in South African SMEs?

With this context, the objectives of this research were:

1. Determine what SMEs perceive and understand about projects and project management
2. Determine the factors that may affect the adoption and practice of project management in SMEs
3. Determine the benefits and drawbacks that SMEs experience when using project management
4. Determine the project management practices and procedures that SMEs use

A literature review was conducted on general project management and project management in SMEs. The main findings in the literature were sixfold:

1. There exist many definitions on what constitutes SMEs – this paper adopted the employment size according to the European Commission (2003, 2005) as the primary criterion to define SMEs and their various classes.
2. SMEs and LEs differ significantly on many dimensions – including structure, procedures, behaviour, processes and people. For example, LEs are characterised by formal and rigid processes, hierarchical structures, and bureaucracy (Ghobadian & Gallear, 1997). In contrast, SMEs are characterised by simpler and flexible processes, flatter structures, and fewer decision-makers (Ghobadian & Gallear, 1997). Consequently, SMEs and LEs have different project management needs (Thomas & Mullaly, 2007).
3. There is consensus that project management has value and contributes to organisational success (Cooke-Davis, 2002; Pollack & Adler, 2014). Scholars often use the balanced scorecard to help illuminate the value of project management using four categories (Kerzner & Saladis, 2009):
    a. **Internal values:** focus on developing enterprise project management and using it effectively to avoid operational disturbances. Examples include improving internal communication (Abbasi & Al-Mharmah, 2000) and effectiveness (Shenhar et al., 2001).
    b. **Customer values:** focus on the customer and how external parties perceive the organisation. Examples include improving client communication (Abbasi & Al-Mharmah, 2000) and satisfaction (Patah & de Carvalho, 2007).

c. **Future values:** focus on the organisation's long term success and ability to adapt to future scenarios. Examples include improving future preparedness (Shenhar et al., 2001) and competitive advantage (Thomas et al., 2002).
d. **Financial values:** focus on the organisation's long-term financial health. Examples include improved profitability (Stimpson, 2008) and market share (Yazici, 2020).

Organisations typically time their values in the order shown above (from a – d) (Kerzner & Saladis, 2009).

4. Project management is essential for SMEs to adapt to their environment and survive (Turner, Ledwith & Kelly, 2012). However, not all SMEs have adopted project management. The main barriers to its adoption include:
    a. the influence of the owner-manager (Pennypacker & Crawford, 2002; Pollack & Adler, 2016; Sdrolias et al., 2005),
    b. higher overhead costs of project management or the perception of it (Sdrolias et al., 2005; Turner & Ledwith, 2016),
    c. unfavourable perception of SMEs (Burgan & Burgan, 2012; Thomas et al., 2000),
    d. personnel shortages or technical immaturity (Sdrolias et al., 2005),
    e. and the unsuitability of "traditional" project management.
5. SMEs are not homogeneous – they may differ in their practices according to their size, country and industry (Bresner & Hobbs, 2006; Hyväri, 2006; Turner, Ledwith & Kelly, 2010a). Consequently, there is a need for two versions of project management: (1) a micro-lite version for micro-sized firms and (2) a lite version for both small and medium-sized firms.
6. SMEs have simpler project management practices – underpinned by two process groups: (1) planning and (2) monitoring and control.

This study fits within the constructivist paradigm, where conclusions emerge inductively from data and can be further validated through deductive study. This paradigm is consistent with Turner & Ledwith (2018), who explore the nature of project management practices in nineteen American SMEs.

The target population was Western Cape-based fin-tech companies in the insurance (insurtech) industry and comprised of 6 SMEs.

Four companies were selected, and one employee was interviewed in each company. The respondents were all involved in project delivery. The interviews were unstructured and held via Microsoft Teams. The interview audio was anonymised with Audacity and transcribed with Otter.ai. The transcribed data was input into NVivo for thematic analysis, and themes were generated.

Based on the findings, the objectives were achieved, and the research question was answered.

The findings of this study corroborated that of previous studies in other countries. The findings reveal that project management in WC fintech insurance SMEs have simple project management practices underpinned by two process groups – planning and monitoring and control. Also, the general knowledge of project management is not advanced, and they certainly do not practice some of the more complex things like EVM. Moreover, in the smaller SMEs, staff members who take on the project manager role do not have the project manager title.

5.2.1 Objective 1: Determine what SMEs perceive and understand about projects and project management

This objective investigated SME understanding of project management by asking questions on projects, project management, project success, project management success, prerequisites to project management, and the role of project managers.

This research showed that the respondents had a basic understanding of projects and project management as concepts – with all respondents listing at least two characteristics for each concept. However, two respondents exhibited confusion between projects and ongoing operational activities by describing the latter as “ongoing” and “open-ended.”

The most identifiable characteristics for projects, identified by 75% of respondents, were their temporary nature, the existence of constraints, and the ability for projects to drive change within SMEs. However, none of the respondents identified the value creation aspect of projects – perhaps due to the project team not seeing the value since the value is derived long after the project team is disbanded in many projects (Turner, 2009).

For project management, the most identifiable characteristics, identified by 100% of respondents, were the planning and controlling of resources and activities – which agrees with the literature (Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010b; Turner, Ledwith & Kelly, 2009). However, budget planning was lacking and only mentioned by one respondent – which agrees with Turner, Ledwith & Kelly (2009) and may be explained by the difficulty in estimating activity costs. This difficulty is a significant obstacle in the efficient use of project management (Abbasi & Al-Mharmah, 2000). One or no respondents identified other characteristics such as meeting stakeholder expectations, applying skills, and ensuring delivery within budget.

When it came to their understanding of success, all respondents showed a lack of understanding – they saw both project success and project management success as the same and used the terms interchangeably. However, this confusion may not be an issue since the literature agrees on the mutual relationship between project success and project management success. Moreover, the

numerous models on success show that it is difficult to differentiate between project and project management success strongly.

The most prominent characteristic of success, identified by 75% of respondents, was the delivery within constraints – which naturally falls into the project efficiency dimension of Shenhar et al. (2001)'s project success model. That is, the respondents' understanding of success more closely resembles that of project success metrics when viewed in light of Shenhar et al. (2001).

When assessing the familiarity with BAFMs (project management bodies of knowledge, frameworks, or methodologies), three respondents were familiar with at least one BAFM. The most popular are agile methodologies (75% response), followed by PMBoK (50% response) and PRINCE2 (50% response). In addition, the respondents who had formal education in project management identified more BAFMs than those with no formal education – suggesting a correlation between education and familiarity of BAFMs.

The respondents were divided on the prerequisites to project management – with 50% saying there are prerequisites and 50% saying there are none. One respondent believed that having a capable person who can think logically is necessary before an SME can practice project management. Another respondent mentioned two prerequisites for SMEs: (1) having employee buy-in on project management and (2) selecting appropriate approaches suitable for the SME.

While the literature does not have pre-requisites to project management for SMEs per se, it does emphasise the need for fit on three dimensions in order for organisations to obtain value from project management: (1) organisational nature, (2) project nature, and (3) project management practices adopted.

All respondents (100%) believed had positive perceptions and believed in the necessity of project managers. Half of the respondents (50%) believed that project managers are partially accountable for project success. The benefits cited for using project managers include accountability on projects (75% response), structure (50% response) and better coordination of people (50% response). The most common role of project managers, cited by 75% of respondents, was tracking and evaluating the project's progress by managing the team, budget, schedule and scope.

None of the respondents provided negative reasons against using project managers, which is different from some of the literature findings. For example, the overhead costs of project management (underpinned by project manager salaries) in SMEs ranges from 10% to 30% of the project – significantly higher than the often quoted 5% for LEs.

When asked about the characteristics of a successful project manager, all respondents (100%) identified strong communication and good people skills. Problem-solving was identified by three respondents (75%). The respondents (75%) believed that SMEs should hire project managers when there is no longer internal capacity to manage projects.

The respondents have a relatively "mediocre" understanding of project management – arguably more than the layperson but less than a certified project manager. This level of understanding will affect how their SMEs practice project management and should be considered when developing simpler versions of project management.

Moreover, they have positive perceptions of project management but do not see the "full value" of project management which the literature portrays. This inability to see the full value could be due to a lack of project management education or the experience of both.

5.2.2 Objective 2: Determine the factors that may affect the adoption and practice of project management in SMEs

This objective investigated the factors that may affect the adoption and practice of management in SMEs. Four factors were identified: (1) active involvement of the owner-manager, (2) corporate culture and flat organisational structure, (3) prior project management education and experience, (4) desire for workplace flexibility, and (5) small project sizes.

Three SMEs (75%) had actively involved owner-managers who were influential in the management and direction of the projects in their SMEs. Moreover, they influenced the way project management was practised. These findings agree with the literature – which shows that owner-managers can act as barriers towards adopting project management and can heavily influence the way project management is practised. Fortunately, for the SMEs in this study, all owner-managers and executives had positive perceptions of project management, which resulted in their endorsement of it.

Three SMEs (75%) had a relatively flat organisation structure with four layers of management and decision-making power concentrated in the first two. This flat structure and limited decision making agrees with the literature on SME characteristics and may affect the practice of project management in three ways:

1. "Project managers" or staff responsible for project delivery are in the same staff layer as the project team and has relatively low authority.
2. The flatter organisational structure may decrease reporting rigour since reporting goes one layer up (from layer 3 to 2).

3. The flatter organisation structure and limited decision-makers may speed up decision making.

The literature shows a mutual relationship between organisational structure and culture. From a culture perspective, the most pertinent characteristic across three SMEs (75%) was the easily accessible owners (which is also a consequence of the flatter structure). Moreover, three SMEs had a relaxed, collaborative, and flexible environment, which may impact the formality of project meetings – since team members are constantly in the loop as to what is happening in projects. This culture may also assist in disarming potential conflicts.

Being the largest SME in this study, SME D exhibited a structure and culture that closely resembled an LE instead of an SME – which made sense given their high turnover and staff count at 13 members away from the LE threshold.

When assessing the education and experience of the respondents, all (100%) stated that they had prior project management experience, which contributed to the way they practised. However, only one respondent had an official project manager title. Moreover, only two respondents (50%) had formal education in project management – one with PRINCE2 and CAPM and the other with a scrum certification. Interestingly three respondents (75%) showed no desire to obtain further project management education. Their level of project management education and prior experience certainly impacts their understanding of project management – as shown in objective 1.

Another factor that may affect how project management is practised in SMEs is the desire for workplace flexibility. Three respondents (75%) started their careers in LEs and were dissatisfied with the lack of flexibility in LEs – which leads them to prefer the SME work environment. This desire for flexibility may push employees from LEs to SMEs and cause a transfer of project management skills. Moreover, this desire for flexibility may also lead SME employees to prefer simpler, non-bureaucratic project management practices – something traditional project management has been criticised for.

The last factor that may affect the adoption and practice of project management in SMEs is the nature of projects in SMEs. Three SMEs (75%) had smaller and shorter (less than six months) projects. These three SMEs had similar practices but were vastly different from SME D – which had larger projects with longer durations, bigger budgets, and larger teams. This finding agrees with Thomas & Mullaly's (2008a) observation on the nature of projects (number of projects, type, duration) needing to align with the project management practices adopted and the organisational nature.

5.2.3 Objective 3: Determine the benefits and drawbacks that SMEs experience when using project management

This objective investigated the perception SMEs have of the benefits and drawbacks of project management. All respondents (100%) had an overall positive perception of project management and believed in its necessity. The underlying reason for their positive perceptions was that people would not know what to do without project management, and projects would not be delivered. Other reasons, each identified by 50% of respondents, include increasing effort, speed, productivity; increasing project success; and accountability.

Mapping all the responses against the project management value matrix (see Figure 6 below) revealed that the SMEs in the study had a short-term view of project management values. The respondents only identified project management's internal values, characterised by improving effectiveness, productivity, and performance. These results agree with Kerzner & Saladis' (2009) suggestion that companies typically time their values from internal to financial. In their early stages, companies are more concerned with replicating internal success (Kerzner & Saladis, 2009).

There is an opportunity to increase the perception of project management value in SMEs – particularly in the other quadrants (V2 – V3).

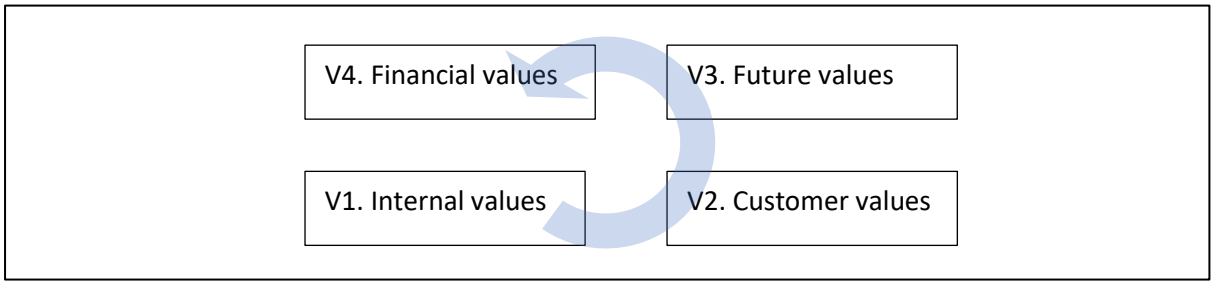

Figure 6: Project management value matrix

Despite generally having positive perceptions, all the respondents (100%) perceived at least one drawback to project management. Two respondents (50%) cited micromanagement as a drawback. Other drawbacks were only identified once (25%) and include bureaucracy, time-consuming without the right tools, and internal disruptions if there is no buy-in on tool selection.

Compared to the literature, none of the respondents mentioned the expense and difficulty of project management – drawbacks that Sdrolias et al. (2005) find significant in their study.

5.2.4 Objective 4: Determine the project management practices and procedures that SMEs use

This objective investigated the practices and procedures that SMEs use in managing projects.

Identifying project management

The results show that all respondents (100%) associated practising project management with planning – particularly, creating a project plan. That is, SMEs consider themselves as practising project management when they produce and commit to project plans. Moreover, three respondents (75%) added that managing the project plan is also a sign of an SME practising project management. This observation suggests that when SMEs think of project management, they generally think of practices that fall into the planning, and monitoring and control process groups. This observation is consistent with the literature, which shows that the most common SME project management practices are in the planning, and monitoring and control process groups.

Initiation

The results show that three SMEs (75%) had simple and informal initiation practices characterised by the following:

1. Informal pre-project analysis: Depending on the project, the SMEs informally assessed projects to determine if they were worth doing and what the customer needed. However, the SMS did not document these analyses – it was more discussions and team meetings.
2. Informal project alternative comparisons: The SMEs informally compared project alternatives. These comparisons were also in the form of discussions and not documented.
3. Projects were (verbally) approved by the owner-managers, who also had the most influence on projects.
4. The SMEs did not conduct stakeholder identification.

Like SMEs in the literature (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009), the SMEs in this study had very few practices in the initiation process group. The low incidence of initiation practices suggests that SMEs are unaware of these practices or view them as bureaucratic because they lack resources (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010; Turner, Ledwith & Kelly, 2010a).

The larger SME (D), with 237 employees, exhibited practices characteristic of traditional project management found in LEs – projects were approved by a project forum through the signing of a project charter. Moreover, all stakeholders, pre-project analysis and project alternative comparisons were formally documented. This finding agrees with Hyväri (2006), who asserts that as SME sizes increase, so does the likelihood that the SME has identifiable project management practices.

Planning

The findings show that all four SMEs (100%) had planning processes centred around breaking the work down and scheduling it – all SMEs made use of project schedules. However, only SME D (25%) compiled project management plans, planned the costs and tracked budgets.

The literature's most common SME project management planning practices include requirements gathering, work-breakdown structures, work schedules, and project plans. The results in this study agree with the literature (Murphy & Ledwith, 2007; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). However, unlike the literature, the SMEs in this study (other than SME D) did not use project management plans. This lack of usage shows that the SMEs in this study used simpler planning practices centred around breaking the work and scheduling it. Moreover, the SMEs in this study either ignore or are unaware of (Antony, Kumar & Labib, 2008; Garg, Goyal & Lather, 2010) planning practices that fall into the other process groups – like integration, cost, resource, communications, risk, procurement and stakeholder management.

Execution

The findings show that all SMEs (100%) had only one execution process in common– the process of leading and performing the work defined in the project. Other than that, SME C had the other execution process of tracking team member performance.

These findings agree with the literature that shows SMEs are more planning oriented in their project management practices (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). Although they focus on executing the projects, a lot more of their processes are planning focused. Moreover, from an execution perspective, the SMEs in this study do not have practices or processes that focus on managing the team, communications, project knowledge, and project quality.

SME D was different in that it had a lot more executing processes, which made sense given the relatively larger size of the SME and the relatively larger projects it undertook.

Monitoring and control

All SMEs (100%) monitored the scope, schedule, and project work. Moreover, all SMEs had some basic reporting on the progress of the progress. These focus areas agree with the literature (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009).

Three SMEs (75%) had relatively simple practices centred around tracking, reviewing and reporting the overall progress to meet the performance objectives.

Only SME D (25%) had more sophisticated monitoring and control practices that included keeping track of change requests, tracking project budgets, monitoring quality, monitoring risks, and monitoring procurement. Arguably, since the other three SMEs did not plan for these aspects, it makes sense that they did not monitor them. Notably, some of these practices, like scope management, are more sophisticated, resulting in SMEs' tendency to avoid their utilisation (Turner, Ledwith & Kelly, 2009). However, SME D was the larger SME and had a higher likelihood of having more formal project management practices (Hyväri, 2006).

Closing

From a project closing perspective, all SMEs (100%) had some form of testing to ensure that the end result functioned as intended and that the project activities were completed. However, these processes were only formal in two SMEs (50%), with strict project closure definitions.

The other two SMEs (A and B) had loose definitions of project closure. Moreover, the operational team that took over after project closure would often comprise the same members who formed the project team, resulting in a blurring between project closure and operations. The blurring of project completion and operations could also have contributed to the confusion between projects and operations mentioned earlier.

Only two SMEs (50%) discussed their lessons learned and reviewed their project management effort in the project.

Again, SME D had the most project closure processes, including reviewing the work, handing it over to the operations team, having closeout meetings, documenting lessons learnt, making sure payments were complete, aligning stakeholders and officially closing the project.

The findings are consistent with the literature, which shows that typical project management practices in SMEs do not fall into the project closure process group (Murphy & Ledwith, 2007; Sdrolias et al., 2005; Turner, Ledwith & Kelly, 2010a; Turner, Ledwith & Kelly, 2009). In particular, reviewing the project and codifying the lessons learnt has limited usage in SMEs but has the most significant potential to increase project success (Bresner & Hobbs, 2006).

Use of BAFMs

When assessing whether any SMEs used BAFMs, three SMEs (75%) did not use any BAFMs. Only SME D (25%) had policies and methodologies that governed the way projects were run using the waterfall and agile approaches. It appeared that these policies and methodologies were specific to SME D.

The lack of guidelines in three SMEs suggests that they were "winging it" in project management. Moreover, it could also be a consequence of the lack of simple and tailored project management guides for SMEs.

All respondents (100%) identified areas in which their SMEs can improve their project management ability. All responses differed and included improving project management rigour, getting more business support when deciding on project management tools, creating more structure and fullness around project management, and decreasing bureaucracy while increasing maturity.

Although all were different, arguably, the areas of improvement are basic – for example, setting timelines, providing progress updates, having more structure, and having a dedicated person manage projects. Moreover, these areas of improvement could point to aspects that should be included in the approaches tailored towards SMEs.

The literature is silent on the extent of BAFMs in SMEs.

5.2.5 Validation of research proposition

The research findings show that SMEs generally have simpler project management practices that strongly focus on the planning process group. Moreover, the owner-managers have a strong influence on the adoption of project management, how projects are practised and the direction of projects. This finding is consistent with the literature and validates the research proposition, which was stated as:

- South African SMEs have simple and informal project management practices

5.3 Significance of research

The study of SME project management research is scarce in developing countries. This research will contribute to broader research in developing simplified versions of project management for SMEs by incorporating an under-researched element – the SMEs in a developing country. It will also allow for another dimension in benchmarking. That is, in addition to benchmarking across countries and industries, scholars will be able to benchmark SME project management practices across two economic developmental stages – developing and developed nations.

Moreover, this study contributes to broader research in understanding the characteristics of South African SMEs.

5.4 Limitations

The study focused on insurtech companies in the Western Cape province of South Africa – which poses generalisability issues. Moreover, the perspectives expressed for each company were from one person.

5.5 Recommendations for further research

This research was exploratory and focused on one industry. A broader understanding of SMEs in South Africa requires more studies exploring project management practices in other provinces and industries. Moreover, as suggested by Turner & Ledwith (2018), further research is required to validate the findings the emerged from the interview data.

It is important to note that social phenomena, like project management practices in SMEs, is complex. Consequently, using multiple paradigms may provide a fuller understanding (Bhattacherjee, 2012).

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Appendix A: Semi-structured interview schedule

Note: The questions below may elicit further questions that aim to clarify or probe deeper.

Discussion area	Aim	Questions
a. Interviewee experience	Understand the experience of the interviewee	1. Tell me a bit about yourself and your work experience? 2. When did you join the company, and how long have you been working? 3. What is your current role in the company? 4. Do you have project management experience?
b. Company background	Gather general information about the company	5. Can you tell me about the company – specifically: a. Industry b. Type of product or service sold c. Whether its project-based or not d. Founders and whether they run the company e. Layers of management – i.e. company organogram f. Number of employees g. Number of offices and locations, h. Age of company i. Annual turnover 6. How would you describe the company's culture?
c. Interviewee knowledge and perceptions	Gather the respondent's perceptions and understanding of project management	**Projects**: 7. In your opinion and understanding, a. What is a project? b. Are projects necessary? Why? c. What makes a successful project? **Project management:** 8. In your opinion and understanding, a. What is project management, and what does it entail?

			b. Are you familiar with any project management approaches, frameworks and methodologies? Which ones? c. Is project management necessary? d. Does project management have benefits or not? e. What are the specific practices a company does to be considered 'practising project management'? f. Do you think there are any requirements before a company can start using project management? g. What makes project management successful? **Project manager:** 9. In your opinion and understanding, a. What is the role of a project manager? b. Do you think that companies should use project managers? c. If yes, at what point should a company consider having full-time project managers d. What makes a successful project manager?
d.	Company project management practices	Understand the companies project management practices	**Projects:** 10. Does your company run projects? 11. If yes, a. Can you give examples of recent projects? b. What is the typical reason why your company initiates projects? c. Are the projects internal (for the company) or external (for a client)? d. In general, what is the typical i. Project size (budget if any) ii. Project duration iii. Number of project staff involved (internal and external) e. Are there specialists involved in projects 12. If no, why not? **Project management:** 13. Can you run me through a high-level description of a typical project from the time a project need is established until the project is closed? ***Initiating*** 14. Can you run me through the process of how projects are started once a need is identified?

a. Is there some analysis or investigation before the project begins?
b. Are alternative projects compared?
c. Who approves the project?
d. Moreover, who runs the project? - Is there a "formal project manager?"
e. Who has the most influence on the project?

Planning

15. How is the project planned?

Executing

16. How is the project executed?

Monitoring and control

17. How is the project monitored and controlled to ensure it finishes and goes according to plan?

Closing

18. When is the project officially closed, and what is done prior to and after closing?
19. When is the project deemed a success or a failure? How is this decided?
20. Is the project management effort assessed – to establish if it was a failure or success?
21. Is the project assessed – to establish if it was a failure or a success?

Project management approach

22. Is there a company guide or policy on how projects should be run?
23. Is there anything you think the company is not doing well in terms of project management?
24. How can your company improve its ability to improve its project management ability?

Appendix B: PMI's process groups

This section defines all the processes according to PMI. Moreover, it shows whether the companies in this study follow practise these processes or not

1. Initiation

Table 28: Initiation processes (taken from the PMBoK (PMI, 2017))

Knowledge area	Initiation process	Description	A	B	C	D
Project Integration Management	Develop project charter	"The process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities"	-	-	-	●
Project Scope Management	Identify stakeholders	"The process of identifying project stakeholders regularly and analyzing and documenting relevant information regarding their interests, involvement, interdependencies, influence, and potential impact on project success."	-	-	-	●

2. Planning

Table 29: Planning processes (taken from the PMBoK (PMI, 2017))

Knowledge area	Planning process	Description	A	B	C	D
Project Integration Management	Develop Project Management Plan	The process of defining, preparing, and coordinating all plan components and consolidating them into an integrated project management plan.				●
Project Scope Management	Plan Scope Management	The process of creating a scope management plan that documents how the project and product scope will be defined, validated, and controlled.				●
	Collect Requirements	The process of determining, documenting, and managing stakeholder needs and requirements to meet project objectives	●	●	●	●
	Define Scope	The process of developing a detailed description of the project and product.				●
	Create WBS	The process of subdividing project deliverables and project work into smaller, more manageable components	●	●	●	●
Project Schedule Management	Plan Schedule Management	The process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule				●
	Define Activities	The process of identifying and documenting the specific actions to be performed to produce the project deliverables	●	●	●	●
	Sequence Activities	The process of identifying and documenting relationships among the project activities	●		●	●
	Estimate Activity Durations	The process of estimating the number of work periods needed to complete individual activities with the estimated resources.				●

	Develop Schedule	The process of analysing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model for project execution and monitoring and controlling.	●	●	●	●
Project Cost Management	Plan Cost Management	The process of defining how the project costs will be estimated, budgeted, managed, monitored, and controlled				●
	Estimate Costs	The process of developing an approximation of the monetary resources needed to complete project work				●
	Determined Budget	The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline.				
Project Quality Management	Plan Quality Management	The process of identifying quality requirements and/or standards for the project and its deliverables, and documenting how the project will demonstrate compliance with quality requirements and/or standards.				●
Project Resource Management	Plan Resource Management	The process of defining how to estimate, acquire, manage, and utilize physical and team resources				●
	Estimate Activity Resources	The process of estimating team resources and the type and quantities of material, equipment, and supplies necessary to perform project work				
Project Communications Management	Plan Communications Management	The process of developing an appropriate approach and plan for project communication activities based on the information needs of each stakeholder or group, available organizational assets, and the needs of the project				●
Project Risk Management	Plan Risk Management	The process of defining how to conduct risk management activities for a project				●

	Identify Risks	The process of identifying individual project risks as well as sources of overall project risk, and documenting their characteristics	●
	Perform Qualitative Analysis	The process of prioritizing individual project risks for further analysis or action by assessing their probability of occurrence and impact as well as other characteristics	
	Perform Quantitative Analysis	The process of numerically analyzing the combined effect of identified individual project risks and other sources of uncertainty on overall project objectives	
	Plan Risk Responses	The process of developing options, selecting strategies, and agreeing on actions to address overall project risk exposure, as well as to treat individual project risks	●
Project Procurement Management	Plan Procurement Management	The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers.	●
Project Stakeholder Management	Plan Stakeholder Engagement	The process of developing approaches to involve project stakeholders based on their needs, expectation, interests, and potential impact on the project	●

3. Execution

Table 30: Execution processes (taken from the PMBoK (PMI, 2017))

Knowledge area	Executing process	Description	A	B	C	D
Project Integration Management	Direct and Manage Project Work	The process of leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives.	●	●	●	●
	Manage Project Knowledge	The process of using existing knowledge and creating new knowledge to achieve the project's objectives and contribute to organizational learning				
Project Quality Management	Manage Quality	The process of translating the quality management plan into executable quality activities that incorporate the organization's quality policies into the project				●
Project Resource Management	Acquire Resources	The process of obtaining team members, facilities, equipment, materials, supplies, and other resources necessary to complete project work				●
	Develop Team	The process of improving competencies, team member interaction, and the overall team environment to enhance project performance.				●
	Manage Team	The process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance			●	
Project Communications Management	Manage Communications	The process of ensuring timely and appropriate collection, creation, distribution, storage, retrieval, management, monitoring, and the ultimate disposition of project information				●
Project Risk Management	Implement Risk Responses	The process of implementing agreed-upon risk response plans				●
Project Procurement Management	Conduct Procurements	The process of obtaining seller responses, selecting a seller, and awarding a contract.				●

Project Stakeholder Management	Manage Stakeholder Engagement	The process of communicating and working with stakeholders to meet their needs and expectations, address issues, and foster appropriate stakeholder engagement involvement.	●

4. Monitoring and control

Table 31: Monitoring and control processes (taken from the PMBoK (PMI, 2017))

Knowledge area	Monitoring and control process	Description	A	B	C	D
Project Integration Management	Monitor and Control Project Work	The process of tracking, reviewing, and reporting overall progress to meet the performance objectives defined in the project management plan	●	●	●	●
	Perform Integrated Change Control	The process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project documents, and the project management plan; and communicating the decisions				●
Project Scope Management	Validate Scope	The process of formalizing acceptance of the completed project deliverables	●	●	●	●
	Control Scope	The process of monitoring the status of the project and product scope and managing changes to the scope baseline	●	●	●	●
Project Schedule Management	Control Schedule	The process of monitoring the project's status to update the project schedule and manage changes to the schedule baseline.	●	●	●	●
Project Cost Management	Control Costs	The process of monitoring the status of the project to update the project costs and manage changes to the cost baseline				●
Project Quality Management	Control Quality	The process of monitoring and recording the results of executing the quality management activities to assess performance and ensure the project outputs are complete, correct, and meet customer expectations.			●	●
Project Resource Management	Control Resources	The process of ensuring that the physical resources assigned and allocated to the project are available is planned, as well as monitoring the planned versus actual use of resources and performing corrective action as necessary				

Project Communications Management	Monitor Communications	The process of ensuring the information needs of the project and its stakeholders are met.	
Project Risk Management	Monitor Risks	The process of monitoring the implementation of agreed-upon risk response plans, tracking identified risks, identifying and analyzing new risks, and evaluating risk process effectiveness throughout the project	●
Project Procurement Management	Control Procurements	The process of managing procurement relationships, monitoring contract performance, making changes and corrections as appropriate, and closing out contracts	●
Project Stakeholder Management	Monitor Stakeholder Engagement	The process of monitoring project stakeholder relationships and tailoring strategies for engaging stakeholders through the modification of engagement strategies and plans	

5. Closing

Table 32: Closing processes (taken from the PMBoK (PMI, 2017))

Knowledge area	Closing process	Description	A	B	C	D
Project Integration Management	Close project or phase	The process of finalizing all activities for the project, phase, or contract				●

Appendix C: Interview transcripts

Due to the high number of pages (123), the interview transcripts are in a separate document and may be provided upon request.