

Entrepreneurial Identity and Its Influence on Technology Adoption in Small and Medium Enterprises

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Nature of study: A Qualitative Research

A research proposal submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration

03 November 2025

Plagiarism Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Abstract

This study examines the impact of entrepreneurial identity on the digital technology adoption of South African small and medium enterprises (SMEs). This study is significant because it goes beyond the structural barriers to examine the influence of personal identity on technology use. Owners of SMEs across various industries were interviewed using semi-structured interviews and thematic analysis was employed to determine key trends. It identified four primary identity archetypes, namely, Innovator, Pragmatist, Strategist, and Traditionalist, which helps explain why entrepreneurs with comparable challenges act differently when embracing technology. Innovators focused on using digital tools for growth, Pragmatist addressed the practical issues using digital tools, Strategists used technology to fulfil the long-term objectives, and Traditionalists liked stable solutions that could be trusted. Market pressure, competition and regulation further influenced identity, which demonstrated that resources and knowledge do not solely determine the decisions to be adopted.

The main limitation of the research is that it is restricted in its sample size and specific to South African SMEs and therefore cannot be generalised. It is recommended that policymakers and support agencies design programs that match these identity types, such as innovation grants for Innovators and trust-building mentorship for Traditionalists. Future studies are needed to confirm these results with larger and more diverse samples and to investigate such effects as gender, age, and business industry. This study contributes to the formation of new policy, formation of theory, and creation of practical support that can lead to growth and change in SMEs and other emerging economies by illustrating the links between entrepreneurial identity and digital adoption.

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List of Acronyms

DBSA	Development Bank of Southern Africa
DFIs	development-finance institutions
DOI	Diffusion of Innovations Theory
ICT	Information and Communications Technology
IDC	Industrial Development Corporation
IT	Information Technology
MSMEs	micro, small, and medium-sized enterprises
NEF	National Empowerment Fund
POPIA	Protection of Personal Information Act
RBV	Resource-Based View
SACCI	South African Chamber of Commerce and Industry
SARS	South African Revenue Service
SMEs	Small and Medium Enterprises (also defined as "small and medium-sized enterprises")
SRQs	secondary research questions
TAM	Technology Acceptance Model
UTAUT	Unified Theory of Acceptance and Use of Technology
UTAUT2	An extension of the Unified Theory of Acceptance and Use of Technology

Chapter 1: Introduction

1.1 Research Problem

Omrani et al. (2022) state that increasingly, small businesses are seen as reliant on digital transformation to stay competitive, improve their flexibility and maintain their sustainability for years to come. Digital devices such as those for cloud computing, e-commerce and artificial intelligence allow small firms to expand and operate more efficiently when responding to changes in the market (Sjödín et al., 2021). In the wake of global disruptions such as the emergence of the sharing economy (Airbnb, Uber, etc), the ability to digitally adapt has become even more crucial for small enterprise survival and growth (Geissinger et al., 2019). Although everyone can access technology for less, not all small businesses adopt technology at the same rate; some move very slowly (Horváth & Szabó, 2019). Empirical studies across various economies show that many small business owners either delay digital adoption, adopt minimally, or fail to integrate technology in ways that drive significant value (Eller et al., 2020; Lei et al., 2024).

The traditional technology adoption model, most notably the Unified Theory of Acceptance and Use of Technology (UTAUT), has been instrumental in identifying core predictors of adoption behaviour. These include perceived benefit, simplicity in use, social pressure and factors promoting its use (Venkatesh et al., 2003). According to Tamilmani et al. (2021), even though these constructs are useful, they largely follow rational-choice and cognitive-behavioural thought. Therefore, they tend to miss the impact of emotions, individual identity and personal values on how entrepreneurs interact with innovation (Tamilmani et al., 2021).

This theoretical limitation stands out even more in the case of small firms, since the entrepreneur is often responsible for the vision and operational running of the firm (Liu et al., 2019). Unlike bigger firms that often have many decision-makers and formal procedures, small companies are strongly influenced by the characteristics, values and self-perception of their owner (Brown, 2022). Entrepreneurial identity theory states that entrepreneurs form their identities based on values, social roles and goals, which direct how they see new opportunities and risks (Madjidi et al., 2024).

The gap in the knowledge about the drivers of digital technology adoption among SMEs in both entrepreneurship and innovation literature is significant (Omrani et al., 2022). Despite the growing recognition of the role of identity in entrepreneurial judgement and strategic orientation, little empirical research exploring how the fit or lack thereof between

identity and technological changes affects actual adoption behaviour exists (Becker et al., 2025).

Identity also includes the effects of society, culture and context on which it is formed. Entrepreneurial identity is not formed in isolation; it is guided by the culture of the communities, industry expectations, and the institutional narratives (van Merrienboer et al., 2022). As a result, understanding technology adoption requires considering how new tools are viewed by entrepreneurs within their unique situations. Individuals who are tech-progressive may be eager to use digital strategies to achieve leadership and create changes in the market, yet individuals with a traditional identity might think digitalisation challenges the company's authenticity and craftsmanship (Suddaby & Jaskiewicz, 2020).

In light of these insights, research about digitalisation and digital transformation for entrepreneurs is extensive, but very few studies have explored how entrepreneurs' identity affects their use of technology in small businesses (Tsai et al., 2021). Including identity in discussions about adopting technology benefits scholars and policymakers to better recognise and support the differences in how small businesses use technology (Hand et al., 2020; Murnieks et al., 2020).

1.2 Research Objectives and Scope

The primary aim of this research is to examine the relationship that exists between the use of digital technologies and entrepreneurial identity among South African small and medium-sized businesses (SMEs). The specific purpose of the investigation in the study is to explore the interaction between the individual identity of the entrepreneur (that is, values, beliefs, and orientations) and the contextual and structural barriers to influence the results of adoption.

This paper acknowledges the idea that entrepreneurs can possess varying identity archetypes (e.g., tech-oriented, mission-driven, or tradition-bound). Such archetypes are taken into account in the analysis of the barriers being experienced by entrepreneurs and their decision-making on adoption.

The primary objective is to:

1. Determine the main obstacles SMEs face while implementing digital technologies.
2. Examine how decisions about technology use are influenced by entrepreneurial identity.

3. Examine how internal (such as thinking and self-perception) and external (such as infrastructure, literacy, and environmental factors) elements interact to influence adoption behaviour.
4. Describe tactics that can improve SMEs' preparedness for the digital transformation.

1.3 Scope of the Study

The study's scope is restricted to South African SMEs, with an emphasis on entrepreneurs and/or founders between the ages of 30–55 and who are mostly based in Gauteng but are also sampled from other regions for diversity. Entrepreneurs from a variety of industries, including those with low, moderate, and high levels of digital adoption, were the focus of the study. Since decision-makers are the main forces behind the adoption of technology in SMEs, the study guarantees that their viewpoints are directly represented by concentrating on this group.

The four dimensions of population, geography, sector, and temporal focus are used to define the scope of this study.

1.3.1 Population

The study focuses on SMEs as defined under South African legal frameworks. SMEs are typically defined by factors such as asset value, yearly turnover, and staff count. The study focuses on entrepreneurs and business owners in this demographic who are between the ages of 30 and 50. This group was chosen because they are a subset of business owners who are actively running their companies during a time of rapid technological advancement and who are probably going to encounter both the advantages and disadvantages of digital adoption. Because they are the main decision-makers in SMEs and because their identity and orientation immediately influence strategic choices, owners and founders are especially important (Ravasi et al., 2020).

1.3.2 Geography

Gauteng Province, which has a large concentration of SMEs in a variety of industries, is the study's main geographic focus. Even though the digital infrastructure in Gauteng is slightly further advanced than in other regions, there are still gaps in adoption. SMEs in other provinces, such as Limpopo and Kwa-Zulu Natal, were also included in the survey to make the findings more representative and capture provincial variations in entrepreneurial orientation and access to technology.

1.3.3 Sector

The research examines SMEs within different sectors, including accounting, medicine, retail, and hospitality, among others. Since entrepreneurial identities and barriers to technology adoption may vary with the forces within an industry (Kelly & McAdam, 2023), this cross-sectoral solution is essential. The implementation of e-commerce systems, such as that, may be more significant in the retail sector, and in accounting, the risks may be posed by a slower pace of industrial change and less familiarity with digital technology. The inclusion of various sectors in the study is a bid to determine an industry-specific problem as well as overall trends across different sectors.

1.3.4 Temporal Focus

The temporal scope of the study is the present age, which is now full of digital technologies for SMEs, particularly over the last decade. The COVID-19 pandemic accelerated the adoption of digital technologies all over the world, and South African SMEs were challenged by opportunities and pressure to implement technology in their operations. This background puts the study in an age where the use of digital is increasingly requiring a company to survive and compete.

1.3.5 Boundaries and Exclusions

This is not an attempt to compare microbusinesses and the large organisations, which are not within the scope of being classified as an SME. Similarly, even though the study acknowledges the role of institutional structures and governmental policies in shaping the environment of technological adoption, these elements were classified as peripheral elements and not the analytical elements. The entrepreneur' names and their interaction with the level of adoption of the ventures remain to be the main focus.

1.4 Research Context and Setting

The formal sectors of the South African economy are controlled by a small number of major companies, whereas the number of SMEs serving as the source of employment, innovative potential, and community-based economic activity is immense (Mashavira et al., 2022; Msomi & Olarewaju, 2021). Consequently, the digital revolution is not only a business but also a national economic priority in this sphere.

1.4.1 SMEs in the South African Economy

South African SMEs often operate in resource-constrained environments, and barriers are limited to access to financial resources, the absence of skilled labour, and too much red tape (Epede & Wang, 2022; Mpofu & Sibindi, 2022). Government actions have tried to reduce such restrictions through the support programs provided by the Department of Small Business Development and other digitalisation programs. The rate of adoption of digital technology remains imbalanced, though, and lots of SMEs continue to employ traditional ways of conducting business (Omrani et al., 2022).

1.4.2 Technology Adoption in SMEs

The digital technologies provide SMEs with an opportunity to become more productive, enter new markets, and enhance relationships with clients. Some of these technologies are cloud-based platforms, mobile applications and e-commerce tools. It is known that the implementation of digital tools can help SMEs gain a competitive advantage and enhance their productivity (Appio et al., 2021). However, the barrier to adoption continues to be cost, technical expertise, and lack of infrastructure, particularly in the rural regions (Omrani et al., 2022).

1.4.3 Entrepreneurial Identity in the South African Context

The diversity of South African entrepreneurs makes the adoption environment even more challenging. Ranabahu et al. (2025) posit that entrepreneurial identity is shaped by culture, history, and personal experiences, and it refers to how people see themselves and their role in starting and running a business. On the other hand, despite systemic obstacles, entrepreneurs who possess a strong growth-oriented identity may actively seek digital solutions, leveraging their unique experiences to create visibility in their ventures. In the cases when formal access to business education and technological means is low, entrepreneurs will focus more on survival strategies, rather than on innovations and will be less inclined to use the digital tools (Omrani et al., 2022).

1.4.4 Post-Pandemic Environment

The COVID-19 pandemic revealed the importance of being digitally prepared.

According to Ameen et al. (2022), switching to online sales, remote operations, and online marketing, SMEs that are digitally capable were in a better position to adapt to the lockdown restrictions. The inability of many SMEs to make this move came as a result

of either the absence of entrepreneurial spirit or infrastructural support, which resulted in either the closure or incurring huge losses.

Khurana et al. (2022) posit that this crisis has brought to light the inequalities in technological adoption capabilities among the SMEs and the need to comprehend both identity-based as well as structural determinants of adoption. The South African SME ecosystem, in its turn, offers a promising yet difficult setting for studying the relationship between digital usage and entrepreneurial identity, which is why the issue is becoming particularly important to study in the framework of academic research and policy development.

1.5 Problem Statement Summary

Regardless of the evident benefits of digital technologies to SMEs, including the increase in competitiveness, improved customer interaction, and improved efficiency, the adoption rates remain low in South Africa. Past research, such as that of Li et al. (2018), has mainly factored structural barriers to digital adoption, such as low levels of computer literacy, inadequate Internet access, and inadequate financial support, but has not adequately factored the effect of entrepreneur identity on adoption behaviour. This knowledge gap regarding the impact of the entrepreneurial identity is significant in the setting where a lack of education, experience, and cultural limitations might affect the preparedness of entrepreneurs to undergo digital transformation. Therefore, this study aims to examine the interactions between entrepreneurial identity, internal and external barriers in the digital adoption of SMEs in South Africa.

This difference is especially relevant in South Africa, where SMEs operate under diverse sociocultural conditions and with a severe lack of resources. The efforts to aid SME digital transformation carry the risk of being inadequate and ineffective, unless this aspect is tackled (Omrani et al., 2022).

The purpose of this study is to fill the gap by investigating the extent to which various types or archetypes of entrepreneurial identities, including tech-oriented, mission-driven, or tradition-bound identities (Chaudhry et al., 2024), can be used to predict the openness or the resistance to digital adoption.

1.6 Purpose Statement

The purpose of this study is to investigate how the identity of the entrepreneur influences digital technology adoption in SMEs. Although literature on adopting technology emphasises organisational factors, cognitive factors and the way technology works,

there is still a big gap in knowing how personal identity affects people's entrepreneurial decisions (Fakhr Hosseini et al. 2024). The study aims to bridge the gap by looking at the extent to which various forms of entrepreneurial identity or archetypes, including tech-oriented entrepreneurial identity, mission-driven entrepreneurial identity, and tradition-bound entrepreneurial identity (Chaudhry et al., 2024), can be used to predict openness or resistance toward digital innovation.

1.7 Justification for the Study

1.7.1 Practical Relevance

The digital economy is one of the features that make the modern corporate environment unique. Digital developments are no longer an optional enhancement that can help SMEs in South Africa to survive and grow, but a necessity. Digital tools can help businesses to save operating costs, penetrate new markets, and increase customer service (Teng et al., 2022). Most SMEs, however, are unwilling or incapable of utilising these technologies, and this restricts their ability to compete in the domestic and international markets. The findings of this research will be useful in helping to correct legislation, support initiatives, and SME growth plans by analysing why the adoption remains low.

With respect to the managerial problems, the findings assist entrepreneurs and SME owners to understand how their own identities, values, and perceptions affect their decision-making (Hsu et al., 2019). These factors will empower entrepreneurs to overcome self-imposed barriers and develop strategies to align their business practices with technological opportunities. Additionally, such insights can be converted into design interventions by policymakers, incubators, and supporting agencies to address structural barriers and generate confidence and identity alignment with the digital transformation among entrepreneurs.

1.7.2 Theoretical Relevance

On an academic level, this research contributes to two significant literature fields, namely entrepreneurial identity and technology adoption. Technology adoption models such as the Diffusion of Innovations Theory (DOI) and UTAUT are often used by SMEs, but often focus more on the structural factors of the matter, such as the perceived utility, the perceived convenience of use, and the availability of resources (Acharya & Mekker, 2022; Carreiro & Oliveira, 2019). Entrepreneurial identity as a factor that determines adoption behaviour has received less attention, particularly in developing countries.

This study bridges an important gap in the literature by considering entrepreneurial identity in digital adoption. It introduces identity as a moderator that shapes the way entrepreneurs perceive and respond to both internal and external challenges, and not as a single characteristic feature (Abubakre et al., 2021). This point of view adds to the ongoing debates within the literature on entrepreneurship and offers a high level of explanation on the variation of the outcomes of the technology adoption, even in SMEs presented with identical external conditions.

1.7.3 Contribution to Knowledge

Thus, the study makes two contributions. Practically, it generates learnings that could make SMEs stronger and competitive in the digital economy. In theory, its identity as a focal point of explanatory variables extends the body of knowledge on the adoption of technology. It does so by generating new possibilities in the future to research the connections between identity, digital transformation, and entrepreneurship.

1.8 Research Report Structure

The remainder of this study is organised in the following manner:

Chapter 2: Literature Review

The chapter provides an in-depth discussion of concepts and theories pertaining to entrepreneurial identity and adoption of technology among South African SMEs. It reviews past research, with a focus on the role of SMEs in economic development, the benefits and barriers of technology adoption, and how entrepreneurial identity interacts with adoption behaviour. Significant models, such as the Technology Acceptance Model and Resource-Based View, are presented to reveal gaps and connections between the existing knowledge.

Chapter 3: Research Questions

The chapter also presents the major research questions that informed the study. They are supposed to determine how the identity of entrepreneurship determines the adoption of technology, what identity archetypes accompany the proactive and recalcitrant behaviours, and how the environment combines with identity in decision-making.

Chapter 4: Research Methodology

The study has a qualitative methodology, which is described. The chapter establishes the research design, interpretivism philosophy and the inductive explanation of the methodologies. It describes the methods of sampling, recruiting and interviewing the

participants and explains the ethical considerations and the methods of data analysis adopted.

Chapter 5: Data Analysis and Findings

This chapter presents findings from in-depth interviews with South African SME owners and founders. It talks about the role that entrepreneurial identity plays in adoption behaviours, identity archetypes and their practical implications, and situational factors (industry, market forces, regulatory constraints, and so on) and trends that emerged to be interpreted to demonstrate how identity and the environment interact to influence technology adoption in SMEs.

Chapter 6: Discussion of Findings

The discussion is critical to assess the findings of the research concerning the literature and the research questions established. It explains the role of identity orientations and environmental influences in explaining various adoption orientations and how the findings are consistent with theoretical models and the implications of the findings on SME support and policy interventions. This chapter addresses significance, alignment, and broader lessons for the South African SME context.

Chapter 7: Conclusion and Recommendations

This chapter is a summary of the key lessons learned, a statement of limitations in the study, and recommendations that could be made in future research and policy practice. It is about how entrepreneurial identity shapes technology adoption decisions and suggests interventions to better support SMEs in their digital transformation journey. This chapter addresses the key lessons learned, the limitations in the study, and recommendations that could be considered for future research.

1.9 Chapter Summary

The initial chapter presents the study on entrepreneurial identity and its influence on the adoption of digital technology among South African SMEs. It indicates a knowledge gap in available literature because it concentrates on the self-perceptions of the entrepreneurs and not the structural barriers. The chapter describes the scope, which includes population, geography and post-pandemic context. It highlights the identity of the entrepreneur as a highly critical cognitive variable that affects the use of technology, and reasons the relevance of the study.

Chapter 2: Literature Review

2.1 Introduction

A literature review is supposed to show that the author has a good understanding of the body of information concerning the topic of the study. Within the context of the current study, the review locates SME use of technology and entrepreneur identity and finds gaps in the existing body of literature that highlight the need for future research.

A wide literature review is not merely an overview or a list of past research. It critically engages the published work by comparing the findings, finding discrepancies, determining the methodological and theoretical worth, and evaluating the published work (Snyder, 2019). By doing so, the review puts the current issue into a broader context in the scholarly community and provides it with a definite intellectual grounding.

This study has three functions, which are interrelated with the literature review. It introduces, firstly, the relevance of the use of digital technology as an academic and practical factor in defining the resilience, competitiveness, and sustainability of SMEs. Second, it finds and examines the barriers to adoption, both behavioural and sociocultural and structural, such as infrastructure, skills and funding. Third, it examines entrepreneurial identity as an aspect that may be significant but insufficiently researched and may either benefit or harm the digitalisation of SMEs. The review, therefore, reinforces the need to look at a holistic study of the internal identity-based effects and the external restraint in detail.

SMEs are considered the backbone of any economy globally, and they constitute the vast majority of businesses and provide employment opportunities across various sectors (Pizzi et al., 2021). Poverty alleviation, social inclusion, and economic growth, which are critically important in developing countries such as South Africa, where they are indispensable, make their significance even greater (Smidt & Jokonya, 2022). Notwithstanding this significance, failure rates are still significant, and SMEs routinely struggle to endure past their initial years of operation. One recurring theme in the literature is that SMEs which adopt digital technologies are more likely to survive and thrive, while those that resist adoption face limited growth prospects and increased vulnerability to competitive pressures (Jia et al., 2024).

Globalisation and the post-pandemic economy's shocks have made the need for digital adoption even more urgent. The COVID-19 pandemic highlighted the instability of SMEs that were not digital as numerous of them failed to switch to remote operation, online

platforms, and new delivery patterns (Thorgren & Williams, 2020). On the contrary, SMEs that had adopted digital tools were more resilient and showed the ability to be agile in customer relationships and revenue streams despite the restrictions (Fraccastoro et al., 2021). This division has introduced more scholarly and policy attention on digital transformation as a strategic necessity and not a luxurious update.

The scholarly materials present useful facts about the structural and behavioural forces which influence adoption. On the one hand, structural explanations pay attention to the barriers that are most acute in emerging economies, such as the absence of infrastructure, shortage of skills, and affordability (Serumaga-Zake & van der Poll, 2021). On the contrary, behavioural research examines the contribution made by the attitudes, values and beliefs of entrepreneurs in their strategic decision-making; this has barely been used in the issue of technology adoption previously (Messeni Petruzzelli et al., 2022). The idea of entrepreneurial identity, how individuals identify themselves, and their roles as entrepreneurs or business leaders, creates a promising aspect of the concept of adoption behaviour. Recognition, innovation, and risk-taking have been attributed to identity, but the moderation of adoption decisions by identity has not been well studied (Hand et al., 2020).

The connection between the structural constraints and entrepreneurial identity is especially relevant in South Africa, where entrepreneurs act under a socioeconomic environment with restrictive resources, inequality, and diversity of backgrounds (Abubakre et al., 2021). Being exposed to similar external challenges, SMEs often make different decisions: one of them opting to become digital, while others avoid it. The interaction of identity with the external world is also worth considering to describe this departure (Nambisan et al., 2019). The chapter establishes the present investigation to cover a big gap by considering the structural and identity-based literature.

This chapter is structured based on a theme. It begins with an overview of the role played by SMEs in economic growth, and this explains their broader significance to both domestic and global economies. It then proceeds to discuss the literature on the adoption of technology by SMEs, both from the international perspective and the adoption environment in South Africa. The barriers to adoption are analysed in subsequent sections, which take into consideration anything between the sociocultural and skill gap, to financial and infrastructure issues. Subsequently, this paper examines the concept of entrepreneurial identity and its theoretical foundations and its potential relationship with technology adoption. Cunningham et al. (2023) state that the current frameworks do not pay enough attention to the softer aspects within the context of entrepreneurial identity

that might matter in the cross-cultural setting, which is South Africa. Moreover, the authors suggest that opportunity recognition and cognition are the entrepreneurial mindset that should be considered as the key determinant of technology adoption to generate value.

The chapter then summarises these findings and provides a research gap that the present study will seek to address.

2.2 The Role of SMEs in Economic Development

There is a general consensus that SMEs form the base of most economies and are the key to innovation, job creation, and poverty alleviation. SMEs make up more than 90 percent of the number of enterprises in the world and contribute significantly to the economy in terms of employment and GDP (Algan, 2019). They play a key role in responding to the changing market situation, particularly in emerging countries where large companies are fewer and more dispersed because of their agility and flexibility (Lim et al., 2020).

2.2.1 Global Significance of SMEs

The global research on SMEs demonstrates that these enterprises are necessary to facilitate fair and sustainable development under various economic conditions (de Sousa Jabbour et al., 2020). They contribute to the diversification of the economy by providing labour in the manufacturing sector, services, and the retailing facility, construction, as well as the agriculture segment (Scuotto et al., 2021). Their long presence underscores the importance of them as agents of community building, poverty reduction and employment.

Innovation is often an incubator of SMEs in industrialised economies (Wang et al., 2020). They tend to be lighter and less encumbered by bureaucracy than the giant organisations, which helps them experiment with new ideas, business strategies, and technologies (Lukeš et al., 2019). Due to their agility, they can be at the forefront in coming up with new innovative goods and services, of which most are then acquired by the larger companies or integrated into international value chains. Canhoto et al. (2021) have also attributed the entrepreneurship dynamism of SMEs to driving technological change, as well as keeping them competitive in the mature markets.

In the emerging economies, the role of SMEs is often more basic. Besides innovation, SMEs play a crucial role in addressing structural problems such as unemployment, inequality and informality. They provide livelihood to people who tend to be marginalised

in traditional labour markets, like women, youths and rural society. It is believed that SMEs stabilise societies that are highly socioeconomically vulnerable, and this is because they generate jobs and enhance household earnings (Skare et al., 2023). More importantly, in such circumstances, SMEs are able to offer opportunities of upward mobility when individuals can transfer subsistence into more organised commercial activities.

Their role in global supply chains and trade also illustrates the role that SMEs play on an international level. SMEs bridge the local economies to the global value creation processes through becoming subcontractors, service providers, and speciality producers in the domestic and international markets. The diversification of their sources of production and employment helps SMEs to cushion economies against external shocks, thereby enhancing their resilience and boosting export growth (Kottika et al., 2020).

Taken as a whole, these dynamics prove that SMEs are not fringe players within global economies, but rather core elements of the latter. They influence the innovation, social inclusion, and economic resiliency permanently, as well as generate jobs and income immediately. The way in which digital technologies are used across the performance of SMEs, whether they promote it or not, is thus a universal issue.

2.2.2 SMEs in the South African Context

According to the Small Business Growth Index (South African Chamber of Commerce and Industry [SACCI], 2025), SMEs in South Africa are responsible for around 34% of the country's GDP and 60% of all jobs. They are important in the economy as they provide opportunities for localised service delivery, job creation and entrepreneurship. SMEs are vital in taking up semi-skilled and unskilled labour to facilitate the development of more inclusive growth, increasing income disparity, and high unemployment rates that continue to plague the country (Eikelenboom & de Jong, 2019). Their value extends beyond the economic metrics to social stability since they sustain livelihoods both in the city and the countryside.

Moreover, SMEs are also crucial to supply chains as they sustain local markets and act as suppliers, subcontractors, and service providers to larger businesses. Their availability in these networks enhances competitiveness and economic development in the region. Due to their agility, SMEs can occupy niches that would otherwise not be profitable to larger entities and can quickly adapt to new market needs. Due to their elasticity, the SMEs play a significant role in maintaining the economic vitality of the diversified South African economy.

Nevertheless, even with their importance, South African SMEs also face severe structural challenges which threaten their sustainability. Empirical data indicate that many SMEs do not survive the initial three years of operation and, as a result, there is a high turnover and an unstable situation in the business (Jayasekara et al., 2020). The causes of these failures are numerous and complex. As a result of their failures to secure loans through the conventional banking institutions, as a result of not having collateral or credit histories, entrepreneurs still struggle to gain access to financing (Eggers, 2020). Also, the lack of managerial capabilities limits the ability of SME owners to expand operations, embrace formal governance frameworks, and embrace strategic innovations.

Regulatory restrictions also have a serious effect on SMEs. It is also alleged by entrepreneurs that administrative procedures and compliance costs are quite heavy, costly, and even lengthy, even though South Africa has made policies to support the development of small businesses (Epede & Wang, 2022). This is compounded by the fact that SMEs are prone to market fluctuations; because they often deal with low profit margins, they are prone to inflationary pressures, exchange rate fluctuations and economic recessions. The COVID-19 pandemic further revealed these vulnerabilities because thousands of SMEs were closed temporarily or permanently under lockdown restrictions and reduced customer demand (Carlitz & Makhura, 2021).

The digital economy presents new threats and huge potential for SMEs in South Africa. On the one hand, by eliminating geographical distance, reducing operational costs, and offering regional and international markets, the use of digital tools can overcome some of the traditional barriers to growth. An example is that SMEs can have more consumers and do business more efficiently with the help of e-commerce and electronic payment systems. Nonetheless, in order to achieve successful adoption, there should be an initial investment, technical skills and a willingness to take part in organisational change. Most SMEs, even now, are hesitant to commit to them, especially in times of constant uncertainty regarding the return on investment (Gaglio et al., 2022).

The South African SME environment is characterised by a paradox when it is viewed as a whole. Despite the fact that SMEs are critical to socioeconomic development, their development and expansion are limited by contextual and structural factors. Despite the fact that the use of digital technologies remains unequal and inconsistent, they are a possible solution to most of these issues. Hence, understanding factors which either facilitate or hinder digital transformation within this industry is essential in both academic research and policy design.

2.2.3 Implications for Economic Development

The overall course of South Africa's economic development is closely related to the state of the SME sector. To facilitate the national growth objectives, a digitally empowered SME sector can enhance productivity, competitiveness, and innovation (Malodia et al., 2023). Conversely, the lack of implementation of technology may entrench inefficiencies and diminish the capacity of the sector to enhance inclusive development. Due to its strategic importance, policy-makers and scholars should understand the way SMEs use digital technology.

2.3 Technology Adoption in SMEs

In the new era of doing business, the adoption of digital technology has become an essential survival and competitiveness factor. Digital technologies are no longer only available to large organisations, but smaller businesses are also mandated to utilise them. These tools assist businesses in accessing new markets, enhancing their customer service, and automating their operations (Forman & Van Zeebroeck, 2019). Digital technology can be strategically used as a powerful equaliser of SMEs, which in many cases have labour, capital and scale constraints. This can assist them to compete better in the league with larger businesses and enhance their survival in the long run.

Adoption of digital technology includes several different activities. Fundamentally, it involves using marketing and communication tools like social media, websites, and email to help SMEs reach a wider audience and interact with clients. On a higher level, it encompasses cloud computing, customer relationship management systems, data analytics, and enterprise resource planning software, which allows making the internal processes more efficient and prevents making decisions without the knowledge (Cirillo et al., 2023). These technologies not only lower the cost of transactions but also encourage innovation, as they allow entrepreneurs to experiment with fewer resources and to expand at a faster rate when the opportunity arises.

The impact of digital adoption in SMEs has been extensively explored on a global scale. Digital-based SMEs experience better customer retention, development of productivity, and improved global value chain inclusions in industrialised economies (Usai et al., 2021). Based on other studies, digital technology makes SMEs more resilient to external shocks such as market fluctuations or disruptions in the world, and therefore more robust (Blichfeldt & Faullant, 2021). Nevertheless, uptake in the emerging economies has been less even and slower. Mobile technologies and simple access to the internet have diffused quickly, but the adoption of more sophisticated systems is low because of

affordability, a mismatch with digital illiteracy, and poor infrastructure (Forman & Van Zeebroeck, 2019).

The combination of this global development trend and long-term challenges can be seen in the adoption of digital technology by the SMEs in South Africa. On the one hand, many micro-enterprises have successfully adopted digital solutions such as social media internet commercials, mobile cash transfer systems and WhatsApp Business. These cheap technologies have become the key to accessing markets, particularly to businesses interested in reaching younger, more tech-savvy customers. Nonetheless, more sophisticated technologies such as digital supply chain platforms, big data analytics, and cloud-based accounting systems have been adopted very slowly. Research indicates that SMEs often delay investing in such technologies since they are uncertain about their value, do not have technical expertise, and think that they are designed primarily to work with bigger companies (Capestro et al., 2024).

The COVID-19 pandemic was a natural experiment that was instrumental in establishing the importance of digital adoption. Those SMEs that had already invested in digital marketing, online commerce, and online platforms had an advantage to survive lockdowns, continue operating and even gain market share. On the contrary, companies that had not adopted digital tools were highly disrupted, and others were even forced to close permanently (Pedota et al., 2023). Subsequently, the pandemic made the digital transformation more urgent and demonstrated that adoption is not only a growth choice but also a survival need in times of crisis.

Despite these obvious advantages, adoption rates in South Africa continue to vary by sector and geographic area. Some industries, including manufacturing and agriculture, have taken longer to adjust to digitalisation than others, like financial services and retail.

Due to inadequate infrastructure, such as restricted access to dependable internet and energy, SMEs located in rural areas are particularly vulnerable. These differences underline the need for context-sensitive adoption support techniques and serve to further entrench already-existing inequalities in the SME sector (Lashitew, 2023).

2.3.1 Benefits of Digital Technology Adoption

Digital technology adoption can provide SME with a variety of benefits, most of which directly relate to the structural challenges that these enterprises face, including their limited size, limited resources and high competition. These benefits can be divided into three main categories, including the ability to be innovative, market growth, and efficiency of their operations (Chatterjee et al., 2020).

The digital technologies enhance the efficiency of the operations by automating repetitive operations and reducing errors, as well as enhancing data management. As an example, enterprise resource planning software can help to unify a number of different processes such as procurement, inventory control and customer service, whereas cloud-based accounting software can help SMEs to make financial reports easier. Automation of routine processes liberates constrained management and labour resources, and the owners of the firm focus on strategic decision-making and growth. To improve access to real-time data, SMEs are able to react faster to a change in either supply or demand because they also facilitate evidence-based decision-making (Su et al., 2023).

Digital technologies assist SMEs in accessing a larger demographic and geographic audience in terms of market reach. E-commerce sites, social networks, and mobile apps help SMEs connect with their customers in new markets, including the national and even international markets beyond the area of their business premises. It is even more crucial in South Africa, where SMEs often have difficulties accessing formal retail supply chains owned by large corporations. Through internet channels, SMEs are able to communicate with customers at a personal level and circumvent the normal distribution barriers. Moreover, digital marketing tools provide the ability to target the outreach, enabling the SMEs to find niche markets, as well as to compete in the already saturated industries (Lyu & Liu, 2021).

Digital technology adoption also enhances the management of relationships and the engagement with clients. With tools such as social media analytics and customer relationship management software, SMEs can monitor consumer buying behaviours, understand the preferences of clients and modify their products accordingly. Such personalisation ability enhances customer loyalty, and it can distinguish SMEs from their competitors that use traditional marketing and sales channels only. It has been found that SMEs that engage consumers in the online space reckon even higher rates of recurring business and thus greater brand recognition (Ritz et al., 2019).

The implementation of digital technologies also promotes innovation through the support of collaboration between supply chains and the minimisation of the entry barriers to new business forms. The digital platform provides market research and advertising at a low cost, and this reduces the expenditure on introducing a new product or service. Digital tools are also useful in helping SMEs to collaborate with partners in the value chain, such as distributors, suppliers, and customers, among others. Such partnerships can result in co-created innovations, a more effective supply chain, and new scaling opportunities. In

the case of digital markets, where small manufacturers or farmers can enter into bigger networks, they become more competitive and visible (Blichfeldt & Faullant, 2021).

Importantly, it has been found that SMEs utilising digital resources experience a greater rise, better customer satisfaction, and more profitability compared to those that do not (Krishen et al., 2021). These performance improvements indicate the cross-cutting nature of digitalisation as it is not confined to high-tech firms but across a range of industries. Digital technologies are a tactical requirement and not a luxury investment due to their ability to reduce expenses, earn more, and enhance flexibility.

2.3.2 Global Perspectives on Adoption Trends

In the last decade, there has been a significant growth in the adoption of digital technology by SMEs at the global level. This acceleration is being fuelled by a broad range of inter-relations in variables like the rising demand for online services in the consumer and business markets, the rise of mobile connectivity, and the declining cost of digital infrastructure. With the increase of digital ecosystems, SMEs are bound to adopt technology more, which helps them not only to remain competitive but also to effectively penetrate global value chains.

The SMEs in the developed economies tend to be on the frontline in the implementation of advanced technologies like artificial intelligence, blockchain, cloud computing, and big data analytics. Such technologies are being incorporated to increase efficiency, customer interaction, and bring about completely new business models. Otherwise, as an example, SMEs in Europe and North America have been able to scale up rapidly via cloud-based solutions without the cost of IT infrastructure (Olson et al., 2021). Likewise, the use of artificial intelligence in customer service, logistics, and marketing has enabled SMEs to compete on a more even footing with bigger companies due to the provision of personalised services at relatively low costs (Herhausen et al., 2020).

Digital tools have also been adopted faster due to the change in consumer behaviour. Digital touchpoints have become expectations of customers worldwide today, including mobile payment systems and online ordering platforms, among others. This type of expectation has enabled SMEs to connect with more people and establish stronger relationships with customers who are technologically inclined. The trend has been very visible in sectors such as retail, travel and finance, where digital interfaces are becoming a norm rather than an exception.

Despite these, the adoption rates differ by geography, with the SMEs in the emerging economies generally taking a longer time to adopt the new technologies. The failure to

find the funding, the absence of digital infrastructure and the digital illiteracy are among these structural constraints that cause such a discrepancy (Omrani et al., 2022).

Some of them have high internet costs and unstable power, which discourages SMEs from investing in online systems. This skewed adoption is allowing SMEs in rich economies to move into global digital ecosystems, but poor countries risk falling behind. This is what is referred to as the digital divide.

But more basic tools of digital technology, particularly mobile technologies, are also spreading rapidly in emerging economies. With the ubiquity of mobile phones, the SMEs of Asia, Latin America, and Africa have had the opportunity to adopt digital payments, social media marketing, and mobile banking on a large scale, letting them transcend certain technology levels (Hein et al., 2020). These technologies have been groundbreaking, particularly to micro and small companies, which could not obtain official banking and marketing routes previously.

In this way, similarities and differences are observed in the general image. Despite the global recognition of the strategic significance of digital adoption among SMEs, local conditions have a significant effect on the depth and extent of adoption. Although in the emerging countries, SMEs are often focused on mobile-enabled solutions addressing the pressing demands of their operations, the developed economies are shifting to Industry 4.0 integration (Riley et al., 2025). There is no reason to believe that adoption-associated factors and challenges are universal; therefore, this gap demonstrates the significance of contextualised studies.

This study by Riley et al. (2025) demonstrates the importance of contextual factors in the adoption of digital financial services, especially those of SMEs in emerging economies. It raises concerns about how SMEs can take advantage of simple and advanced digital technologies, but cautions about the risks of missing global markets in case the adoption is slow. The adoption landscape of South Africa portrays many of these global trends, as discussed in the following subsection. Nevertheless, it is also affected by some local opportunities and constraints.

2.3.3 The South African Adoption Landscape

Digital adoption in South Africa has seen both improvements and persisting challenges. Basic digital tools that most SMEs have adopted are websites, social networking sites and mobile payment systems. Such tools are particularly important now to reach consumers living in cities and help in their survival plans during economic crises such as the COVID-19 pandemic. Nevertheless, more advanced technologies such as digital

supply chain management, analytics of big data, and cloud-based business solutions are yet to be embraced by the masses.

In South Africa, a few things still make it hard for businesses to take up digital tools. Infrastructure is not the same everywhere; cities are better equipped than rural areas, and many people simply don't have the right technical skills to use or manage these systems. For smaller firms, the cost is also a big hurdle because they often don't have spare funds to spend on new technology (Kindström et al., 2024). Added to that, a lot of entrepreneurs are unsure if the money they put in will really bring returns, so they hold back on making those financial and organisational changes.

2.3.4 Strategic Importance of Adoption

The digital transformation of SMEs in South Africa is strategically important in order to make the country economically competitive. Small businesses that fail to keep pace with the adoption of advanced digital technology by larger corporations face a threat of losing market share or being excluded from the supplier chains. Conversely, SMEs that leverage digital tools can position themselves on a faster scale, compete effectively, and contribute to the economic progress of their nation to a greater extent (Appio et al., 2021). Thus, there is a need to understand factors that influence adoption, including the role of entrepreneurial identity, to create business plans and legislative interventions (Battistoni et al., 2023).

2.4 Barriers to Technology Adoption

There are still numerous challenges to the mainstream acceptance of the value of digital adoption of SMEs. Despite the cheap prices or evident benefits of technologies, the literature provides some barriers that prevent or inhibit adoption. These barriers may be categorised in general as financial constraints, talent and computer literacy, infrastructure, institutional and regulatory, and sociocultural (Marzi et al., 2023). All these affect the environment of the entrepreneur and may determine their willingness and capability to use digital solutions.

2.4.1 Financial Constraints

One of the barriers to the adoption of technology that is most frequently referenced is the cost of acquiring and supporting digital tools. SMES are often constrained in terms of finances, and may need immediate survival pressures to be prioritised over long-term investment. The fact that the source of revenue is unpredictable, in turn, makes it hard to justify such investments of SMEs, whereas bigger companies can cover the expenses

of enterprise software, cloud subscriptions, and IT staffing. Researchers in developing countries tend to believe that entrepreneurs perceive online investments as risky, particularly in situations where demand is unpredictable and investment returns are unpredictable (Si et al., 2023).

Access to external capital is also limited. South African SMEs continue to state that they have difficulties in obtaining loans due to risks-averse lending practices by commercial banks and high requirements of collateral (Jafari-Sadeghi et al., 2021). Unless access to decent financing is available to them, SMEs will not be able to invest in even reasonably priced digital tools. SMEs thus find themselves at a disadvantage when compared to bigger firms that will easily absorb technological costs because of financial constraints, which further creates a vicious cycle of underinvestment.

2.4.2 Digital Literacy and Skills Gaps

The lack of skills and computer literacy can hinder adoption, even if there are financial resources. There is a need to not only buy hardware and software, but also to be able to use these elements well so that technological integration can be successful. Fossen and Sorgner (2021) claim that many SME owners and employees are technically insufficient to implement digital systems, leading to underutilisation or discarding attempts earlier.

This differs especially because, whereas younger entrepreneurs are more often than not more confident and flexible when trying new tools, older entrepreneurs might be less familiar with newer digital tools; thus, the difference is most evident. Government programs and training have tried to bridge these gaps, yet the data shows that not all SMEs accept the existing assistance, and some of them simply do not know about it or cannot take advantage of it (de Lucas Ancillo & Gavrilá, 2023). Hence, digital illiteracy not only reduces the rate of adoption but also prevents the expansion of SMEs in digital environments.

2.4.3 Infrastructure and Access Limitations

Another significant obstacle is the availability of dependable infrastructure. Smaller businesses in South Africa face financial difficulties due to the high cost of internet connectivity in comparison to household and business revenue (Nambisan et al., 2019). Furthermore, rural regions frequently have unstable internet connectivity, and frequent power outages erode trust in the adoption of digital systems that depend on steady power. Due to these infrastructure constraints, there is a digital divide in the SME sector, with urban enterprises having more access to cutting-edge equipment while rural firms are left out.

Technical support services are another aspect of infrastructure. Finding reasonably priced IT professionals who can install, manage, or debug digital systems may be difficult for SMEs situated outside of large metropolitan areas. The absence of technical assistance deters adoption even more since business owners worry about being left with technologies they can't use efficiently.

2.4.4 Regulatory and Institutional Obstacles

Institutional and legal frameworks may support or oppose the digitisation of SMEs. Despite the fact that South Africa has government initiatives that help in the development of SMEs, business proprietors often cite that the business environment is stern and complex. Compliance with labour regulations, taxation, and data security regulations boosts the administrative costs and kills creativity. Moreover, other entrepreneurs are unaware of the legal consequences of digital tools, particularly with regard to cybersecurity and customer information (de Lucas Ancillo & Gavrilă, 2023).

Also, institutional support programs on digitisation are normally scattered, underfunded or ill-described. Most SMEs do not know that there are technological grants, advising services and training subsidies that they can access. Thus, the policy environment is not always the source of significant gains in adoption behaviour.

2.4.5 Sociocultural Influences

Sociocultural variables are also critical determiners of adoption decisions, along with institutional and structural barriers. Their cultural and communal values and origins determine the propensity of businessmen to experiment with new technology. Digital technologies can be viewed as a cause of distrust or unnecessary overhead in some societies, whereby the ancient business processes are entrenched. It is also the generational differences: younger entrepreneurs are more likely to be adventurous, and older entrepreneurs might be more conservative and not take risks (Sedera et al., 2022).

Trust is another sociocultural aspect. Online data security, online fraud and scams are the concerns that SMEs often hold against the adoption of the system of digital payment or even online shopping. One of the scarecrows in South Africa, where cybersecurity issues are being consistently brought to the fore, is the lack of trust in online resources.

2.4.6 Synthesis of Barriers

These barriers together demonstrate that many institutional, economic, infrastructural, and sociocultural factors interact and influence the digitisation adoption as opposed to

one factor. Additionally, there are personal identities and orientations of the entrepreneurs that affect their degree of belief regarding the ability to overcome these obstacles. Some people in business may contemplate ways of adapting to and overcoming the barriers, yet others may regard them as inevitable threats. This once again confirms that structural factors and entrepreneurial identity need to be considered in the case of understanding adoption behaviour.

2.5 Entrepreneurial Identity and Technology Adoption

Entrepreneurial identity is a term referring to the way individuals perceive themselves and their role as founders and leaders of companies (Radu-Lefebvre et al., 2021). It influences the perceptions of the possibilities, risk control and interaction of the entrepreneurs with their environment and is shaped by personal values, experiences and social situations (Hand et al., 2020; Murnieks et al., 2020). Entrepreneurial identity plays a vital role in deciding the business direction, such as the application of technology in SMEs, because the owner or founder has direct control over the strategic decisions.

2.5.1 Conceptualising Entrepreneurial Identity

It is known that the concept of entrepreneurial identity is diverse and dynamic. It is not a fixed trait, but it evolves as the entrepreneurs meet new challenges and encounter new experiences. Researchers emphasise that identity has various role orientations, such as provider, manager, innovator, and social contribution (Ekinici et al., 2020). The tension of the roles coexisting frequently due to the presence of these roles and disagreements that may arise influences strategic decision-making. As an example, an entrepreneur who considers himself an innovator will focus more on experimentation and risk-taking, and the one who values himself as a caretaker will not like taking risks in technology.

The identity is relational also. It is also affected by the perceptions of the entrepreneur of self-view and how the entrepreneur believes that the stakeholders, who include the staff, clients, investors, and communities, perceive them (Murnieks et al., 2020). Due to this social embeddedness, the identity of an entrepreneur is a reflection as well as a determinant of how he or she relates with their environment. Identity can evolve to spur innovation in a scenario where stakeholders highly regard digital adoption. However, the opposite is also true, as in cultures that value tradition and caution, identity can strengthen the opposition to technological change.

2.5.2 Influence on Entrepreneurial Behaviour

The role of identity in entrepreneurial behaviour has been reported in such areas as opportunity recognition, innovation, and resilience. The identity is a mental filter that shapes how the owners of the business view external information and decides whether to act or not. As a case in point, those entrepreneurs who think of themselves as growth-oriented leaders would be more inclined to think about digital adoption as a chance to grow, and those who tend to think of themselves as survivalists might regard the same technologies as dangerous distractions (Ladge et al., 2019).

The entrepreneurial risk approach is also determined by their identity. Research shows that entrepreneurs with a high identification of the leader and innovation-oriented professions often possess a greater risk-taking behaviour. In contrast, individuals who consider themselves to be stable and secure may be risk-averse even when offered enticing opportunities. Through these behavioural patterns, the owners of the business directly affect the manner in which they manage the risks of adopting new technologies.

2.5.3 Entrepreneurial Identity and Technology Adoption

Recent studies directly relate the use of technology to entrepreneurial identity. Although those entrepreneurs who consider themselves caretakers or conservative managers are more prone to the delay or avoidance of adoption regardless of having realised the potential, both European and North American settings tend to show that entrepreneurs identifying as innovative progressive leaders are more inclined to adopt digital platforms (Tsai et al., 2021). This means that identity determines the response of the entrepreneur to external opportunities, as well as being a personal characteristic.

More importantly, identity also influences the manner in which the entrepreneurs utilise technologies and the adoption of technologies. Trying to differentiate their company by innovating, a business owner who has a high innovator image can invest in such modern technologies as artificial intelligence or data analytics. Conversely, a service-based entrepreneur may only apply technology, such as a social media platform, that enhances the interaction with the client directly. Such distinctions demonstrate that entrepreneurial identity affects the level and the scale of digital adoption.

2.5.4 The South African Context

Due to the socioeconomic diversity of the country and historical injustices, the issue of entrepreneurship identity gains particular importance in South Africa. Due to cultural factors, education, and expectations of society, entrepreneurs of various backgrounds

often conduct business in a different manner (Gregori et al., 2021). Entrepreneurs from regions with few resources may end up with more of a survival and resilience identity, but those who have encountered more formal education and world markets may end up having more of a growth identity or an innovative identity.

Due to this diversity, one cannot adequately understand the outcome of the digital adoption without considering identity. Two entrepreneurs may respond differently to the same financial and infrastructure barriers depending on their perceptions of themselves. At the same time, one might seek affordable digital solutions to grow their business, whereas the other might not accept the technology as unnecessary or harmful (Bonina et al., 2021). In this regard, identity mediates the connection between adoption behaviour and structural impediments.

2.5.5 The Moderating Role of Identity

Entrepreneurial identity is an intervening factor that determines the perception and treatment of adoption hurdles. Despite real barriers that are posed by infrastructure limits, limited skills and limited funds, it is the identity of entrepreneurs that determines whether to view them as obstacles or to view them as a challenge to be solved in a creative manner. A risk-averse entrepreneur will be able to omit the adoption of digital entirely, whereas a growth-focused entrepreneur may, as an example, invest in training or seek collaboration to bridge literacy gaps (Stevenson et al., 2024).

This moderating role is especially important in light of the high level of structural problems of South African SMEs. The understanding of the correlation between identity and these barriers can be used to understand why some SMEs are able to adopt digital technology despite the difficult conditions and remain unchanged. It also stresses the importance of the regulations and support programs that consider the internal and external orientation of the owners of businesses.

2.6 Theoretical Perspectives on Technology Adoption

The research on the adoption of technologies by businesses has been shaped by a large number of theoretical models that seek to explain the individual and business decisions to either adopt or not adopt innovations. Both of these models also have limitations in their application in the environment of small and medium-sized businesses, yet they provide useful models to analyse adoption behaviour. The most significant ones are the Diffusion of Innovations Theory, the Resource-Based View, and the Technology Acceptance Model.

2.6.1 Technology Acceptance Model

The Davis Technology Acceptance Model (Ritz et al., 2019) specifies that the primary factors of adoption choices are perceived ease of use and perceived utility. Individuals will be more inclined to receive a technology if they are sure that it will enhance performance and is easy to use. The model has been applied widely to understand user behaviour in SMEs and other corporate settings. It has its strong points in its simplicity and its predictive ability. Nevertheless, it diminishes adoption to personal perceptions and falls far short of explaining the broader organisational or contextual forces, including the resource constraint or the entrepreneurial orientation, its critics observe.

2.6.2 Unified Theory of Acceptance and Use of Technology

This qualitative study will further the insight into the role of entrepreneurial identity on the digital technology adoption in small businesses by basing the research on entrepreneurial identity theory and extending existing models of technology acceptance, including the Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2003; 2012). More precisely, it will focus on the interaction between identity motivations of entrepreneurs together with their environment, an industry type, and market pressures, with the resources available, which will eventually influence the outcomes of adoption. The relevance of this study is enhanced because more and more attention is being given to how digital transformation helps small businesses stay competitive and resilient (Khurana et al., 2022).

2.6.3 Diffusion of Innovations Theory

The Diffusion of Inventions Theory by Rogers provides a more detailed sociological framework in understanding the spread of inventions among the populations (Borghi & Mariani, 2022). Having used their openness to new ideas, it separates adopters into categories such as innovators, early adopters, early majority, late majority, and laggards. Also, observability, trialability, complexity, compatibility and relative benefit, among others, are other characteristics of the theory found to predict the rate of adoption. The ability to make resource-constrained choices made by firms, such as SMEs, to make resource-constrained choices, even in situations where the social and temporal dynamics of adoption are well captured by this model, has led to criticism of the model as being too generic and insufficiently dealing with the firm-level decision-making (Vargo et al., 2020).

2.6.4 Resource-Based View

An additional perspective is one offered by the firm Resource-Based View, which focuses on internal capabilities (Barney et al., 2021). According to this view, rare, precious, non-replaceable and unique resources generate a competitive advantage that is lasting. With the needed resources, financial capital, technical expertise, and able leaders, SMEs are in a better position to accept the digital tools successfully in the technology adoption environment. The weakness of this framework is the fact that it is prone to overemphasise the firm-level resources and underestimate the role of the entrepreneurial identity and external institutional settings (Freeman et al., 2021).

2.6.5 Critiques and Emerging Perspectives

Even though these models provide valuable information, none of them describe the complex connection between structural barriers and entrepreneurial identity in the right way (Aydiner et al., 2019). According to Ward (2013), the TAM largely ignores the identity-driven incentives in reference to a focus on personal impressions. Even though it highlights the social adoption patterns, the Diffusion of Innovations Theory cannot predict why entrepreneurs within the same situation can behave in different ways.

Recent literature has argued in favour of integrative frameworks incorporating a behavioural, structural, and identity-based approach. The inclusion of entrepreneurial identity in existing models allows researchers to better clarify why different SMEs adopt different behaviours in response to the same external conditions (Silverman et al., 2023). This study, besides structural constraints and resource factors, also places identity as a moderator of technology adoption as part of this emerging paradigm.

2.7 Linking Entrepreneurial Identity and Technology Adoption

The literature reviewed to date singles out two primary areas of research, namely investment in the barriers to technology adoption by SMEs and research on entrepreneurial identity as a driving force behind entrepreneurial behaviour. Even though the development of both areas of focus is well-formed individually, their integration is not quite good. The importance of this gap is that entrepreneurial identity may influence the perception of barriers and their perception, which may influence the outcome of technology adoption campaigns.

The studies of adoption challenges have generally been based on structural and external factors such as infrastructure, funding, and regulations (Kim & Park, 2019). These arguments are useful, but they are not enough to justify why digital tools are used in

some SMEs despite the same constraints as their peers. In the same way, the research on entrepreneurial identity has primarily been conducted on the role of the same on strategic orientation, entrepreneurial motivation, and the recognition of opportunities (Dong et al., 2021). Yet, there is a lack of empirical studies which directly correlate identification to the behaviour of technology adoption, particularly in the SME sector.

The limited number of studies that have investigated this intersection point gives useful leads for further research. To provide an example, the research done in European settings has revealed that entrepreneurs who identify themselves as caretakers or survivalists often do not adopt, even in a situation when resources are present, whereas those who strongly associate themselves with the innovation or growth-focused leaders tend to experiment with digital platforms (Fisch & Block, 2021). These findings support the notion that identity mediates adoption decisions and external barriers.

There is limited knowledge of the correlation between the use of technology and entrepreneurial identity in South Africa. This comes out distinctly in the Liu et al. (2019) study. This is highly disproportionate considering the socioeconomic background of the country that encompasses a high degree of inequality, a vast variety of styles of entrepreneurship, and uneven access to digital infrastructure. South African SMEs provide an especially fertile ground on which the effects of identity and structural constraints on adoption behaviour can be studied. As an example, a businessman will feel more willing to overcome obstacles such as limited access to capital or skills deficit when he or she identifies themselves as a change and growth agent (McAdam et al., 2019). On the other hand, entrepreneurs who consider themselves the chief custodians of family or community survival might be prioritising short-term stability rather than long-term digital investment.

This gap in the literature is the basis of the current research. The research addresses a practical issue of concern in that it contributes to theoretical understanding through its explicit linkage of the application of technology and the entrepreneur identity. To add to a more comprehensive and nuanced picture of SME digitisation, it will attempt to describe why the outcomes of adoption differ among SMEs operating under the same environment and meet similar obstacles.

2.8 Chapter Summary and Research Gap

The literature on SMEs and digital adoption defines the strategic value of technology in the process of increasing competitiveness, efficiency, and survival. In spite of the fact that SMEs are recognised as drivers of innovation and development in the global context,

the adoption patterns remain uneven, particularly in developing economies such as South Africa. Research has identified many barriers to adoption, including inadequate funding, low digital literacy, poor infrastructure, onerous regulations and sociocultural implications. Even though these barriers provide useful data, they cannot fully explain why adoption outcomes of SMEs in similar situations vary (Kreiterling, 2023).

At the same time, studies on entrepreneurial identity have revealed that the motives, strategic choices, and the power to innovate of an entrepreneur are affected by the self-perception of an entrepreneur. Entrepreneur identity affects long-term perspective, awareness of opportunity and risk tolerance. Nevertheless, the adoption of technologies has seldom been investigated in the context of identity, even though it has been demonstrated to be of relevance to entrepreneurial behaviour (Neneh, 2022) The majority of existing models, such as the Technology Acceptance Model, the Diffusion of Innovations Theory, and the Resource-Based View, do not emphasise the importance of identity as a mediator of adoption behaviour.

The gap in the literature is the deficiency of the thorough integration of these two strands. The interaction between structural impediments and entrepreneurial identities on the uptake of technology by SMEs has not been empirically well researched. This exclusion is particularly remarkable in South Africa, where entrepreneurs operate in diverse sociocultural settings and have to address the resource constraints that highlight the significance of personal orientation in decision-making.

The current study addresses this gap in knowledge by studying the relationship existing between entrepreneurial identity and barriers to technology adoption among South African SMEs. By so doing, it helps in two aspects. In practice, it provides insights that may be used to inform policy intervention and support programmes to help in achieving digital adoption (Foo et al., 2020).

It generates a more comprehensive literature in understanding SME digitalisation by making an explicit contribution to the body of literature on technology adoption by incorporating entrepreneurial identity into the research.

Chapter 3: Research Questions

3.1 Introduction

This chapter gives an explanation of the objectives of the study, which are informed by gaps in the existing literature. Then, it defines the key research questions that lead to the study. All the questions are connected with the concepts of previous studies regarding entrepreneurial identity. The chapter further justifies the reason why a qualitative approach is the correct one to be used in answering such questions.

The previous literature analysis emphasised the challenges to adoption in emerging economies as well as the significance of digital technology adoption for the expansion and survival of SMEs. Additionally, it underlined the importance of entrepreneurial identity as a crucial but little-studied element that influences adoption behaviour. The research questions that direct the study are presented in this chapter, building on these observations. The questions are designed to address the identified gap by exploring the interplay between structural barriers and entrepreneurial identity in the South African SME context.

3.2 Research Questions

RQ1: How does entrepreneurial identity influence digital technology adoption decisions in South African SMEs

Entrepreneurial identity refers to the way the owners of the business view themselves and their functions. This can influence their decision-making process, such as whether to adopt or not to adopt new technologies in their businesses. In the literature review, it is stated that the perception of the owner as receptive to new ideas or new approaches towards work (e.g., having a tech-progressive identity) makes an owner more inclined to experiment with the digital tools and embrace new modes of work (Suddaby & Jaskiewicz, 2020). The owners, who pay more attention to maintaining things as they are, or preserving tradition, may not use new digital tools, even when they are likely to benefit their business (Ladge et al., 2019).

The significance of this question is that it not only examines what occurs on the outside of the business owner but also what occurs on the inside.

RQ2: What entrepreneurial identity archetypes are associated with proactive versus resistant technology adoption behaviours?

The literature review discusses various archetypes or generic identities that business owners possess. As an example, there are those who refer to themselves as innovative or leaders and are willing to try out something new; these owners can be said to be proactive (Tsai et al., 2021). Some of them consider themselves as caregivers, tradition bearers or survivalists- they might not use new technology even when there are resources available.

The significance of understanding these patterns should be seen in the fact that these patterns indicate the nature of business owner identities associated with action (adoption) and with resistance (avoidance) (Bonina et al., 2021; Tsai et al., 2021). It is knowledge of this that can support the programs to be aligned to the types of owners, so that the appropriate type of training, encouragement or help can be provided

RQ3: In what ways do environmental factors and entrepreneurial identity interact to influence how entrepreneurs make decisions about technology adoption?

Despite the similarity of problems (such as the lack of money, slow internet, or too much red tape), owners with different identities react differently, as some will be able to adjust to the situation, and some will feel stuck (Nambisan et al., 2019). The combination of external environment and personality is the determinant of what actually occurs in any business (Abubakre et al., 2021).

This question is required in the research as it does not engage in blaming either external issues, such as funding or infrastructure or internal issues, such as attitude, as it examines how the two interrelate. This will contribute to more effective policies and support programmes through targeting the environment and identity of the entrepreneurs.

3.3 Chapter Summary

The chapter describes the goals of the study, which addresses research gaps in currently existing literature and formulates important research questions about entrepreneurial identity. The three main research questions focus on: (1) the influence of entrepreneurial identity on digital technology adoption decisions in South African SMEs, emphasising the self-perception of business owners; (2) the entrepreneurial identity archetypes linked to proactive versus resistant technology adoption behaviours, which can inform targeted support programs; and (3) the interaction between environmental factors and entrepreneurial identity in decision-making around technology adoption, aiming to enhance policies by addressing both external and internal influences on SMEs.

Chapter 4: Research Methodology

4.1 Introduction

The methodology section explains the design and other approaches employed to conduct the study. It describes how data was collected and analysed, justifies the methodology of the study, and outlines the procedures which were followed to ensure quality, ethics, and reliability.

4.2 Research Design

A descriptive and exploratory qualitative design was used in the study. The aim of the research was to understand the lived experience of entrepreneurs and the influence of their identities on making decisions about technology adoption, hence the choice of this design. These experiences, in particular with respect to social and psychological aspects such as entrepreneurial identity, can be best described through a qualitative method. Although the descriptive aspect presented could be used to create an in-depth picture of adoption practices and challenges in the South African SME environment, the exploratory nature of the design enabled the researcher to venture into a field with limited empirical evidence (Lim, 2025).

The research design's aim was to document the individual inclinations of the entrepreneurs as well as the institutional barriers encountered by the SMEs. This two-fold concentration brought an overall understanding of the correlation between external constraints and internal identity variables, which otherwise might have been unattainable through quantitative methods. A qualitative research method was the most appropriate to describe complicated, subjective experiences, especially those associated with identity, values, and decision-making (Christofi et al., 2024). The design allows the researcher to create in-depth, context-driven data that cannot be achieved by simply using quantitative surveys (Kohler et al., 2019).

4.3 Research Philosophy

The study was based on the interpretivist philosophy. With interpretivism, meaning gets constructed according to the experiences and perceptions of people and reality is constructed socially (Packard, 2017). This method was appropriate because the purpose of the research was to explore the meaning of identities among entrepreneurs and the challenges faced in the process of using new technologies. The research aimed at

generating context-driven understandings of subjective perception of the owners and founders of SMEs, and not universal laws.

4.4 Research Approach

The research method was an inductive one. To identify the patterns and themes, the analysis began by making observations through the interviews with the founders and proprietors of the SMEs. These themes affected more abstract perceptions of the relationship between entrepreneurial identity and the use of technology. As the purpose of the study was to derive knowledge based on the ground as opposed to confirming the previous ideas, the inductive method was agreeable (Saunders & Lewis, 2017). This was especially useful considering the little previous empirical research on the overlap of entrepreneurial identity and digital adoption as it concerns South Africa.

4.5 Methodological Choice

The only primary data source in this qualitative mono-method study was semi-structured interviews. The qualitative method was chosen because it gave the researcher the opportunity to capture the perceptions, the motivation, and the actual real-life experiences of the entrepreneurs in their own words (Lim, 2025).

The semi-structured interviews enabled flexible questioning, thus enabling the participants to elaborate on issues that were most relevant to their experience and ensuring that necessary themes were dealt with. Data collection and analysis were done using the same approach to ensure consistency. It would be better to have done quantitative surveys to get more general trends, but it would not have considered the complex interactions between structural impediments and entrepreneurial identities. Therefore, the decision to focus on the collection of qualitative data was aligned with the interpretivist theory and inductive methodology that was used to inform the study.

4.6 Research Strategy

The study strategy included in-depth interviews with the owners and founders of SMEs. The interviews provided detailed information on the views and identification orientations of the participants and helped the researcher to contextualise the experiences of the participants in the bigger SME context. This method ensured that the research incorporated personal judgments of the entrepreneurs in addition to the situation of adoption behaviour. A cross-sectional temporal frame was used to collect the data at a given time. This was an effective strategy for capturing the current level of

entrepreneurial identity and technology adoption in South African SMEs. The cross-sectional approach was more feasible because of the extent and duration of the study, despite the fact that a longitudinal design could have yielded long-term results.

4.7 Population and Unit of Analysis

The population of the study consisted of South African founders and owners of SME. The SMEs were grouped based on the South African regulatory norms, where businesses are grouped based on the asset value, annual sales, and the number of employees. The reason behind the emphasis on owners and founders was deliberate because such factors and people are the key decision-makers in SMEs, and their identity directly influences strategic choices, such as the adoption of technology.

The analytical unit was the individual entrepreneur. The emphasis of the research was on human perception, values and identities in relation to making a decision in relation to digital technology, although contextual variables such as company size or industry were taken into consideration. This unit of analysis was also consistent with the objective of the study of exploring the role of entrepreneurial identity in adoption behaviour.

4.8 Sampling Method and Size

A purposive sampling technique was used to select the participants. Purposeful sampling was acceptable since the researcher could select entrepreneurs specifically, who knew a lot about the issue under investigation and could provide abundant and relevant information (Saunders & Lewis, 2017). To ensure the differences in technology adoption experiences and identity orientations, the sample consisted of entrepreneurs in diverse sectors of industry.

The inclusion requirements were as follows. Owners or founders of SMEs that fit the South African definition of the sector were required to participate. They had to be between the ages of 30 and 55, which is a population that was actively involved in company operations at a time when technology was changing dramatically. Additionally, they needed to be open to sharing their viewpoints and experiences in interviews.

The sample was composed of fifteen individuals. This size was considered sufficient to conduct qualitative research, as it allowed saturating the data and deeply examining the personal experiences (Saunders et al., 2018). The data saturation is the term that is used to refer to the stage where an additional interview will not create a new insight. Thus, the need to analyse the relationship between the use of technology and entrepreneurial

identity in depth, instead of breadth, explained the comparatively small number of samples.

4.9 Data Collection Methods

4.9.1 Instrument

In the collection of data, semi-structured interviews were the primary method. This tool has been chosen due to its flexibility in providing the researcher with the opportunity to pursue emerging avenues introduced by the participants, as well as to pursue the previously formulated themes. The in-depth answers to the questions about the experiences of people with digital technologies, their perception of barriers to their adoption, and the influence of their identities on their decisions were achieved with the help of open-ended interview questions.

4.9.2 Process

Interviews were conducted face-to-face or electronically, depending on the availability and practicability of the participants. To ensure that the participants would remain engaged and be given sufficient time to explore the research questions, every interview lasted between forty-five and sixty minutes. To ensure that the comments were well recorded, the interviews were audio recorded with the consent of the participants. The recordings were transcribed word-for-word in order to yield a credible dataset to analyse.

4.9.3 Participant Recruitment

Participants were found using referrals, industrial and professional networks. The purpose of the study and the preconditions of the participation were mentioned in the initial communication in the form of an email or a direct message. Information sheet and consent form were given to interested participants and contained the description of the voluntary character of participation and the possibility of its withdrawal at any moment.

4.9.4 Ethical Considerations in Data Collection

The collection of data involves ethical considerations. All the participants signed their informed consent before the data collection commenced. Participants were given confidentiality, and their report and transcripts masked their identities. The data were contained in password-protected files that the researcher was the only person with access to. To be able to maintain the required level of compliance with the accepted

criteria of research ethics, ethical approval of the study was requested in line with the institutional policies.

4.10 Data Analysis Approach

The information collected during the semi-structured interviews was analysed through thematic analysis. Thematic analysis is one of the qualitative methods that are popular and involve locating, analysing, and interpreting significant patterns in data (Saunders et al., 2023). It was particularly better suited to this research because it allowed the researcher to systematically organise the data into themes that answered the research questions but reflected the complexity of the experiences of an entrepreneur.

4.10.1 Procedure

The process of the analysis consisted of six steps presented by Braun and Clarke (2006). The researcher initially read and re-read the interview transcripts in order to familiarise themselves with the data. Second, initial codes were developed so as to locate key features of data. A systematic application of these codes was applied to the dataset. Third, related codes were clustered to form more general themes that were indicative of trends in the responses of the participants. Fourth, the themes were analysed to ensure they were fitting the dataset and they supplemented the objectives of the study. Fifth, the identification of the themes and their specification were performed. To present the findings in the findings chapter, they were eventually organised and documented.

4.10.2 Use of Analytical Tools

The Atlas.ti software facilitated the organisation and coding of data. The researcher was in a position to correlate codes, identify patterns and describe the relationships between themes.

4.10.3 Analytical Focus

The analysis paid special attention to two areas, which are the impact of entrepreneurial identity and technology adoption barriers. The research revealed common structural barriers through examining how people described their encounters with financial, infrastructural and literacy-related challenges. The paper also examined the influence of the self-conception of the entrepreneurs on their attitudes towards adoption. The categories were combined to allow the researcher to test the interaction of identity with both inside and outside factors in the adoption behaviour.

4.11 Quality Assurance

Validity and reliability of the findings were one of the primary objectives of this study. The steps were taken to enhance the validity, reliability and the overall quality since qualitative studies rely predominantly on the thoughts of participants and researchers (Lim, 2025; Schwandt et al., 2007).

4.11.1 Credibility

Credibility was enhanced through the triangulation process. Semi-structured interviews were the primary sources of data, but shared themes were discovered through the comparison of the insights provided by the participants. Due to this cross-case validation, the likelihood of the findings being skewed by personal opinions was realised. Credibility was highly strengthened by prolonged exposure to the information. The researcher took much time to read transcripts and enhance codes so that themes would capture the experiences of the participants appropriately.

4.11.2 Dependability

The ability to obtain similar findings over a period of time and in numerous situations is known as dependability. The researcher did this through maintaining an audit trail that outlined the methods that were used in data collection, coding and analysis. The Atlas.ti program additionally provided a new degree of reliability by allowing the systematic registering and analysis of coding decisions.

4.11.3 Confirmability

Confirmability and reduction of researcher bias were done through peer debriefing. To obtain input and debate, the researcher shared emerging ideas with fellow experts. This process ensured that the interpretations were grounded in the facts and not mere subjective opinions. During the research process, reflexive journaling was also used to record the opinions and potential biases of the researcher.

4.11.4 Transferability

Transferability was also considered by providing general accounts on the research site, the research participants and the research subjects, despite the fact that the findings of qualitative studies are situation specific. The paper is thorough enough regarding background information since it outlines the characteristics of SMEs and entrepreneurs

in the South African setting, thus enabling readers to determine whether the findings can be used in other settings.

4.12 Research Ethics

Ethical issues played a very significant role in the design and implementation of this investigation. Conducting research with human subjects requires sensitivity to their rights, dignity, and well-being, and all of these were used as the founding values of the procedure (Hesse et al., 2019).

4.12.1 Informed Consent

Each participant was provided with an information document that explained the objectives of the study, the type of their participation, and their rights. Written consent was obtained before the participation. The participants were informed that they had the free will to participate in the study and could not be punished for quitting the study at any point.

4.12.2 Confidentiality and Anonymity

To ensure that the privacy of the participants would not be violated, all transcripts and reports contained anonymised identifying details, such as names, company names, and specific facts about the business. In order to protect anonymity, the participants were assigned a code number. The researcher was the only person with the passwords to the devices where the data was secured

4.12.3 Non-Maleficence

The principle of avoiding harm, also referred to as non-maleficence, was adhered to throughout the investigation. Participants were advised to decline to provide responses to any question that they did not desire to respond to, and the questions were formulated to avoid causing pain or discomfort. The researcher also remembered that there are potential sensitivities involved in discussing financial or business anxieties.

4.12.4 Institutional Approval

The study was conducted in accordance with the ethical norms of institutions. Before the data collection commenced, ethical permission was sought and obtained by the respective ethics review committee. In so doing, the research was ensured to adhere to academic principles of quality research work. The research maintained the ethical nature

of the research process and ensured that the rights and welfare of the people involved were not compromised through these ethical considerations.

It was anticipated that the researcher might encounter limitations and delimitations in his study as follows:

4.13 Limitations and Delimitations

4.13.1 Limitations

This research was not without its limitations, just like any other qualitative study. The first one was that the sample comprised only 15 people, which was very small and could introduce social desirability bias (Aguinis & Solarino, 2019; Ahmad et al., 2019). Though it is appropriate for achieving data saturation, the sample size used is too small to be applicable to the overall SME population. A second limitation was that self-reported data from the interviews were used, which may not always reflect participants' actual experiences or behaviours. The responses could have been affected by social desirability bias or selective memory, which may have affected the accuracy of the responses. The third weakness was that the study was cross-sectional. Since data was obtained at one time, the research could not represent a longer-term entrepreneurial identity or adoption behaviour change.

4.13.2 Delimitations

The study was also affected by deliberate limitations of the researcher. In the first instance, the research was limited to SMEs in South Africa with a focus on Gauteng and a couple of other regions. Large firms and micro-enterprises were excluded because they show significant differences in their adoption behaviours and situations compared to those of SMEs. Second, the unit of analysis was limited to owners and founders, but not managers or employees, because they are the major decision makers as far as the strategies are concerned. Third, the study was limited to digital technology adoption, and it hasn't incorporated other types of innovations, like product or process innovations, that do not involve the use of digital tools.

It was identified that these restrictions and limits helped to give a background to the findings and provide openness on the parameters and scope of the research. Despite these shortcomings, the method was carefully developed to generate valid, relevant, and theoretically meaningful data regarding the connection between technology use and entrepreneurial identity among South African SMEs.

4.14 Chapter Summary

This is a chapter where the qualitative design of the study is explained in the methodology section, where the study intends to explore the entrepreneurial identities and how they contribute to deciding upon the technology adoption by South African SMEs. The methodology section describes the qualitative design of the study, with the aim of investigating the entrepreneurial identities and their role in the decision-making process of technology adoption among South African SMEs. It uses descriptive and exploratory approaches in order to reflect the subtle experiences of the entrepreneurs, based on the interpretivist philosophy that focuses on subjective meanings.

The study is informed by the inductive approach, where they found that semi-structured interviews with a purposive sample of fifteen business owners aged between 30 and 55 were used to identify themes. The scope of data collection was the individual perception and difficulty working with the technology, with ethical standards and guarantees of confidentiality. Data were interpreted using thematic analysis, which showed barriers and the effects of identity on technology adoption behaviour. The limitations recognised in the study include sample size and possible biases, but would still give valid information on the correlation between entrepreneurial identity and digital adoption.

Chapter 5: Data Analysis and Findings

5.1 Introduction

SMEs still remain an essential part of economic development, but their competitiveness usually depends on the level of their embrace of digital technologies. The study investigated how the individual values, beliefs, and orientations of entrepreneurs interact with contextual and structural barriers to affect adoption outcomes. To address this objective, the study used a qualitative research design. As participants, fifteen entrepreneurs representing different SMEs were enlisted with detailed narratives and their lived experience regarding the adoption of technologies. Three research questions were used to inform the study:

- **Research Question 1:** How does entrepreneurial identity influence the adoption of digital technologies in small businesses?
- **Research Question 2:** What types of entrepreneurial identity archetypes are most associated with proactive versus resistant technology adoption behaviours?
- **Research Question 3:** What is the interaction between environmental factors and entrepreneurial identity, and how do they affect the decision-making about technology adoption?

This chapter is structured as follows. It begins by outlining the overview of the sample. Then details the theme-based findings that answer the research question and concludes by summarising these findings.

5.2 Overview of the Sample

5.2.1 Relevance of the Sample

The research sample comprised entrepreneurs in SMEs from different industries. The sample size was chosen purposely so that the sample was directly related to the purpose of the research, since all participants were directly engaged in the implementation or adoption of digital technologies in their companies. By focusing on entrepreneurs from various industries, including hospitality, medicine, consulting, logistics, fashion, and technology solutions, the study captured perspectives from sectors with varying levels of technological integration, thus improving the breadth of insights. In terms of the demographics, the age of participants ranged from 30 to 55 years, reflecting a mature entrepreneurial group with considerable professional experience (Table 5.1). Years in

operation ranged from less than one year to more than three decades, providing a spectrum of insights from newly established businesses to long-standing businesses.

Table 5.1: Participant Characteristics

Participant ID	Industry	Age	Years in operation
Participant 1	Hospitality	45-50	2
Participant 2	Medicine	45-50	15
Participant 3	HR (consulting)	50-55	5
Participant 4	Entertainment industry	40-45	7
Participant 5	Accountant(consulting)	45-50	17
Participant 6	Logistics and printing	35-40	6
Participant 7	Medicine and aesthetics	45-50	19
Participant 8	Recruitment industry	45-50	2
Participant 9	Revenue generation (consulting)	30-35	5
Participant 10	Technology solutions	30-35	7
Participant 11	Fashion & insurance	50-55	33
Participant 12	Trade finance	35-40	0.5
Participant 13	Digital marketing	30-35	1
Participant 14	Content creator	30-35	3
Participant 15	Hospitality	40-45	23

Source: Author's own.

5.2.2 Adequacy of the Sample Size

A code saturation analysis was performed in four interview batches (1–9, 10–11, 12–13, 14–15). The initial batch produced 159 distinct codes, and the successive batches produced 33, 31 and 31 new codes, respectively, making a total of 254 codes. The decreasing number of new codes per batch indicates a levelling of thematic discovery, suggesting that conceptual coverage was approaching saturation by the final batch,

though it did not achieve it. Despite this, the 15 interviews provided acceptable coverage and diverse information for the purpose of this study.

5.2.3 Relevance of the Empirical Data

The word cloud analysis shows how salient certain words like technology, businesses, innovation, growth, and identity are, which directly coincides with the aim of the study, which is to analyse the entrepreneurial identity and how it affects technology adoption in the SMEs. (Figure 5.1).



Figure 5.1: Word Cloud – Relevance of Empirical Data and its Alignment with Research Questions

Source: Author's own.

Words such as technology, adoption and platform are used to bring out the key process of digital integration, which responds to RQ1 on how identity influences adoption. The predominance of innovation, growth, aggressiveness and entrepreneur attracts archetypal orientations which are connected to RQ2 about proactive and resistant adoption behaviours. The environmental dynamics are visible through terms like competitors, customers, market, Google, and social media, which align with RQ3 on contextual interactions. The frequent appearance of the customer, patient, brand, and relationship highlights how identity-driven priorities influence technology decisions. In addition, terms such as finance, management, plan, and goals reveal the pragmatic dimensions of entrepreneurial identity tied to adoption strategies. Words such as relevant, real, products, and platforms reinforce the empirical foundation of the data set

in practical business realities. Collectively, the lexical distribution underscores how identity narratives are embedded in technology adoption choices. Therefore, the empirical data are highly consistent with the aim of the study, which proves the richness and applicability.

5.3 Establishing the Entrepreneurial Context

It is necessary to create the background setting and narrative of the business path of each participant before analysing the entrepreneurial identity and technology adoption (RQs 1-3). The initial interview questions served to establish mutual understanding and collect important explanatory data, ensuring that the ensuing, more complex discussions were grounded in the reality of the participant's operation. The participants narrated their entrepreneurial journey as driven by four interrelated drivers, captured as subthemes in Table 5.2: (1) purposeful response, (2) pursuit of personal passion, (3) leveraging capabilities, and (4) seeking autonomy.

Table 5.2: Entrepreneurial Narrative

Subthemes	Themes
Purposeful response	Entrepreneurial Narrative
Pursuing Passion	
Leveraging Capabilities	
Seeking autonomy	

Source: Author's own.

5.3.1 Purposeful Response

Several participants described establishing their businesses to solve specific problems they had identified. Participant 1 proposed to provide reliable childcare support to working parents:

'I realised that there are young parents... who struggle to find domestic workers and, for that matter, reliable domestic workers while at work.' [P1]

Participant 3 linked his focus to vulnerabilities the leadership faced:

'Leaders... need help and need to rewire how they think... [they] were not ready to lead in challenging and taxing times.' [P3]

Participant 8 located a vacuum in vocational training compliance, noting:

'A frustration of both the trainers and... SETA, and described a platform to streamline evidence portfolios for learners and trainers.' [P8]

Participant 10 tracked his venture from an informal business service to a formal tech support business owing to the demand from clients:

'People and businesses still needed that tech support, and they would do call-outs during my free time.' [P10]

Similarly, Participant 11 observed an unmet need for contemporary cultural fashion:

'A modern Afro fashion brand... because I think there is prejudice around cultural fashion.' [P11]

Together, the participant insights intersect on recognising an opportunity to close a gap.

5.3.2 Pursuing Passion

For some participants, passion provided the impetus for embarking on their entrepreneurial journeys. As Participant 4 puts it:

'The inspiration... is the love and passion for the music industry.' [P4]

Passion provided the intrinsic inspiration that justified long-term commitment, particularly as seen in the creative industry.

5.3.3 Leveraging Capabilities

Participants described embarking on their journey of entrepreneurship due to their skills and competencies that could create immediate value for clients. Participant 9 emphasised turning technical know-how into client outcomes:

'I realised how powerful marketing was as a revenue generation tool for clients.' [P9]

Participant 2 structured his duty as enforcing their advocacy competence to bridge gaps in healthcare access:

'What always touches me is when I go and speak on behalf of a patient who may have been waiting on the government list for almost a year.' [P2]

For Participant 14, a disruptive period presented an opportunity to utilise the acquired skill:

'Where I had just completed my degree at Rhodes University, and COVID kicked in. So, during that time, a lot of people were immersed in digital content creation, and I

happened to be one of those people. So, from there, I guess everything just fell into place.' [P14]

Based on these observations, establishing a venture is less a leap into the unknown and more an extension of existing skills, competencies, and being in the right place at the right time.

5.3.4 Quest for Autonomy

The data of the participants revealed that their quest for autonomy served as a crucial motivator. Participants defined entrepreneurship as a way to restore their latitude to make decisions about what their work schedules should look like, what work their work should have, and what direction their career should take. For example, Participant 3 reported valuing:

'The independence of my time... being able to do other things that I could not do when I was working a 9-5 job.' [P3]

Participant 5 similarly highlighted the desire for independence:

'The second one, actually, is to be your own boss. When I started to become my own boss within the company.' [P5]

The main motivations for starting a business were independence in time and control over work hours. The findings demonstrate that the drivers of entrepreneurship are multi-pronged. At the centre is a clear need to fill an unserved market. This is supported by the capabilities of the entrepreneur, which are the skills and knowledge necessary to confront the problem. Passion serves as an anchor that sustains the hard work required to build the business. In the end, the yearning for autonomy acts as the topmost goal that gives the entrepreneur the freedom to work however they deem necessary (Figure 5.2).

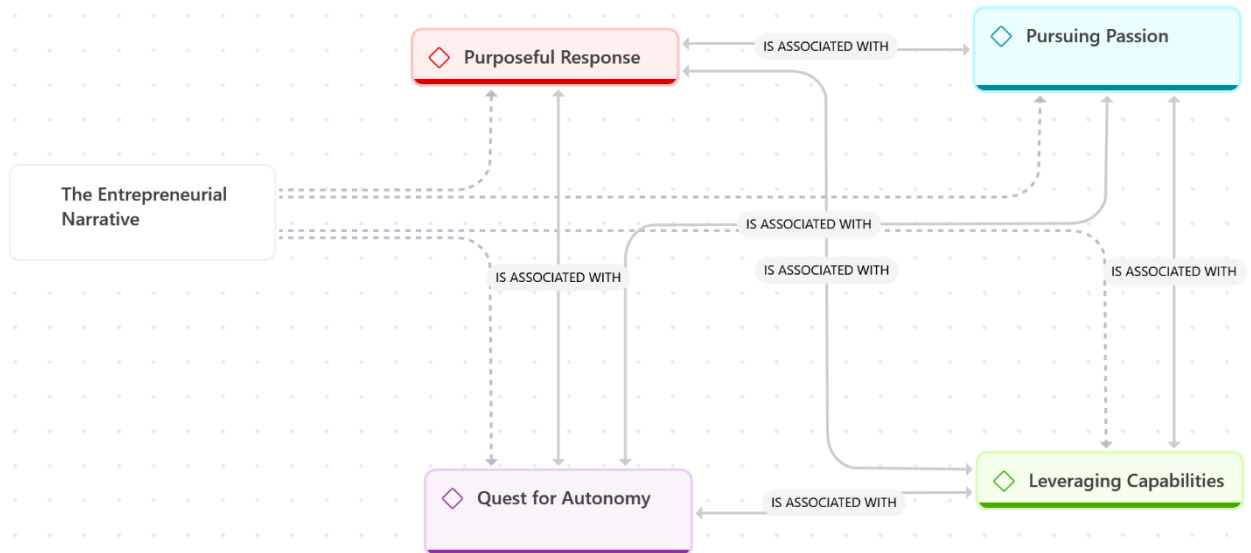


Figure 5.2: The Entrepreneurial Narrative

Source: Author's own.

5.4 Entrepreneurial Identity and Technology Adoption

The first research question was **how entrepreneurial identity influences the adoption of digital technologies in small businesses**. The thematic analysis generated two subthemes: entrepreneurial mindset and identity, and technology adoption and evaluation, which are associated with the theme, entrepreneurial identity, and technology adoption (Table 5.3).

Table 5.3: Entrepreneurial Identity and Technology Adoption

Subthemes	Themes
Entrepreneurial Mindset and Identity	Entrepreneurial Identity and Technology Adoption
Technology Adoption and Evaluation	

Source: Author's own.

5.4.1 Entrepreneurial Mindset and Identity

Participants characterise entrepreneurship as a functional identity grounded in disciplined education, inherited values, and self-imposed traits. Participant 7 docks identity in tenacity and training:

'I'm a hard worker... before I do anything practical, I want to be trained... I want to ensure my staff are aware. My staff is trained.' [P7]

For others, identity is in the bloodline. Participant 13 sums up:

'I've always kind of been there... I've had marketing in my blood, because my uncles were the real... forerunners to sports sponsorship post-apartheid.' [P13]

The autobiographical description elucidates the holistic resource where Participant 12 describes themselves as:

'Innovative. Good. Creative. Resilient.' [P12]

In addition to embracing constructive conflicts, Participant 3 asserted that:

'Describe me as a business owner. Fearless, confident, humble... one can think that they are opposites, but they can collaborate with each other.' [P3]

5.4.2 Technology Adoption and Evaluation

The participants demonstrated a rational and varied approach to adopting and evaluating technology within their businesses. While some participants recognised the role of intuition or "gut feeling," this was not the sole driver of their decisions. Participant 1 explicitly rejected intuition, stating:

'I don't really have any particular moment to say that I used my gut feeling. I think most of the time, it is the trend; it's what people have used. So we can say informal data, if I can put it that way.' [P1]

In a patient care setting, adopting technology requires clinical judgment and context. Participant 2 emphasised the eligibility of the patient for the technology due to the heterogeneous nature of the clinical cases:

'Unfortunately, in our setting, it's not. It is not always fit for everyone. So you may find that there is nothing wrong with the technology, but my patient is not fit or my patient is not a good candidate to use that thing for.' [P2]

According to some participants, the use of intuition is confined to specific circumstances, such as factoring in seasonality or making quick decisions when faced with limited time. Participant 13 noted that:

'You can use gut in a certain sense, but you need accurate data.' [P13]

This suggests that even when used, gut feeling is seen as augmenting, not replacing data. Participant 5 proposed a divergent perspective, noting that gut feel drives a substantial percentage of business decisions due to time limitations:

More than 70 percent of the decisions. Real businessmen use gut feelings because business decisions are imminent. You don't even have time to say, let me go and input the data.' [P5]

Overwhelmingly, the participants agreed that several key criteria guide their decisions when evaluating a technology. Key criteria included a hands-on approach, prioritising testing before full-scale implementation. Participant 4 stated that:

'First, you need to do a test run in the business before I permanently run them up for service.' [P4]

Participant 8 emulated this sentiment and stated:

'First, try them out and try to understand what the technologies have to offer.' [P8]

This technology testing phase is part of a broader evaluation framework that includes a number of factors corroborated by participants. Among the most important factors is safety and user-centric design. Participant 2 emphasised the safety of the patient by stating:

'The one thing that comes to mind when something is introduced for me is the safety of the patient.' [P2]

Ease of use and team adoption enhance the adoption of technology not only for the entrepreneur but for the team at large.

Participant 3 noted the importance of a technology that is in accordance with company values:

'...value proposition...' [P3]

While Participant 7 underscored a broader regard for the team:

'The ease of use, whether it is there, aligns with my value proposition of my company... Something can be easy for me, but my team has to use it as well.' [P7]

The participants also highlighted cost as a significant contributor to technology adoption. Participant 6 summarised *'Everything is cost'* [P6].

Participant 7 asserted: *'It has to be cost-effective. So, I do consider that.'*

The insights point to the fact that any potential technology must demonstrate a delineable return on investment. In general, the data demonstrates that entrepreneurs adhere to a pragmatic approach to technology adoption, mingled with informal data and personal testing, with a firm focus on safety, usability, and cost. The entrepreneurial personality is

represented by such qualities as perseverance, discipline, and steadfastness, which prove the rational attitude to the adoption of technology. The decision to adopt digital technologies is rational and systematic, characterised by hands-on testing, making sure that the technology is safe for everyone, conforms to cost-effectiveness and aligns with the business objectives. The disciplined entrepreneurial mindset ensures that the adoption of technology is in alignment with the larger objectives of the business (Figure 5.3).

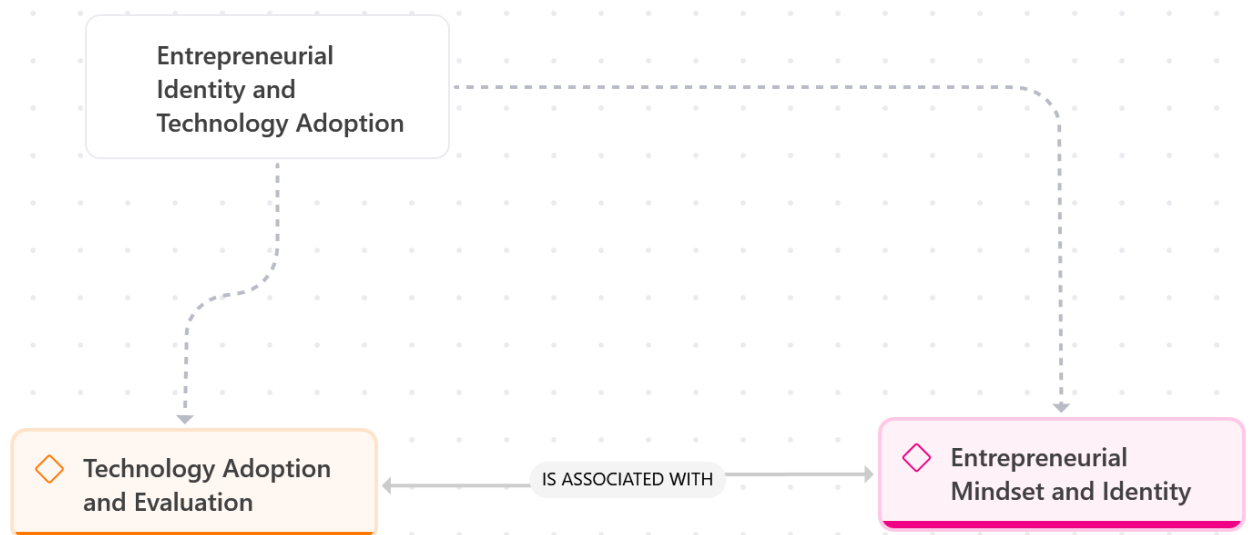


Figure 5.3: Entrepreneurial Identity and Technology Adoption

Source: Author's own.

5.5 Entrepreneurial Archetypes and Technology Behaviour

The second research question was, **what types of entrepreneurial identity archetypes are most associated with proactive versus resistant technology adoption behaviours?**

The data highlight a pattern of how entrepreneurs both accept and resist adopting certain technologies. There are four varieties of this phenomenon. The Innovator, The Pragmatist, The Strategist, and The Traditionalist. Each of these behaviours is captured as an archetype, and each archetype is driven by a unique set of motivations, worries, and fundamental beliefs about business and change. However, these archetypes are not strictly defined; they change in relation to the circumstances and the environment. Different factors, such as the nature of the problem, the development phase, industry standards, the resource availability and the stakeholders' perceptions, will determine the archetypes that an entrepreneur will shift between. Table 5.4 below summarises the subthemes and themes.

Table 5.4: Entrepreneurial Archetypes and Technology Behaviour

Proactive Entrepreneurial Archetypes	
Subthemes	Themes
Innovation as a business function	The Innovator: The Proactive and Forward-Thinking Archetype
Hands-on and strategic implementation	
Leveraging Technology for Competitive Advantage	
Adoption for Operational Efficiency	The Pragmatist: The Problem-Solving Archetype
Focus on Immediate and Tangible ROI	
Situational and Contextual Implementation	
Phased and Strategic Adoption	The Strategist: The Measured and Calculated Archetype
Value Driven Decision making	
Resistant Entrepreneurial Archetypes	
Subthemes	Themes
Reluctance as necessity	The Traditionalist: The Cautious and Stability-Focused Archetype
Self-reliance as a barrier	

Source: Author's own.

5.5.1 The Innovator: The Proactive and Forward-Thinking Archetype

The data from the participants characterised the Innovator as an entrepreneur who regards technology as essential to character and approach. Their proactive viewpoint emanates from the belief that technology is the instrument that enhances growth and is an essential starting point of competitive advantage. As Participant 12 put it:

'Unfortunately, because the business is the technology itself, not using technology does not conform to the identity of the business.' [P12]

This eliminates the internal conflict between change and tradition. In a competitive market, they see innovation as a necessity. Participant 5 posited:

'If you are not even innovative, I don't think you can adapt because corporates are moving on a different angle. And most of my clients today are corporate, and they are very sophisticated without using technological advancement, I don't think you will cope.'

[P5]

This archetype is delineated by a hands-on, proactive involvement with technology. They are not satisfied to assign growth but rather remain intensely engaged. Participant 10 exemplified this by stating that:

'I prioritise aggressive growth and I try to be involved in that growth so that you can prepare for it.' [P10]

The desire for competitive advantage is one of the hallmarks of innovators. They use technology to enhance their brand and help them excel. Participant 14 stated that:

'I don't want to lie, because, like, not many people use drones and that could easily separate you, especially for travel blogs.' [P14]

This archetype also uses advanced tools like AI for strategic purposes, such as a participant who uses them. Participant 9 added:

'Google's AI Gemini is specifically in research mode to conduct and analyse our campaign strategies.' [P9]

5.5.2 The Pragmatist: The Problem-Solving Archetype

The information demonstrates that Pragmatists take technology with the purpose of finding actual solutions to the problems and streamlining the business process. They are systematic and evidence-skilled and are guided by operational benefits, revenue influence, cost-effectiveness, and situational appropriateness. Technology is evaluated and adopted on the basis of simplifying everyday tasks. Participant 5 captured this approach, stating:

'There is a system or accounting system called the Xero accounting system. We have just started working on it, as we have been saying for two years or so. To me, it is fascinating because it is cloud-based.' [P5]

Pragmatists tie technology adoption to business and client outcomes. As Participant 9 puts it:

'Revenue is the lifeblood of any successful business. So, how do we balance sticking with what already works, not trying to reinvent the wheel in any particular way, but also

going down to the core principles of 'Is this going to create a better client experience?'
[P9]

Pragmatists use evidence-based decision-making and cost-control measures to protect the profit margins of their businesses. Participant 10 states:

'...basically driven by cost effectiveness after conducting research.' [P10]

In conclusion, pragmatists adjust their strategy to context and do not follow established norms. Participant 6 succinctly summarises it:

'I would say that I don't prioritise or favour any. I would say that innovation, as well as traditions, I will adopt them if they are right. You know, at the end of the day, don't try to fix what is not broken.' [P6]

5.5.3 The Strategist: The Measured and Calculated Archetype

The data from participants characterised the Strategist as measured and calculated, progressing through phased, value-tested adoption, and avoiding the hype. According to the participants, strategists will adopt technology because it can demonstrate clearly a value for the business or the customer. As Participant 13 explains:

'I go back to two questions... How is this product going to add value to my business? Or... to my customers? And if it does not add value to either of the two, then what is it going to add value to? ... I think that allows me to maintain the balance between, okay, well, this is really innovative.' [P13]

Strategists operationalise trial-and-error into a measured learning curve instead of relying on chance. As Participant 3 puts it:

'As an entrepreneur, everything is trial and error... You try it, you throw it out there. Sometimes you catch a lot of fish, sometimes you catch fewer fish.' [P3]

Technology must align with the identity and its value proposition, not just with changes in the market. Participant 14 illustrates this assertion:

'I don't believe in doing things just to remain relevant. I am more about... being myself and... aligning with an audience that will align with my personal brand.' [P14]

In contrast, other entrepreneurial archetypes approach technology with a heavy measure of circumspection, the Traditionalist and the Sceptics.

5.5.4 The Traditionalist: The Cautious and Stability-Focused Archetype

The data from participants characterised Traditionalists as entrepreneurs who appreciate the human touch and tested strategies, yet they are rationally receptive to technology that improves efficiency, provides training, integration complexity, and end-user acceptance. Traditional channels prevail because they engender trust and rapport. As Participant 1 states:

'So for me, when I communicate kindness, when I communicate, feel at home, and guests also receive it in that manner, it's a mind-blowing experience for me, and I consider that as a good milestone' [P1]

In instances where technology transforms the core practice, training becomes the necessary trajectory. Participant 2 emphasised this:

'Learning to perform laparoscopic surgery. I had to go to repeated trainings to be where I am today. Because remember when we were still studying, it was not there. So we have already learnt it as specialists and are learning it.' [P2]

The unwillingness to take the technology integration fails because of its complexity. As the participant notes:

'I am easy to adapt to any technology, but where the complexity arises and what was best, what I struggled with at the time is to go back to when we were integrating the technology.' [P3]

The success of a technology's adoption depends on the end-user, not just the buyer, as resistance can occur when clients are not brought along in the process. Participant 7 describes the disconnect:

'Health ID, I liked it, but it took time to use it, and I will tell you why. Health ID is a software technology introduced by Discovery. I understand why it was introduced, and I like it because I think it is easier for me to access my patients, but it was not easy for patients to accept the system.' [P7]

The study has shown that entrepreneurs look at technology as a problem that needs a unique solution, not as a problem that has a singular solution, which is indicative of behavioural archetypes determined by their core beliefs regarding business, growth, and risk. Some are the innovator and the Pragmatist, who aim at almost any tool with comfort, and others, more conservative, value-conscious and risk-averse ones, such as the Strategist and the Traditionalist (Figure 5.4). However, the most important point is that all of these archetypes are not permanent. These archetypes are flexible and can change

with the specific situation at hand. The entrepreneurs, despite their context, invest wisely in the technology with an insight into the end-users, a process of adoption, and a clear value proposal that avoids the tendency of going with fads and old protocols.

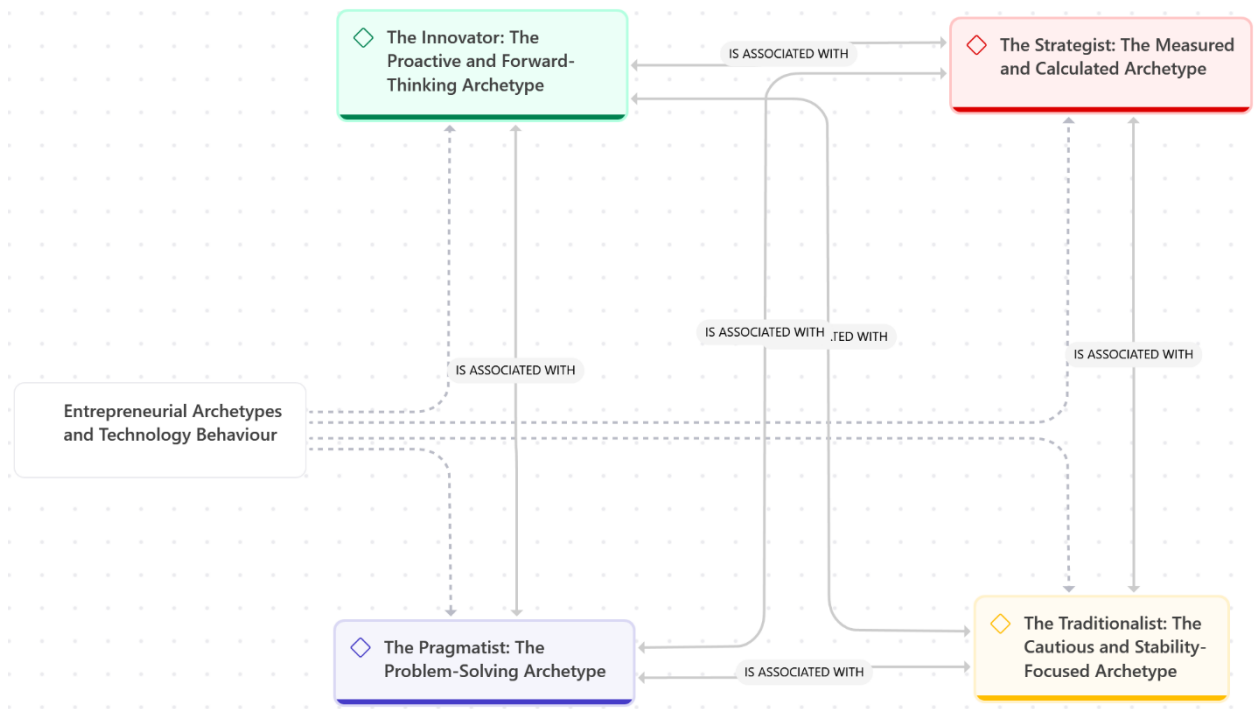


Figure 5.4: Entrepreneurial Archetypes and Technology Behaviour

Source: Author's own.

5.6 The Influence of Context/Environment and Entrepreneurial Identity on Entrepreneurial Technology Adoption

The third research question was **what the interaction between environmental factors and entrepreneurial identity is, and how they affect technology adoption.**

Table 5.5 provides the four themes that were extracted, which were first, competitive environment with the associated subthemes: Market and Growth Pressure; Competitive and industry rivalry. Second, regulatory environment (Subtheme: Legal and Compliance), third, entrepreneurial identity (Subthemes: Growth and Adaptability Mindset; Internal Resource and Skill Development) and fourth, Technology Adoption Decision Making (Subthemes: Integration of AI and Automation Integration; Digital Channel and platforms).

Table 5.5: The Influence of Context/Environment and Entrepreneurial Identity on Entrepreneurial Technology Adoption

Subthemes	Themes
Market and Growth Pressure	Competitive Environment
Competitive and Industry Rivalry	
Legal and Compliance	Regulatory Environment
Growth and Adaptability Mindset	Entrepreneurial Identity
Internal Resource and Skill Development	
Integration of AI and Automation Integration	Technology Adoption Decision Making
Digital Channel and Platform Use	

Source: Author's own.

5.6.1 Market and Growth Pressure

Participants characterise a market environment where technology sets the competitive landscape that leads to market and growth pressure. As Participant 1 stated:

'If I do not run with technology, I will be left behind, I will lose businesses, and I will not understand why I am losing businesses.' [P1]

This pressure is highly noticeable in consumer-driven capabilities, Participant 6 acknowledges, that:

'In terms of marketing, I'm still behind and, of course, it's influencing the ultimate rands and cents in terms of the revenue.' [P6]

Scale magnifies the effect of observing a powerful competitor, Participant 11 conceded:

'The size is a big component for me... the one big competitor that I am watching right now is Urban Zulu.' [P11]

5.6.2 Competitive and Industry Rivalry

The participants portray rivalry as both a competitive pricing match and a learning opportunity. On pricing, visibility tools make the competitive landscape transparent. Participant 15 stated that:

'...being able to see how much our competitors are charging... these are running a special.' [P15]

The strategy also includes judicious replication that highlights that. Participant 1 mentioned:

'...especially when that technology is working for the competitor, you will be stupid to think that it is not the way to go. You just have to be humble enough to learn.' [P1]

Rivalry does not always perfect competition in medicine; patient outcomes outweigh competitive mindset, as Participant 2 stated:

'In medicine, there is literally no competition such that if I feel this patient deserves to be done with this new technology and I don't have the skill, or I'm still learning the skill, I bring the patient and ask that specialist, who's now an expert in the skill to come with me as we work together because we cannot compete.' [P2]

Changes in platform rules are concurrently lowering barriers and reshaping the rivalry stage. As Participant 14 observes:

'The emergence of more relaxed platforms, such as TikTok, showed us that it's not as important to make those investments.' [P14]

Competition plays out against a comprehensive progress, which Participant 3 captured as:

'All industries have been transformed. I told you about the online coaching that takes place. The 80/20 rule is actually even changing now because what we see now is coaching platforms.' [P3]

5.6.3 Legal and Compliance

Participants describe compliance as a mechanism that simultaneously enforces and guides technological decisions. Participant 5 noted that:

'Forcing citizens to comply and [use] the technological advancement... I was just talking about the SARS E-filing.' [P5]

Beyond procedural mandates, regulators are drawing bright-line rules around high-risk use cases: a founder recounts learning that:

'You cannot do credit assessments using AI-backed software... the state is still concerned about bias.' [P12]

In environments with vulnerability to litigation, entrepreneurs push for continuing professional education to reduce blind spots. Participant 2 posited:

'There is always something new that they have added. You know, as some of us are being sued, you want to make sure that all angles are covered, and people are forever thinking of new ways of doing things.' [P2]

5.6.4 Growth and Adaptability Mindset

Participants frame adaptability as a delineating mindset that controls how entrepreneurs adopt technological change and transform it into value. At the centre is the blend of technology and human touch. Participant 3 described that:

'As the world changes, you adapt to how the world is changing... There is a lot of balancing between where technology is needed and where human intervention is needed.' [P3]

This insight positions adaptation as an ongoing adjustment. Participant 1 supports that this calibration is driven by a growth mindset.

'It's an enabler of growth, and anyone who is in business should be open-minded and willing to embrace the world in that space.' [P1]

Adaptability also manifests itself as a skill when an entrepreneur faces limitations. Participant 8 cites the concept of frugal innovation:

'Some of the people that we are trying to reach are not in places with the best infrastructure.' [P8]

The mindset is not only about adopting new technology but also about right-sizing it to the context. Participant 10 states that with this mindset, there is a background of technology evolution and states:

'Technology is evolving so fast. There are always new key players. And specifically in my industry, where we are solution providers.' [P10]

Finally, adaptability is based on demand. Some participants described pivoting to technology due to client demand. Participant 5 stated that:

'My customers, they technically forced me to say, we want you to assist us with the payroll.' [P5]

Similarly, Participant 9 notes that improving a service feature was due to client demands:

'Yes. The adoption of the core feature service that was introduced last year was purely based on shifting client demands.' [P9]

5.6.5 Internal Resource and Skill Development

Participants cast capability development as a continuous curve, placing skills as resources that must grow with context. Participant 2 stated:

'That learning is continuous, that it has not stopped. We have not achieved as long as it is revolving. So even the company, even the practice is revolving depending on the demands of the day.' [P2]

This learning extends to personal development to influence competitive resilience, as Participant 4 stated:

'Technology really plays a very important role in the world, and it is just for you as an individual to also grow with technology, to adapt because if you are not going to adapt, then you are just going to be outdated and the competition will be a bit too high for you.' [P4]

Investment in skill development is viewed through a practical magnifier of time and money. Participant 13 stated that this efficiency filter to prioritise technology and training shortens the time.

'Look at what's currently out there to see if it can save you time, because time is ultimately money if you are working for yourself, in this case.' [P13]

5.6.6 Integration of AI and Automation

Participants portray AI as both an ubiquitous advantage and a disruptive technology. Participant 9 observes that:

'The industry has changed dramatically with the introduction of AI. It is a virtual assistant, it is a therapist, it is a doctor, sometimes it is a girlfriend. And it really, really undermines years of expertise when a client could type something into ChatGPT.' [P9]

Go-to-market mechanics are modernising end-to-end. As Participant 6 puts it:

'The way people reach clients is definitely advancing. So you have to keep up with that. You know, if it is from online forms, the use of technology, the use of quotations, the whole process.' [P6]

Participants report that the digital landscape exhibits a dichotomy: the creator platforms are reducing entry barriers for newcomers, whilst the conventional paid media

environment is getting automated and murky. This murkiness has an influence on the work done by specialists. Participant 13 highlighted this striking move, noting the fundamental changes suffered in paid media:

'So there has been so much change in the platform in the five years I have been running Google Ads. The platform has changed completely. The attribute has changed completely. The amount of control you have, the amount of data we receive as specialists has changed.' [P13]

On the other hand, creator channels democratise industry participation. Participant 14 reflects:

'The emergence of more relaxed platforms, like TikTok, showed us that it is not as important for you to make those investments at all. TikTok nullifies certain investments that maybe Instagram perpetuated you to make. Yes. But I feel like if you have an interest in getting into this industry, then you don't necessarily have to invest in all these technologically advanced devices. You could really take off with only your phone.' [P14]

5.6.7 Digital Channel and Platform Use

Participants repeatedly highlighted a strategy in which digital channel adoption is required, driven by changing customer ambitions for online discovery, purchase, and service. This digital shift has redefined business sustainability. E-Commerce, for example, has become a critical requirement. Participant 10 stated:

'It is something that I have had to adopt. It is a way of selling nowadays.' [P10]

Similarly, self-service booking systems are important in the hospitality industry, as noted by Participant 15:

'...no one wants to pick up the phone.' [P15]

Even relationships that were once entirely physical are now negotiated digitally. Participant 11 noted the change:

'A few years ago, we never thought that you could do business online and never even met someone. It is just emails... You are actually structuring an insurance programme for a client, and you can actually send all these documents to these clients without you having to even meet physically.' [P11]

Channel mechanics are rapidly evolving toward automated assistance and more sophisticated AI-driven interfaces. As Participant 12 noted:

'We moved from making apps, making websites, to making jobs, to adding chatbots, to how do we make the chatbot more generative and interactive.' [P12]

Currently, social networks are putting pressure on businesses. This pressure prescribes high expectations for content, as businesses feel watched by consumers.

'The TikTokers, from everything that people see on social media.' [P2]

The presence is no longer by choice in light of the unambiguous business rationale. Participant 11 points out:

'A lot of transactions happen online, like eighty percent of transactions happen online. So you need to have a presence there.' [P11]

In summary, the data support that the adoption of technology is a tricky interaction between environmental factors and entrepreneurial identity (Figure 5.5).

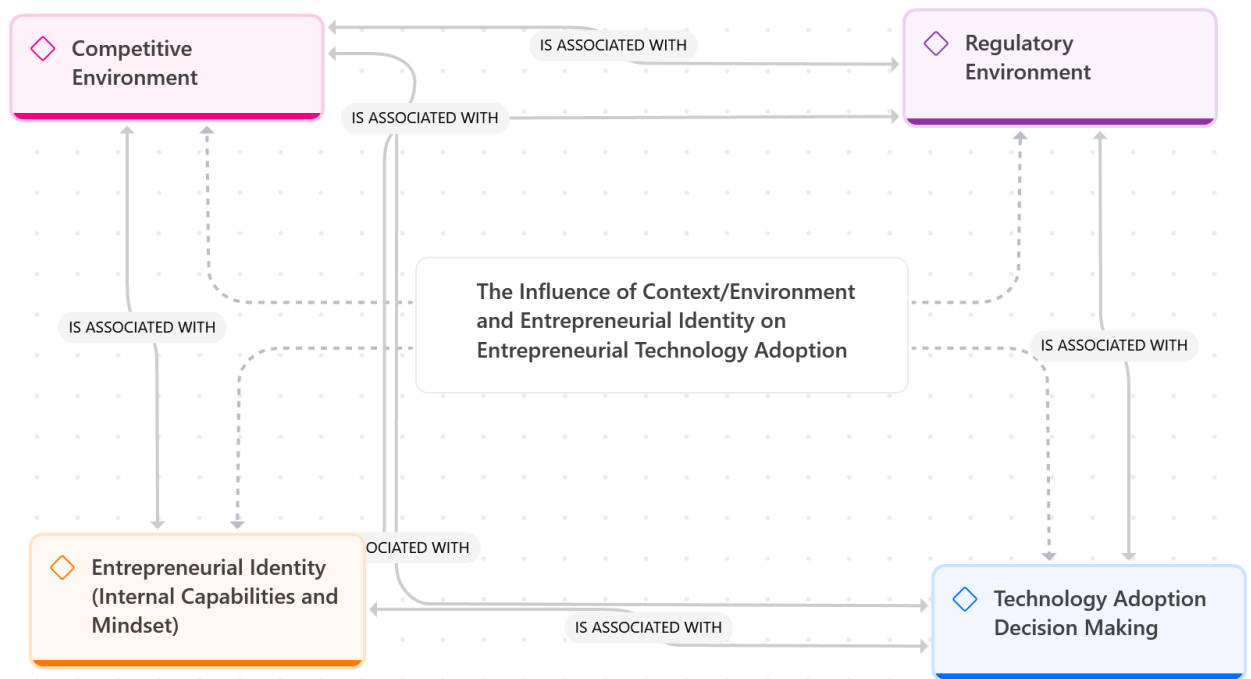


Figure 5.5: Context/Environment and Entrepreneurial Identity on Entrepreneurial Technology Adoption

Source: Author's own.

The competitive and regulatory environment operates as an influential external imperative, with market and growth pressure forcing adoption to avoid being "left behind" [P1] and legal compliance controlling the reasonable boundaries for technologies like AI. Critically, the entrepreneurial identity shown by a growth and adaptability mindset intercedes this pressure, seeing change as an "enabler for growth" [P1] and highlighting

continuous skill development. This interaction leads to the adoption of digital channels (e-commerce, self-service) and the integration of AI and automation to sustain businesses and meet customer demands.

5.7 Chapter Summary

This qualitative study concludes that technology adoption in small and medium enterprises is best understood as an identity-in-context process. In response to research question 1, entrepreneurial identity shaped adoption through purpose-laden evaluation logics. When responding to research question 2, four archetypes captured patterned differences in behaviour. Innovators proactively scanned, experimented early, and sought differentiation advantages. The strategists embraced technology in gradual steps, aiming at the alignment, sequencing and cost of integration. Pragmatists shifted when there was a tangible problem or cost-efficiency discrepancy, so that there was selective adoption rather than blanket adoption. The most conservative were traditionalists, who favoured continuity of craft and had confidence in routines; adoption was done in situations where switching costs were low, clients' expectations had increased, or the regulators needed a change in their regulatory thresholds. The archetypes evolved with time as knowledge was acquired.

In the case of Research Question 3, identity effects were moderated by the environmental conditions.

Competitive environment (market and growth pressure, rivalry) increased the adoption rate, even among the hesitant founders, in the presence of salience of speed, visibility, or differentiation. The regulatory environment (legal and compliance requirements) served as a gatekeeper and made auditability, confidentiality, and standards compliance necessary before identity-congruent adoption could take place. The timing and scope of adoption were further determined by the dynamics and client expectations of the clients (e.g., online booking, AI-enabled service, presence in social networks). Collectively, the findings point to a linear process that describes the uneven diffusion of similar tools among SMEs.

In practice, the interventions are to be correlated with the dominant identity logics (e.g. purpose and brand to Innovators, risk and continuity to Traditionalists) and to target the relevant environmental constraints directly. Theoretically, the research correlates entrepreneurial identity and archetypal orientation to moderating contextual factors into a logical framework of comprehending digital technology adoption among SMEs.

Chapter 6: Discussion of Findings

6.1 Introduction

This chapter explains the meaning of the findings from Chapter 5 and compares them with the theories discussed in Chapter 2. The goal is to go beyond description and produce a theoretical understanding of how the use of digital technology in South African SMEs is influenced by entrepreneurial identity, or how entrepreneurs define themselves and their values. Besides establishing identity-based archetypes, which may be associated with either proactive or resistant adoption patterns, the discussion also examines the interaction between these identities and contextual constraints such as competition, regulation and sociocultural norms, to influence the decision-making.

Recent research indicates that digitisation among emerging-market SMEs has started to be treated as behavioural and identity-based change and not merely a question of access or technological capacity (Li et al., 2018). Technology is accepted by entrepreneurs when it is in line with their inner self-perception of being competent, modern, and responsible leaders, and not because it is convenient or easy to utilise (Ranabahu et al., 2025). Therefore, identity is a motivational model which regulates the perception of opportunities, the degree to which a person accepts a risk and the desire to experiment.

Conventional theories on technology adoption, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and (UTAUT2) and the Technology Acceptance Model (TAM), remain applicable since they consider the cognitive factors, which affect behavioural intention, which are perceived utility and usability (Tamilmani et al., 2021). Carreiro and Oliveira (2019) suggest that the DOI hypothesis is another theory that describes the spread of adoption within social systems. Nevertheless, by disregarding the symbolic, moral, and emotional aspects of the entrepreneurial identity, such frameworks often treat entrepreneurs as utility-maximising, logical agents (Radu-Lefebvre et al., 2021). Current research contends that identity and cognition are intertwined, with entrepreneurs interpreting technology affordances in light of their self-perception (Malodia et al., 2023).

Mbatha (2024) in her article points out that the contextual complexity of these psychological processes plays an important part in the context of South African SME. Moreover, South Africa has a dual environment, which has both developed digital infrastructures and inequity, regulatory instability, and infrastructural deficit that entrepreneurs face. There is a significant tension between cultural expectations

surrounding relational business practices and community embeddedness, contrasted with structural constraints such as the high costs of connectivity, unpredictable power sources, and widespread digital illiteracy (Zahra et al., 2023). These facts mean that entrepreneurs need to achieve a constant balance between the forces of modernisation and cultural authenticity. Consequently, identity has become an intermediary between circumstances and cognition, affecting the way individuals perceive the feasibility, attractiveness, and authenticity of digital transformation (Si et al., 2023).

This chapter redefines technology adoption as a social-cognitive process, instead of a merely technical process, in showing the entrepreneurial identity as both a moderator (filter through which outside factors are perceived) and a driver (source of motivation and meaning) (Si et al., 2023; Zahra et al., 2023). The analysis below critically reviews the recent literature to demonstrate the impact of identity on the logic of technology adoption. The way the proactive or resistant behaviour can be explained through the separate personality archetypes. The co-production of environmental factors in the findings of adoption in South African SMEs.

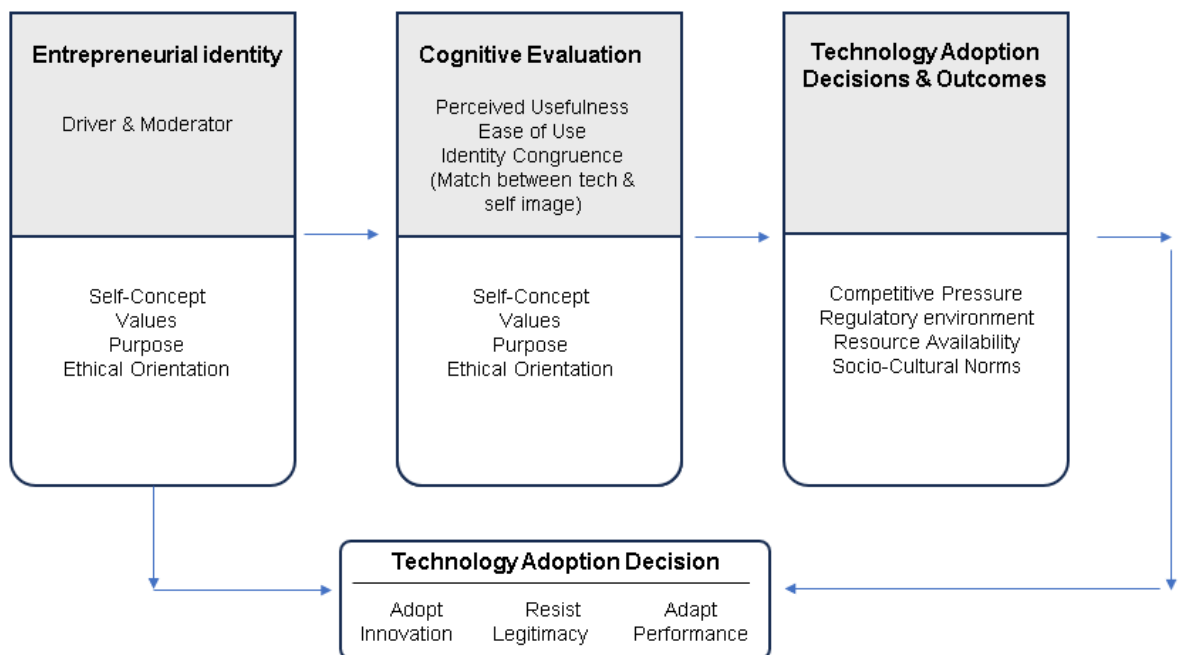


Figure 6.1: Analytical Link Between Entrepreneurial Identity and Technology Adoption in SMEs

Source: Adapted from Venkatesh et al. (2003), Tamilmani et al. (2021), Omrani et al. (2022), and Si et al. (2023).

6.2 Data Quality and Trustworthiness

While Chapter 4 was descriptive in presenting the strategies implemented to guarantee data quality and trustworthiness, this section is a confirmatory reflection on the actual study conducted (Saunders et al., 2018). Moreover, revisiting these criteria after the analysis, the chapter establishes credibility, reliability, and contextual validity of findings that contribute to deliberation of the secondary research questions (Schwandt et al., 2007).

The entire research process was conducted using rigorous procedures such as triangulation, reflexivity, and participant validation in order to make the data used in this analysis trustworthy and analytically strong. It is a consistent approach to the best practices in the interpretivist entrepreneurship research, where a greater emphasis was put on the contextual richness, transparency, and reflexivity than on statistical generalisation (Packard, 2017).

6.2.1 Credibility

As stated by Saunders et al. (2018), credibility is determined by the extent to which the findings are a faithful reflection of the experiences and opinions of the participants. Also, the credibility of the study was enhanced due to participant validation and data triangulation. To gain diversity in identity and technological experience, an exclusive group of fifteen entrepreneurs from different industries, such as healthcare, logistics, consulting, the creative arts, and retail, were selected. The overlapping of themes without losing the contextual complexity was achieved through the triangulation of multiple situations. To make sure that the meanings were properly transferred and met the high standards of qualitative research, participants had an opportunity to revise and consider their contributions (Christofi et al., 2024).

The process made the findings more authentic because it allowed the researcher to explore discrepancies, clarify the emerging narratives and have more interaction with the subjects in the follow-up discussions. This immersion is consistent with recent qualitative entrepreneurial research that has focused on relational trust as a source of data richness (Ravasi et al., 2020).

6.2.2 Dependability

Dependability deals with the stability and traceability of the research process. To achieve this, an elaborate audit trail was maintained in the process of data collection and analysis using Atlas.ti software. To ensure transparency in the procedures, all coding decisions

and theme shifts, as well as memo reflections, were noted. A peer-review debriefing of two different academics was also done to evaluate the coherence of data snippets and emerging concepts. This external review complies with the standards of reliability that have already been introduced into the qualitative research (Brown, 2022). As the data collection continued, the interview protocol and codebook were optimised in response to the contexts of the participants and still maintained methodological consistency. This process of iteration is an example of adaptive dependability (Saunders et al., 2018), which acknowledges that qualitative rigour is based on adaptive adjustment and not strict copying.

6.2.3 Confirmability

Confirmability is how much of the interpretations were founded on facts and not the bias of the researcher. After every interview, the researcher used a reflexive notebook where she would write down her assumptions, emotions, and reasons. Because the opinion of the researcher can influence the interpretation unintentionally, reflexivity is especially essential in identity research (Ekinçi et al., 2020). To keep interpretations rooted in participants' voices, coded extracts and verbatim quotations were often compared. Chapter 5 provided a verbatim quote to demonstrate each important idea to enhance objectivity. Peer debriefing sessions were used in order to foster analytical neutrality and to question assumptions. Together with peer auditing and reflexivity, they help in supporting new best practices in qualitative management research (Snyder, 2019).

6.2.4 Transferability

Transferability is the ability of the discoveries to be implemented in other situations. Though statistical generalisation is not an aim of qualitative research, analytical generalisation can be realised in dense description (Lim et al., 2020). Consequently, the industry, regional climate, size of the organisation and the participants' demographics were extensively described in the study. Readers and practitioners can evaluate relevance to their particular situations thanks to this level of contextual richness (Saunders et al., 2018). Given South Africa's heterogeneous SME landscape, ranging from micro-enterprises in township economies to digitally networked service firms, transferability is achieved by articulating how identity-technology relationships manifest across this continuum. The coding process's analytical clarity makes it possible for later researchers to duplicate or expand the study in similar emerging-market settings.

6.2.5 Section Summary

This research meets present qualitative research standards due to the application of triangulated information, clear coding, reflexive practice, and contextual description. In this case, being trustworthy means not only an ethical obligation to represent accurately the experiences of entrepreneurs, but also a methodological prudence. Adherence to these instructions establishes a strong empirical basis for the analysis of technology adoption and entrepreneurial identity that follows (Saunders et al., 2018).

6.3 SRQ 1 – How does entrepreneurial identity influence digital technology adoption decisions in South African SMEs

6.3.1 Overview of Findings

The initial research question was the investigation of the role of the perception of self by the entrepreneurs in their decision-making regarding their adoption of digital technologies. Interviews revealed that the power of personal identity narratives has an impact on technology adoption behaviour, and not logical cost-benefit analysis. Business people who view themselves as innovators, learners, or growth-oriented leaders think of technology as an expression of their professional identity (Ekinci et al., 2020).

Participant 1 embraces technology adoption, but it does not replace her appreciation for personal connection in business, emphasising that human relationships play an irreplaceable role.

These different opinions show how entrepreneurs think and feel about their role changes what they see as risky, what seems possible, and what feels right or accepted. The findings corroborate mounting evidence that an entrepreneur's response to technical development is significantly influenced by their self-perception (Cunningham et al., 2023).

6.3.2 Identity as a Cognitive and Motivational Lens

As identity theory indicates, the entrepreneurs generate meaning by performing roles that enable them to define themselves (Murnieks et al., 2020). This appears as a fit-perception mechanism in the adoption of technology: entrepreneurs embrace innovations that symbolically validate their agency and ability while rejecting those that challenge their preexisting self-perceptions (Hand et al., 2020).

Participant 14 commented on not chasing relevance and instead prioritising alignment with her personal brand.

Technology is framed by innovator-type owners as a manifestation of professionalism, mastery, and self-efficacy (Ekinci et al., 2020). On the other hand, traditionalists view automation as a loss of autonomy and human service.

This dynamic introduces identity congruency as a predictor of intention, extending the conventional Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and UTAUT2 models, which have found that performance expectancy, effort expectancy, social influence, and facilitating factors are key influencing factors of technology acceptance (Venkatesh et al., 2016). The mere perception of utility is not enough if the technology is incompatible with one's moral or relational identity. One proprietor of a medical practice, for instance, refused to use cloud-based records, stating that he was responsible for patient safety "if the system fails, not the software." Such claims demonstrate logical decisions based on values and professional ethics as opposed to risk aversion.

This finding shows that entrepreneurial identity directly shapes attitudes toward digital tools, meaning practice should focus on tailored support for different identity profiles rather than one-size-fits-all training.

6.3.3 Contextual Nuances in South Africa

The institutional and socioeconomic conditions of South Africa interact dynamically with entrepreneurial identity. SMEs operate in what Mbatha (2024) terms as a digital divide when advanced platforms and vulnerable infrastructure co-exist. In this way, the entrepreneur has to balance his/her aspiration towards modernity with an infrastructure limitation that may include high costs of data and unreliable power supply.

Growth-oriented identities are flexible in their improvisation of using mobile tools such as WhatsApp Business, TikTok, or Facebook to remain competitive under pressure.

Participant 11 stated that she is in the process of redesigning the site of the boutique to enable full online shopping, which implies a flexible attitude toward technology and development.

This kind of thinking demonstrates what Khurana et al. (2022) define as entrepreneurial resilience, which consists of applying your sense of self to keep on trying and using adversities as the foundation of new thoughts. On the other hand, entrepreneurs who

are community-embedded often depend on group support before they can adopt new technology.

Participant 11 stated that after realising that most of her competitors are using TikTok, she decided to follow suit. This kind of social validation aligns itself with relational logic oriented towards Ubuntu, when technology decisions are not individual cognitive processes but the acts of groups in order to build meaning (Nambisan et al., 2019).

6.3.4 Confirmations, Contradictions, and Extensions

6.3.4.1 Confirmations

The findings are in line with the literature that links proactive adoption to innovative or growth identity (Kindström et al., 2024). They also support the findings of Khurana et al. (2020), who find the mediating effect of identity on the structural constraint and digital ability in the emerging markets.

6.3.4.2 Contradictions

This study demonstrates principled caution based on ethics and trust, in contrast to the literature that has portrayed non-adopters as technologically worried (Skare et al., 2023). Resistance often is a symptom of protective authenticity, but not incapability.

6.3.4.3 Extensions

By introducing the concept of progressive identity alignment, when the owner of the business first experiments with small-scale digital technologies and then extends over time, it adds to existing theory (Malodia et al., 2023). This process demonstrates that the process of technology adoption is progressive, balancing between experience and self-concept instead of a one or the other decision. Entrepreneurs develop into confident integrators, but not critical evaluators, because they experiment, refine and internalise new digital processes (Malodia et al., 2023). Murnieks et al. (2020) note that this understanding is in line with adaptive-learning perspectives in which the digital transformation can be attributed to the process of continuous self-reconstruction through the feedback of experience. With time, repetitive interactions with technology strengthen self-efficacy, which enables entrepreneurs to balance innovation and authenticity.

6.3.5 Implications for Theory and Practice

6.3.5.1 Identity-Aligned Adoption Models

Identity congruence should be included in future technology acceptance models as a mediating factor between behavioural intention, perceived risk, and usefulness (Hand et al., 2020).

6.3.5.2 Policy and Ecosystem Design

SME-supporting programs might also further separate interventions into various types of identities, e.g., relational assurance to carers and innovation subsidies to experimenters.

6.3.5.3 Narrative-Based Digital Training

Training may introduce technology as a continuation of entrepreneurial craftsmanship instead of substituting individualised knowledge (Epede & Wang, 2022). Techniques for presenting narratives enhance perceived alignment with one's own self-image.

6.3.5.4 Cultural Mediation Mechanisms

In many township or family-run businesses, learning from peers or watching role models can help make new ways of doing things seem acceptable to the group (Ekinici et al., 2020).

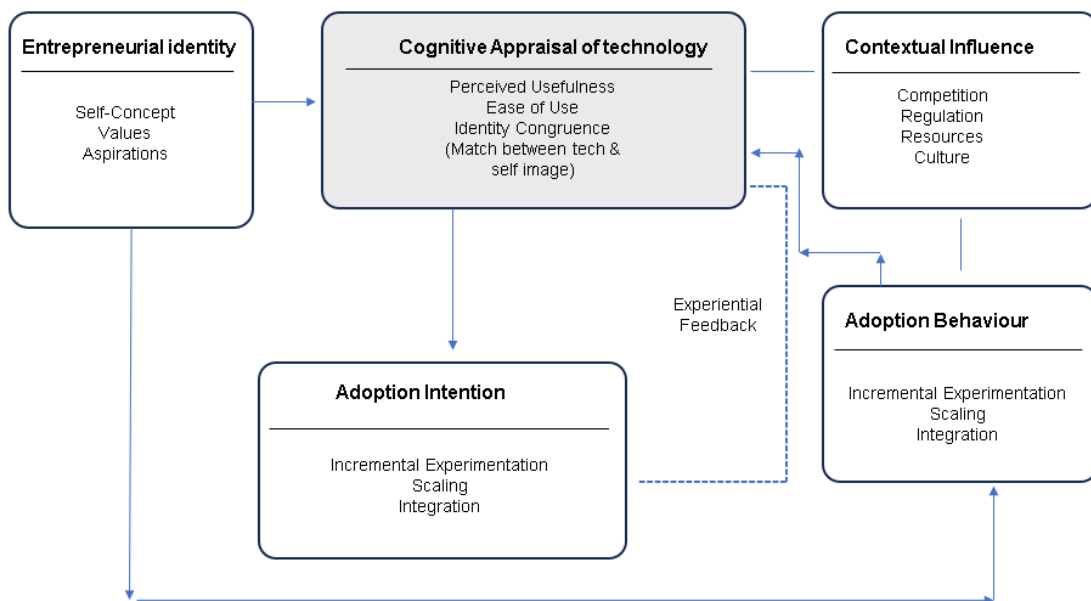


Figure 6.2: Identity-Influenced Technology-Adoption Process Model

Source: Adapted from Tamilmani et al. (2021), Becker et al. (2025) and Omrani et al. (2022).

6.3.6 Synopsis

Entrepreneurial identity has a direct and indirect effect on the adoption of technology. Whereas innovators view technology as empowering, caretakers view technology as one that brings about direction and continuity. The resolution of the contextual viability and professional purpose results in decisions. Identity acts as a psychological anchor to help entrepreneurs manage the unstable business environment in South Africa (Radu-Lefebvre et al., 2021). Four unique archetypes- Innovators, Pragmatists, Strategists, and Traditionalists- that further explain diverse adoption behaviours are examined in the following section.

6.4 SRQ 2 – What entrepreneurial identity archetypes are associated with proactive versus resistant technology-adoption behaviours?

6.4.1 Overview of Findings

In South African SMEs, the second research question examined the kinds of entrepreneurial personality archetypes linked to proactive or resistant attitudes to technology adoption. All four recurrent archetypes, which included Innovators, Pragmatists, Strategists, and Traditionalists that came out of the qualitative study, are unique ways of combining values, motivation and logic of behaviour. These archetypes show that the application of technology by entrepreneurs is not limited to a logical assessment; instead, it can be viewed as symbolic expressions of their identities in some social and cultural contexts (Stevenson et al., 2024).

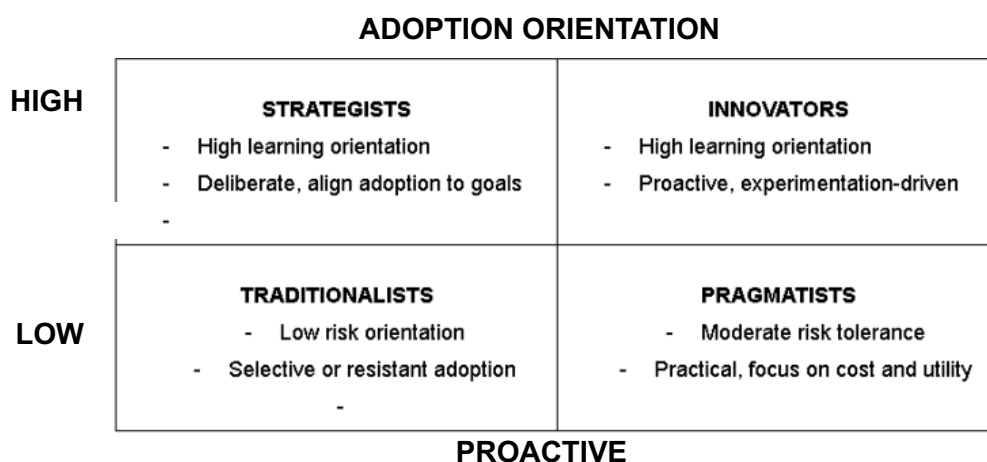


Figure 6.3: Entrepreneurial Archetypes and the Technology-Adoption Spectrum

Source: Adapted from Chaudhry et al. (2024) and Radu-Lefebvre et al. (2021).

6.4.2 The Innovator Archetype

The innovator archetype represents the identity of experimentation, discovery and differentiation. Due to their perception of technology as an instrument and a symbol of progress, innovators are characterised by their creativity and unceasing enhancement. They are ready to deal with short-term flaws in order to gain a first-mover advantage and to be competitive in the long term.

Participant 12 expressed the same feelings regarding the fact that she felt that digital adoption is a manifestation of who they are and a critical aspect of their business purpose..

Participant 14 would like to employ new technologies, such as drones, in order to establish market differentiation in content creation.

Participant 9 is also embracing innovation through the use of various tools of research and campaign strategy, including AI Gemini.

They are consistent with Innovators: These participants specifically associate technology adoption with identity, growth, and competitive differentiation. The entrepreneurial growth orientation provided by Kindström et al. (2024) is closely related to innovators. In resource-constrained settings, this archetype leverages creativity, which Abubakre et al. (2021) term "trait predictors", which expand into sociocultural build-up of the entrepreneur and to a large extent, these sociocultural traits will mirror their behaviour towards technology adoption.

Innovators run the risk of over-adoption or under-strategising, deploying technology more quickly than organisational processes can keep pace, even as their proactive approach promotes diffusion throughout SME ecosystems. It is an addition to what Usai et al. (2021) found that creating value means always trying to balance new ideas with careful planning.

6.4.3 The Pragmatist Archetype

Pragmatics are result-oriented individuals. They attach importance to stability, efficiency and control rather than experimentation. To them, technology should only be adopted when it has been demonstrated that it has tangible benefits. Participant 8 explains that he would adopt a new system if it saved time or minimised waste. Otherwise, it's not worth doing, significantly showing that calculative rationality determines the decisions of pragmatists.

The pragmatists are often regarded as the moderate businesspeople in the volatile South African economy: adaptable but risk-averse. Their behaviour exhibits low rationality, which maximises decisions under the limitations of time, money, and uncertainty of the situation.

Participant 5 and 6 demonstrate the practical attitude to technology, selecting such solutions as cloud-based systems to be more efficient in their operations, and combining tradition and innovation only when it is evident that it fits.

Participant 9 is devoted to the experience of clients, as she believes that revenue maximisation and technological advancement are the key to business prosperity.

Participant 10 will base their technology decisions on research and cost-effectiveness to make sure that the adoption is evidence-based and cost-effective.

These are the participants who can be regarded as pragmatists who are solution-driven, cost-minded and contextually adaptive. As Lim et al. (2020) note, when the economy is in decline, companies that strike a fine line between reducing expenses to stay afloat and investing in the future perform better than the competition. This balance is very critical as the authors highlight that organisations that perform better can use the opportunities in times of a crisis, which greatly affects their performance in the long term.

Pragmatics are not as evident as change agents, but they perform an important stabilising role in diffusion networks. Once they have adopted, their support enables technology to gain legitimacy with their more conservative counterparts throughout the sales process, which implies that relationships are essential in the B2B setting (Fraccastoro et al., 2021).

6.4.4 The Strategist Archetype

Strategists are procedural and long-range visionary. They appreciate control, foresight and alignment between organisational strategy and technical innovation, which is a combination of guardianship and planning.

Participant 7 makes technology adoption decisions based on strategic alignment, cost and organisational fit, rather than only personal convenience or novelty. Simplicity for both her and the employees is a determining factor as to whether technology is adopted or not.

Participant 13 uses strategic thinking by determining technology on the basis of its capability to generate value to the business or customers, with the aim of not losing its focus.

Participant 3 explains that entrepreneurship is experimental, as the use of technology is a trial-and-error procedure, whose findings are inconsistent, yet learning leads to growth.

Traditionalists perceive entrepreneurship through the lenses of trust, community and stewardship. They are defined by their reliability and personal contacts, and their businesses are often inspired by the family history or volunteering experiences.

According to Cunningham et al. (2023), goal-driven identity coherence of micro, small, and medium-sized enterprises (MSMEs) is what strategists are targeting, and the application of technology can be viewed as the extension of the strategic intention. They place their value on return on investment, personnel readiness and compatibility as they adopt gradually. The result of this identity is resilience in the various SME environments in South Africa: strategists find a balance between sustainability and innovation, ensuring that adoption progresses instead of negatively impacting the company's goal.

Recent findings highlight that strategic momentum is essential for enhancing the digital transformation of SMEs, especially in managing the complexities associated with technology adoption (Jia et al., 2024). The study reveals that external factors, particularly customer demand and government support, play a significant role in shaping the strategic momentum of SMEs' digital transformation initiatives. Besides these external factors, strategists demonstrate that reflective identity may work more effectively than impulsive innovation in uncertain conditions, connecting decisions to adapt to core purpose.

6.4.5 The Traditionalist Archetype

Traditionalists see entrepreneurship from the perspectives of trust, community, and stewardship. Their identity revolves around dependability and interpersonal connections, and their enterprises frequently draw inspiration from family history or volunteer work.

Participant 2 demonstrates that it requires a lot of practice and perseverance to learn a new skill or tool, as effectiveness comes with time, and when people do it repeatedly.

Participant 3 points out that while it's possible to learn new technology, things can get confusing or difficult, especially when different systems must work together.

Participant 7's experience points out that even positive changes may not be without issues, such as when people struggle to get used to a new system or do not feel like using it initially.

Traditionalists typically resist adoption until external legitimacy pressures, such as customer demand, regulatory requirements, or generational succession, make change unavoidable. But rather than being strictly conservative, their caution is based on principles (Radu-Lefebvre et al., 2021). Most moral concerns include loss of workmanship, cultural alienation, or privacy. As noted by Radu-Lefebvre et al. (2021), such containment is a sign of relational authenticity and not technophobia.

Traditionalists are more likely to implement technology in a selective way, especially where they are packaged as an enhancement to service quality, either through invoicing or traceable logistics. This observation correlates with the findings of Abubakre et al. (2021), who underline that Ubuntu values, such as humility and reciprocity, play a significant role in the way digital entrepreneurs perceive their roles and connections in their community.

6.4.6 Fluidity and Identity Transition

The study's key finding is that entrepreneurial identities are flexible rather than set in stone. Alterations of archetypes due to learning, crisis, or exposure to the success of peers were very often reported by participants.

Participants 5 and 10 don't fit into only one role. Sometimes they look for what works best for their business and act carefully, like Pragmatists. In some cases, they seek what is best in business and are cautious, such as Pragmatists. On other occasions, they are also fast to experiment with new things and come up with new ideas, which indicates their Innovator side. This implies that their strategy will be different; doing what will make sense to them at a certain time, depending on what is occurring in their business.

Participant 13 wants to try new technologies, like the usage of a drone to help the business stand out, showing an innovative side. Other times, this participant makes careful choices based on what will work best based on cost, which shows a strategic side. This is an example of how one person's approach can change depending on what is needed.

These changes serve as an example of what Liu et al. (2019) refer to as identity evolution, in which new experiences alter one's definition of oneself and, in turn, one's behaviour. This mobility is exacerbated in emerging countries by environmental uncertainty, creating hybrid identities that blend innovation and tradition. An artisan business owner might, for instance, use e-commerce to reach a wider audience while maintaining artisanal production techniques to maintain authenticity.

This phenomenon emphasises that adoption trajectories are cyclical, iterative, and contextually negotiated, challenging the static adopter-laggard dichotomies prevalent in DOI theory (Vargo et al., 2020). The fluid nature of entrepreneurial archetypes challenges static theoretical models and suggests practitioners should expect founders to shift roles as their circumstances change.

Table 6.1: Integrated Mapping of Theoretical Frameworks, Participant Narratives, and Entrepreneurial Archetypes

Chapter 2 Framework/Model	Supporting Study or Concept (Key Reference)	Participant Example (from Chapter 5)	Archetype(s) Involved	Integrated Insight
Unified Theory of Acceptance and Use of Technology (UTAUT) and UTAUT2	Venkatesh et al. (2012)	P7 adopted tech when clients demanded convenience and speed.	Strategist / Pragmatist	Adoption was driven by perceived usefulness and external influence, demonstrating that utility perceptions are filtered through professional identity.
Diffusion of Innovation (DOI)	Vargo et al. (2020)	P11 adopted an app after observing peers' success with it.	Innovator / Pragmatist	Peer influence (observability and trialability) fostered confidence; adoption was gradual, reflecting DOI's social diffusion dynamics within SME contexts.
Resource-Based View (RBV) and Bricolage Theory	Afolayan and de la Harpe (2020)	P8 improvised using free digital tools to overcome constraints.	Pragmatist	Resource scarcity spurred ingenuity; it demonstrates identity-driven bricolage consistent with RBV's emphasis on adaptability and internal capability leverage.

Chapter 2 Framework/Model	Supporting Study or Concept (Key Reference)	Participant Example (from Chapter 5)	Archetype(s) Involved	Integrated Insight
Identity and Cognitive-Motivational Lens	Si et al. (2023)	P9 resisted full automation, valuing customer intimacy.	Traditionalist	Decision-making is tied to moral and relational identity rather than risk aversion, redefining adoption as an expression of values-based professionalism.
Sociocultural Embeddedness Theory	Stevenson et al. (2024)	P15 pursued online booking systems to meet customer expectations.	Strategist / Traditionalist	Demonstrates identity–context alignment: technology is adopted when it supports community relationships and perceived legitimacy.
Adaptive Identity Theory	Liu et al. (2019)	P3 transitioned from being employed to being an Entrepreneur after COVID challenges.	Hybrid / Fluid Identity	Confirms identity evolution over time; entrepreneurs shift between archetypes as new contexts reshape self-concept and adoption logic.

Source: Author's own.

6.4.7 Theoretical and Practical Implications

6.4.7.1 Theoretical Contributions

Dynamic-Identity Framework

The findings support the notion that entrepreneurial identity is a fluid spectrum that is influenced by learning and environment instead of a given trait.

Bridging Behavioural Typologies

When agency is combined with the environment, the mapping of archetypes across a proactive-resistant axis connects structural and psychological accounts of adoption.

6.4.7.2 Practical implications

Archetype-Sensitive SME Support

Interventions should be customised by policymakers and incubators to fit the dominant archetype. Funding and innovation laboratories help innovators, evidence-based training helps pragmatists, strategic-planning tools help strategists, and relational comfort and mentoring help traditionalists (Pizzi et al., 2021). The advantages of technology should be presented by vendors in terms that are relevant to the identities of innovators, traditionalists, pragmatists, and strategists (Olson et al., 2021).

Technology Marketing

The advantages of technology should be presented by vendors in terms that are relevant to the identities of innovators, traditionalists, pragmatics, and strategists, respectively.

Leadership Development

Owners can improve agility by identifying their dominant archetype and consciously adopting complementary attitudes with the aid of entrepreneurial leadership programs.

6.4.8 Section Summary

The archetypal framework shows that the great variation in technology-adoption behaviour among South African SMEs operating under comparable circumstances may be explained by differences in entrepreneurial identity. Innovators facilitate diffusion, pragmatics normalise diffusion, strategists consolidate diffusion, and traditionalists humanise diffusion. Notably, with the change in circumstances, experience and knowledge, entrepreneurs alternate these roles without hesitation. This flexibility stresses the fact that identity is a dynamic concept that is shaped by and shapes the use of technology. This argument is further elaborated in the next section because it discusses how entrepreneurial identity interacts with environmental factors, competition, rules and regulations and the sociocultural environment to influence the adoption decision.

6.5 SRQ 3 – In what ways do environmental factors and entrepreneurial identity interact to influence how entrepreneurs make decisions about technology adoption?

6.5.1 Overview of Findings

The third research question examined the interaction between entrepreneurial identity and external environmental forces on the adoption of technology by South African SMEs. The findings indicate that the adoption decisions are seldom made based on the internal dispositions; on the contrary, they are the outcome of the interaction between the identity and the environment in which the sense-making of the entrepreneur is conditional upon the regulatory pressure, the availability of the resources, the intensity of the competition, and the cultural norms. Entrepreneurs are able to analyse the contextual cues constantly through their self-concepts and decide whether to resist, adapt, or comply (Neneh, 2022).

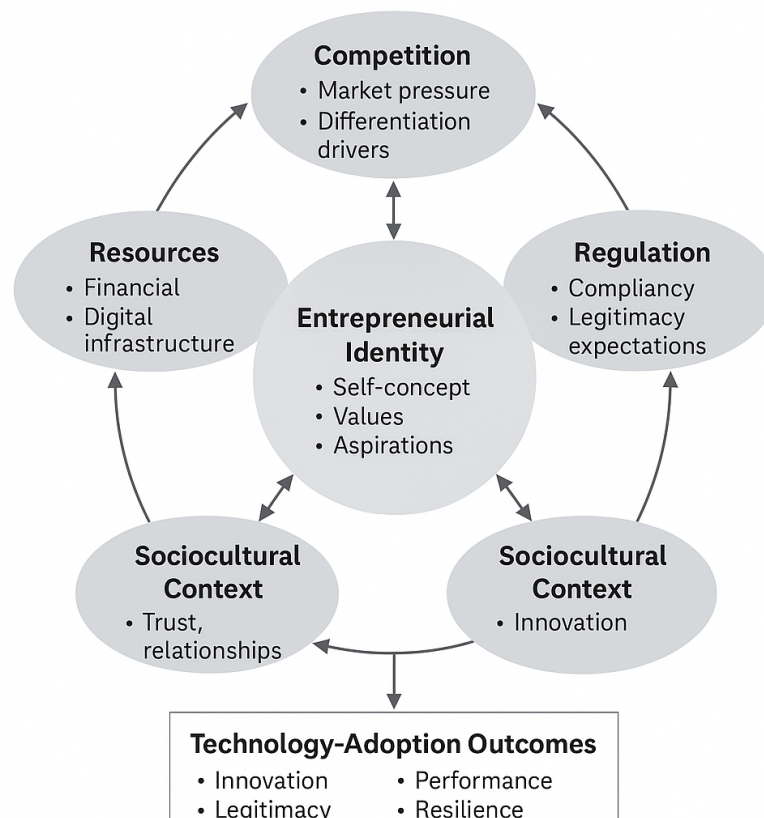


Figure 6.4: Interaction of Entrepreneurial Identity and Environmental Factors in Technology Adoption

Source: Adapted from Brown (2022), De Bernardi and Sydow (2022) and Stevenson et al. (2024).

6.5.2 Competitive Environment: Identity Activation Through Market Pressure

Competition caused the latent innovation identities to be provoked. The fast-moving sectors, such as digital services, retail and logistics entrepreneurs, realised that the adoption of technology was no longer an option but a survival strategy.

Participant 1 indicated that she will be left behind unless she keeps pace with technology. The threat of competition forces her to evolve to be competitive.

Participant 10 explained how entrepreneurs respond to a fast-moving industry by embracing innovation and continually seeking solutions. This demonstrates the interaction between external pressures and entrepreneurial identity in SMEs.

Participant 4 also added that to stay competitive, individuals must keep learning and adapting as technology evolves, or risk being left behind.

Participant 15 discussed using technology to monitor how much competitors are charging and when they are running special offers. This reflects an adaptive and competitive mindset in response to industry dynamics.

On this basis, competitive turbulence transforms identity into a growth, as opposed to maintenance orientation (Radu-Lefebvre et al., 2021). This pattern is consistent with resource-based and institutional perspectives in which environmental shocks are viewed to drive entrepreneurial adaptation (Khurana et al., 2020).

Whereas the traditionalists regard competition as a threat to the already established relational business structures, innovators regard it as confirmation of their skills. In comparatively secure places, identity is somewhat conservative, whereas in dynamic marketplaces, there are similar people who exhibit adaptive experimentation. Due to this fact, market volatility acts as a vehicle of identity activation. For theory, this confirms that competitive pressure is a key driver of innovation, while for practice, it underlines the need for SMEs to monitor their markets actively and respond quickly.

6.5.3 Regulatory Environment: Identity Negotiation and Legitimacy

By affecting views of legitimacy, regulatory frameworks also influenced adoption choices. Entrepreneurs had varying views regarding digital compliance solutions like industry accreditation portals, the Protection of Personal Information Act (POPIA), and the e-filing solution offered by the South African Revenue Service (SARS).

Participant 5 said that the government is encouraging everything to go online, such as payroll, taxes, and compliance. Though it can be stressful, it also gives him a sense of belonging to the formal economy.

This mixed feeling shows how people see rules differently: carers often say it's just more paperwork, but innovators see it as a way to show they are true professionals. According to Carlitz and Makhura (2021), they define institutional pressures as the manner in which entrepreneurial legitimacy is reinterpreted by establishing what is considered to be responsible company behaviour. What this study seems to show is that the way a person thinks about themselves can really influence whether they stick to the rules or not. Whereas few of them adapt to conform to standards, adaptive entrepreneurs use regulation as a stage of digital enhancement. Due to its alignment with institutional logics and the lived experience of the entrepreneurs, the recent studies note that the co-designing of digital governance solutions, when the SMEs are involved, increases the acceptability (Carlitz & Makhura, 2021; Steveson et al., 2024).

6.5.4 Resource Constraints: Resilience and Bricolage Identity

Technical know-how, digital infrastructure, and financial accessibility were identified as key contextual modifiers. When faced with structural shortage, entrepreneurs exhibited a range of identity responses. To illustrate the phenomenon of entrepreneurial bricolage, growth-oriented identities implemented numerous digital technologies and strategies to find their way through the challenges (Smidt & Jokonya, 2022).

Participant 8 indicated that most of the clients they were targeting were found in places where infrastructure was poor, and thus the business had to employ creative and cost-saving approaches in their efforts to provide their services, instead of depending on costly or sophisticated solutions.

Participant 14 touched upon the use of cheap technologies by entrepreneurs and the perception of platforms such as TikTok to even the playing field in terms of resource-poor entrants.

Financial caution, on the other hand, was an excuse used by the carer identities to avoid adopting. The difference was in the interpretive frame and not in the resources that were available. This coincides with the conclusion of Radu-Lefebvre et al. (2021), who found that whilst there are entrepreneurs who consider restrictions as immobilising barriers, there are those who have strong efficacy beliefs and who transform them into strategic challenges. The findings are also in line with the findings of Mbatha (2024), who states that digitalisation techniques adopted by South African SMEs tend to be cost-effective

as an alternative to formal Information and Communication Technology (ICT) investments.

Therefore, resource scarcity can become an opportunity for entrepreneurs to demonstrate their capabilities. Choosing not to spend money can reflect financial discipline, while being compelled to act creatively under pressure can reveal inventiveness. Both behaviours are legitimate in terms of their respective identity logics. The bricolage evidence indicates a lack of resource-based theories and recommends that policy should support cheap, adaptable responses to entrepreneurs who are resource-constrained. Evidence of bricolage exposes a gap in resource-based theories and suggests that policy should encourage low-cost, adaptable approaches to support resource-constrained entrepreneurs.

6.5.5 Sociocultural Context: Communal Logics and Relational Authenticity

The diverse cultural context of South Africa adds unique social connotations to the adoption of technology. Instead of describing their enterprises as transactional exchanges, many entrepreneurs characterised them as relational spaces anchored in networks of community trust. Participant 9 said that his clients prefer to talk to him directly; they don't like apps. This is how confidence is established

Such reasoning reflects relational logic based on Ubuntu, where authenticity is defined as mutual commitment and personal presence (Abubakre et al., 2021). Excessive automation puts Traditionalists at risk of losing customers and damaging their reputation. Participant 5 highlighted the importance of online visibility.

These conflicting norms can be seen as the reflection of the concept of identity-context alignment suggested by Stevenson et al. (2024). The pace of adoption accelerates as digitalisation matches the expectations of the community; otherwise, entrepreneurs struggle to preserve their social embeddedness. This duality highlights the innovative and cultural bargain involved in embracing technology. The focus on relational authenticity justifies theories that value embeddedness and proposes that tech support ought not to substitute personal relationships in business.

6.5.6 Adaptive Identity: Continuous Re-Alignment

Some of the entrepreneurs discussed the change in their identities as they handled environmental change. Those who initially felt hesitant said that they felt more confident later, recognising the benefits technology has.

Participant 2 observed that to acquire the skills of laparoscopic surgery, constant practice and training had to be done to become proficient.

Participant 15 has monitored the transformation in digital channels like online booking systems in hospitality to point out how the environment and customer demands are transforming service delivery patterns.

This development represents adaptive identity, which is having the ability to adapt the self-concept based on environmental feedback (Stevenson et al., 2024). Adaptive identities integrate learning, experimentation, and resilience to turn environmental volatility into the development of capacities. Malodia et al. (2023) refer to such an approach as an identity-based digitalisation, as it involves entrepreneurs using technology to recreate themselves. Adaptive identity is a process that changes over time as a result of and a precondition of the digital transformation, which focuses on the importance of the level of personal characteristics and professional leadership in the digital transformation of SMEs.

6.5.7 Policy and Practice Implications

6.5.7.1 Identity-Informed Ecosystem Support

Programs for the digitisation of SMEs should be created by policymakers with psychological diversity in mind. Besides technical abilities, peer-learning and mentoring may help develop flexible identities (Hand et al., 2020).

6.5.7.2 Regulatory Co-Design

Collaboration between regulators and SMEs enhances perceived fairness and legitimacy, encouraging voluntary compliance and innovation.

6.5.7.3 Community-Centric Digital Training

Using technology can be made consistent with local norms by introducing cultural accounts such as Ubuntu that reduce identity dissonance (Abubakre et al., 2021).

6.5.7.4 Infrastructure and Access Equity

In order to prevent environmental limitations from undermining entrepreneurs' feelings of agency, it is still imperative to address systemic deficiencies, electricity reliability, and broadband cost (Mbatha, 2024).

6.5.8 Section Summary

The reciprocity of entrepreneurial identity and contextual circumstances is exemplified in this section. Sociocultural norms moderate authenticity claims; regulatory regimes change legitimacy narratives; resource scarcity either evokes caution or bricolage; and competitive marketplaces stimulate new identities. When taken as a whole, these interactions explain why different SMEs exposed to comparable external conditions have different adoption patterns.

In the end, technology adoption is a continuous process of self-definition and contextual negotiation rather than a transactional choice due to the adaptive interaction between identity and environment.

6.6 Overall Synthesis

Career identities, on the other hand, employed financial prudence as a pretext not to adopt. The difference lay in the interpretive frame as opposed to the resources available. This corresponds to the findings of Radu-Lefebvre et al. (2021), who found that even though some entrepreneurs see restrictions as paralysing constraints, others with high efficacy beliefs make them strategic issues. These findings are also consistent with the findings of Mbatha (2024), who states that South African SMEs prefer to use cost-efficient approaches to digitalisation rather than formal ICT investments. Accordingly, insufficiency becomes a platform to establish oneself: whilst the denial of resources allows keeping finances within the limits of austerity, the willingness to give in under pressure is a sign of creativity. Both behaviours are sensible according to the identity logic they belong to.

6.6.1 Sociocultural Context: Communal Logics and Relational Authenticity

The adoption of technology is given unique social connotations by the diversity of culture that South Africa boasts of. Rather than explaining their businesses as a form of transactional exchange, most entrepreneurs described it as a relational space that is based on community trust networks.

Participant 9 highlights that sometimes entrepreneurs and clients prefer using technology in ways that strengthen these connections, rather than replacing the human element entirely.

This kind of rationale is relational logic that can be described by Ubuntu as authenticity as mutual commitment and personal presence (Abubakre et al., 2021). Excessive automation puts Traditionalists at risk of losing customers and damaging their reputation

These negative norms are one of the expressions of the theory of identity context alignment proposed by Stevenson et al. Digitalisation accelerates adoption rates when the expectations of the community match it; otherwise, business people struggle to maintain their social embeddedness. This dichotomy highlights the fact that the use of technology is not only an innovative but also a culturally negotiated behaviour.

6.6.2 Adaptive Identity: Continuous Re-Alignment

When addressing the issue of environmental change, a number of entrepreneurs discussed the ways in which their identities transformed. The participants who were initially reluctant, such as Participant 2, stated that they were becoming more confident as they realised the benefits of technology.

This evolution is an expression of adaptive identity, which is the ability to alter the self-concept based on the feedback of the environment (Stevenson et al., 2023). Adaptive identities combine learning, experimentation, and resilience to transform environmental instability into building capacities. Malodia et al. (2023) call this method an identity-based digitalisation because it entails entrepreneurs utilising technology to remake themselves. Adaptive identity is a process that evolves with time due to and as a precondition of digital transformation, which emphasises the significance of personal traits and professional leadership in the digital transformation of SMEs.

6.6.3 Policy and Practice Implications

6.6.3.1 Ecosystem Support based on Identity

Policymakers should develop programs that digitise SMEs by considering the psychological diversity. Along with technical skills, peer-learning programs and mentoring can be a source of fabrication of flexible identities (Hand et al., 2020).

6.6.3.2 Identity-Informed Ecosystem Support

The policymakers need to work out programs to digitalise the SMEs with the psychological diversity in mind.

6.6.3.3 Digital Training Community-Based

In addition to technical skills, peer-learning programs and mentoring can foster the development of adaptable identities (Hand et al., 2020).

6.6.3.4 Regulatory Co-Design

Collaboration between regulators and SMEs enhances perceived fairness and legitimacy, encouraging voluntary compliance and innovation.

6.6.3.5 Community-Centric Digital Training

The utilisation of technology can be aligned with local norms by including such cultural discourses as Ubuntu, which reduces the sense of identity dissonance (Abubakre et al., 2021).

6.6.4 Infrastructure and Access Equity

To ensure that systemic shortcomings, electricity reliability, and broadband cost do not hinder an entrepreneurial sense of agency, there remains a need to mitigate environmental limitations (Mbatha, 2024).

6.6.5 Section Summary

This part explains how both the identity of an entrepreneur and situational circumstances are constitutive of one another. Authenticity claims are mediated by the sociocultural norms; the legitimacy accounts are modified by regulatory regimes; the resource scarcity triggers either apprehension or bricolage, and the competitive marketplaces provoke new identities. Taken in totality, these interactions describe the existence of varying adoption patterns across different SMEs that are subjected to similar external conditions.

Ultimately, the use of technology is an ongoing self-definition process and contextual negotiation as opposed to a transactional choice because of the constant adaptive process of identity and the environment.

6.7 Chapter Summary

The effect of entrepreneurial identity on the adoption of digital technology among the South African SMEs has been well addressed in this chapter. This was shown by analysing the empirical evidence, as the theoretical framework of UTAUT, UTAUT2, and DOI enabled the interpretation of the empirical evidence as showing it was a profoundly psychological and socially integrated process, not a cognitive one or an economic one.

One of the themes that was constant in the three research questions was the fact that entrepreneur identity has a positive and negative impact on adoption behaviour. It is in their own perceptions of themselves that entrepreneurs not only observe technical opportunities and constraints, but are also inclined to perceive digital tools as a threat to authenticity or as an instrument of purpose. This is the reason why adoption patterns were very different among structurally similar organisations.

6.7.1 Integrated Insights

Firstly, interpretive logic is determined by identity. Innovators, pragmatics, strategists and traditionalists use technology in ways that identify with their own self-concepts. Traditionalists place great emphasis on the continuity in trust and services, pragmatics desire to gauge efficiency, strategists align adoption with the long-term objectives, and innovators desire novelty in the name of legitimacy. Adoption diversity is based on identity pluralism rather than competence deficiencies, as these archetypes attest (Radu-Lefebvre et al., 2021). Secondly, identity is dynamic, evolving through environmental interaction. Entrepreneurs are constantly challenged to re-create themselves due to regulatory changes, competitive volatility, and societal expectations. This is what has been labelled adaptive identity (Stevenson et al., 2024), when it becomes evident that the rewriting of self-stories is equally vital as the updating of technologies with respect to effective digital transition.

Thirdly, environmental signals are identity signifiers. Cultural norms and resource constraints influence the formation of authenticity claims, and bricolage and regulation are redefining legitimacy, and competitive pressures are mobilising new identities. These findings support the claim by Stevenson et al. (2024).

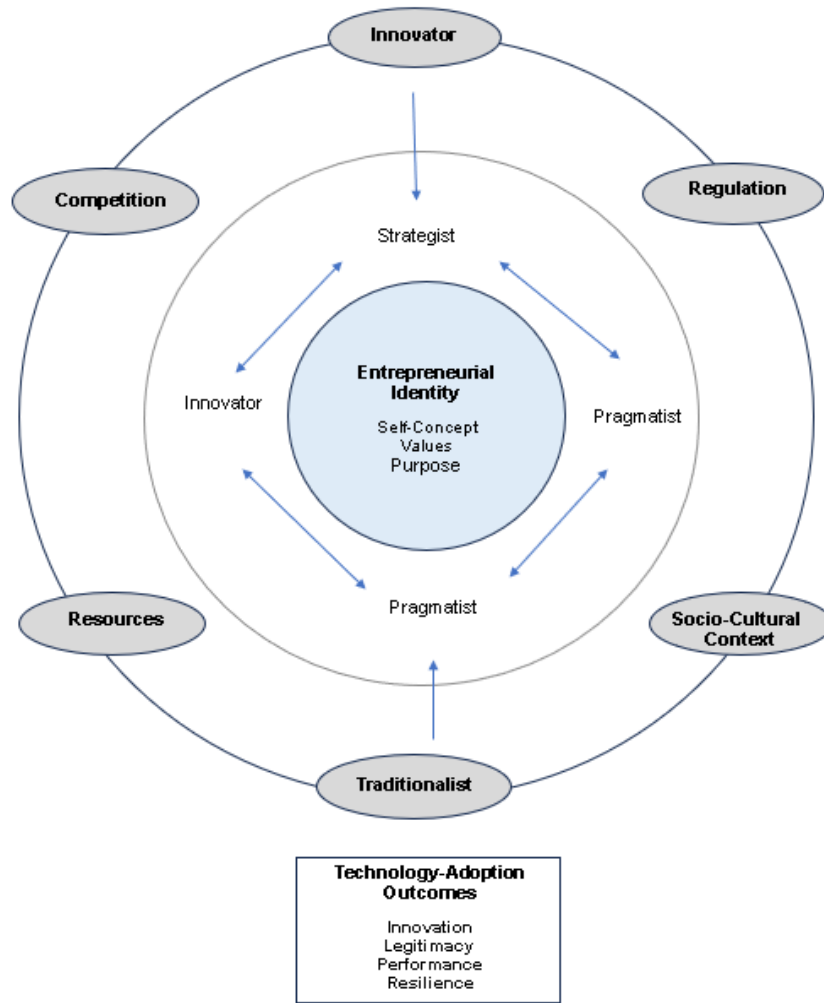


Figure 6.5: Integrated Model Linking Entrepreneurial Identity, Archetypes, and Environmental Factors

Source: Adapted from Ravasi et al. (2020), Chaudhry et al. (2024) and Stevenson et al. (2024).

6.7.2 Theoretical Contribution

It introduces identity congruence as a mediating concept which connects the intentions of behaviour, the perception of risk and usefulness. It also proposes a Dynamic-Identity Continuum that demonstrates how the archetypes are alternated among the entrepreneurs as their self-concepts are reformulated through the learning process and through external influence. It completes this theoretical gap stated in Chapter 2, that is, standard adoption models do not take into consideration psychological meaning-making (Venkatesh et al., 2012).

6.7.3 Practical Implications

The findings demonstrate the need to have identity-responsive digitisation efforts both through a managerial and a policy lens. Provision of incentives in the innovation of risk-takers, provision of assurance systems among carers and provision of capacity-building mechanisms among strategic planners are examples of the support mechanisms that governments and actors in the ecosystem should develop to address the numerous self-narratives of entrepreneurs. Besides applying technical language, technology vendors and incubators are supposed to employ stories that affirm identity as well as address local cultural values such as Ubuntu and community stewardship in the process of adopting (Abubakre et al., 2021).

6.7.4 Concluding Reflection

The eventual adoption of technology in South African SMEs is reflected in terms of a conversation between the self and the system, which is a process through which owners of business improvements modernise their businesses and redefine themselves in the process. Entrepreneurial identity gives the interpretative connection between aptitude, circumstance, and cognition. This dynamic needs to be considered by policymakers, practitioners, and academics who want to accelerate the inclusive digital change. Based on these findings, Chapter 7: Conclusions and Recommendations summarise the general contributions of the study, suggests a concise answer to the main research question, and gives viable recommendations to future researchers, support organisations and businesspeople.

6.8 Chapter Summary

Chapter 6 summarises the qualitative results regarding the influence of entrepreneurial identity in determining technology adoption among South African SMEs. It establishes four primary identity archetypes, including innovator, pragmatist, strategist, and traditionalist that are associated with various adoption behaviours. The chapter describes the interaction between environment factors such as competition, regulation and resources and identity in decision making. It also focuses on the flexibility of identity through time and the usefulness of shaping digital transformation strategies to varying SME identities.

Chapter 7: Conclusion and Recommendations

7.1 Introduction

Chapter 6 summarised the qualitative results regarding the influence of entrepreneurial identity in determining technology adoption among South African SMEs. It established four primary identity archetypes, including innovator, pragmatist, strategist, and traditionalist, that are associated with various adoption behaviours. The chapter described the interaction between environmental factors such as competition, regulation and resources and identity in decision making. It also focused on the flexibility of identity through time and the usefulness of shaping digital transformation strategies to varying SME identities.

This chapter concludes the study on Entrepreneurial Identity and Its Influence on Technology Adoption in South African SMEs. It is a summary of the findings of Chapter 6, highlighting their relevance in theory, practice, and policy. The chapter redefines the objectives and questions of the research, recaps the key findings, identifies theoretical and management implications, offers evidence-based recommendations, and offers some suggestions on future research directions.

The primary aim of the study was to examine the influence that entrepreneurial identity has on digital technology use by South African SMEs. In the preceding chapters, it was demonstrated that identity is not an internal quality but a dynamic construct that combines with environmental, cognitive, and cultural factors to drive the adoption behaviour of entrepreneurs (Khurana et al., 2022). In so doing, the study contributes to the growing body of literature that frames contextual realities and social-cognitive realities within the framework of emerging economies (Ravasi et al., 2020).

7.2 Reiterating the Questions and Research Purpose

The main topic of the study was: How does entrepreneurial identity affect South African SMEs' use of technology? Three secondary research questions were derived from this query:

1. SRQ1: How do entrepreneurial identities affect South African SMEs' decisions to adopt digital technology?
2. SRQ2: Which entrepreneurial personality archetypes are linked to technology-adoption behaviours that are proactive as opposed to resistant?

3. SRQ3: How do entrepreneurial identity and contextual factors interact to affect entrepreneurs' choices about technology adoption?

Therefore, in the study, a semi-structured interview approach employing SME founding entrepreneurs belonging to diverse industries was employed as part of a qualitative, interpretivist design to cover these issues. The study indicates that identity, expressed in terms of values, purpose, and relational worldviews, affects the manner in which entrepreneurs define technology, the speed with which they embrace it, and the incorporation of the technology into their everyday activities.

The aim of the research was to gain a better insight into how the rationale and path of technology adoption in South African SMEs depend on the entrepreneurial identity. Its findings indicate that the use of technology is a socially constructed and identity-based phenomenon and not an inherent rational process of cost-benefit consideration. Entrepreneurs apply their identities, values, and definition of success in their communities to determine the legitimacy, risk and use of technology.

7.3 Summary of Key Findings

The goal of the study was to better understand how the rationale and trajectory of technology adoption in South African SMEs are shaped by entrepreneurial identity. Its conclusions show that adoption of technology is a socially constructed and identity-driven phenomenon rather than merely a logical process of weighing costs and advantages. Entrepreneurs use their identities, values, and definitions of success in their communities to evaluate the legitimacy, risk, and use of technology.

7.3.1 Influence of Identity on Adoption Decisions (SRQ 1)

Entrepreneurial identity is a motivator and a filtering aspect when technologies are concerned. Digital technologies can be regarded as the continuation of the skills and professionalism of innovator-type entrepreneurs, who consider themselves creators of problems or growth-driven managers. Caretaker identities, on the other hand, regard automation as a potential threat to craftsmanship and human trust. The given difference highlights that identity congruence, a perceived fit between the self-concept and symbolic meaning of technology, can more significantly affect the outcome of adoption than technical ability (Li et al., 2018). The findings extend the traditional behavioural-intention frameworks, including TAM, UTAUT and UTAUT2, by incorporating a psychological-value dimension that has not been used in previous qualitative models (Venkatesh, 2022).

The findings also confirm the newly discovered post-COVID evidence of digital adoption as a renegotiation of identity. International changes compelled business owners to reconcile creativity and genuineness, not to mention accelerating the process of digitalisation (Cunningham et al., 2023). South African businesspeople were also faced with this conflict, whereby they had to balance between service relationships as embedded in their culture and efficiency demands.

7.3.2 Identity Archetypes and Adoption Behaviours (SRQ 2)

The range of adoption logic was encapsulated by four prominent identity archetypes: innovators, strategists, pragmatics, and traditionalists. These categories introduce a valuable interpretation element: every archetype has a distinct moral and relationship worldview, although they tend to align with typologies of adopters within DOI theory (Carreiro & Oliveira, 2019). Continuity and interpersonal relationships are more valued by traditionalists; they see strategies that can fit into the long-term vision of the organisation, pragmatics evaluate the benefits that can be observed; and innovators equate technology with progress and differentiation. The multidimensional model relies on the earlier research on African SMEs that frequently addressed the variation in adoption due to the deficiency of talent or resources (Skare et al., 2023). The research indicates that even entrepreneurs with restricted resources may innovate by putting the behaviour in identity.

The understanding of fluidity among archetypes is a crucial extension. Entrepreneurs develop along a Dynamic-Identity Continuum, moving from cautious examination to confident integration as experiential learning accumulates; identity is not fixed nor dichotomous (Stevenson et al., 2024). This finding can be explained by the adaptive-learning theories of innovation (Omrani et al., 2022), which indicate that the use of gradual digitisation is common among small business owners in Asia and Europe, and they need to maintain organisational and personal values (Battistoni et al., 2023).

7.3.3 Interaction of Identity and Environmental Context (SRQ 3)

The environmental factors also mediate identity expression. The concept of regulation reformulates legitimacy, the scarcity of resources brings about entrepreneurial bricolage, competition brings forth novel identities, and the sociocultural norms determine what is perceived as authentic behaviour. As Kindström et al. (2024) explain, such reciprocal processes are further testament to the fact that entrepreneurial identity is situational and in a state of constant negotiation between individual intent and institutional constraints. These links are particularly applicable to South Africa, where digital skills disparities,

power supply instability, and inequality are still prevalent. In the face of adversity, a strong digital agency helps successful entrepreneurs convert misfortunes into opportunities.

These similarities ensure that South African SMEs are framed within a global trend of human-focused digital transformation where preparation at the psychological level is often far more important than infrastructure preparation.

7.3.4 Integrative Insight

Altogether, the findings serve to justify the hypothesis that embracing technology is a complex interpretative experience that links self-definition within the company and external opportunities. Entrepreneurial identity is what determines what is deemed beneficial, the presentation of risk, and the technologies that are viewed as legitimate. Environmental turbulence then drives identity reconstruction by supporting resilience and adaptive learning. These cycles indicate that the key finding of the study is that digital transformation is effective when technology is ready to change with the evolving spirit of entrepreneurship.

7.4 Theoretical Contributions

This study offers three key contributions to theory by integrating identity viewpoints into well-known models of technology adoption, presenting a dynamic model of identity change within entrepreneurial practice and locating these theoretical findings within the context of SMEs in the emerging market. Put collectively, these contributions enhance the explanatory power of traditional models and promising future theory, which is more contextually and psychologically grounded.

7.4.1 Integrating Entrepreneurial Identity into Adoption Frameworks

The research contributions to the field are extensive by applying the entrepreneurial identity theory to the developed technology-adoption models, such as the Diffusion of Innovation (DOI), the Unified Theory of Acceptance and Use of Technology (UTAUT and UTAUT2), and the Technology Acceptance Model (TAM). The classical frameworks have been primarily focused on cognitive predictors, especially perceived utility, usability, and subjective standards (Venkatesh, 2022). However, they often forget about the emotional and symbolic sides of the decision-making that start with the moral thoughts and self-concept of an entrepreneur.

The study transcends instrumental rationality by conceptualising identity congruence as an intermediary construct in behavioural-intention theory. Identity, as a psychological

mechanism, plays a role in influencing the perceptions of risk, validity, and the fit of digital technology to self-image by entrepreneurs (Radu-Lefebvre et al., 2021). The goal of an entrepreneur is enhanced even in a situation when the environment is unclear and supported by technology in associating oneself as competent, ethical, and visionary. The finding provides a theoretical connection between identity work theory (how people maintain their self and practise coherence) and entrepreneurial cognition (how people process and evaluate opportunities) (Foo et al., 2020). It also helps to validate new social-cognitive frameworks of technology adoption, which place identity and emotion over utilitarianism (Christofi et al., 2024).

7.4.2 The Dynamic-Identity Continuum

The second important theoretical contribution is the development of the Dynamic-Identity Continuum, which explains that entrepreneur identities evolve due to digital experimentation and learning. Traditional adopter typologies categorise entrepreneurs as either innovators, early adopters, or laggards, with assumptions of predetermined psychological characteristics. This paper, by contrast, demonstrates that entrepreneurs are able to shift freely between the four innovator, pragmatic, strategist, and traditionalist archetypes on the basis of social verification, experience, and circumstance.

Omrani et al. (2022) posit that this perspective is outside of the assumption of the traits of various actors being constant, which are common within the field of entrepreneurship research, and that it aligns with the adaptive-learning theory. The model assumes that the adoption of technology is a feedback process that is iterative, where every encounter with new digital tools reinforces or reforms oneself. The transformation of identity (redefining the identity of the entrepreneur to be served by technology practice) into affirmation of identity (the confirmation of the previous ideas) is a cyclical pattern over a period of time. This work builds on current ideas about how identity changes by offering a clear look at the steps involved in forming an entrepreneurial identity (Stevenson et al., 2024).

7.4.3 Contextualising Theory for Emerging Economies

Finally, the study contributes to the theoretical contextualisation by formulating identity-based adoption theory in the situations of emerging markets, when institutional instability, digital disparities, and cultural logics meet. Previous adoption studies have often assumed a stable infrastructure, a uniform regulatory context and individualistic value orientations, which are conducted in industrialised economies. The socioeconomic context in which South African SMEs are operating is more complex and is characterised

by collectivist cultural norms, intermittent power outages, and high connectivity costs (Epede & Wang, 2022).

The research contributes to an African-specific theoretical discussion by showing how entrepreneurs apply resource bricolage and Ubuntu-based resource relational norms into their justification of adoption. Battistoni et al. (2023) note that this promotes the notion that identity-context alignment, the degree to which personal and institutional logics converge, determines not only whether technology is embraced but also how it is internalised as part of entrepreneurial practice. This localisation of theory demonstrates that theory formation is most robust when inspired by varied social settings, bridging the epistemic gap between Western models and reality in the Global South.

7.4.4 Summary of Theoretical Contributions

In conclusion, this study:

1. Integrates identity as a moral and psychological mediator to extend behavioural-intention models. 2.
2. Introduces the Dynamic-Identity Continuum, the concept of identity as a dynamic process that evolves over time as opposed to an unchanging trait.
3. The interplay between the self, society, and system, the theory of adopting technology is placed in the context of the sociocultural reality of emerging-market SMEs.

By making these contributions, the study not only advances theoretical knowledge of digital transformation but also creates new avenues for interdisciplinary discussion involving information systems research, psychology, and entrepreneurship.

7.5 Practical and Managerial Implications

The implications of the current research for the understanding of SME ecosystems development, policymaking, and entrepreneurship practice are extensive. They demonstrate that identity is a strategic asset that influences the perceptions of entrepreneurs with regard to adopting and sustaining digital technology as opposed to a psychological trait. It changes the design of support networks, training, and sources of funds to SMEs in South Africa and other emerging markets when the stakeholders consider identity as a determinant of technology adoption.

7.5.1 Implications for Entrepreneurs

This study emphasises the value of self-awareness and reflective practice for entrepreneurs. Rather than merely following trends, successful digital adoption requires that new technology be in line with one's personal and organisational beliefs. In the face of technological change, entrepreneurs who see digital tools as facilitators of professionalism and purpose rather than as dangers to their authenticity grow more resilient and self-assured.

Important ramifications include:

Identity Self-assessment

Company leaders must also make a habit of examining the alignment of their beliefs and self-perception with their online strategies. Mentoring, reflecting, and mapping narrative identity help to be clear about purpose.

Incremental Learning

To begin, do a small test with one digital process (customer engagement software or mobile invoicing). This stepwise approach helps to strengthen identity congruence and perceived competence. SMEs may find encouraging examples of successful technologies use, involving identity through peer education and role modelling via networking in professional associations or local community-based entrepreneurial societies.

Purpose-driven Digitalisation

Entrepreneurs can take advantage of technology to grow (instead of eliminating) the human aspects of their business, such as authenticity of relationships and consumer trust.

7.5.2 Implications for Policymakers and Government Agencies

The study suggests that governments need to go beyond general strategies of digital transformation to enhance identity-sensitive entrepreneurial development. Failure in adoption is often caused by cost or infrastructure challenges in the present programs. The research findings indicate that many entrepreneurs, however, resist the use of technology due to the perceptions that technology does not fit their moral or relational identities. Thus, to enhance digital self-efficacy, the interventions in the public sector should:

Firstly, identity coaching should be included in programs aimed at developing SMEs. This coaching is capable of enabling entrepreneurs to learn more and have confidence in the employment of digital tools. Secondly, it is important to create rules that respect and fit the local culture. These regulations should support the community values, like the Ubuntu philosophy, which emphasises trust and working together. Lastly, the individuals who make minor yet significant adjustments by resorting to creativity and resourcefulness must be recognised. Recognising their efforts encourages positive behaviour. Additionally, it is helpful to work with SME representatives to create digital rules together. This cooperation makes the rules feel fair and gives people a sense of responsibility. These rules may include such aspects as data protection and online tax filing. All in all, these measures can make SMEs feel better and assisted when it comes to utilising digital technology.

7.5.3 Implications for Technology Providers and Ecosystem Partners

Examples of technology providers that should understand that perception and story have every bit as much to do with adoption as technical performance include software companies, cell networks and fintech companies. The faster technology uptake occurs when it comes in the form of a solution to enhance local identity and customer engagement

The following are examples of practical steps:

Storytelling is one of the methods that can be used to market new technologies. This is an indication to present technology as the next logical stage of growth by entrepreneurs and not a type of thing that will disrupt their existing mode of operation.

The other strategy that can be of help is involving small and medium businesses in the development and testing of new products. In so doing, the end product would be more inclined to accommodate their actual needs and values.

An easier onboarding process is also necessary. Basic, inexpensive digital technology, which can be implemented in phases, is used to assist individuals in becoming more familiar with it as they get used to new systems.

Finally, ongoing training, certification, and digital learning and connection spaces can also make the community more competent and trusting. These have made it easy to embrace and utilise new technologies by business people.

7.5.4 Implications for Banks and SME Finance Institutions

Financial institutions are essential to the digitisation of SMEs. For effective monitoring and credit rating, banks are increasingly depending on technology integration (e.g., online banking, accounting systems, or e-invoicing). However, involvement is frequently restricted by identity-based hurdles, particularly for entrepreneurs who are pragmatic or traditionalist.

Therefore, banks and development-finance institutions (DFIs) should take practical steps to make digital financing more inclusive and supportive of small businesses. In South Africa, key DFIs include the Industrial Development Corporation (IDC), the Development Bank of Southern Africa (DBSA), and the National Empowerment Fund (NEF). These institutions have the potential to take the lead by providing financing options that are sensitive to the various backgrounds and experiences of entrepreneurs. This may involve tailor-made training programmes that enable new borrowers to know how to operate the digital financial tools with confidence.

In addition, banks and DFIs can start acknowledging digital conduct as a form of collateral. For example, the success of an online transaction, fully utilising online banking, or an e-commerce system may be used by an entrepreneur as evidence of financial responsibility and competence during a credit application. DFIs also have the opportunity to collaborate with business incubators and accelerators to provide training that enhances digital-finance literacy so that entrepreneurs can develop skills as well as confidence in effectively managing online platforms. Lastly, these organisations should be oriented towards establishing transparency and confidence in the online banking process. Technology should not substitute human interaction, but instead the two should go hand in hand. When banks and DFIs merge digital and personal relationships, they can establish a supportive environment that is transparent, trustworthy, and empowering of the entrepreneurs.

7.5.5 Implications for Accelerators, Incubators, and Development Partners

Ecosystem actors such as accelerators, NGOs, and donor-funded programmes can amplify digital readiness by embedding identity work into their support frameworks (Christofi et al., 2024; Ravasi et al., 2020). Rather than treating entrepreneurs as passive learners, programmes should recognise them as identity agents navigating uncertainty and cultural complexity.

Key interventions could include:

The establishment of mentoring programmes that are identity-oriented in addition to industry-oriented is one of the many steps. Programmes must also take into consideration matching people in terms of their leadership values and attitude towards technology, instead of matching mentors and mentees by business sector. This form of identity-based mentoring can assist entrepreneurs in relating to role models who are aware of their worldview as well as their business predicaments.

The other significant intervention is to facilitate the development of adaptive leadership. Business people should be taught to always view challenges as means of learning and developing. This will contribute to the development of what could be referred to as a resilient digital agency, the capability to be flexible and confident in the event of a sudden shift in technology.

The cross-sector collaboration can also be a useful aspect. The connection between SMEs of creative, agricultural, and service sectors will allow entrepreneurs to regard the specifics of digital adoption practices that can be obtained in various working conditions. These partnerships promote cross-sector innovation and learning.

Lastly, there is a need to gauge the actual effectiveness of these initiatives. Assessment must extend beyond financial performance into other areas like digital confidence, self-belief, and how well a person's identity fits his/her business practices. By monitoring those human elements, in combination with conventional business indicators, a better picture of sustainable digital development can emerge.

7.5.6 Integrative Managerial Insight

The key managerial takeaway for all stakeholder groups is that technology adoption is a social and psychological process just as much as a technical one. Digital transformation is more likely to be inclusive and long-lasting when interventions honour the interaction of identity, context, and capability. Innovation, resilience, and long-term competitiveness in the digital economy may be unlocked by South Africa's SME ecosystem by placing entrepreneurial identity at the centre of strategy.

7.6 Study Conclusion

This chapter sums up the research on the influence of entrepreneurial identity on technology adoption among South African SMEs. It brings to light key findings, reframes the research objectives, and provides both theoretical implications and practical suggestions. The study shows that entrepreneurial identity significantly impacts digital technology use among SMEs, functioning as a dynamic construct intertwined with

environmental and cultural factors. The main research question explores how entrepreneurial identity affects technology adoption, leading to three secondary questions focusing on identity's influence on decision-making, personality archetypes related to technology adoption, and the interaction of identity with contextual factors.

Findings reveal that identity shapes technology perception, adoption behaviour, and risk assessment. Four identity archetypes—innovators, strategists, pragmatics, and traditionalists—illustrate varying moral and relational perspectives towards technology. The study also highlights the influence of environmental context on identity expression, indicating that successful technology adoption is supported by a resilient entrepreneurial identity, which evolves through experience.

Theoretical contributions extend traditional technology adoption models by integrating identity as a psychological mediator. It introduces the Dynamic-Identity Continuum, emphasising that identities are not static but evolve through digital experiences. Moreover, the study places the theories applicable to the context of emerging markets and positions them against the sociocultural complexities.

Practical implications indicate that the support systems of SMEs should be formed around identity awareness, where the self-assessment, incremental learning, and purpose-driven digitalisation strategies are suggested. It is encouraged that policymakers should be identity-sensitive and identify local value in digital transformation efforts. It is recommended that technology providers should also tailor their products to the identities of entrepreneurs to make the adoption easier through practical support and engagement with the community. Altogether, the study underlines that adoption of technology is a social and psychological process, and the strategy of being strategic about entrepreneurial identity should be promoted to improve digital change in the South African environment of SME.

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List of Appendices

APPENDIX A Invitation to Participate and Informed Consent Agreement

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APPENDIX A – Invitation to Participate and Informed Consent Agreement



Informed Consent Form for Research Participation

Project Title: Entrepreneurial Identity and Its Influence on Technology Adoption in Small Businesses

Purpose of the Study

The research will focus on the influence of entrepreneurial identity on small businesses in terms of adoption and perception of technology. The goal of this research will be to examine the perception of technology in business by entrepreneurs, what influences their perceptions, as well as the role of personal values and identity in adopting technology. The results will be used to improve knowledge of the technology adoption dynamics of small business entrepreneurs and to design strategies to support digital transformation.

Participation Details

Participation involves a semi-structured interview lasting approximately 30 to 45 minutes. With your consent, the interview will be audio-recorded to ensure accurate data collection. During the interview, you will be asked about your experiences as a small business entrepreneur, your views on digital technology, and the influence of your personal values and identity on technology-related decisions.

Voluntary Participation and Right to Withdraw

This study is completely optional. The participants can choose to leave the study at any time without penalty or adverse consequences. Also, they can decline the interview questions that they do not intend to answer.

Confidentiality

A high level of confidentiality will be upheld when handling all the collected data. The research team will also guarantee that all the transcripts and interview recordings are safely stored. None of the reports, publications or presentations prepared based on this study will contain any personally identifiable information. Only the research team will have access to the raw data.

Risks and Benefits

The risks involved in participating in this study are minimal or none at all. Even though there will be no personal benefits that you will get, your participation will be significant in supporting research on entrepreneurship and technology adoption. The lessons learned may contribute to more successful assistance to small businesses in the future

Consent Declaration

I have read and understand the information written above. I agree to participate in this research study voluntarily and understand that I can withdraw from the study at any time without any consequences.

Researcher:

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Supervisor

Dr Frank Magwegwe
Gordon Institute of Business Science (GIBS), University of Pretoria
Email: magwegwef@gibs.co.za

Participant's Name (printed): _____

Signature: _____

Date: _____

Researcher's Name: _____

Signature: _____

Date: _____

APPENDIX B – Instrument (Interview Guide)

"Thank you very much for taking the time to speak with me today. I truly appreciate your willingness to share your experiences and perspectives. Your insights as a business owner are invaluable to this study on Entrepreneurial Identity and Its Influence on Technology Adoption in Small Businesses. The knowledge you share will not only help me understand this topic more deeply, but could also contribute to a better understanding of how entrepreneurs like yourself approach technology decisions in today's business environment. There are no right or wrong answers — I'm here to learn from your unique journey and point of view."

Background:

- A. Could you briefly tell me about your business, what it does, how long you've been running it, and what inspired you to start?
- B. What have been some of your proudest moments or biggest milestones since starting your business?
- C. Before we get into the main interview, what role does technology currently play in your day-to-day business operations?

Research Question 1: How does entrepreneurial identity influence the adoption of digital technologies in small businesses?

- 1.1 When you think about your role as a business owner, what words or phrases come to mind to describe yourself?
 - Can you give an example of how these characteristics show up in your day-to-day work?
 - Have these qualities always been important to you, or have they changed over time?
- 1.2 How do these personal descriptions shape the major goals you set for your business?
- 1.3 Walk me through your thought process when you first encounter a new technology that could be relevant to your business. What do you take into consideration?
- 1.4 When were you in a situation where you used gut feeling instead of data or analytical research to decide whether or not to adopt a technology?
- 1.5 How do you make sure the technologies you use are in alignment with the purpose of your business?

Research Question 2: What types of entrepreneurial identity archetypes are most associated with proactive versus resistant technology adoption behaviours?

- 2.1 Would you describe yourself as someone who favours innovation, sticks to traditions, prioritises aggressive growth, or operates with a different, unique mindset in your approach to business?? Why?
- 2.2 Tell me about a technology you embraced recently. What was it about that technology that excited you?
- 2.3 Now, tell me about a technology you have actively resisted or delayed adopting. What were your primary reasons for this resistance?
- 2.4 How do you balance the desire for innovation with the need to maintain the established identity and practices of your business? How do you balance sticking with what already works in the business and trying out new ideas?]

Research Question 3: How do environmental factors, such as industry norms and competition, relate to the identity of an entrepreneur in determining the adoption of technology?

- 3.1 How have you seen your industry change in recent years with respect to technology?
 - Can you think of a recent example where a rule or law forced you to change a system or process?
 - Was there a technology you felt you had to adopt because of outside pressure?
- 3.2 How does what's happening in your industry influence your decisions about technology? For example, are there technologies you feel you have to use to stay competitive?
- 3.3 Think about your main competitors. How does their use of technology affect your own strategy, if at all?
- 3.4 Have you ever adopted technology to respond to evolving customer demand even when you would not have selected this on your own?
- 3.5 Is there anything you think I should know about you or your time as an entrepreneur, your company, or your relationship with technology that we haven't discussed?

"Thank you once again for giving your time and sharing your experiences with me today. Your honesty and openness in discussing your journey as an entrepreneur — and the ways you approach technology in your business — are truly invaluable to this study on Entrepreneurial Identity and Its Influence on Technology Adoption in Small Businesses. The insights you've shared will contribute meaningfully to understanding not only your unique story but also the broader trends and challenges faced by small business owners. I deeply appreciate your willingness to participate and your important contribution to this research."

APPENDIX C – Ethical Clearance Approval

Ethical Clearance Approved External Inbox x



Masters Research <MastersResearch@gibs.co.za>
to me, Masters ▾

**Gordon Institute
of Business Science**
University of Pretoria

**Ethical Clearance
Approved**

Dear QUEEN DUBA,

Please be advised that your application for **Ethical Clearance** has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

Ethical Clearance [Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.

APPENDIX D – List of Codes

Background Information

1. Adoption of AI into operations
2. Audience Engagement and Demographics
3. Brand Affiliation and Dissemination
4. Bridging Public and Private Healthcare
5. Business Analysis and Optimisation
6. Career Beginnings
7. Career Transition
8. Career in Government
9. Comprehensive Technology Solutions
10. Connecting Skilled Youth to Employment
11. Consulting for Revenue Generation
12. Customer Experience and Innovation
13. Demand for Tech Support
14. Digital Marketing Journey
15. Diverse Industry Experience
16. Duration of Business Operation
17. Entertainment industry: Corporate and Public Events
18. Entrepreneurial Achievement
19. Entrepreneurial Identity as a Personal Brand
20. Entrepreneurial Versatility
21. Future-Focused Aspiration
22. Gynaecology
23. Identified a Market Gap

24. Impactful Mentorship
25. Independence and Freedom
26. Multi-Generational Business Portfolio
27. Multiple Business Ventures
28. Need for a Modern Afro Fashion Brand
29. Occupational Health and Well-being
30. Opportunity-Driven Entrepreneurship
31. Patient Advocacy
32. Recognition and Milestones
33. Renewable Energy Focus
34. Reseller Agreement
35. Shift from Traditional to Digital
36. Sole Supplier Agreement
37. Starting a New Venture
38. Technology as a Business Driver
39. Technology-driven Solution for Small Businesses
40. Warmth and Kindness

(RQ1) How does entrepreneurial identity influence the adoption of digital technologies in small businesses?

1. Ability to Cope with Adversity
2. Adaptive Opportunity-Driven Entrepreneur
3. Agility and adaptation are a necessary quality rather than a choice
4. Algorithm Assumption Awareness
5. Analytical Decision-Making with Heuristic Awareness
6. Balancing Intuition with Pragmatism in Decisions
7. Causal Chain Articulated

8. Client Safety and Comfort as Adoption Criteria
9. Client-centred Decision-making
10. Comparative Differentiation from Existing Tools
11. Complementary Personalities
12. Confidence-Driven Analytical Adoption
13. Continuous Self-Development
14. Cost as a Business Factor
15. Decision-Making Based on Informal Data
16. Dialectical Entrepreneurial Traits
17. Ease of Use
18. Enduring Client-centred Qualities with Evolving Prioritisation
19. Evidence-based practice over intuition in medicine
20. Evidence-based technology adoption
21. Experience-informed intuition
22. Foundational Ethical Framework
23. Foundational interpersonal traits remain necessary but insufficient
24. Frugal Technology Optimisation
25. Hands On
26. Heuristic and experience-based decision-making
27. Holistic Solution-Oriented Alignment
28. Holistic Technology Adoption Framework
29. Increased importance of rigorous evidence due to clinical trials' involvement
30. Information Gathering Before Technology Adoption
31. Innovation, creativity, and resilience as core self-descriptions
32. Innovation-Driven Approach
33. Interpersonal style contributing to patient retention

34. Intuitive Decision-Making Informed by Social Proof
35. Learned Entrepreneurial Disposition
36. Learning from past overambition in goal setting
37. Long-term growth goals driven by continuous environmental scanning and opportunity seeking
38. Mindset Readiness
39. Narrative of maturation
40. On-the-job technology learning
41. Patient safety
42. Patient-Specific Technology Selection
43. Personal Work Ethic as a Business Driver
44. Pilot testing
45. Pragmatic innovation mindset
46. Price-Value Assessment
47. Proactive Client Retention
48. Proactive Co-creation of Technology
49. Problem solution framing
50. Professional Identity Formalisation
51. Profile combines individual agency
52. Purpose-Driven Entrepreneurial Identity
53. Purposeful Business Design
54. Qualities rooted in upbringing and socialisation
55. Quantitative analysis approach
56. Rational Technology Selection
57. Rejection of a fixed mindset
58. Reputation as a fixer or turnaround specialist

59. Results-driven
60. Revenue-Driven Technology Adoption
61. Risk assessment for business integration
62. Self-Driven
63. Self-Reliant
64. Shortened the standard timeline
65. Social learning about Technology
66. Socially-Driven Technology Adoption
67. Speed and responsiveness are key adoption criteria
68. Stewardship-oriented decision-making
69. Strategic Entrepreneurial Alignment
70. Strategic and Cautious Technology Integration
71. Strong work ethic and diligence
72. Team Collaboration
73. Technology Alignment as a Strategic Imperative
74. Technology Contextual Fit
75. Trait Evolution over career
76. User-Centric Technology Evaluation
77. Validated Intuition
78. Validated Technology Adoption
79. Value Assessment
80. Value Proposition
81. Value-Driven Alignment
82. Value-Driven Goal Orientation
83. Vendor Partnership as an Alignment Criterion
84. Workforce-Centric Technology Adoption

85. habit- and commitment-based
86. instruments for achieving goals
87. passion > dedication > consistency > goal attainment

(RQ2) What types of entrepreneurial identity archetypes are most associated with proactive versus resistant technology adoption behaviours?

1. AI Adoption for Automated Business Development
2. AI Adoption for Business Development and Client Services
3. AI Adoption for Enhanced Operational Efficiency
4. AI Adoption for Pragmatic Gains
5. AI Adoption for Strategic Market Analysis
6. Active Involvement in External Innovation and Testing
7. Aggressive Growth Mindset
8. Aggressive Growth with Hands-On Oversight
9. Balancing Foundational Practices with Modern Standards
10. Balancing Innovation with Core Brand Values
11. Balancing Innovation with Core Brand Values.
12. Balancing Tradition and Technology
13. Barriers to Adoption
14. CCTV footage retrieval
15. Cautious Technology Adoption Driven by Risk Aversion
16. Cautious and Incremental Technology Integration
17. Cautious and Risk-Averse Growth Strategy
18. Contextual Decision-Making
19. Controlled and Monitored Technology Adoption
20. Cost-Driven Technology Adoption
21. Delayed Adoption Due to Customer-Centric Assumptions

22. Delayed Social Media Adoption for Strategic Business Purposes
23. Ease of Use and Versatility
24. Evolution of Practice Management through Digital Adoption
25. Evolutionary Innovation within Established Frameworks
26. Evolutionary and Informed Innovation
27. Fear of Obsolescence as a Catalyst for Innovation
28. Fear-Driven Technology Adaptation
29. Holistic and Integrated Business Philosophy
30. Innovation Aversion for the Preservation of Creativity
31. Innovation Grounded in Personal and Brand Authenticity
32. Innovation Orientation
33. Innovation as a Necessity
34. Innovation as an Intrinsic Component of Business Identity
35. Intrinsic Motivation for Innovation
36. Measured Innovation and Growth
37. Necessity over Preference
38. Operational Complexity as a Barrier to Technology Adoption
39. Operational Disruption Caused by Usability Issues
40. Patient and Client Acceptance
41. Patient-Specific Technology Selection
42. Preference for Physical Interaction
43. Proactive and Hands-On Innovation
44. Reactive Innovation Driven by External Market Shifts
45. Real-Time Data Access as a Key Technological Advantage
46. Rejection of Ambiguous or Unclear Technology Proposals
47. Reliance on External Support

48. Reluctant but Necessary Innovation
49. Resistance to Mandatory Technology
50. Resistance to Technology Based on Perceived Impracticality and Romanticisation
51. Revenue- and Value-Driven Innovation
52. Revenue-Driven Innovation
53. Situational and Contextual Technology Adoption
54. Specialised Procedures
55. Strategic Alignment for Innovation
56. Strategic and Phased Innovation
57. Struggle with Technology Due to Self-Reliance
58. Technology Adoption for Competitive Differentiation
59. Technology Adoption for Efficiency and Data-Driven Decision Making
60. Technology Adoption for Operational Efficiency
61. Trial-and-Error as a Foundational Strategy

(RQ3) What is the interaction between environmental factors and entrepreneurial identity, and how do they affect Technology adoption decision-making?

1. AI adoption
2. AI credit assessment ban
3. AI-enabled self-service
4. AI-tiered offering
5. Adaptation to Change
6. Adopt/A-B test AI
7. Automation across inventory
8. Avoid risk of litigation
9. Brand standards pressure
10. Brand-aligned selection

11. CAD pattern-making
12. Call-tracking necessity
13. Chatbots emerging
14. Client Acquisition
15. Client-demand adoption
16. Client-driven adoption
17. Collaboration over competition
18. Collaborative care over competition
19. Competitive price visibility
20. Competitor Emulation
21. Continuous Learning
22. Continuous Self-Development
23. Core tool adoption (Xero)
24. Digital/Technological Adaptation
25. E-commerce adoption
26. Efficiency filter
27. Embracing Growth
28. Emulative adoption
29. Environmental Responsibility
30. Equipment upgrade for demand
31. Format evolution
32. Frugal innovation
33. Growth-pressure
34. Industry-wide tech shift
35. Learning from Competitors
36. Low Tech Necessity

37. Low industry engagement
38. Low trust in tech
39. Microsoft-norm pressure
40. No immediate tech need
41. No outside pressure
42. Online booking adoption
43. Online/remote transacting
44. Outside-pressure purchase
45. Perception management
46. Platform AI automation and reduced control
47. Platform reliance
48. Profit-metrics tooling
49. Rapid evolution
50. Revenue impact
51. Size salience
52. Social Media Influence
53. Social Media Presence
54. Social Media Pressure
55. Social media > business platforms
56. Statutory Compliance
57. Technology differentiation
58. Telehealth adoption
59. The Entrepreneurial Narrative
60. TikTok lowers the barrier
61. Value differentiation
62. Wireless Technology Adoption