EXPLORING FACTORS AFFECTING THE ADOPTION OF FINANCIAL TECHNOLOGY SERVICES: A CASE STUDY OF TUKONDJENI OPEN MARKET

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN DEVELOPMENT FINANCE
OF
UNIVERSITY OF NAMIBIA

BY

ROSA HAUKONGO
221024387

APRIL 2025

Supervisor: Dr Jesse de Beer (University of Namibia)

ABSTRACT

The study focused on exploring factors affecting adoption of financial technology services: a case study of Tukondjeni Open Market. The study employed a constructivist paradigm with an exploratory and case study research design under qualitative approach. The target population for the study was a total of 181 respondents who were Tukondjeni Open Market traders. The study employed purposive sampling, as such the study conveniently interviewed 20 participants for the study's final sample size. To address the current study's objectives, open-ended interviews were used. The data were analyzed using thematic analysis. Thematic analysis revealed that the key enablers include the perceived convenience and efficiency of FinTech services, alongside their potential for enhancing transaction safety. However, these positive aspects are counterbalanced by significant barriers, such as security concerns, particularly fears of fraud and scams, technological and infrastructural limitations, and the lack of awareness and understanding about these services among traders. Educational challenges and the compatibility of FinTech solutions with diverse business models also emerged as critical factors. The findings suggest that while there is an apparent readiness and interest among traders to adopt FinTech services, their effective uptake is hindered by a combination of infrastructural, educational, and security-related challenges. Addressing these barriers could significantly enhance the adoption and utility of FinTech services in such informal market settings.

DEDICATION

“Never regard study as a duty, but as the enviable opportunity to learn.” Albert Einstein

I dedicate this paper to my dear parents and siblings. For believing in me and for always pushing me to pursue completion of this project. Their words of encouragement never stop ringing in my ears, their support and patience meant everything to me during my studies.

Meke, Thank you for your patience and support.

To all the people in my life who touch my heart, I dedicate this research.

ACKNOWLEDGEMENTS

Foremostly, I would like to express my sincere gratitude to my supervisor, Dr Jesse de Beer, for her continuous support of my study and research, for her hard work, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of my research and writing of this thesis. I could not have imagined having a better advisor and mentor for my study.

To my lecturers at UNAM for being there and for the knowledge the equipped us with.

To my classmates, thank you. Your stimulating discussions, your inputs and suggestions are very much appreciated.

Last but not least, my family, thank you for all your support throughout my life.

DECLARATION

I, Rosa Haukongo, declare hereby that this study is a true reflection of my research, and that this work, or part thereof has not been submitted for a degree in any other institution of higher education.

Rosa Haukongo April 2025

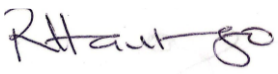


TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Financial Technology (FINTECH) refers to any company that employs technology to improve or automate financial services and operations. The term represents a rapidly expanding industry serving both consumers and corporations in a myriad of ways. Fintech encompasses a plethora of applications, including mobile banking, insurance, cryptocurrency, and investments (Kagan, 2020).

Globally, the adoption of technology plays a pivotal role in a nation's economy. It fosters interactions with goods and services and generates societal income. In the context of the informal economy, the significance of FINTECH adoption cannot be overstated. Informal economies, prevalent worldwide, are characterized by unregulated and unregistered economic activities. Such sectors, though substantial contributors to the economy, often lack formal banking and financial services. Herein lies the transformative potential of Fintech, which can bridge this financial divide and integrate the informal sector into the broader economic framework.

From a banking and finance perspective, FINTECH can offer services tailored to the unique needs of the informal sector, enabling access to credit, facilitating transactions, and providing a platform for savings (El-erian, 2023). Economically, FINTECH's adoption can potentially uplift the informal sector, fostering growth and increasing its contribution to the GDP (World Bank, 2022; IMF, 2023). In the realm of technological innovation, FINTECH offers dynamic solutions powered by artificial intelligence, big data analytics, and blockchain, among others, catering specifically to the demands of the informal sector.

In the African setting, and Namibia in particular, the need for Fintech in the informal economy like the Tukondjeni Open Market in Windhoek is pressing. With financial inclusion being paramount, FINTECH services can play a transformative role in ensuring access to financial services for all. As delineated by the World Bank (2022), financial inclusion entails providing individuals and businesses access to affordable and useful financial products and services. Well-functioning financial systems can be

instrumental in distributing opportunities and combating poverty (Morsey, 2015; Hashooshange, 2023). By expanding access to previously excluded individuals and communities, Fintech can potentially alleviate the barriers faced by marginalized groups, especially in low-income and remote regions.

However, the effects of Fintech's adoption on the informal economy are multifaceted. Globally, while some empirical studies (like those by Ondienge, 2012; Matthew, 2014) highlight the positive impacts, others underscore potential challenges. In Africa, challenges such as the lack of consumer adoption have been identified as significant impediments to mobile wallet services (Motlhala, 2014). Yet, despite these challenges, the potential benefits of FINTECH for the informal sector are undeniable. Despite the potential benefits of FINTECH, empirical studies assessing its effectiveness in informal markets, like in Namibia, remain limited. The literature has extensively covered the role of FINTECH in promoting financial inclusion (Fanta et al., 2016; Makina, 2019; Yermack, 2018), yet its penetration in informal business environments remains underexplored. Existing research often focuses on digital financial services in formal markets or peer-to-peer consumer transactions (Batista & Vicente, 2020; Ferguson et al., 2019), with little emphasis on how small-scale traders interact with and integrate FINTECH services into their business operations. Additionally, research on FINTECH adoption often assumes homogeneity in financial service accessibility, failing to account for infrastructural and literacy-related constraints faced by informal traders.

In Namibia, statistics on FINTECH penetration remain sparse, and existing regulatory frameworks primarily target financial institutions rather than addressing barriers to adoption among informal traders. According to the Bank of Namibia (2022), financial inclusion in the country stands at 78%, but this figure predominantly reflects access to traditional banking services rather than active engagement with FINTECH solutions. Reports suggest that informal traders continue to rely heavily on cash transactions due to trust issues, lack of formal financial literacy, and infrastructural limitations (Shihepo, 2014; Lazarus, Nambadja & Nakashole, 2023). These barriers hinder the adoption of mobile banking services such as FNB's eWallet, Bank Windhoek's EasyWallet, Standard Bank's BlueVoucher, and Nedbank's Send Money, leaving the

informal economy financially marginalized. Therefore, understanding the nuanced factors affecting FINTECH adoption in informal markets is critical for addressing these barriers and fostering broader financial inclusion in Namibia. Essentially, Namibia's Central Bank, the Bank of Namibia, recognizing the transformative potential of Fintech, implemented the FINTECH innovations regulatory framework in 2022. This framework aims to bolster FINTECH innovations in the country, ensuring they align with the Bank's regulations while promoting financial inclusion, stability, and growth (Bank of Namibia, 2022). Notably, the framework underscores the importance of financial inclusion, emphasizing the need for innovations that contribute to serving the unserved in Namibia.

In line with global trends, Namibian banks, such as Bank Windhoek, First National Bank Namibia, Standard Bank, and Nedbank, have initiated various FINTECH services like eWallet for First National Bank Namibia; Easy wallet for Bank Windhoek; Blue Voucher for Standard Bank; and Send Money for Nedbank. These services cater to the diverse needs of their clientele, facilitating banking, transactions, and payments with unprecedented ease. Yet, the adoption of Fintech services is not without challenges. Issues such as fraud, scams, and compromised security have emerged as significant concerns. For instance, in 2014, many FNB customers reported not receiving notifications after transacting using cellphones (Shihepo, 2014). Furthermore, cases of theft through eWallet due to potential scams have been reported (Lazarus, Nambadja & Nakashole, 2023). Such challenges underscore the need for enhanced security measures and consumer awareness.

Given the evolving landscape of FINTECH and its profound implications for the informal sector, it is imperative to explore the factors affecting its adoption, especially in the view of Namibia's Tukondjeni Open Market. This study aimed, therefore, to look into this domain, offering insights, drawing parallels with global trends, and charting a course for the future.

1.2. Financial Technology (FINTECH) Innovations Regulatory Framework in Namibia

Aware of the revolutionary potential of financial innovations, Namibia unveiled the FINTECH Innovations Regulatory Framework in 2022. The framework's core objectives are multifaceted. Firstly, it seeks to categorize innovations to determine their interactions with existing banking regulations. Secondly, it embodies an encouraging stance towards FINTECH, aiming to nurture and facilitate its growth (Bank of Namibia, 2022), while simultaneously ensuring that any associated risks are adequately managed. It also sets the stage for the testing and launching of these innovations under conditions pre-established by the Bank of Namibia. Importantly, the framework is designed as a dynamic tool, allowing the bank to use insights from emerging fintech to refine existing regulations (Bank of Namibia, 2022).

Considering global precedents, such frameworks are not unique to Namibia. Countries like Singapore, the UK, and Australia have established similar regulatory "sandboxes" to foster fintech innovation while ensuring consumer protection and financial stability.

For Namibia's informal economy, like the Tukondjeni Open Market, such a framework can be pivotal. It ensures that FINTECH solutions catering for this segment are reliable, secure, and inclusive. By looking at global examples, it is evident that well-regulated fintech innovations can bridge financial inclusivity gaps, especially in informal sectors (Ozili, 2020). They can offer affordable and efficient financial services, making business operations smoother and more profitable for micro-entrepreneurs.

1.3. Financial Technology (FINTECH) Services in Namibia

1.3.1. EasyWallet, Ewallet, Blue Wallet, Nedbank Mobi-money (Bank Windhoek, First National Bank, Standard Bank, Nedbank)

The services above empowers users to transfer funds to any active Cellphone number. With daily transactional limits and the convenience of cardless cash withdrawals, they also facilitate utility purchases like airtime and electricity.

1.3.2. Internet Banking (Bank Windhoek, First National Bank, Standard Bank, Nedbank)

The four banks' online platform streamlines banking. It offers electronic payments, account transfers, and a transaction history feature. The platform ensures top-notch security with its E-Secure Token system (Bank Windhoek n.d.; First National Bank, n.d.; Standard Bank, 2023; Nedbank, n.d.).

1.3.3. Cellphone Banking (Bank Windhoek, First National Bank, Standard Bank, Nedbank)

This service by all the top four banks in the country transforms a regular cellphone into a banking tool (Bank Windhoek n.d.; First National Bank, n.d.; Standard Bank, n.d.; Nedbank, 2023). It supports bill payments, prepaid purchases, and provides access to services like EasyWallet eWallet, Blue Wallet, Send Money and GoPay.

1.3.4. GoPay (Bank Windhoek)

A specialized service for fuel payments. GoPay, by Bank Windhoek, allows users to handle their fuel expenses via their cellphones.

1.3.5. Banking Mobile App

This app provided by all the banks provides 24/7 access to banking. Users can view accounts, manage funds, and make payments. It is a comprehensive banking solution

in your pocket (Bank Windhoek n.d.; First National Bank, n.d.; Standard Bank, n.d.; Nedbank, 2023.).

1.3.7. Cash@Till (FNB Namibia)

An innovative service by FNB Namibia, Cash@Till lets users withdraw cash during a purchase at designated points of sale, merging shopping and banking seamlessly (First National Bank, n.d.).

1.3.9. PayToday (Nedbank)

Hailing as Namibia's premier mobile payment app, PayToday by Nedbank streamlines payments and money transfers, catering for both individual and business needs (Nedbank, 2023).

1.3.11. Avo SuperShop (Nedbank)

Nedbank's e-commerce platform, Avo SuperShop, offers a variety of goods and services, and it is also a platform for local businesses to showcase their products (Nedbank, 2023).

1.3.12. Nedbank Money app (Africa)

A holistic banking app by Nedbank, it provides access to accounts, facilitates money transfers, and offers security features like card management (Nedbank, 2023).

Each FINTECH service, backed by reputable institutions, is tailored to address specific financial needs in Namibia, ensuring convenience, security, and efficiency.

1.3.13. Availability of financial services

In this context, availability does not merely refer to the existence of FINTECH services but encompasses their accessibility, usability, and relevance to informal traders' business operations (Rasheed et al., 2019). Given that many informal traders operate without formal bank accounts, the study examined how they interact with digital payment solutions whether as recipients of mobile money transfers, facilitators of transactions through third-party intermediaries, or direct users of FINTECH platforms (Shihepo, 2014; The Brief, 2022). By expanding the definition of availability, specific

objective 2 ensures a comprehensive assessment of the factors that enable or hinder the integration of digital financial services within informal trading environments.

1.4 Statement of the problem

Financial Technology (FINTECH) services have made notable strides in contributing to economic development by enhancing financial access and refining the settlement processes for both individuals and businesses. A substantial body of literature exists that examines the diffusion of FINTECH payment services (Fanta et al., 2016; Makina, 2019; Yermack, 2018). Despite the attention given to FINTECH services at the business level, most recent research in the sub-Sahara region primarily focuses on the peer-to-peer (P2P) level of diffusion (Batista & Vicente, 2020; Ferguson et al., 2019; Karakara & Osabuohien, 2019; Munyegera & Matsumoto, 2016). This leaves a gap in understanding the adoption of FINTECH services in sectors like SMEs, which have the potential to significantly influence economies (Donovan & Martin, 2014; Rasheed et al., 2019).

Namibia, with its advanced and diverse financial system, is heavily influenced by its South African counterparts (Bothma & Mostert, 2023). While the formal sector in Namibia enjoys advanced financial services, the informal sector, including the urban poor and the rural population, remains underserved. The introduction of FINTECH services such as Bank Windhoek's *EasyWallet*, FNB's *eWallet*, Standard Bank's *BlueVoucher,* and Nedbank's *Send Money* have the potential to bridge this gap. However, several challenges related to the adoption of these services have arisen. Customers may be experiencing problems with transaction notifications, unapproved withdrawals, and one-time pin scams, according to reports (Shihepo, 2014; Lazarus, Nambadja & Nakashole, 2023; The Brief, 2022). Furthermore, a study in South Africa indicated challenges in driving customer adoption of mobile wallet services (Motlhala, 2014). Whether the same challenges persist in Namibia remains uncertain due to limited research.

Tukondjeni Open Market in Windhoek, a hub for informal traders, presents a unique setting to explore the factors affecting the adoption of FINTECH services. The lack of comprehensive empirical research focusing on FINTECH adoption within Namibia's

informal sector creates a significant knowledge gap. Most existing studies on FINTECH adoption either provide macroeconomic overviews or focus on consumer-level adoption without addressing the unique challenges faced by micro and small-scale businesses (Donovan & Martin, 2014; Rasheed et al., 2019). Given that informal traders operate in a dynamic and often unpredictable business environment, a qualitative approach is essential to capture the complexities influencing their financial behaviours and decision-making processes. Unlike quantitative methodologies that focus on statistical representation, qualitative research enables a deeper understanding of traders' lived experiences, perceptions, and barriers to adopting digital financial services.

Moreover, the extent of FINTECH penetration in Namibia remains largely undocumented, necessitating a more context-specific inquiry. Reports indicate that while mobile banking services have been widely introduced, their adoption remains inconsistent, with fraud-related concerns and transaction failures serving as major deterrents (Shihepo, 2014; The Brief, 2022). Given these challenges, it is crucial to explore how traders at Tukondjeni Open Market navigate the digital financial landscape, including their coping mechanisms, trust levels, and preferred financial transaction methods. This study, therefore, aims to fill this gap by providing an in-depth examination of the factors influencing FINTECH adoption among informal traders, contributing valuable insights for policymakers, financial service providers, and the broader academic discourse on digital financial inclusion.

1.5 Objectives of the study

The main purpose of this study is to find out what influences the uptake of FINTECH services in the Tukondjeni open market, including the enabling and limiting aspects. The study looked at the following sub-objectives:

- To investigate whether FINTECH services, such as mobile banking and eWallets, are ready and available for informal traders in the Tukondjeni open market.

- To identify the factors that hinder the intention to adopt FINTECH services among the respondents, especially considering reported challenges and scams.
- To identify the perceived advantages and disadvantages of using financial technology services by the responders, including the ease of transactions, security concerns, and awareness levels.

1.6. Significance of the study

This work is of considerable value to researchers, policymakers, and MSMEs in the country. It makes a significant contribution to the existing body of knowledge on FINTECH and financial inclusion research. Policymakers will likely refer to it when drafting financial development frameworks and regulations concerning FINTECH and financial inclusion. Furthermore, when the findings are meticulously analysed, financial service providers can find them beneficial, enabling them to incorporate new technological advancements to enhance their current FINTECH services, especially focusing on the inclusion of previously marginalized individuals. MSMEs can leverage financial technology to enhance their accessibility to vital financial services.

1.7. Limitations of the study

The study had specifically targeted the Tukondjeni open market in Windhoek. Therefore, the results did not capture the nuances and variations of all SMEs across Namibia. This geographical limitation might have resulted in a narrower perspective, missing out on broader trends and patterns. However, to address this limitation and provide a comprehensive understanding, an exhaustive literature review was undertaken. The outcomes of the study were then meticulously analysed and compared against the prevailing literature to draw meaningful conclusions and insights.

1.8 Delimitation of the study

The research had a clear boundary set, focusing solely on SMEs registered by the City of Windhoek at the Tukondjeni open market in Windhoek. By narrowing down the scope, the study ensured a focused and in-depth analysis of the chosen segment. This delimitation was essential to ensure the accuracy of findings and maintain the research's integrity. While this meant that the broader SME landscape in Namibia

might not have been entirely represented, it allowed for a detailed exploration of the financial behaviours and challenges faced by traders in the Tukondjeni open market.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This Chapter reviews the literature on the impact of FINTECH on Financial inclusion. It is crucial to review the academic literature and research reports produced in these areas since financial inclusion and the use of technology to drive financial inclusion play a major role in this research study. A review of the pertinent academic literature on entrepreneurship is additionally required because the tiny subset of FINTECH firms that I analysed might be seen as businesses that use technology to create social impact.

2.2 The concept and definition of FINTECH

Johan Reed, the chairman of Citicorp, declared at the launch of the Smart Card Forum consortium in the early 1990s that "FINTECH, along with another Citicorp-initiated banking research project, tends to disarm any remaining criticism about Citicorp's being arrogantly out of touch with market preferences" (Kutler,1993, cited Puschmann, 2017, p. 70).

During the implementation of the financial services, the two parties, the provider, and the buyer, encountered one or two significant issues, namely moral hazard and adverse selection. These issues are caused by the information that is asymmetrical between the parties, which fails because the parties have different material knowledge (Mishkin, et al., 2013, p. 159). Additionally, IT aids in managing information and accelerating its flow, which helps to reduce the harmful consequences of asymmetric information. Due to the importance of information to these services, IT has a significant impact on the financial services sector (Puschmann, 2017, p. 69).

According to some academics, FINTECH refers to both the "marriage of finance and technology" and "a contraction of financial technology" (Zavolokina et al., 2016; Puschmann, 2017). As a result, the term "FINTECH" is synonymous with "financial innovation" given that it generates new companies, products, and services (Frame & White, 2014). In other words, it creates and promotes "new financial products, as well as new financial technologies, institutions, and markets," (Lerner & Tufano, 2017). Additionally, it creates new BM (Fichman, et al., 2014). Like that, this phrase is closely

related to IT because it uses technology in financial services or products to innovate and change how we think about money and banking (Baur, et al., 2015). Therefore, FINTECH encourages people by giving them options to reduce intermediaries, lower costs, and increase transparency, which transforms influence in their favour (Zavolokina, et al., 2016).

As a result, FINTECH companies and financial innovations can be seen as new services, new products, new organizational forms, or new production processes. Currently, financial innovations or the services of FINTECH companies are always with us, i.e. mobile applications are available everywhere (Farme & White, 2004).

In addition to academic courses and studies that demonstrate a growing interest, the FINTECH topic is still in its infancy but is gaining ground among scholars. Additionally, students are more interested in attending colleges that study this topic (Pullaro, 2017). The FINTECH has held a lively discussion on the use of innovations in the financial and business sectors, among other topics. For two parties, the insider who deals with it in his or her professional life and the outsider who will be impacted by it, this phrase is still vague (Zavolokina, et al., 2016).

In addition, Zavolokina et al. (2016) identified two traits of the FINTECH sector, namely the dynamic and prolonged evolution of innovations. Even though Schindler (2017) said that “financial innovation is a continuing activity, the financial industry currently has a set of inventions that have a common link of being facilitated by technology and that have been given a special name,” The fact that technology companies are still entering and acting in the financial industry by altering its rules and reinventing it, however, makes the term "FINTECH" a very broad phenomenon. In addition to this, Dorfleitner et al. (2016) noted that the financial industry is in a moving and dynamic phase due to the high number of start-ups and the fact that FINTECH companies possess a variety of BMs.

As a term, "FINTECH company" is a parabola that embodies the applications of information technology innovations, which help to submit appropriate and innovative financial solutions (Puschmann, 2017); to meet the needs to enhance business processes, reduce costs, increase effectiveness and flexibility, boost speed, and develop

innovations (Dapp, et al., 2014). The FINTECH industry could be viewed as a service, a business in general, or a start-up (Zavolokina, et al., 2016). Furthermore, four studies (Shim & Shin, 2015; Lee & Teo, 2015; Lee & Kim, 2015; Arne, et al., 2015) confirmed that FINTECH companies combine finance and technology to offer a new type of financial services by utilizing technological innovations. However, Arne et al. (2015) considered FINTECH as startups; some other studies go further to associate FINTECH with digitalization on a global scale of the banking sector (Cuesta et al., 2015).

There is no single, widely accepted definition of FINTECH, according to both Schindler (2017) and Pullaro (2017), and both authors accepted the Financial Stability Board's (FSB, 2017) definition of FINTECH firms as "technologically enabled innovation in financial services that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services," because (Schindler, 2017). In addition, it is split into two distinct sections: the first is clear (technology innovation in financial services), and the second is more theoretical (Schindler, 2017). As a result, the FINTECH company does more than automate the processes and transactions associated with traditional financial services; instead, it develops innovations that lessen the impact of traditional and radical approaches to finance. According to Cortada (2004) and Pullaro (2017), because FINTECH companies have entered a high-level phase and have been easily and passionately embraced by the market and public, they will not only change the relationship between employees but will also reshape the rules in the marketplace and financial system.

2.3 Theoretical literature

2.3.1. Technology Adoption Model (TAM)

Proposed by Davis in 1989, the Technology Acceptance Model (TAM) posits that perceived usefulness and perceived ease of use are fundamental determinants of technology adoption (Davis, 1989). In the context of Namibia's FINTECH services, TAM suggests that if FINTECH solutions are perceived as beneficial and user-friendly by informal traders and consumers, their adoption rates are likely to increase. This framework can help identify specific features of FINTECH services that enhance their perceived value and ease of use among Namibian users.

2.3.2. Unified Theory of Acceptance and Use of Technology (UTAUT and UTAUT2)

Venkatesh et al. (2003) introduced UTAUT, which was later extended to UTAUT2 in 2012, to consolidate existing theories on technology adoption (Venkatesh, Morris, Davis, & Davis, 2003; Venkatesh, Thong, & Xu, 2012a). These models emphasize the role of performance expectancy, effort expectancy, social influence, and facilitating conditions (UTAUT), along with hedonic motivation, price value, and habit (UTAUT2) in predicting technology use. For Namibia, these theories highlight the importance of social dynamics, infrastructural support, and the perceived value of FINTECH services in influencing adoption. Understanding these factors can guide the development of FinTech services that align with the needs and expectations of Namibian users.

2.3.3. Diffusion of Innovation Theory (DOT)

Rogers (1995) developed the Diffusion of Innovation Theory to explain how, over time, an idea or product gains momentum and spreads through a specific population or social system. The theory identifies key factors that influence adoption rates, including the innovation's relative advantage, compatibility, complexity, trialability, and observability. In Namibia, DOT can be applied to assess how FinTech innovations align with local needs, cultural practices, and the existing financial ecosystem, potentially accelerating their adoption across different user segments.

2.3.4. Theory of Reasoned Action (TRA)

The Theory of Reasoned Action, proposed by Fishbein and Ajzen (1975), focuses on the intention behind behaviours as a predictor of actual behaviour, influenced by attitudes toward the behaviour and subjective norms. In the Namibian FINTECH context, TRA suggests that the attitudes of potential users and the normative beliefs about FINTECH within their social circles will significantly affect their willingness to adopt these services. This insight is critical for designing FINTECH marketing and educational campaigns that positively influence attitudes and norms.

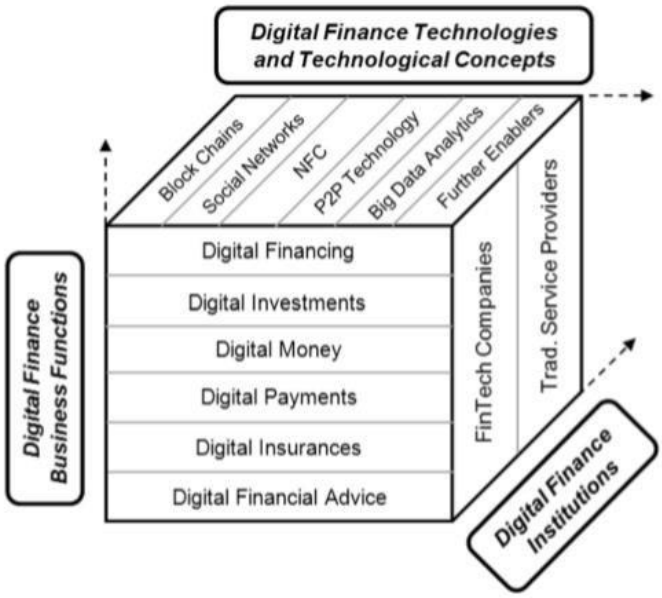
2.3.5. Theory of Planned Behaviour (TPB)

Ajzen (1991) extended TRA to include perceived behavioural control as a factor influencing both the intention and the actual behaviour, forming the Theory of Planned Behaviour. TPB's applicability to Namibia's FINTECH adoption study lies in its capacity to account for the barriers that users may perceive in using FINTECH services, such as limited access to the internet or lack of digital literacy. By addressing these perceived control factors, FINTECH providers can develop strategies that reduce barriers and enhance the intention to use FINTECH services.

2.4 Conceptual framework

Significant changes are occurring in the financial industry, which has an impact on its established financial institutions. By connecting FINTECH to digital finance, Gomber et al. (2017) attempt to create a framework for the industry. Thus, Gomber et al. (2017) established three aspects for their framework and gave it the term "digital finance Cube"; these dimensions are the institutions that offer digital finance solutions, pertinent technology, and technological concepts. Additionally, according to Gomber et al. (2017), this Cube has two characteristics: an excessive degree of generalization and flexibility. They noted that not all the cube's spaces are occupied and that some institutions may only occupy a small portion of it, while others, like Klarna, are dispersed across a larger portion of the cube. Figure 2.1 depicts the FINTECH ecosystem as defined by Gomber et al. (2017).

Figure 1: The digital finance cube and its three dimensions



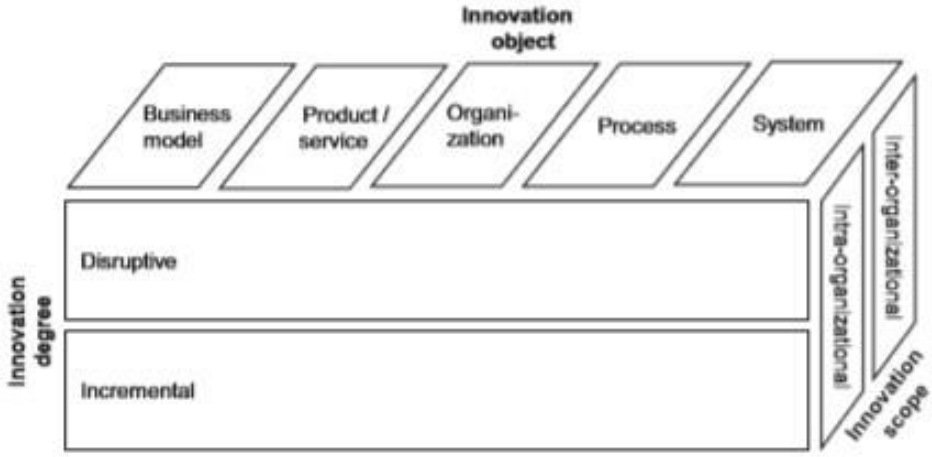
Source: Gomber, et al. (2017, p. 542)

Financial services such as financing, investment, payment, insurance, financial guidance, and finally money, are included in the first dimension of company functions (Gomber, et al., 2017). According to Gomber et al. (2017), financial institutions and FINTECH companies provide the same business functions. "Digital Finance Technology and Technology Concepts" is the second dimension, and it is concerned with technologies that make it easier to submit past business functions, such as social networks, block chains, P2P systems, and big data analytics (Gomber, et al., 2017). The three institutions Gomber et al. (2017) identified for the third dimension of "Digital Finance institutions" are FINTECH companies (startups), which are typically traditional financial institutions, as well as the new institutions, which are IT companies that are entering the financial services sector. In addition, Gomber et al. (2017) noted that while FINTECH start-ups have challenges in meeting regulatory restrictions and standards, established institutions are in the process of adopting new technology to be more innovative.

In a similar vein, Puschmann (2017) demonstrated the relationship between FINTECH and financial innovations using a three-dimensional model, presuming that FINTECH

and the digitization of the financial services industry are similar. First, the innovation degree dimension illustrates how two types of technology differ in terms of performance effects; one has incremental effects that lead to the optimization of existing status in terms of quality, time, and/or cost (Puschmann, 2017). The other is disruptive technology, which initially degrades performance before fundamentally altering the entire value chain because of its development (Puschmann, 2017). Figure 2.2 depicts Puschmann's framework for fintech (2017).

Figure 2: The three dimensions of FINTECH



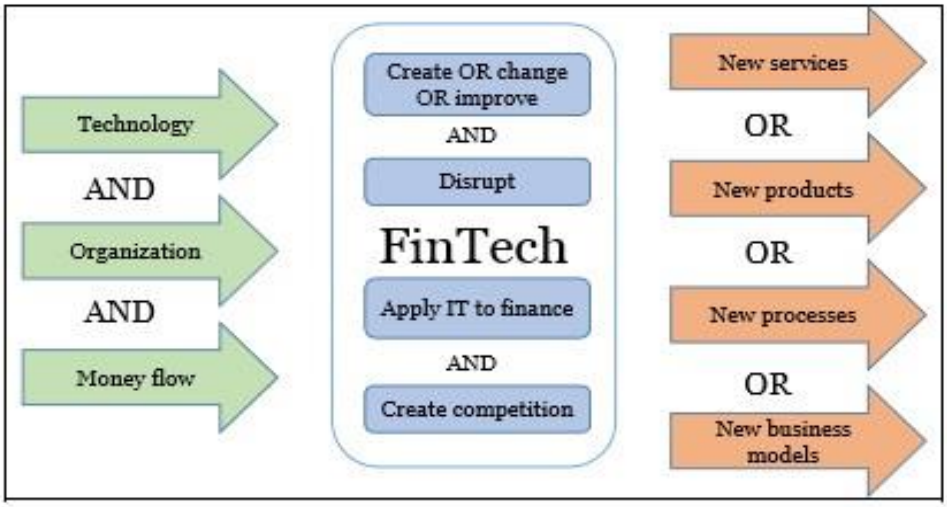
Source: Puschmann (2017, p. 74)

Puschmann (2017) listed five objects for FINTECH in terms of the "innovation object dimension," including companies, systems, processes, products/services, and BMs. Additionally, Puschmann (2017) stated that the "innovation scope dimension" of FINTECH includes two organizational scopes (intra- or inter-organizational). The financial intermediary is given the position of facilitator and integrator through the platform by the intra, which is related to internal modifications of the innovative objects (Puschmann, 2017). The financial middleman is viewed as unnecessary on the new platform, such as the E-wallet platform in this example, while the inter-

organizational focuses on macro-economic forms that alter the value chain (Puschmann, 2017).

Zavolokina et al. (2016) also offered their conceptual framework for fintech, which was based on the definition of FINTECH. Their framework runs in a series of steps, beginning with input and ending with output-producing mechanisms. First, the input stage is made up of technology (the underpinning technology as platforms and applications), organizations (startups and businesses whose operations focus on providing IT financial services), and money flow, or investment that helps to establish these organizations and to support their growth (Zavolokina, et al., 2016). Second, the mechanisms dimension includes activities that involve developing, modifying, and improving the existing services while utilizing the underlying technologies (Zavolokina, et al., 2016, p. 9). Finally, is the output dimension, which includes new BM (Zavolokina, et al., 2016, p. 9). Zavolokina et al. (2016, p. 9) noted that in the second stage of the disruptive process, FINTECH companies foster competition, changing the rules of the game and displacing the functions of financial intermediaries. Zavolokina et al., (2016)'s conceptual framework for FINTECH is depicted in Figure 2.3.

Figure 3: Conceptual framework of FinTech and its Stages



Source: Zavolokina et al. (2016, p. 9)

2.5 The importance of FinTech

After the financial crisis of 2008, the significance of the financial sector and its motivational role in economic growth have become a global concern. Additionally, this significance is communicated to FINTECH businesses that use IT breakthroughs to lower risks and expenses in the banking sector (Frame & White, 2014; Zavolokina, et al., 2016). The goal of FinTech businesses is to advance the financial system. FinTech companies are becoming increasingly significant to the economy because finance serves as an input for both production and consumption activities as well as promotes saving, investing, and making wiser investment decisions (Farme & White, 2004).

All stakeholders in the financial system would gain from financial innovations since they address flaws in taxes, regulations, transaction costs, asymmetric knowledge, and when the market performs imperfectly (Tufano, 2003). Additionally, these flaws prevent those involved in the economy from taking full advantage of the financial system's abilities to efficiently pool funds, move them across time and space, manage risk, extract information to aid in decision-making, solve the asymmetric information problem, and facilitate payment systems (Tufano, 2003).

According to Schindler (2017), the emergence of FINTECH companies can be attributed to some factors, including a shift in the financial landscape following the most recent global financial crisis, regulatory burdens, aversion to risk, the prevalence of mobile technology, and demographic changes (millennials who demand easy access to their financial accounts and financial services).

2.6 The opportunities and challenges of FINTECH

According to Al Ajlouni & Al-Hakim (2018), "FINTECH firms are considered as a real rival for the traditional banking system," FINTECH companies are the primary competitors for the banking industry specifically and for the financial industry generally in many ways because they enable the adjustment of traditional loans or services to be more personalized and they provide a reduction in the use of

intermediaries during the provision of financial services. The use of new technology (blockchain) reduces transaction times, which greatly reduces counterparty and settlement risks (Al Ajlouni & Al-Hakim, 2018; Peters & Panayi, 2015). While Buchak et al. (2018) suggest that FINTECH firms do not provide interest rates that are lower than those of banks.

The advantages and disadvantages of FINTECH enterprises are exemplified by Al Ajlouni & Al - Hakim (2018), which are mostly based on the Financial Stability Board (2017) and BCBS (2017). As stated below and according to Al Ajlouni & Al-Hakim (2018), these studies do indeed imply that FINTECH companies open the door for greater prospects for clients, financial institutions, or the financial sector:

- FINTECH firms increase the availability of loans and equity instruments for new sorts of borrowers who were previously unable to get financing. SMEs that make use of ECF or P2P, for instance.
- By providing services to the underserved segments of society and for new assets, FINTECH companies can expand financial inclusion for traditional financial services.
- Blockchain technology contributes to increased security because it is simpler to attack the main database than the blockchain nodes.
- REGTECH gives banks the resources they need to improve the efficiency of their compliance and risk management procedures. At the same time, it enables them to easily meet regulatory standards and adapt to changing regulatory environments.
- As recent entrants to the financial industry, FINTECH firms fragment the financial services market and reduce systemic risk, which supports financial stability by boosting competition.
- It is undeniable that FINTECH companies' services are quicker and more affordable than those offered by traditional service providers.
- FINTECH companies' services are more individualized for individual consumers, hence, both customers and banks will gain from them.

In addition to the opportunities, Al Ajlouni & Al-Hakim (2018) list the dangers that FINTECH businesses bring due to technological advancements and new financial sector practices, including:

- Because FINTECH companies are vying for a sizable portion of banks' customers, both their market share and profit margin are under threat.
- Since the clients' deposits are more volatile because of the FINTECH companies' open environment that allows them to switch between services quickly, they aren't entirely loyal to one bank in this situation.
- FINTECH businesses often use IT to deliver their services, which increases the dependency on IT between market players (banks, insurance firms, FINTECH businesses), as well as between market infrastructure and the platform-based services provided by FINTECH businesses. As a result, FINTECH organizations face a significant IT risk due to their inadequate knowledge of or capacity for managing IT risks.
- The services provided by FINTECH companies have increased the significance of delicate subjects including AML/CFT obligations and compliance standards, countering the financing of terrorism, and anti-money laundering. These problems are challenging to because of the degree of automation, the lack of transparency (in terms of how transactions are carried out and who is responsible for compliance), and the lack of standardization in FINTECH services.
- The danger of maintaining data privacy and compliance due to the growth of outsourcing that is acceptable to FINTECH firms.
- The system of financial institutions is at risk due to cloud computing, cyber risk, and growing reliance on application interfaces.

2.7. Empirical literature

2.7.1. The Availability and readiness of FINTECH Services

The study by Frost (2020) offers significant insights into supply-side and demand-side factors affecting FINTECH adoption, particularly in emerging markets and developing economies (EMDEs). While financial inclusion may be a secondary outcome, the primary determinants of adoption include unmet consumer demand, digital literacy, cost structures, and the banking sector's responsiveness to technological innovations. These findings are particularly relevant for informal traders, as FINTECH solutions that fail to align with trader needs, security expectations, and affordability constraints are unlikely to be adopted, regardless of financial inclusion efforts.

Vaicondam et al. (2021) examined the inclination of millennials in Malaysia towards FINTECH, as this demographic is poised to become the primary consumer base for banking and FINTECH services. Utilizing a quantitative approach, the study uncovered patterns and established facts about the factors that encourage or inhibit FINTECH adoption among this group.

In the Netherlands, Hasan et al. (2021) sought to identify the principal factors influencing Dutch customers' adoption and experience with mobile payments through quantitative research. The study revealed that perceived ease of use, perceived usefulness, safety, and trust significantly impact mobile payment adoption. The findings suggest that mobile payment providers must enhance technical security and offer additional benefits to stimulate the mobile payment sector.

Ashraf et al. (2022) empirically examined how effort expectancy, performance expectations, social influence, and perceived risks affect behavioural intentions and actual adoption of FINTECH services. Their findings indicate that while perceived usefulness plays a critical role, concerns about trust, security, and the complexity of mobile financial services remain significant barriers to widespread adoption. These insights align with the current study's focus on understanding the barriers and enablers of FINTECH adoption at Tukondjeni Open Market.

In South Africa, Slazus and Bick (2022) identified key determinants of FINTECH adoption through a mixed-methods approach, highlighting factors such as trust, convenience, digital literacy, and socio-economic influences. The study revealed that while mobile banking services offer significant convenience, security concerns and lack of familiarity often deter adoption. This aligns with observations in Namibia, where informal traders may face similar technological and behavioral barriers to adopting mobile financial solutions.

Aggarwal et al. (2023) explored the behaviour towards Fintech adoption among GenY in India, gathering data from 349 higher education students through judgmental sampling. The study validated the application of the theory of planned behaviour in facilitating FINTECH's effective implementation within the Indian context.

Al-Afeef et al. (2023) investigated how perceived ease of use mediates the relationship between seamless transactions, financial, legal, security risks, perceived risks, and the intention to use financial technology in the Middle East. Collecting data from 500 respondents across five Middle Eastern countries, the study applied partial least squares structural equation modelling (PLS-SEM) to analyse the research model. The findings highlight the critical role of perceived ease of use in influencing the adoption of financial technology and its ability to mitigate perceived risks.

Bermeo-Giraldo et al. (2023) conducted a study to explore the key factors influencing young Colombian university students' engagement with FINTECH services. Utilizing a quantitative research strategy and exploratory-descriptive analysis, the study, involving 124 students, applied exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to discern the significant variables and assess the framework. The findings indicated a rapid increase in mobile usage in Colombia, juxtaposed with a gradual uptake of Fintech services. Notably, it was observed that while many students were unfamiliar with the term "FINTECH," they often used such services in their daily activities.

Piyananda and Aluthge (2023) embarked on a study to examine the perceptions of FINTECH industry leaders in Sri Lanka regarding the promotion and consumer acceptance of Fintech solutions within the nation. Adopting a qualitative case study

methodology, the research involved semi-structured interviews with five FINTECH firm CEOs to gain insight into the critical factors influencing consumer adoption of Fintech. Thematic analysis of the interviews highlighted that consumer knowledge of FINTECH services, the practical utility of these services, consumer trust, the state of the nation's digital infrastructure, and the convenience provided by FINTECH products play pivotal roles in fostering acceptance among consumers.

Notably, the availability and readiness of FINTECH services are shaped by both technological and infrastructural enablers and constraints. Research indicates that access to mobile banking and digital financial services is not simply a matter of physical availability but depends on the reliability of digital infrastructure, trader familiarity, and security perceptions (Hasan et al., 2021). Unlike formal financial institutions that operate under stringent regulatory oversight, FINTECH adoption in informal settings requires a more adaptive approach, taking into account the unique behavioural and economic conditions of traders. In the Netherlands, Hasan et al. (2021) demonstrated that while mobile banking services were technically available, factors such as trust, perceived ease of use, and customer education significantly impacted adoption rates, findings that are also relevant in Namibia's informal trading spaces.

2.7.2. Factors that hinder the intention to adopt FINTECH services

Khatun & Tamanna (2020) undertook a study in Bangladesh to explore the determinants of FINTECH adoption within financial entities, employing the Unified Theory of Acceptance and Use of Technology (UTAUT) to pinpoint eight critical factors. A structured survey was conducted in person prior to data collection. The study analysed responses from 265 employees using Structural Equation Modelling (SEM) and the Generalized Least Squares technique. The findings confirmed that variables such as effort expectancy, social influence, facilitating conditions, perceived reliability, and added value have a positive impact on the intention to utilize FINTECH. Furthermore, it was discovered that the age of participants significantly moderates the influence on FINTECH adoption across nearly all variables.

Lal et al. (2020) focused on the Hyderabad banking sector in India, seeking to identify the driving forces behind FINTECH adoption among bank customers. This empirical investigation, based on a probabilistically sampled group of respondents, utilized ANOVA, Exploratory Factor Analysis, and Multi Variant Regression Model for data analysis. The study did not find significant differences in venture capital funding across continents but identified three main factors - conduciveness, adaptability, and security - as pivotal in influencing FINTECH use, with conduciveness being the foremost factor promoting the adoption and usage among bank clients.

In the Netherlands, Hasan et al. (2021) aimed to uncover the key elements influencing Dutch consumers' adoption and experiences with mobile payments through quantitative research. The study revealed that perceived ease of use, usefulness, security, and trust critically impact mobile payment adoption, suggesting that mobile payment providers should bolster technical safeguards and offer additional benefits to enhance their service offering.

Balcázar and Rivas (2021) in Peru analysed the adoption intentions of fintech services among small and microenterprise owners in Chiclayo using SmartPLS v.3.3.2., employing structural equation modelling and the partial least squares method. Drawing upon an extended technology acceptance model, the study found that factors like trust, brand image, and perceived utility, along with considerations of potential risks, significantly affect their willingness to adopt FINTECH solutions.

In Indonesia, Sa'diyah (2021) utilized the Partial Least Square (PLS) method to examine how brand and service trust, along with perceived usefulness and ease of use, influence fintech users' behavioural intentions through their attitudes. This purposive sampling-based study among entrepreneurs in Malang city revealed that brand and service trust, perceived usefulness, and ease of use significantly impact users' attitudes, which in turn affects their behavioural intentions towards FINTECH usage.

Vaicondam et al. (2021) conducted a study in Selangor, Malaysia, using quantitative methods to uncover insights into FINTECH adoption among millennials. The research

indicated that millennials are swayed more by the perceived ease of use and usefulness of FINTECH services than by perceived risks and trust issues.

Finally, Hasan et al. (2021) again from the Netherlands, investigated the dynamics affecting Dutch consumers' adoption and experience of mobile payments during the COVID-19 pandemic, considering social distancing impacts on payment preferences. The study concluded that perceived ease of use, usefulness, safety, and trust remain paramount in influencing mobile payment adoption, urging providers to enhance security measures and offer additional incentives to grow their services.

Daniil (2021) explored the determinants of FINTECH adoption among global FINTECH startups through a comprehensive literature review. The study underscored innovation and regulatory frameworks as pivotal influences, while socio-demographic factors were deemed inconsequential to the startups' success.

Sazu and Jahan (2022) undertook a study employing multivariate regression to dissect the factors driving consumer engagement with FINTECH solutions in Asia and Latin America. Their findings underscored that customer inclination towards FINTECH is significantly boosted by factors such as utility, cultural norms, loyalty, and ease of operation.

Research by Mahamud et al. (2022) identified that in emerging markets, security concerns, fraud risks, and inadequate regulatory protections are major deterrents to FINTECH adoption. Traders often perceive digital transactions as vulnerable to exploitation, particularly when there is no clear recourse for financial losses or fraudulent transactions. This aligns with findings in Namibia, where informal traders have expressed reluctance to adopt mobile banking services due to fraudulent transactions, lack of institutional support, and fear of financial insecurity (Lazarus, Nambadja & Nakashole, 2023).

Firmansyah et al. (2022) adopted a systematic literature review methodology to scrutinize the body of FINTECH adoption literature from 2019 to 2022, as indexed in the Scopus database. Analysis of sixteen journal articles revealed trust, financial

literacy, and security as critical determinants influencing FINTECH service uptake across various global contexts.

Hamzah et al. (2022) in Malaysia examined the key factors influencing FINTECH adoption, drawing upon secondary data from prior studies. The research highlighted perceived ease of use and usefulness as primary motivators, with trust in FINTECH services significantly affecting user adoption attitudes.

Vandana and Mathur (2022) embarked on a systematic exploration of fintech adoption among farmers, utilizing specific search terms related to FINTECH and agriculture over the past decade. Their analysis identified perceived risk, usefulness, trust, ease of use, convenience, and social influence as the most cited factors in fintech adoption research.

Urumsah et al. (2022) investigated the catalysts behind corporate FINTECH adoption—encompassing risk and cost perceptions, organizational preparedness, executive backing, IT familiarity, client demands, and market competition—and the ensuing advantages. The study employed purposive sampling to survey employees from FINTECH-utilizing firms, analysing 195 responses through SEM-PLS. Findings revealed significant impacts of client and competitive pressures, organizational preparedness, executive support, and IT knowledge on embracing fintech.

Slazus and Bick (2022) examined the factors influencing FINTECH utilization within South Africa, utilizing a mixed-methods approach to discern what drives or deters consumer engagement with mobile banking. Initial qualitative insights were gleaned from interviews with seven individuals, followed by an exploratory factor analysis (EFA) on responses from 217 participants. This analysis pinpointed six critical factors—four promotive and two deterrents—that shape FINTECH adoption, including utility, socio-economic influencers, trust in mobile technology, youth enthusiasm versus perceived risks and costs. Notably, a substantial 74% showed interest in transitioning to entirely virtual banking platforms.

Al-Afeef et al. (2023) delved into how perceived simplicity in use mediates the impact of various risks and seamless transactions on the intent to employ FINTECH across several Middle Eastern nations. Through a survey of 500 participants and employing

PLS-SEM for analysis, the study underscored the pivotal role of perceived ease in navigating the concerns and intentions surrounding fintech usage.

Piyananda and Aluthge (2023) explored the FINTECH landscape in Sri Lanka, focusing on the industry leaders' perspectives on promoting FINTECH solutions and identifying consumer adoption determinants. Employing a qualitative approach and thematic analysis from interviews with five FINTECH CEOs, the study highlighted consumer awareness, FINTECH's practical utility, trust, digital infrastructure, and product convenience as primary influencers of fintech acceptance.

Bermeo-Giraldo et al. (2023) sought to pinpoint the key variables affecting FINTECH service adoption among Colombian university students through a model based on five determinants. Applying a quantitative methodology and using EFA and CFA for data analysis, the study identified that financial education and social influence positively impact perceived benefits, while regulation showed a weaker connection to these benefits, not significantly swayed by social pressures. Moreover, digital literacy's enhancement was noted to be driven by both financial education and social influence.

Gierdien and Jokonya (2023) conducted research to identify the determinants affecting financial technology's embracement within academic institutions. Utilizing a systematic review approach, the investigation aimed to uncover the pivotal factors steering FINTECH's integration in higher education settings. Employing quantitative content analysis, the findings underscored technological aspects as pivotal in fostering FINTECH's acceptance in university environments.

Bagwell (2023)'s study in Indonesia delved into the dynamics influencing FINTECH's integration and its resultant advantages in the banking sector. A questionnaire distributed via convenience sampling to 200 banking professionals formed the basis of the analysis, conducted through partial least squares methodology. The study established that variables such as performance expectations, organizational readiness, external influences, and governmental backing positively correlate with FINTECH adoption, whereas perceived risks posed negative impacts. Furthermore, embracing FINTECH was linked to enhanced net benefits.

Almashhadani et al. (2023) investigated FINTECH's utilization in Jordan, amidst and following the COVID-19 pandemic, by amalgamating and expanding upon the TAM and UTAUT models to forecast the usage intention of FINTECH. The analysis, applied on 296 participants using structural equation modelling, demonstrated that the model variables accounted for 38.4% variance in usage intention, with perceived usefulness and personal innovation emerging as key influencers.

Aggarwal et al. (2023) examined the tendencies towards FINTECH adoption among Generation Y in India, gathering insights from 349 higher education students via judgmental sampling. The investigation highlighted information quality as a pivotal factor influencing FINTECH adoption trends among this demographic.

Alfian et al. (2023)'s study, conducted at Polytechnic Harapan Bersama with 150 participants, assessed the determinants influencing students' preference for FinTech in tuition fee payments. Utilizing Partial Least Squares for analysis, the research found that trust plays a crucial role in adopting FINTECH for fee settlements. Moreover, FINTECH's perceived advantages significantly impacted trust and the selection of FINTECH for financial transactions.

Pakaja et al. (2023) aimed to identify the elements affecting the interest of Information Systems students in Malang City towards adopting QRIS through a descriptive quantitative study, employing questionnaires for data gathering. Multiple regression analysis revealed that variables like perceived usefulness, ease of use, and system information quality did not significantly affect QRIS usage interest, in contrast to perceived risk, which played a dominant role in influencing technology acceptance.

Saadah and Setiawan (2023) explored the factors shaping the perceived advantages and risks associated with FinTech and their effect on SMEs' trust and continued usage in Indonesia. Through convenience sampling among SMEs, the study indicated that convenience and economic benefits significantly contribute to the perceived advantages, which positively influence trust, while perceived risks negatively impact it. Consequently, trust determines the ongoing utilization of FINTECH services.

2.7.3. The perceived advantages and disadvantages of using FINTECH

2.7.1. Advantages

In Indonesia, Urumsah et al. (2022) delved into the motivations behind corporate FINTECH integration, examining aspects such as risk and cost perceptions, organizational preparedness, executive support, IT knowledge, consumer demands, and market competition. The study, which gathered data from 195 FINTECH-affiliated employees through purposive sampling and analysed it with SEM-PLS, uncovered that FINTECH adoption could enhance innovation, customer, and partner contentment, build consumer trust, and potentially boost financial growth and employee prosperity.

Hamzah et al. (2022), based in Malaysia, investigated the principal factors influencing FINTECH adoption, drawing on secondary research findings. The analysis concluded that FINTECH offers significant cost efficiencies over traditional transaction methods while highlighting the importance of user comprehension and enhancing the FINTECH service experience.

Saadah and Setiawan (2023) scrutinized the perceived advantages and challenges of FINTECH, alongside its impact on the sustained use of fintech among Indonesian SMEs. Utilizing a non-probability convenience sampling approach, their findings underscored the transactional convenience and economic gains as key benefits, implying that SMEs can significantly profit from FINTECH adoption in their operational activities by leveraging its efficiency and financial advantages.

2.7.3.2. Disadvantages

On a global scale, Frost (2020) undertook a comprehensive desk review, asserting that FINTECH operations are susceptible to prevalent market limitations observed in traditional finance sectors, such as informational imbalances, adverse selection in lending practices, liquidity discrepancies, systemic risks, and various interconnections within the financial ecosystem. Further, Saadah and Setiawan (2023) in their study on Indonesian SMEs, also identified operational risks as a considerable concern among participants, highlighting the challenges alongside the benefits of FINTECH adoption.

2.8 Critical analysis of the empirical literature review

The empirical literature review on the adoption of financial technology (FINTECH) services reveals a substantial focus on quantitative methodologies across various studies globally. For instance, studies such as Frost (2020), Vaicondam et al. (2021), and Hasan et al. (2021) have primarily employed quantitative research approaches to explore factors influencing FINTECH adoption in different contexts. These studies, while providing valuable insights into the drivers and barriers to FINTECH adoption, largely emphasize statistical analyses and patterns, potentially overlooking the depth and nuance of individual experiences and perceptions that qualitative research can offer (Frost, 2020; Vaicondam et al., 2021; Hasan et al., 2021).

Essentially, the empirical literature reveals several critical factors influencing FINTECH adoption across various international settings and over time. Notably, the factors driving FINTECH adoption are multifaceted, encompassing technological, behavioural, and environmental dimensions. Key factors identified include perceived ease of use, perceived usefulness, safety and trust, financial and legal risks, and the influence of social and cultural norms. These factors resonate across studies, highlighting their universal importance in the decision-making process regarding FINTECH adoption.

A notable trend observed over time is the increasing emphasis on the role of technological advancements and regulatory frameworks in fostering FINTECH adoption, as seen in the studies by Daniil (2021) and Al-Afeef et al. (2023). This reflects a shift towards recognizing the importance of creating a supportive ecosystem for FINTECH services to thrive. Additionally, the significance of demand-side factors, such as unmet financial needs in emerging markets and developing economies (EMDEs), as highlighted by Frost (2020), underscores the role of FINTECH in promoting financial inclusion and supporting economic growth in these regions.

Differences between countries in factors influencing FINTECH adoption are evident in the literature. For instance, the study by Vaicondam et al. (2021) on millennials in Malaysia emphasizes the generational influence on FINTECH adoption, suggesting that demographic factors play a critical role in shaping FINTECH adoption patterns.

Similarly, studies from the Netherlands (Hasan et al., 2021) and South Africa (Slazus & Bick, 2022) highlight the importance of safety, trust, and the social influence of peers in the adoption process, indicating variations in the weight of different factors based on geographical and cultural.

Moreover, the geographical focus of these studies spans diverse regions, including Malaysia, the Netherlands, and globally, with an evident gap in the context-specific exploration of FINTECH adoption within Namibia, particularly at the Tukondjeni open market. This gap highlights a need for research that looks deeper into the localized experiences, cultural factors, and unique market dynamics affecting FINTECH adoption in Namibia.

The current study, "Exploring the Factors Affecting the Adoption of Financial Technology (FINTECH) Services: A Case Study of Tukondjeni Open Market," seeks to address these gaps by adopting a qualitative research approach. This methodological choice allows for a more different understanding of the availability, readiness, perceived advantages, and disadvantages of FINTECH services from the perspective of informal traders at the Tukondjeni open market. Through in-depth interviews and thematic analysis, this study aims to uncover the rich, contextual insights that quantitative methods may overlook, providing a comprehensive understanding of the factors influencing FINTECH adoption in this specific Namibian context (Bermeo-Giraldo et al., 2023; Piyananda & Aluthge, 2023).

This qualitative exploration contributes significantly to the existing body of knowledge by offering detailed, firsthand perspectives on FINTECH adoption within a uniquely Namibian setting, thus filling the geographical and methodological gaps identified in the empirical literature. Furthermore, by focusing on a qualitative approach, this study enriches the discourse on FINTECH adoption with in-depth narratives and experiences of the traders, which could inform more targeted and effective FINTECH implementation strategies in similar markets across Emerging Markets and Developing Economies (EMDEs).

As such, a critical gap in the empirical literature is the limited research on FINTECH adoption in informal trading environments. While global studies (e.g., Hasan et al.,

2021; Mahamud et al., 2022) explore FINTECH adoption from consumer and institutional perspectives, few studies specifically analyze how informal traders engage with and perceive digital financial technologies. This study aims to fill this gap by investigating the contextual barriers and enablers of FINTECH adoption in Namibia's Tukondjeni Open Market, thereby contributing localized insights to the broader discourse on digital financial adoption in informal economies.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

Chapter Three provides a comprehensive overview of the methodological framework utilized in this research. It delineates the philosophical foundation underpinning the study, rooted in the constructivist paradigm. Subsequently, the Chapter elucidates the investigative approach, emphasizing the qualitative methodology chosen. The study's blueprint, focusing on the explorative and case study designs, is detailed. Furthermore, the Chapter outlines the demographics of the study, the sample selection mechanism, and the instrumentation employed. Key techniques used in data gathering are highlighted, followed by a thorough description of the data examination process, which primarily adopts thematic analysis. Finally, this Chapter highlights the ethical considerations adhered to throughout the research process.

3.2. Philosophical foundation

This investigation is anchored in a constructivist paradigm. Constructivism, as a primary epistemological stance, prioritizes the individualized and subjective realities of individuals, emphasizing how they interpret and understand their surrounding environment (Smith & Osborn, 2020). Unlike the positivist or postpositivist viewpoints which seek universal truths or laws, constructivism accentuates the multifaceted and diverse essence of human experiences. Knowledge, within this paradigm, is seen as a product of social and experiential interactions, suggesting that reality is shaped by personal interpretations (Baxter & Jack, 2015). When probing FACTORS AFFECTING THE ADOPTION OF FINANCIAL TECHNOLOGY SERVICES: A CASE STUDY OF TUKONDJENI OPEN MARKET, the constructivist paradigm facilitates the capture of distinct experiences of traders. Contrary to the pragmatist stance which believes in adjusting research methods to fit the research question and values both objective and subjective knowledge (Morgan, 2014), constructivism leans heavily towards the qualitative, focusing on deep dives into individual interpretations (Charmaz, 2014).

3.3. Investigative approach

A qualitative methodology steered this investigation. Qualitative research zeroes in on exploring the sentiments, perspectives, and lived experiences of individuals within their authentic settings (Denzin, 2017). This approach values participant perspectives, examining how socio-cultural environments mould their worldviews. Thus, qualitative inquiry is often inquisitive, looking into human experiences without quantifying them (Patton, 2014). Tools commonly associated with qualitative studies, like in-depth interviews or participant observations, offer insights into participants' lived realities (Silverman, 2016). For this specific study exploring factors affecting the adoption of financial technology services, the qualitative approach provided an avenue to discover the lived experiences of traders, offering a comprehensive understanding of the multifaceted issue. The qualitative research approach was chosen because the study aims to explore traders' lived experiences and perceptions regarding FINTECH adoption at Tukondjeni Open Market. Unlike quantitative research, which seeks to measure variables through numerical data, a qualitative methodology is more appropriate for understanding the behavioural, social, and economic factors affecting adoption decisions. Given that FINTECH adoption is influenced by factors such as trust, accessibility, digital literacy, and security concerns, a qualitative approach allows for a deep exploration of traders' personal experiences, beliefs, and challenges. This aligns with the study's objectives by capturing rich, contextual insights that would be difficult to quantify through statistical means (Denzin, 2017).

3.4. Study Blueprint (design)

This investigation is grounded in qualitative paradigms, utilising both explorative and case study designs for primary data acquisition. Employing a qualitative stance permitted the gathering of experiential data, as participants shared insights influenced by their feelings, perceptions, and encounters (Harrison et al., 2017). The rapport built between the researcher and the interviewee catalysed the collection of authentic, in-depth insights (Gray, 2013). In this aspect, the case study design allowed for data acquisition from the Tukondjeni Open Market community, comprising 180 registered merchants.

The case study design was employed to provide an in-depth analysis of FINTECH adoption at a specific location, Tukondjeni Open Market. A case study is appropriate for this research because it allows for a holistic examination of a real-world phenomenon within its natural setting (Yin, 2018). Given that the study aims to explore barriers and enablers of FINTECH adoption, a case study approach enables a thorough investigation into traders' perspectives, experiences, and contextual challenges. The explorative design complements this by allowing the researcher to identify patterns and emerging themes without imposing preconceived hypotheses. Since the study focuses on understanding and interpreting behaviours rather than testing causal relationships, the combination of explorative and case study designs is methodologically sound (Harrison et al., 2017).

3.5. Study demographics

The targeted group for this research, or the population, encompasses the entire cohort the researcher aims to study (Bryman, 2012). For this investigation, the population included all 180 merchants registered at the Tukondjeni Open Market in Windhoek.

3.6. Sample selection mechanism

The study employed a sample size of 20 traders from the Tukondjeni Open Market, drawn from a total population of 180 registered merchants. The decision to limit the sample to 20 was based on the principle of data saturation, whereby further interviews yielded no new themes or insights (O'Reilly & Parker, 2012). In qualitative research, sample size is determined by the depth and richness of the data rather than numerical representation, making 20 participants sufficient for a comprehensive thematic analysis. Rationally, purposive sampling was employed because the study required participants with direct experience in using or engaging with FINTECH services. This non-random sampling method ensured that only traders with relevant insights were included, thereby increasing the relevance and depth of the data (Suri, 2011). Unlike probability sampling, which is suited for generalization, purposive sampling is more appropriate for case studies and exploratory research, where the goal is to obtain detailed, context-specific insights (Saadah & Setiawan, 2023).

Essentially, the selection of the 20 participants through purposive sampling followed a structured process to ensure that only traders who met the study's inclusion criteria were considered. The primary criterion was that participants had to be registered merchants operating at the Tukondjeni Open Market to ensure their engagement with financial transactions that could potentially involve FINTECH services. Additionally, traders were selected based on diversity in business type, gender, and level of digital exposure to capture a broad range of perspectives on FINTECH adoption.

The sampling process unfolded in three stages: first, an initial engagement phase, where traders were approached and introduced to the study; second, a screening phase, where merchants were assessed based on their business nature, previous exposure to digital transactions, and willingness to participate; and finally, a confirmation phase, where 20 traders were formally selected. Special emphasis was placed on ensuring representation across different trading categories, including fresh produce, clothing, food services, and artisanal goods.

The purposive sampling technique was suitable for this study as it allowed the identification of traders with relevant experiences and insights into the challenges and opportunities associated with FINTECH services (Suri, 2011). Unlike probabilistic sampling, which seeks generalizability, purposive sampling prioritizes information-rich cases that yield in-depth qualitative insights (Patton, 2014). This study followed similar methodologies applied in FINTECH adoption research (Piyananda & Aluthge, 2023; Slazus & Bick, 2022), where researchers targeted participants with direct exposure to the subject matter.

3.7. Instrumentation

Data were garnered through a semi-structured questionnaire. This format granted the researcher the flexibility to ask additional questions, ensuring comprehensive data collection that encapsulated participants' emotions, perceptions, and experiences (Brinkmann & Kvale, 2015). The questionnaire had distinct sections, including an overview of FINTECH services in Namibia, demographic details, and sections aligned with the study's goals. To bolster validity, triangulation was employed, and member checking was initiated to enhance accuracy (Lincoln & Guba, 1985).

The researcher inherited from literature (Piyananda & Aluthge, 2023; Slazus & Bick, 2022) to design the semi-structured interviews to design. Drawing from an extensive review of literature, Piyananda and Aluthge (2023), Slazus and Bick (2022) the research interviews for this study was structured to gather qualitative data effectively through standardized questions which were drawn upon the extended technology acceptance model (ATM). Slazus and Bick (2022) analysed the factors driving or hindering FINTECH adoption in South Africa, employing a mixed-method approach. Preliminary qualitative research through in-depth interviews with seven participants. In addition, Piyananda and Aluthge (2023)'s study examined the perceptions of FINTECH industry leaders in Sri Lanka regarding the promotion and consumer acceptance of FINTECH solutions within the nation through aadopting a qualitative case study methodology, the research involved semi-structured interviews with five FINTECH firm CEOs to gain insight into the critical factors influencing consumer adoption of FINTECH. This approach ensured the uniformity of responses for comparative analysis. The interview guide, detailed in Appendix, is organized into five main sections, addressing factors affecting the adoption of financial technology services at the Tukondjeni open market. The sections are crafted to gather insights into demographic characteristics, familiarity and usage of FINTECH services, and the perceived benefits and challenges associated with these services.

i. Section A provides an overview of Financial Technology (FINTECH) services in Namibia, outlining services offered by major banks. This section aims to gauge the awareness and usage frequency of specific FINTECH services like EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints among traders.

ii. Section B collects Demographic Information, including gender, age, nature of business, and educational qualifications. This foundational data supports the analysis of how demographic factors might influence FINTECH service adoption rates and preferences.

iii. Section C consists of General Questions on FINTECH services, exploring participants' familiarity with various FINTECH offerings, their frequency of use in

business transactions, and whether they've received any formal training or orientation on these services. This section aims to understand the current landscape of FINTECH interaction among the traders.

iv. Section D looks into research questions based on the study's objectives:

Objective 1 examines the availability and accessibility of FINTECH services at Tukondjeni open market, seeking to identify any services that are more accessible than others and to understand traders' perceptions of these platforms for their business operations.

Objective 2 identifies barriers hindering the adoption of FINTECH services, probing into the role of education or literacy and the specific challenges faced with different FINTECH services.

Objective 3 aims to discern the perceived advantages and disadvantages of using FINTECH services, investigating how these perceptions influence traders' decisions to adopt or avoid these technologies.

This multi-faceted questionnaire is designed to thoroughly explore factors affecting the adoption of financial technology services on informal traders, providing a comprehensive understanding of their current use, potential barriers to adoption, and the perceived benefits and challenges of these digital financial tools.

3.8. Data gathering techniques

Before administering the questionnaire, participants' willingness was ascertained. Those willing provided their consent, after which questionnaires were distributed. Data confidentiality was prioritized, with transcripts securely stored before analysis and responsibly disposed of post-analysis.

Selecting participants for this study involved engaging with traders at the market, all of whom operate within small, informal trading environments. Prior to participation, consent was obtained from each participant, ensuring they were fully informed of the study's academic nature and voluntary participation, with an emphasis on the fact that there would be no financial compensation.

Given the initial aim to select participants randomly, the process encountered resistance from many vendors, primarily due to concerns about business interruption and a general reluctance to engage in the interviews. Consequently, the selection was adjusted to only include vendors who were willing to participate, most of whom were women. This adjustment was necessary to overcome the challenges of participant resistance.

To encourage participation, several steps were taken:

The researcher introduced herself comprehensively, providing her name, educational affiliation, and the purpose of the research, to establish a basis of trust and openness (Aggarwal et al., 2023; Gierdien & Jokonya, 2023). When faced with scepticism, the researcher presented her student identification as verification.

The researcher explained the research topic in detail, including the significance of the study, the concepts of financial technology (FINTECH) services, their usage, availability, and the critical role they play in modern commerce (Aggarwal et al., 2023; Gierdien & Jokonya, 2023). This explanation aimed to elucidate the benefits and importance of their participation in the discourse on FINTECH.

The researcher was responsive to any inquiries or requests for clarification, ensuring that all aspects of the study were transparent and understood. The researcher was mindful not to disrupt their business operations, prioritizing their availability and customer service obligations.

Participants had the option to either complete the questionnaire themselves or to have the researcher record their responses. This approach was chosen to ensure data accuracy and to capture immediate reactions and thoughts regarding FINTECH services. Each session lasted approximately 30 minutes.

The engagement strategy with participants was designed to ensure the collection of precise and undistorted data, allowing for a firsthand understanding of their perspectives on FINTECH services. This method not only facilitated accurate information gathering but also provided an educational opportunity for participants,

ensuring they were well-informed about the topic and could provide knowledgeable responses (Gierdien & Jokonya, 2023).

3.9. Data examination (Thematic analysis)

To use thematic analysis applicably, the researcher followed the studies of Aggarwal et al. (2023) and Gierdien and Jokonya, (2023). Post-collection, data underwent a cleansing process to eliminate irrelevant components (Bazeley & Jackson, 2013). The data were then transcribed, coded, and subjected to thematic analysis using **NVivo 14** software. This method of analysis seeks to identify patterns or themes within qualitative datasets (Braun & Clarke, 2006). The process comprises several stages, including familiarization, coding, theme searching, theme review, theme definition, and report compilation. The process is detailed below.

3. 9.1. Familiarization - This is the initial stage in the thematic analysis process. Researchers deeply immerse themselves in the data by repeatedly reading and reviewing transcripts, notes, or other textual materials. This repeated exposure ensures they gain a comprehensive understanding of the content and the overarching view. This step is crucial for identifying preliminary ideas and potential patterns in the data (Braun & Clarke, 2006). After transcribing all interviews, the researcher immersed in the data by repeatedly reading through transcripts and observational notes. This stage helped to identify recurring patterns and initial points of interest (Braun & Clarke, 2006).

3.9.2. Generating initial codes - Once familiarized with the data, researchers begin to systematically identify and label meaningful features of the data, such as significant phrases, sentences, or words. These features are coded to encapsulate their essence and to categorize the data in a meaningful manner. This coding helps to organize data fragments and is pivotal for subsequent theme development (Saldana, 2015). Using NVivo software, transcripts were systematically coded by identifying relevant phrases, expressions, and recurring concepts. These codes were assigned descriptive labels reflecting participants' perspectives, such as "security concerns," "transactional ease," and "digital literacy barriers."

3.9.3. Searching for themes - After the initial coding, the next step involves reviewing and sorting these codes to identify broader patterns or themes that elucidate the underlying meaning or concepts present in the data (Braun & Clarke, 2006). This involves clustering related codes together, comparing different emergent themes, and refining the thematic structure to guarantee its relevance and coherence (Fereday & Muir-Cochrane, 2006). The coded data were then grouped into broader themes, reflecting key research objectives. For instance, codes related to security risks, fraud concerns, and lack of trust were merged under the overarching theme of "Perceived Barriers to FINTECH Adoption."

3.9.4. Reviewing themes - At this juncture, researchers critically appraise the themes to validate that they are robustly supported by the data and align with the research objectives (Braun & Clarke, 2006). This might involve merging, splitting, or even discarding themes to generate a coherent and meaningful thematic structure (Clarke & Braun, 2006). The identified themes were cross-checked for internal coherence and alignment with the study's objectives. Themes that overlapped were merged, while those lacking strong supporting data were discarded. This iterative process ensured that only robust and well-supported themes were retained.

3.9.5. Defining and naming themes - This stage involves refining the emergent themes. Researchers elaborate on the meaning, significance, and scope of each theme, providing them with clear and descriptive names or labels. This process ensures that the themes precisely represent the data and contribute meaningfully to addressing the research objectives (Vaismoradi et al., 2013). Each theme was then assigned a comprehensive definition, ensuring clarity in its meaning and relevance to FINTECH adoption at Tukondjeni Open Market.

3.9.6. Producing the report - This is the final stage wherein researchers draft a report that integrates the themes and their supporting data. This report offers a comprehensive narrative of the findings (Braun & Clarke, 2006). It should encompass a methodological description, a presentation of the themes and their interrelationships, and a discussion of the implications, limitations, and significance of the findings (Willig et al., 2017). A thematic matrix was developed, mapping each research

objective to its corresponding themes and supporting evidence. This ensured a structured and transparent approach to reporting findings.

In essence, thematic analysis provides a structured, transparent, and rigorous approach to unpacking qualitative data. It aids researchers in identifying, exploring, and reporting discernible patterns within the data in a trustworthy manner, allowing for rich insights and a deeper understanding of the research subjects (Braun & Clarke, 2006). This structured thematic analysis process ensures that findings are systematically derived, providing credibility and trustworthiness to the research outcomes (Fereday & Muir-Cochrane, 2006).

3.10. Data Saturation

The determination of data saturation was a critical aspect of this study's methodological rigor. In qualitative research, data saturation occurs when additional data collection no longer yields new insights or themes (Guest, Bunce, & Johnson, 2006). To assess saturation, the researcher conducted ongoing comparative analysis after each set of five interviews, examining whether emerging themes remained consistent or whether new themes emerged.

By the 18th interview, no new themes were surfacing, and responses from subsequent interviews merely reinforced already identified patterns. The final two interviews validated thematic stability, confirming that the study had reached theoretical saturation (Glaser & Strauss, 1967). Thus, stopping at 20 participants was justified as it aligned with qualitative research best practices, ensuring sufficient depth while avoiding unnecessary redundancy (Saunders et al., 2018). However, had new themes continued to emerge beyond the 20th interview, additional participants would have been recruited.

This study's approach to data saturation aligns with qualitative research standards, reinforcing the credibility and robustness of findings (O'Reilly & Parker, 2012).

3.11. Ethical considerations

Research authorization was procured from the UNAM Post Graduate Study Committee. Ethical considerations, such as informed consent, participant protection, and data confidentiality, were diligently observed (Israel & Hay, 2006). The research

obtained formal ethical clearance from the UNAM Post Graduate Study Committee, ensuring that all procedures adhered to ethical guidelines. Participants were fully informed of their rights, the voluntary nature of their participation, and the confidentiality of their responses. All data were stored securely in password-protected digital files, and identifiable information was anonymized to prevent disclosure. Post-analysis, all collected data would be ethically discarded to safeguard participants' confidentiality.

3.12. Conclusion

Chapter Three presented a detailed exposition of the methodological framework that guided this investigation. It began with an exploration of the constructivist paradigm as the philosophical foundation. The qualitative methodology, serving as the investigative approach, was expounded upon. Within the study's blueprint, both explorative and case study designs were embraced. The demographics of the study were outlined, showcasing the focus on merchants at the Tukondjeni Open Market. Purposive sampling was identified as the primary sample selection mechanism. The instrumentation section highlighted the use of a semi-structured questionnaire, while the data-gathering techniques were discussed, emphasizing confidentiality and ethical considerations. Thematic analysis emerged as the central technique in the data examination process. Ethical considerations, ranging from obtaining permissions to ensuring data confidentiality, were meticulously observed throughout the research.

As the study transitions from the methodological insights provided in this Chapter, Chapter Four looks into the empirical findings and discussions, shedding light on the real-world implications of the research.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSIONS

4.1. Introduction

Chapter 4 provides a thorough empirical analysis and discussion of the study that examines the factors influencing the adoption of financial technology services. The case study used in this analysis is centred on Tukondjeni Open Market. The Chapter is organised into multiple crucial sections, each of which contributes to a fundamental comprehension of the research subject. This encompasses 4.2. Demographic Analysis, which examines the demographic attributes of the study participants. The classification includes many areas such as age category, gender, level of education achieved, type of business, and overall understanding of FINTECH. Additionally, it covers 4.3. Thematic analysis and discussions. The study utilises theme analysis techniques to condense and structure the gathered data. Additionally, it serves as the central focus of this Chapter. This section entails a thorough analysis of the data.

4.2. Demographic information

To analyse the demographic data for the study on the adoption of FINTECH services at Tukondjeni Open Market, the study investigates each category: gender, age, nature of business, and educational qualification.

4.2.1. Gender analysis

The participant group is predominantly female (17 out of 20), with only three male participants. This gender distribution could reflect the demographic characteristics of entrepreneurs or vendors at the Tukondjeni Open Market. It is crucial to consider how gender may influence the adoption of FINTECH services. Previous research indicates that women might have different access to technology and financial services compared to men, potentially affecting their readiness or ability to adopt FINTECH (Frame & White, 2014; Zavolokina, et al., 2016).

Table 1: Gender Analysis

Gender	Frequency	Percentage (%)
Female	17	85.0
Male	3	15.0

Source: Author (2024)

4.2.2. Age analysis

The age range of the participants is diverse, with a concentration in the 20-30 age group (12 out of 20). There are also participants in the 31-40, 51-60, and 61-70 age brackets. This distribution suggests a varied representation in terms of age. Younger individuals might be more tech-savvy and open to adopting new technologies like FINTECH, while older participants may offer insights into the challenges or resistance faced by this demographic (Al Ajlouni & Al-Hakim, 2018; Peters & Panayi, 2015).

Table 2: Age Analysis

Age Range	Frequency	Percentage (%)
20-30	12	60.0
31-40	5	25.0
51-60	2	10.0
61-70	1	5.0

Source: Author (2024)

4.2.3. Nature of business

There is a wide range of businesses, from selling clothes and vegetables to providing tailoring services and selling cellphone accessories.

This diversity in business types is beneficial for understanding how different business needs might influence FINTECH adoption. For instance, vendors selling physical goods might have different transactional needs and challenges compared to service providers (Ozili, 2018)).

Table 3: Nature of business

Business Type	Frequency	Percentage (%)
Selling Clothes	5	25.0
Selling Vegetables	4	20.0
Other	11	55.0

Source: Author (2024)

4.2.4. Highest Level of qualification

Educational backgrounds vary significantly, ranging from no schooling to postgraduate qualifications. Education level can significantly impact an individual's comfort with and understanding of technology. According to Ozili (2018), those with higher education levels might find it easier to navigate and trust FINTECH services, while those with less formal education may face barriers.

Table 4: Highest Level of Qualification

Education Level	Frequency	Percentage (%)
No Schooling	5	26.3
Grade 8-10 (JSC)	3	15.8
Grade 11-12 (Matric)	6	31.6
Certificate	2	10.5
Diploma	1	5.3
Bachelors/First Degree	1	5.3
Postgraduate	1	5.3

Source: Author (2024)

Overall, the demographic analysis reveals a diverse group of participants in terms of age and business type, with a significant skew towards female participants and varying educational backgrounds. This diversity is crucial for a comprehensive understanding

of FINTECH adoption in the market. However, the gender imbalance could limit the applicability of findings across genders. The diverse educational backgrounds provide an excellent basis to explore how educational attainment influences FINTECH adoption. Essentially, the demographics show a predominance of females, a significant number of participants in the 20-30 age group, diverse business types with a slight focus on selling clothes and vegetables, and a wide range of educational backgrounds are notable features in the sample.

4.2.5. General knowledge of FINTECH Services

The responses to the general knowledge of FINTECH services from participants at the Tukondjeni Open Market provide insightful data for understanding the adoption and usage patterns of FinTech in an informal market setting.

4.2.5.1. Familiarity with FinTech Services

Most participants are familiar with a range of FinTech services, notably EWallet, Easy Wallet, and Blue Voucher. This familiarity is indicative of the increasing adoption of FINTECH solutions in non-formal market environments. However, the variability in knowledge - with some participants like Participant 2 using a broad range of services and others like participants 15 having no engagement - indicates disparities in FINTECH adoption. Such disparities might be influenced by individual business needs, personal comfort with technology, or the nature of transactions undertaken in the market (Al Ajlouni &Al–Hakim, 2018).

4.2.5.2. Frequency of FINTECH usage

The frequency of using FINTECH services varies significantly among participants. While Participant 2 uses these services almost daily, others like Participant 3 and Participant 4 do not use them at all. This variation could be attributed to several factors, including the type of business, the value of transactions, and customer preferences. For example, Participant 1 mentions using FINTECH for transactions above a certain amount, suggesting that the FINTECH consumption is determined by transaction size

and nature. This finding aligns with global trends where the adoption of FINTECH is often influenced by the transactional needs of the business and customer behaviours (Schindler, 2017).

4.2.5.3. Formal training in FINTECH usage

A significant finding is the lack of formal training in using FINTECH services among most participants. This lack of training, as indicated by responses like those from Participant 1 and Participant 4, highlights a lack of FINTECH support and education, which might prevent further adoption. The self-taught nature of FINTECH usage, as mentioned by participants like Participant 17, might contribute to the limited use and understanding of these services, particularly for more complex FINTECH solutions. This finding suggests as Morsey (2015) and Hashooshange (2023) put it, presents an opportunity for FINTECH providers and policymakers to introduce educational initiatives and training programs, enhancing the understanding and efficient use of these services in informal markets.

By implication, the analysis of responses to general knowledge of FINTECH services at the Tukondjeni Open Market reveals a scenario where most participants are aware of and utilize FINTECH solutions, albeit there are wide differences in familiarity, frequency of use, and knowledge. Many participants relied solely on self-learning and had no official training, which shows there is unrealized potential for growing FinTech adoption through support structures and structured instruction. Such efforts could not only enhance the efficiency of business transactions but also contribute to broader financial inclusion in informal market settings (Morsey, 2015; Hashooshange, 2023). The findings indicate a need for targeted strategies to bridge knowledge gaps and support the adoption of FINTECH services, aligning with global trends in digital financial inclusion.

4.3. Thematic analysis (Data presentation) and discussions

Conducting a thematic analysis involves identifying, analysing, and reporting patterns (themes) within the data. This analysis is structured around the specific research

objectives of the study. The researcher synthesises the themes emerging from the codes and quotes identified in Nvivo, corresponding to each research objective.

4.3.1. The Availability and readiness of FINTECH services

Emerging theme 1: Variability in service accessibility

Among the 20 participants, 12 (60%) acknowledged that FinTech services were widely available at the market, with commonly cited services including EWallet, Easy Wallet, Blue Voucher, MobiMoney, and cellphone banking. Participant 1, for example, explicitly stated that "EWallet, Easy Wallet, Blue Voucher, MobiMoney, and cellphone banking are readily available at the market." However, 8 participants (40%) expressed concerns regarding selective accessibility or barriers to using certain services. Participant 2 noted that while some services are accessible, speed points are not widely available, aligning with concerns from Participant 7, who stated that "the complicated ones that require electricity and internet are not available as it is additional costs involved." The data suggests a broad but uneven distribution of FINTECH services at the Tukondjeni open market. While some services are widely accessible, others are constrained by infrastructural limitations and the specific needs of traders. This highlights the importance of adapting FINTECH solutions to local conditions and trader capabilities. This variability may reflect differences in technological infrastructure or individual readiness to adopt such technologies, aligning with Frost (2020) emphasis on the role of mobile technology in FINTECH emergence. Also, the finding of Piyananda and Aluthge (2023) on consumer knowledge affecting FINTECH acceptance align with the theme. The disparity suggests a need for more universally accessible FINTECH solutions, especially in informal market settings like Tukondjeni.

The variability in service accessibility, as highlighted by participants at the Tukondjeni Open Market, shows the complex environment of FINTECH adoption in informal trading environments. This diversity inaccessibility is not just a matter of the availability of services like EWallet or MobiMoney but also reflects the demographic characteristics of the market's vendors. For instance, the predominantly female participant group may have different experiences and levels of engagement with FINTECH, influenced by factors such as technological literacy and economic

empowerment (Zavolokina, *et al*., 2016). The younger demographic, primarily within the 20-30 age range, might exhibit greater familiarity and comfort with digital platforms, potentially influencing their readiness to adopt and integrate FINTECH into their business operations. Moreover, the varied nature of businesses, from selling clothes to offering tailoring services, presents distinct transactional needs that could affect the suitability and utility of different FINTECH services. This spectrum of accessibility, therefore, highlights the need for FINTECH solutions that are not only universally accessible but also adaptable to the diverse needs and conditions of traders in informal markets like Tukondjeni (Dorfleitner et al., 2016).

Emerging theme 2: Influence of market dynamics on FINTECH use

10 participants (50%) expressed a preference for cash transactions, citing the fast-paced nature of informal trading. Participant 1 noted, "Because it's a fast-paced environment, we would rather receive cash." This sentiment was echoed by Participant 4, who emphasized that their business model required immediate transactions, which digital platforms might delay. This finding aligns with Frost (2020), who underscores the importance of adaptable FinTech solutions for fast-moving market environments.

Participant 1 further said that "the services are available but because it's a fast-paced environment we would rather receive cash." It is supported by participant 4 who mention of their business model being "extremely fast" reinforces the preference for cash over digital transactions due to time constraints, further echoed by Participant 14's preference for cash in busy market conditions. The preference for cash among traders highlights the need for FINTECH solutions that can match the speed and convenience of cash transactions in high-paced market environments. This indicates a potential area for innovation in FINTECH services to better meet the unique demands of markets like Tukondjeni.

The preference for cash transactions, as noted by Participant 1 and Participant 4, could be attributed to the fast-paced nature of transactions in informal markets. In literature, Vaicondam et al. (2021), their research on millennials' inclination towards FINTECH

due to convenience and efficiency supports the influence of market dynamics on FINTECH use.

The influence of market dynamics on FINTECH use, particularly the preference for cash transactions, highlights the nuanced interaction between technology adoption and the specific needs of a market environment. This preference, as exemplified by Participant 1, underscores the critical role of transaction speed in informal markets like Tukondjeni. The fast-paced nature of these transactions, often characterized by small, frequent sales, makes cash a more convenient and immediate form of payment (Puschmann, 2017). This is particularly relevant considering the demographics of the market, where a significant proportion of traders are in the younger age group (20-30), who might be more open to digital solutions but still rely on cash due to customer habits and the nature of their businesses. Furthermore, the wide range of businesses, from selling perishable goods like vegetables to services like tailoring, each comes with unique transactional requirements that may not always align with the capabilities or convenience of current FINTECH offerings. These market-specific dynamics indicate the need for FINTECH solutions that are not only efficient and secure but also flexible enough to cater to the diverse and immediate transactional needs of informal market traders (Shim & Shin, 2015; Lee & Teo, 2015).

Emerging Theme 3: Awareness and familiarity levels

A significant knowledge gap was evident, as 9 participants (45%) admitted to relying on peers or customers for information on FinTech services rather than direct engagement with service providers. Participant 3 stated, “The services are available I believe; my colleagues do make use of them,” indicating that second-hand knowledge plays a crucial role in shaping perceptions of FinTech. Additionally, 6 participants (30%) noted a lack of direct advertising and outreach from FinTech providers. Participant 13 commented, “The product owners do not come to us to advertise their products,” highlighting a critical gap in awareness efforts.

There was a notable variance in awareness and familiarity with FINTECH services among traders. “The services are available I believe, my colleagues do make use of them,” said participant 3.

Supporting participant 3 is Participant 13's mention of lack of direct marketing and Participant 12's reliance on customer information highlights a gap in awareness and familiarity with FINTECH services among some traders. The reliance on peer and customer information for FINTECH awareness suggests the need for more direct and accessible educational efforts from service providers. Enhancing trader knowledge and confidence in using these services could significantly boost adoption rates.

The variance in awareness, with Participant 3 influenced by peers and Participant 4's scepticism due to fraud, highlights a gap in knowledge and trust. This gap can be linked to Bermeo-Giraldo et al. (2023)'s findings that, despite the benefits of digital finance, significant drawbacks in stability and inclusivity remain.

The variance in awareness and familiarity with FINTECH services among Tukondjeni Open Market traders, as captured in the responses of participants, particularly those of Participant 3 and Participant 4, highlights critical aspects of technology adoption in informal economies. Participant 3's reliance on peer influence for gaining awareness points to the role that social networks and community education play in the spread of technological knowledge in these kinds of environments. This communal approach to learning and adopting new technologies can be particularly effective in markets dominated by small-scale traders, many of whom may not have formal training or easy access to digital literacy programs.

Contrastingly, Participant 4's scepticism about FinTech due to fraud concerns underscores a significant barrier to technology adoption - trust. This scepticism may be further influenced by the demographic spread of the participants, especially considering that a larger proportion is in the younger age bracket, who are typically more open to technology but may still harbour concerns about the security of digital transactions. Furthermore, the varied educational backgrounds of participants suggest that those with limited formal education might find it more challenging to understand and trust digital financial systems, thereby impacting their willingness to adopt such technologies.

These findings reflect the need for targeted educational and awareness programs about FINTECH services, tailored to the specific needs and concerns of different

demographic groups within the market. This is concerning Lee and Kim (2015) and Arne, et al. (2015) who mentioned that such initiatives could not only bridge the knowledge gap but also address the trust issues that inhibit the broader acceptance and use of FINTECH solutions in informal market settings.

Emerging Theme 4: Security concerns impacting readiness to adopt

Concerns about fraud and scams emerged as a significant theme, with 11 participants (55%) identifying security as a barrier to adoption. Participant 4 explicitly stated, "Most of these services are available as clients want to make use of them; however, we the recipients are skeptical because of the increase of fraud." The fear of digital fraud aligns with Hasan et al. (2021), who emphasize that security risks in emerging financial technologies can significantly limit adoption.

Furthermore, according to Participant 4, "most of these services are available as clients want to make use of them, however, we the recipients are sceptical because of the increase of fraud." In support is participant 1 and Participant 12 who noted concerns over scams and fraud, indicating a widespread apprehension about the security of FINTECH services. This means that security concerns are a major barrier to FINTECH adoption among traders. Addressing these concerns through improved security measures and trader education on safe practices is crucial for fostering trust in FINTECH services. Participant 4's concerns about fraud reflect a critical barrier to FINTECH adoption. This theme is consistent with Hasan et al. (2021) findings on the risks associated with technological advancements in FINTECH, particularly concerning data privacy and cyber risks.

Security concerns, particularly about fraud, as expressed by Participant 4 and others, significantly impact the readiness of traders at Tukondjeni Open Market to adopt FINTECH services. These concerns are deeply rooted in the realities of conducting business in an informal market, where transactions are often based on trust and personal relationships. The fact that most participants are women and younger individuals, who might typically be more open to adopting new technologies further underscores the importance of addressing these security issues. Women might have

unique security concerns due to different experiences with technology and financial services.

The apprehension about fraud and the lack of trust in digital transactions suggest a gap in the perceived safety of FINTECH services. This is critical, considering the diverse nature of businesses in the market and the varying levels of education among the participants. Those with less formal education or those who are not digitally literate might be particularly vulnerable to fraud, making them more hesitant to adopt these technologies.

Enhancing the security features of FINTECH services and conducting extensive awareness and education campaigns about safe digital transaction practices could help mitigate these concerns. Building a secure and trustworthy digital financial environment is essential to encourage broader adoption of FINTECH services, especially in informal markets where traditional banking services may be limited or absent. According to Al Ajlouni & Al-Hakim (2018), such measures would not only address the immediate concerns of market traders but also contribute to the long-term goal of financial inclusion and digital empowerment.

Emerging theme 5: Perception vs. Reality of FINTECH availability

“The services are available I believe; my colleagues do make use of them." Said participant 3. While Participant 3 and others perceive FINTECH services as available, Participant 10’s mention of inadequate advertising and language barriers points to a discrepancy between the perceived availability and the actual, effectively usable services for all traders. Clearly, there exists a gap between the perception of FINTECH service availability and the reality of their usability for traders. Efforts to bridge this gap through targeted communication and education could enhance service uptake.

This observation aligns with Ashraf et al. (2022), who noted the potential of FINTECH to provide accessible financial services if certain barriers are overcome.

The disparity between the perceived availability and actual usability of FINTECH services at the Tukondjeni Open Market as highlighted by the contrasting views of Participants 3 and 4, underscores a crucial aspect of FINTECH adoption in informal

markets. While there is a general awareness of FINTECH services among traders, as seen in many participants being familiar with services like EWallet and Blue Voucher, the actual usage is hampered by concerns such as security and fraud. This gap suggests that the mere physical presence of FINTECH options is not sufficient for effective adoption.

The demographic makeup of the market, with a significant representation of younger traders and a predominance of women, adds another layer to this issue. Younger traders may be more technologically adept but still cautious due to security concerns, while women may face additional barriers due to differential access to technology and financial literacy. In the expectations of Ashraf et al. (2022), this situation calls for a different approach to FINTECH implementation in such markets where ensuring the security and trustworthiness of these services is as crucial as their availability.

Addressing these security concerns and bridging the gap between perception and reality could lead to a more inclusive and effective use of FINTECH services. Education and awareness campaigns tailored to the specific demographics of the market can play a vital role in enhancing trust and confidence in these technologies. By aligning the perception of availability with the reality of secure and usable FINTECH services, the market can move towards a more digitally inclusive trading environment (Ashraf et al., 2022).

Emerging Theme 6: Awareness and usage influenced by peers

As per Participant 3, “the services are available I believe, my colleagues do make use of them.” The influence of peer usage on individual adoption decisions is evident, with Participant 16 highlighting how client requests for digital payment options increase awareness and usage.

Notably, peer influence is a significant factor in the adoption of FINTECH services, indicating that positive user experiences and word-of-mouth can effectively encourage wider adoption among traders. In essence, peer influence, as seen in Participant 3’s response, indicates that social networks play a crucial role in spreading awareness and

acceptance of FINTECH, a factor highlighted by Slazus and Bick (2022) in the context of mobile money's role in Kenya.

The role of peer influence in shaping awareness and usage of FINTECH services, as evidenced by Participant 3's experiences at the Tukondjeni Open Market, highlights a significant social dimension in the adoption of financial technology. This reliance on peers for information and guidance reflects a community-driven approach to understanding and integrating new technologies, which is particularly relevant in the context of informal markets. The demographic data, showing many younger participants and a significant number of female traders, further supports the idea that social networks are a critical avenue for disseminating knowledge about FINTECH services.

Younger traders, who might be more open to digital innovations, could serve as catalysts for broader adoption within their networks. Additionally, the varied nature of businesses represented in the study indicates that different types of traders rely on their peers for insights specific to their business needs. This peer-to-peer learning and information sharing becomes a vital tool for overcoming barriers of literacy and scepticism, particularly in environments where formal training in FINTECH is limited. As per Slazus and Bick (2022), by leveraging these social networks effectively, FINTECH providers can enhance their reach and ensure that the benefits of their services are more widely understood and utilized within the diverse community of the market.

4.3.2. Factors that hinder the intention to adopt FINTECH services

Emerging Theme 1: Security and trust issues

Among the 20 participants, 13 (65%) raised security concerns as a primary reason for not using FinTech services. Participant 1 explained, "Clients end up scamming us… EWallet transactions can be reversed, and the banks do not assist us when this happens."

These findings suggest that trust in digital platforms remains a significant hurdle. Al Ajlouni & Al-Hakim (2018) similarly highlight that trust is a critical determinant of financial technology adoption.

Essentially, concerns about fraud and scams emerge as significant barriers to adopting FINTECH services. The fear of clients scamming traders is a recurring concern. Participant 1 highlighted "-Security reasons (for example EWallet can be reversed so clients end up scamming us)". The fear of scams and lack of support from banks in such situations (Participant 1) is a recurring theme, highlighting significant trust issues with FINTECH services. This is clear that security and trust emerge as critical concerns hindering FINTECH adoption. Strengthening fraud prevention measures and improving trader support can help mitigate these issues and enhance trust in FINTECH solutions.

Essentially, participant 1's fear of fraud and scams is a significant barrier, aligning with Hasan et al. (2021) discussion on the risks inherent in new financial technologies. This finding suggests a need for enhanced security measures in FINTECH.

Security and trust issues, particularly fears of fraud and scams as expressed by Participant 1, stand out as significant barriers to adopting FINTECH services in the Tukondjeni Open Market. These concerns are reflective of the broader apprehensions prevalent in informal trading settings, where transactions are often based on personal trust and cash dealings. The demographic data, revealing a mix of age groups and a predominantly female participant group, suggests that these concerns might be more pronounced among certain sections of the market. Older participants or those less familiar with digital platforms might be more susceptible to security concerns, impacting their willingness to engage with FINTECH.

The general questions on FINTECH services further emphasize the need for building trust. While many participants are familiar with FINTECH tools, their actual usage is limited due to security fears. This gap highlights the importance of not only enhancing the technical security features of FINTECH services but also improving the perception of safety among users. Educating traders about secure usage practices, along with

providing robust customer support to address concerns and incidents of fraud, could significantly mitigate these barriers (Al Ajlouni & Al-Hakim, 2018). Therefore, a combined approach focusing on technological advancements, user education, and strong support systems is crucial to encourage wider and more confident adoption of FINTECH services in markets like Tukondjeni. In theory, this reflects on the Technology Adoption Model (TAM) where perceived usefulness and ease of use are critical for adoption. Security concerns directly impact perceived usefulness, suggesting that if FINTECH services are not seen as secure, their overall perceived utility declines. This aligns with the Unified Theory of Acceptance and Use of Technology (UTAUT) through the lens of effort expectancy, where increase security concerns and could make the effort of adopting FINTECH seem not worth the benefit.

Emerging Theme 2: Technological and infrastructural limitations

Eight (8) participants (40%) specifically cited technological constraints such as poor internet connectivity and lack of electricity as barriers to FinTech adoption. Participant 7 mentioned, “The complicated ones that require electricity and internet are not available,” which was further supported by Participant 14, who emphasized frequent network outages as a challenge. This aligns with Ozili’s (2018) assertion that technological infrastructure plays a pivotal role in financial inclusion.

In essence the lack of necessary infrastructure, like electricity and internet for more complex FINTECH services, is a barrier. “The complicated ones that require electricity and internet are not available as it is additional costs involved,” further said participant 7. Notably, Participant 7 and Participant 14 mention the challenges posed by the lack of infrastructure, such as electricity and internet access, which limit the usability of certain FINTECH services. The findings highlight the need for FINTECH solutions that can operate within the infrastructural constraints of the Tukondjeni open market. Simplifying service requirements and exploring low-tech options could facilitate greater adoption. Notably, Participant 7’s challenges with infrastructure reflect broader issues in technology access, resonating with Lal et al. (2020) and Ozili’s (2018) findings on the digital divide impacting financial inclusion.

The technological and infrastructural limitations highlighted by Participant 7 as barriers to FINTECH adoption underscore a fundamental challenge in the Tukondjeni Open Market. The lack of consistent access to electricity and reliable internet connectivity are significant impediments to leveraging advanced FINTECH services. This issue is not only a reflection of the infrastructural deficits in certain market settings but also points to the broader digital divide issue that affects financial inclusion, particularly in informal economies.

The demographic makeup of the market, with a mix of younger and older participants and a predominance of female traders, further complicates this challenge. Younger, potentially more tech-savvy individuals might be able to navigate these limitations more effectively, but they are still constrained by the infrastructural realities. On the other hand, older participants, or those with less exposure to digital technology might find these barriers even more daunting. Additionally, women in the market might face compounded challenges due to potential gaps in digital literacy and access.

Therefore, addressing these technological and infrastructural limitations is crucial for the wider adoption of FINTECH services. Solutions such as mobile-based FINTECH applications that require minimal data and power, or the establishment of local internet hubs could be effective in bridging these gaps. Such interventions would not only enhance the accessibility of FINTECH services but also contribute to narrowing the digital divide, thereby fostering greater financial inclusion in the market.

In theory, results directly relates to UTAUT's facilities conditions, indicating that the absence of necessary infrastructure significantly hinders the adoption process. This is also supported by the Theory of planned Behaviour (TPB), where perceived behavioural controls might be low due to external factors like inadequate infrastructure, affecting the intention to use FINTECH services.

Emerging Theme 3: Educational and literacy challenges

A lack of digital literacy was highlighted by 7 participants (35%), particularly those with lower levels of education. Participant 15 stated, “I do not know how to read, and my sight is bad, I don’t know anything,” demonstrating a significant barrier to independent FinTech usage. The traders’ levels of education and literacy, affecting their ability to understand and use FINTECH services, emerge as crucial factors. Further, Participant 6’s mention of unemployment and lack of time for learning new technologies underscore the barriers posed by limited education and literacy. Noticeably, educational and literacy challenges significantly impact traders’ ability to adopt and use FINTECH services effectively. Providing accessible training and support tailored to the needs of traders with various literacy levels could address this barrier.

Participant 15’s inability to read and poor sight exemplify this barrier. Participant 15’s educational barriers highlight the crucial role of literacy in FINTECH adoption, supporting Khatun & Tamanna (2020) assertion that digital financial inclusion relies on broader literacy and digital skills.

Educational and literacy challenges, as exemplified by Participant 15’s struggles, highlight a significant barrier to FINTECH adoption among traders at the Tukondjeni Open Market. The varying levels of education and literacy within this demographic directly influence the traders’ ability to comprehend and utilize FINTECH services effectively. These challenges are not just about the basic understanding of technology but also about navigating the complexities of digital financial platforms.

The diverse educational backgrounds, ranging from no formal schooling to postgraduate levels among the participants, reflect a broader spectrum of digital literacy skills. This diversity suggests that FINTECH adoption is not merely a technological issue but also an educational one. Traders with limited education, like Participant 15, may find it particularly challenging to trust and use digital financial services, which often require a certain level of literacy and digital competence.

Addressing these educational and literacy challenges is crucial for fostering greater inclusivity in FINTECH adoption. Tailored educational programs and simplified user interfaces could help bridge this gap (Khatun & Tamanna, 2020), Such initiatives would not only enhance the traders' understanding and confidence in using FINTECH services but also contribute to the broader goal of financial inclusion and empowerment, particularly in informal market settings.

In theory, the results emphasize the importance of knowledge and knowledge and ability to use technology, as highlighted in TAM through perceived ease of use. Lack of literacy affects users' capability to interact with FINTECH, reducing its perceived ease use of subsequently its adoption, resonating with TPBs perceived behavioural control.

Emerging Theme 4: Lack of awareness and marketing

Nine (9) participants (45%) mentioned that FinTech providers do not conduct direct marketing or educational outreach. Participant 13 observed, "The product owners do not come to us to advertise their products," which suggests that traders lack exposure to information on how to use FinTech services effectively. Interestingly, Participant 10's supports Participant 13's assertions. Participant 10 mentioned of inadequate advertising and the reliance on word-of-mouth (Participant 18) illustrate the lack of effective marketing and awareness efforts directed at traders.

The data suggests a need for more targeted and inclusive marketing strategies to raise awareness about FINTECH services among traders. Utilizing community-based channels and local languages could improve reach and understanding. The absence of direct marketing (Participant 13) and educational barriers (Participant 15) suggest a need for targeted FINTECH education and outreach programs, consistent with Piyananda and Aluthge (2023) observations on financial inclusion.

The lack of awareness and targeted marketing, as indicated by Participant 13, is a significant factor hindering FINTECH adoption at the Tukondjeni Open Market. This gap in direct marketing and education becomes even more pronounced when

considering the market's demographics. With many of the traders being women and many in the younger age group, there's a potential for increased FINTECH adoption if these groups are effectively reached and educated.

Participant 15's educational barriers further emphasize the need for tailored outreach initiatives. Such programs should not only focus on promoting FINTECH services but also on addressing the specific educational needs and literacy levels of the market's traders. The variety of businesses, ranging from selling clothes to providing services, means that FINTECH solutions need to be presented in a manner that resonates with the diverse transactional needs of these businesses.

Effective marketing and education strategies should thus encompass a range of approaches, from in-person workshops to digital campaigns, ensuring that they cater for the varied literacy and technology comfort levels present in the market. Bridging this awareness gap is not just about advertising FINTECH services but also about building confidence and understanding among potential users, paving the way for a more inclusive financial technology landscape in informal market settings.

Notably, the result echoes the significance of social influence from UTAUT, where the adoption of technology is highly influenced by how much the users are aware of it and how they see others around then using it. The diffusion of innovation theory (DOT) also supports this, suggesting that awareness and knowledge of an innovation significantly impact its adoption.

Emerging Theme 5: Compatibility with business models

Participant 4 said: "I do not make use of them because of my business model, which is extremely fast." The emphasis on the speed of transactions and the preference for

cash due to business model constraints (Participant 1 and Participant 14) indicate that current FINTECH offerings may not fully align with the operational needs of some traders.

This highlights the importance of developing FINTECH solutions that are flexible and adaptable to various business models within the market. Ensuring that digital payment options can accommodate the quick pace of transactions could increase their appeal to traders.

The reluctance to adopt FINTECH due to specific business models shows the need for versatile and adaptable FINTECH solutions that cater to diverse business needs. Participant 4's reluctance to adopt FINTECH due to business model compatibility issues underscores the need for adaptable FINTECH solutions that can cater to diverse business needs, as suggested by Slazus and Bick (2022).

The reluctance to adopt FINTECH solutions due to compatibility issues with existing business models, as highlighted by Participant 4, underscores a critical aspect of FINTECH integration in informal markets like Tukondjeni. This reluctance is not merely a matter of personal preference but reflects a deeper issue of how well FINTECH services align with the operational realities of different businesses. Given the diverse nature of businesses in the market, ranging from vegetable sellers to tailors, each type of enterprise comes with its unique transactional processes and customer interactions.

The demographic data, showing a significant number of participants in the younger age group and a majority being women, adds another dimension to this theme. Younger traders might be more willing to experiment with new technologies, but their business models might not always align with the available FINTECH solutions. Similarly, women traders might have specific needs related to the size, scale, and nature of their businesses that standard FINTECH solutions do not address.

Therefore, there is a pressing need for FINTECH solutions that are not only technologically advanced but also flexible and adaptable to the varying needs of

different business models (Schilling, 2013). Such versatility is essential for ensuring that FINTECH adoption is not just a technological upgrade but a meaningful enhancement to the business processes of traders at the Tukondjeni Open Market.

Emerging theme 6: Complexity in Usage

Participant 15 highlighted, “too many thieves roaming around, I am always afraid if I lose my phone and card all will be gone. I rather keep cash I can hide it good.” Participant 15’s concerns about theft and the preference for cash over potentially complex and risky FINTECH services reflect broader apprehensions about the usability and safety of digital financial technologies.

Notably, the perceived complexity and associated risks of FINTECH services deter their adoption among traders. Simplifying user interfaces and enhancing security measures could make these services more accessible and attractive to a wider range of users.

The perceived complexity in using FINTECH services (Participant 5) indicates the necessity for user-friendly technologies, aligning with Vaicondam et al. (2021) findings on the importance of innovation in FINTECH services.

The perceived complexity of certain FINTECH services, as expressed by Participant 5, highlights a significant obstacle to their broader adoption at the Tukondjeni Open Market. This complexity is not merely a technological issue but also relates to the user experience and interface design of these services. Given the demographic makeup of the market, with a substantial number of younger and female participants, the need for intuitive and straightforward FINTECH solutions becomes even more critical.

Younger traders, while potentially more tech-savvy, may still face challenges in navigating complex FINTECH platforms, especially if these systems are not designed with their specific business processes in mind. Similarly, for women traders, who might juggle multiple roles and responsibilities, the ease of use is crucial for integrating FINTECH into their daily operations effectively.

Therefore, simplifying the user experience of FINTECH services is essential. This simplification can be achieved through better design, clearer instructions, and more intuitive interfaces, making these technologies accessible to a wider range of users, regardless of their technical expertise or educational background (Schilling, 2013). By reducing the complexity and enhancing the usability of FINTECH services, providers can facilitate a smoother transition to digital financial solutions for all traders in the market.

4.3.3. The perceived advantages and disadvantages of using FINTECH

Emerging Theme 1: Safety in transactions

Despite concerns about digital security, Participant 10 and Participant 17 recognize the safety benefits of not having to carry cash, highlighting a key advantage of FINTECH services. Participant 10 specifically said: "Safe, I do not need to carry cash around with me, meaning that I cannot be robbed of my hard-earned money." The acknowledgment of transaction safety as a significant advantage of FINTECH services suggests that emphasizing the security features and benefits of digital payments could encourage more traders to adopt these technologies.

Empirically, Participant 10's emphasis on transaction safety despite digital security concerns aligns with Hasan et al. (2021) observations on the potential benefits of FINTECH in enhancing the safety and security of funds.

Safety in transactions, as highlighted by Participant 10, is a crucial advantage of FINTECH adoption in the Tukondjeni Open Market. This emphasis on transaction safety reflects a growing awareness among traders about the benefits of digital transactions over physical cash, which can be prone to theft or loss. The diverse demographic, with a mix of younger and older traders, indicates a broad recognition of the safety benefits of FINTECH services, transcending age, and possibly varying levels of digital literacy. However, this appreciation of safety must be balanced with concerns about digital security, as digital platforms can be susceptible to cyber threats (Waagmeester, 2016). Ensuring robust security measures and educating traders about secure digital transaction practices are vital for reinforcing the perceived safety

benefits of FINTECH and encouraging wider adoption among market traders (Al Ajlouni &Al–Hakim, 2018).

The recognition of transaction safety as a benefit reflects the perceived usefulness in TAM, indicating that despite concerns, the safety features of FINTECH could drive its acceptance. In context of DOT, this safety feature can be seen as a relative advantage over traditional financial transactions.

Emerging Theme 2: Convenience and efficiency as key advantages

Participant 1 highlighted that: "-The process is fast; -Convenience for both the buyer and me the seller." The emphasis on speed and convenience as further supported by Participant 2 and Participant 16 indicates the positive impact of FINTECH on market transactions, suggesting that these features are highly valued by traders.

Essentially, the perceived benefits of convenience and efficiency offered by FINTECH services highlight the potential for these technologies to improve the operational efficiency of market transactions. Enhancing the user experience to maximize these advantages could further drive adoption.

In literature, Participant 1's view on the efficiency of FINTECH transactions reflects the positive impact of FINTECH on market operations, resonating with Vaicondam et al. (2021) findings on the limited impact of mobile banking innovations on Kenya's financial development.

The convenience and efficiency of FINTECH services, as observed by Participant 1, are vital in enhancing the day-to-day operations of traders in the market. This perception of efficiency aligns with the needs of a fast-paced trading environment where quick and hassle-free transactions are essential. The demographic profile of the market, including the younger, potentially more tech-savvy traders, and the variety of businesses, from retail to services, suggests a wide appreciation of these benefits. However, to fully leverage these advantages, FINTECH services need to be designed in a way that caters to the specific needs of different types of businesses, ensuring that the convenience and efficiency promised by FINTECH are truly realised in practice (Al Ajlouni &Al–Hakim, 2018).

In theory, these perceived benefits align with both TAM's perceived usefulness and UTAUT's performance expectancy. The efficiency and convenience offered by FinTech solutions improve their perceived utility, making them more attractive to potential users, echoing principles of diffusion of innovations theory, where the relative advantage significantly influences adoption rates.

Emerging Theme 3: Role of literacy and awareness in adoption

Participants highlighted the importance of literacy and awareness in the adoption of FINTECH services as it suggests that educational initiatives could play a crucial role in enhancing FINTECH usage. For instance, specifically, Participant 16 said that: "One has to be literate at some level to be able to grasp and make use of these services." The link between literacy levels and the willingness or ability to adopt FINTECH services is evident, with Participant 5 and Participant 14 noting the necessity of understanding and training to use these services effectively.

The significant role of literacy and awareness in the adoption of FINTECH services indicates that educational initiatives aimed at increasing digital literacy and awareness could significantly influence adoption rates. Tailoring these initiatives to the specific needs and contexts of traders could enhance their effectiveness.

The importance of literacy and awareness in FINTECH adoption, as noted by the participants, shows the need for educational initiatives, supporting Bermeo-Giraldo et al. (2023) findings on digital financial inclusion.

The role of literacy and awareness in FINTECH adoption, as mentioned by Participant 16, highlights the need for educational initiatives tailored to the market's demographic characteristics. The varied educational backgrounds and the blend of different business types suggest that FINTECH education and awareness programs should be diverse and inclusive, addressing the specific learning needs of different groups. Such initiatives could range from basic digital literacy training for those with less formal education to more advanced workshops on leveraging FINTECH for business growth. Enhancing literacy and awareness is key to unlocking the full potential of FINTECH in improving

financial inclusivity and operational efficiency in markets like Tukondjeni (Bermeo-Giraldo et al., 2023; Al Ajlouni & Al-Hakim, 2018).

Emerging theme 4: Vulnerability to fraud as a major disadvantage

The risk of being scammed is a significant concern, impacting the overall perception and adoption of FINTECH services. Participant 1 specifically mentioned: "Getting scammed; The banks are not willing to assist us when we report these cases or taking long." Further in support of Participant 1's concern are Participant 4 and Participant 12's concerns about being scammed and the lack of adequate support in such situations highlight a critical disadvantage of FINTECH services, influencing traders' perceptions and willingness to adopt these technologies.

The perceived risk of fraud and the inadequate response to such incidents are significant barriers to FINTECH adoption. Addressing these concerns through improved security measures, trader education, and more responsive support systems could mitigate these disadvantages and enhance trust in FINTECH services.

The Participants' concerns about scams highlight a significant barrier to FINTECH adoption, consistent with the risks outlined by Hasan et al. (2021).

The concern over vulnerability to fraud, as expressed by Participant 1, significantly impacts the perception and adoption of FINTECH services. This concern is particularly relevant in an informal market setting where transactions are based on trust and personal interactions. The diverse demographic profile, with a significant proportion of female traders, indicates that these concerns might be more pronounced among certain groups who may be more vulnerable to fraud. Addressing these fears requires not only technological solutions to enhance the security of FINTECH platforms but also comprehensive education on safe digital transaction practices. Building a secure and trustworthy digital financial environment is crucial for encouraging broader FINTECH adoption in such markets.

Emerging Theme 5: Lack of support and trust in digital platforms

Distrust in electronic systems and the lack of support from banks in fraud cases are major disadvantages, influencing traders' confidence in these technologies. Participant

15, explicitly said: “I do not trust anything electronics, who do I go look for when my money is lost.”

Noticeably, Participant 15’s distrust in electronic systems and concerns about recourse in the event of loss echo broader issues of trust and support that influence traders’ decisions regarding FinTech adoption.

Therefore, the lack of trust in digital platforms and the perceived inadequacy of support mechanisms highlight the need for FINTECH service providers to build stronger relationships with their users. Enhancing transparency, providing clear and accessible support, and demonstrating the reliability of digital financial services could help overcome these barriers.

The participants’ distrust in electronic systems and banks’ lack of support in fraud cases indicates a major disadvantage, aligning with Al-Afeef et al. (2023) concerns about the risks associated with technological advancements in FINTECH.

The distrust in electronic systems, as highlighted by Participant 15, and the lack of adequate support in fraud cases (Participant 1), underline major challenges in the adoption of FINTECH. These concerns are indicative of a broader issue of trust in digital platforms, which is crucial for the successful integration of FINTECH in market operations. The varying levels of digital literacy and different business models in the market necessitate a robust support system that can promptly address issues and concerns related to FINTECH use. As Al-Afeef et al. (2023) highlight - enhancing trader confidence in digital platforms through reliable customer support and transparent processes is essential for overcoming these barriers and fostering a more conducive environment for FINTECH adoption.

Emerging theme 6: Impact of negative experiences on adoption decisions

As per Participant 20: “These services are good especially for us without banks, the safety issues must be addressed and more awareness to be created.”

The essence here is that while Participant 20 acknowledges the potential benefits of FINTECH services, concerns about safety and the need for greater awareness reflect

how negative experiences or perceptions can significantly influence adoption decisions.

Essentially, the impact of negative experiences on the willingness to use FINTECH services underscores the importance of addressing safety concerns and enhancing user education. By improving the overall user experience and addressing potential risks, FINTECH providers can encourage more positive perceptions and broader adoption among traders.

Negative experiences, such as being scammed, significantly influence the decision to use or avoid FINTECH services, indicating the impact of individual experiences on broader adoption trends. The influence of negative experiences, such as being scammed, on FINTECH adoption decisions, is significant, highlighting the impact of individual experiences on broader adoption trends, as discussed by Sazu and Jahan (2022).

The impact of negative experiences, particularly being scammed as experienced by Participant 1, significantly shapes the decision to adopt or avoid FINTECH services. These experiences can have a profound effect on the overall perception of FINTECH, especially in a market setting where word-of-mouth and personal experiences are highly influential (Sazu & Jahan, 2022). The diverse demographic of the market, including traders of different ages and business types, means that such negative experiences can deter a wide range of potential FINTECH users. Addressing these concerns through enhanced security measures, transparent procedures, and effective redressal mechanisms is crucial for mitigating the impact of such negative experiences and encouraging a more positive outlook towards FINTECH adoption (Sazu & Jahan, 2022).

This relates to the Theory of Reasoned Action (TRA) and TBA, where negative experiences from negative attitudes towards the behaviour (adoption of FINTECH), influencing the intention to adopt negatively. This also reflected in DOT's principle that negative experiences can hinder the innovation's diffusion through the social system.

4.4. Conclusion

Chapter Four of the study presented a detailed analysis of the demographic data, general knowledge of FINTECH services, and thematic analysis relating to the adoption of FINTECH services at the Tukondjeni Open Market. The demographic analysis in section 4.2 encompassed gender, age, nature of business, and educational qualification. It highlighted a predominantly female participant group, a significant concentration in the 20-30 age group, diverse business types, and a wide range of educational backgrounds. These demographics provided a backdrop for understanding the diverse perspectives on FINTECH adoption.

In section 4.2.5, the study looked at participants' familiarity with, frequency of usage, and training in FINTECH services. It was found that most participants were familiar with various FINTECH services, though the frequency of usage and levels of formal training varied significantly. This section underscored the disparities in FINTECH adoption influenced by individual business needs, personal comfort with technology, and self-taught knowledge.

The thematic analysis in section 4.3 addressed three key objectives: examining the availability and readiness of FINTECH services, identifying barriers to FINTECH adoption, and understanding the perceived advantages and disadvantages of using these services. The analysis revealed a spectrum of accessibility to FINTECH services, a variety of barriers including security and technological limitations, and a balance between perceived benefits and risks associated with FINTECH use.

While this study provides valuable insights into FinTech adoption at Tukondjeni Open Market, it is important to acknowledge its limitations. One major limitation is the supply-side focus, which centres on traders' perspectives and does not comprehensively address demand-side issues such as consumer willingness to use digital payments or broader economic factors influencing financial technology adoption in Namibia. Future studies should incorporate consumer perspectives to provide a more balanced view of FinTech adoption. Another limitation is sample size and generalizability. While 20 traders provided rich qualitative data, this study does not claim statistical representativeness for all informal traders in Namibia. A larger

sample across multiple market locations would enhance the external validity of the findings. Finally, this study did not account for government policies and regulations that may impact FinTech adoption at a macroeconomic level. Future research should examine the regulatory landscape and its role in shaping digital financial ecosystems in informal markets.

The upcoming chapter, Chapter Five, will synthesise these findings to provide a comprehensive summary, conclusions, and recommendations based on the study's main objective and the themes that emerged from the analysis. This final chapter aims to offer insights and strategic directions for policymakers, stakeholders, and future researchers in the process of FINTECH adoption at the Tukondjeni Open Market.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of the study

The study "Exploring Factors Affecting The Adoption Of Financial Technology Services: A Case Study Of Tukondjeni Open Market" focused on specific objectives: To investigate the availability and readiness of FINTECH services, like eWallet and mobile banking, for informal traders at Tukondjeni open market; To identify the factors that hinder the intention to adopt FINTECH services among the respondents, especially in light of reported challenges and scams; and to identify the perceived advantages and disadvantages of using financial technology services by the responders, including the ease of transactions, security concerns, and awareness levels.

The literature review, specifically the empirical literature was extensive, yet there were evident gaps, especially in the view of specific markets like Namibia's Tukondjeni Open Market. Firstly, most studies tended to generalize the impact of fintech on financial inclusion without looking into the unique challenges and opportunities presented by specific markets, especially informal ones. Moreover, while studies like those by Ozili (2018) and Gibson (2015) highlighted the advantages of fintech, there was limited research on its implications for informal markets where traditional banking might be less prevalent.

The study employed a constructivist paradigm with an exploratory and case study research design under the approach of qualitative. The target population for the study was a total of 181 respondents who were Tukondjeni Open Market traders. The study employed purposive sampling, as such the study conveniently interviewed 20 participants for the study's final sample size. To address the objectives, open-ended interviews were used which were done at the participant's place of business, Tukondjeni Open Market. The interview began with demographic questions to collect basic information about the respondents, such as age, gender, type of business, and highest qualification obtained. Also, questions on general knowledge about FINTECH services were part of the interview. Before administering the interview, participants'

willingness was ascertained. Those willing provided their consent, after which interview sheets were distributed. The data were analysed using thematic analysis.

Thematic analysis revealed that the key enablers include the perceived convenience and efficiency of FINTECH services, alongside their potential for enhancing transaction safety. However, these positive aspects are counterbalanced by significant barriers, such as security concerns, particularly fears of fraud and scams, technological and infrastructural limitations, and a lack of awareness and understanding about these services among traders. Educational challenges and the compatibility of FINTECH solutions with diverse business models also emerged as critical factors. The findings suggest that while there is an apparent readiness and interest among traders to adopt FINTECH services, their effective uptake is hindered by a combination of infrastructural, educational, and security-related challenges. Addressing these barriers could significantly enhance the adoption and utility of FINTECH services in such informal market settings.

5.2. Conclusions

5.2.1. The availability and readiness of FINTECH Services for informal traders at the Tukondjeni open market

The thematic analysis reveals a spectrum of accessibility to FINTECH services at Tukondjeni Open Market, marked by variability from widespread availability to selective accessibility. This diversity underscores the role of mobile technology in the FINTECH emergence as described by Schindler (2017), suggesting that while some traders benefit from readily available FINTECH options like EWallet and MobiMoney, others face barriers due to a lack of access to specific services such as speed points. The demographic characteristics, including a significant number of female and younger traders, alongside the variety of businesses, highlight the need for universally accessible and adaptable FINTECH solutions that cater to diverse business needs and technological literacies.

Therefore, this study makes a significant contribution to the literature on FINTECH adoption in informal economies by providing empirical insights into the variability in access to FINTECH services within localized markets. Prior studies (e.g., Schindler, 2017; Frost, 2020) have examined global trends in FINTECH availability, but limited research has investigated the context-specific barriers and enablers of FINTECH adoption within informal trading hubs in Namibia. By highlighting demographic factors such as gender, age, and business type that shape FINTECH accessibility, this study extends the discourse on financial inclusion beyond formal banking ecosystems. The findings suggest that the availability of FINTECH services is not a binary construct but exists along a spectrum influenced by infrastructural, technological, and socioeconomic factors. This nuanced understanding advances existing theoretical models on digital financial inclusion by emphasizing the role of contextual adaptability in facilitating financial service penetration among informal traders.

5.2.2. Factors hindering the intention to adopt FINTECH services

Security concerns, technological and infrastructural limitations, educational and literacy challenges, lack of awareness and marketing, compatibility with business models, and complexity in usage emerged as significant barriers to FINTECH adoption. These findings resonate with Al Ajlouni & Al-Hakim's (2018) discussion on the risks associated with technological advancements, pointing to the necessity for enhanced security measures, tailored educational initiatives, and infrastructural improvements. The disparity in technology access, influenced by the market's demographic diversity, underscores the importance of developing flexible and user-friendly FINTECH solutions to overcome these barriers and support wider adoption.

FINTECH services, tailored to the specific needs and concerns of different demographic groups within the market. The study's findings demonstrate that FINTECH benefits greatly from digital literacy when combined with financial literacy. To use and comprehend current technology, one must possess digital literacy. In addition, digital literacy may enhance the skills and provide the traders with increase competitiveness they need to succeed. Education level modifies the impact of digital

literacy on the use of FINTECH services in a favourable and significant way. Using the services offered by FINTECH companies requires digital literacy. As education levels rise, so does the understanding of the services provided by FINTECH companies. Fintech service users must have a foundational understanding of computer and financial technology through higher education.

Consequently, this study deepens theoretical and empirical discussions on the barriers to FINTECH adoption by integrating both technological and socio-behavioral dimensions into the analysis. While previous research (e.g., Al Ajlouni & Al-Hakim, 2018; Motlhala, 2014) has primarily focused on technological limitations and security risks, this study highlights the interplay between digital literacy, financial education, and user perceptions as critical determinants of adoption. The findings contribute to the Unified Theory of Acceptance and Use of Technology (UTAUT) framework by demonstrating that education level acts as a significant moderator of FINTECH adoption, reinforcing the link between digital literacy and financial decision-making. Additionally, the study's findings underscore that FINTECH adoption is not merely a function of technological availability but is also influenced by subjective risk perceptions, trust in digital systems, and compatibility with informal business models. This study, therefore, bridges a crucial gap in literature by providing localized, trader-specific insights that emphasize behavioural factors in digital financial inclusion discourse.

5.2.3. The perceived advantages and disadvantages of using FINTECH services

The analysis highlights perceived advantages such as transaction safety, convenience, and efficiency, which are crucial for the operations of market traders. These benefits, however, are juxtaposed with significant disadvantages, including vulnerability to fraud, distrust in digital platforms, and negative experiences with FINTECH services. These findings echo Gorham and Dorrance's (2017) observations on the potential of FINTECH to enhance safety and security, indicating a critical need for building trust and confidence among users through improved security features, supportive customer service, and educational campaigns that address safety and usage concerns.

Therefore, by offering an empirical assessment of both the benefits and drawbacks of FINTECH adoption among informal traders, this study contributes to the evolving discourse on digital financial inclusion in emerging economies. While prior literature (e.g., Gorham & Dorrance, 2017) has highlighted generalized advantages such as transaction efficiency and fraud risk reduction, this study contextualizes these benefits within an informal market setting, emphasizing the role of trust-building measures, localized consumer support, and digital security enhancements. The findings suggest that negative experiences with FINTECH services are a significant deterrent to adoption, adding to discussions on the role of consumer protection policies in fostering financial technology acceptance. Furthermore, by demonstrating that perceived risks such as fraud and digital illiteracy outweigh convenience for certain traders, this study provides a nuanced understanding of the psychological and experiential barriers that affect digital financial transitions in informal markets. This insight advances existing theoretical models by highlighting trust as a mediating factor in technology adoption decisions, particularly in contexts with low regulatory oversight and financial literacy challenges.

Overall, the adoption of FINTECH services at Tukondjeni Open Market is influenced by a complex interplay of factors including accessibility, security concerns, technological and infrastructural limitations, educational barriers, and the compatibility of FINTECH solutions with existing business models. Despite recognizing the advantages of FINTECH in enhancing transaction safety, convenience, and efficiency, traders are deterred by vulnerabilities to fraud, lack of trust, and the complexity of digital platforms. Addressing these challenges requires a multifaceted approach that encompasses technological innovation, targeted educational programs, and infrastructural development, aimed at creating a secure, inclusive, and adaptable FINTECH ecosystem. Enhancing digital literacy and trust among the diverse demographic of traders is paramount for realizing the full potential of FINTECH in fostering financial inclusion and operational efficiency within informal market settings.

Notably, the findings of this study contribute significantly to existing literature by bridging empirical and theoretical gaps in FINTECH adoption research, particularly within informal markets in emerging economies. Unlike prior research that primarily focuses on formal financial institutions or high-income urban markets, this study provides a micro-level analysis of the specific challenges and opportunities for FINTECH adoption among small-scale traders. By incorporating demographic, educational, and technological perspectives, this research expands theoretical models of digital financial inclusion and offers practical recommendations for policy interventions aimed at fostering FINTECH accessibility and trust in informal economies. The study also highlights the importance of consumer-centered approaches in digital finance innovation, reinforcing the need for adaptive, context-specific solutions that align with the realities of financially underserved populations.

Furthermore, this study introduces a nuanced perspective on financial education and digital literacy as moderators of FINTECH adoption, contributing to behavioural finance literature by demonstrating how knowledge gaps shape financial decision-making in technologically evolving markets. The study's findings have implications for policymakers, financial institutions, and FINTECH developers, emphasizing the necessity for multi-faceted interventions that combine security enhancements, targeted education initiatives, and simplified digital interfaces to encourage wider adoption. As such, this research expands the empirical scope of FINTECH adoption studies by offering localized, trader-specific insights that enrich global discussions on financial inclusion and technology-driven market transformation. It serves as a foundation for future research on the intersection of technology, trust, and financial behaviour within informal economies, paving the way for more inclusive and sustainable digital financial ecosystems.

5.3. Recommendations

5.3.1. For policymakers

Policymakers play a pivotal role in shaping the landscape for FINTECH adoption in informal markets. The study's findings on the variability in service accessibility and significant security concerns call for the development of robust regulatory frameworks. Policymakers should focus on creating policies that not only foster inclusive digital infrastructure but also prioritize the security and trustworthiness of FINTECH services. This approach is crucial in addressing the fear of fraud and scams, which are significant barriers to FINTECH adoption among informal traders. Additionally, there is a need for government-led initiatives to improve digital literacy. Such programmes would empower traders at Tukondjeni Open Market with the necessary skills and knowledge to understand and effectively use FINTECH services, bridging the gap in educational and literacy challenges identified in the study.

5.3.2. For Micro-Small Medium Enterprises (MSMEs)

MSMEs operating in informal markets like Tukondjeni face unique challenges in adopting FINTECH services. The study underscores the importance of awareness and familiarity with these services. MSMEs should actively engage in continuous learning about various FINTECH options and evaluate how these services align with their specific business models. This proactive approach is particularly important given the fast-paced nature of transactions and the diverse business requirements prevalent in informal markets. Peer-to-peer learning networks could be instrumental in spreading awareness and knowledge about FINTECH solutions. By sharing experiences and insights, traders can collectively overcome barriers related to complexity in usage and compatibility with business models, as indicated in the study's findings.

5.3.3. For financial service providers

Financial service providers need to tailor their FINTECH solutions to the nuanced needs of informal traders. The study's findings on the lack of awareness and marketing point towards a significant gap that service providers can fill. By enhancing their marketing efforts and providing comprehensive, on-ground support, financial institutions can build trust and confidence among the traders. Creating user-friendly

FINTECH solutions that cater to the varying literacy levels and infrastructural limitations of the market can address the challenges of technological complexity and infrastructural limitations. Personalised and accessible FINTECH services could significantly impact the day-to-day operations of MSMEs, making financial transactions more efficient and secure.

5.3.4. For researchers

Further research should explore the specific needs and challenges of informal traders in adopting FINTECH services. Also, investigate the long-term impact of FINTECH on financial inclusion and economic development in informal markets.

Essentially, future research in this field should delve deeper into the evolving nature of FINTECH adoption in informal markets, especially considering the rapid pace of technological advancements. Researchers should focus on exploring the specific needs, challenges, and cultural factors that influence the adoption of FINTECH services among informal traders. Assessing the long-term impact of FINTECH on financial inclusion and economic development within these markets can provide valuable insights for all stakeholders. Furthermore, investigating the effects of government policies and regulatory changes on the FINTECH landscape in informal markets could offer crucial information for shaping future strategies and interventions.

REFERENCES

Abuhashesh, M., Almashhadani, I. S., Alshurideh, M., & Khasawneh, M. H. A. (2023). Exploring factors that drive FinTech adoption in Jordan. In *Lecture notes on data engineering and communications technologies* (pp. 238–252). https://doi.org/10.1007/978-3-031-43247-7_22

Aggarwal, M., Nayak, K. M., & Bhatt, V. (2023). Examining the factors influencing fintech adoption behaviour of gen Y in India. *Cogent Economics & Finance*, *11*(1). https://doi.org/10.1080/23322039.2023.2197699

Al-Afeef, M. a. M., Fraihat, B. A. M., Alhawamdeh, H., Hijazi, H. A., Alafeef, M., Nawasr, M., & Rabi, A. M. (2023). Factors affecting middle eastern countries' intention to use financial technology. *International Journal of Data and Network Science*, *7*(3), 1179–1192. https://doi.org/10.5267/j.ijdns.2023.5.006

Alfian, M., Kartika, D., & Pratama, A. N. A. (2022). Determinants of the use of fintech by students as a media for payment of tuition fees. In *TICASSH* (pp. 95–103). https://doi.org/10.2991/978-2-494069-09-1_13

Allen, F., Gu, X., & Jagtiani, J. (2020). A survey of fintech research and policy discussion. In *Working Paper*. https://doi.org/10.21799/frbp.wp.2020.21

Almashhadani, I. S., Abuhashesh, M., Mohammad, A. B., Masa'deh, R., & Khasawneh, M. H. A. (2023a). Exploring the determinants of FinTech adoption and intention to use in Jordan: The impact of COVID-19. *Cogent Social Sciences*, *9*(2). https://doi.org/10.1080/23311886.2023.2256536

Almashhadani, I. S., Abuhashesh, M., Mohammad, A. B., Masa'deh, R., & Khasawneh, M. H. A. (2023b). Exploring the determinants of FinTech adoption and intention to use in Jordan: The impact of COVID-19. *Cogent Social Sciences*, *9*(2). https://doi.org/10.1080/23311886.2023.2256536

Ashraf, M., Hafeez, R. Z., & Sajid, A. N. (2022). Factors affecting the adoption of Fin-tech in Pakistan based on the Unified Theory of Acceptance and Use of Technology Model: An empirical study on financial inclusion in Pakistan. *Journal of Financial Technologies (FINTECH), Inclusion and Sustainability*, *1*(1). https://doi.org/10.52461/jftis.v1i1.1793

Bagwell, T. J. (2023). Factors influencing the adoption of financial technology and net benefit in Indonesian banking. *International Journal of Marketing and Management*, *4*(1), 1–11.

Balcázar, J. J. M., & Rivas, Á. E. L. (2021). Determining factors of the intention to adopt fintech services by micro and small business owners from Chiclayo, Peru. *Journal of Business, 13*(2), 19–43. https://doi.org/10.21678/jb.2021.1650

Batista, C., & Vicente, P. C. (2020). Improving access to savings through mobile money: Experimental evidence from African smallholder farmers. *World Development*, *129*, 104905. https://doi.org/10.1016/j.worlddev.2020.104905

Baxter, P., & Jack, S. M. (2015). Qualitative case study Methodology: study design and implementation for novice researchers. *The qualitative report*. https://doi.org/10.46743/2160-3715/2008.1573

Bazeley, P., & Jackson, K. (2013). *Qualitative data analysis with NVivo*. SAGE Publications Limited.

Bermeo-Giraldo, M. C., Arias, A. V., Palacios-Moya, L., & Valencia, J. (2023a). Adoption of Fintech Services in young students: Empirical approach from a developing country. *Economies*, *11*(9), 226. https://doi.org/10.3390/economies11090226

Bermeo-Giraldo, M. C., Arias, A. V., Palacios-Moya, L., & Valencia, J. (2023b). Adoption of Fintech Services in young students: Empirical approach from a developing country. *Economies*, *11*(9), 226. https://doi.org/10.3390/economies11090226

Bermeo-Giraldo, M. C., Arias, A. V., Palacios-Moya, L., & Valencia, J. (2023c). Adoption of Fintech Services in young students: Empirical approach from a developing country. *Economies*, *11*(9), 226. https://doi.org/10.3390/economies11090226

Bothma, M., & Mostert, L. (2023). Adopting the technology acceptance model: A Namibian perspective. *SA Journal of Information Management*, *25*(1). https://doi.org/10.4102/sajim.v25i1.1624

Brandão, C. P., Bazeley, K., Jackson. (2014). Qualitative data analysis with NVivo(2nd ed.). *Qualitative Research in Psychology*, *12*(4), 492–494. https://doi.org/10.1080/14780887.2014.992750

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brinkmann, S., & Kvale, S. (2015). *InterViews : learning the craft of qualitative research interviewing*. https://lib.ugent.be/en/catalog/rug01:002313337

Bryman, A. (2010). Social research methods. In *Taylor & Francis eBooks* (pp. 157–184). https://doi.org/10.4324/9780203381175_chapter_9

Charmaz, K. (2014). *Constructing grounded theory* (Issue 1). http://ci.nii.ac.jp/ncid/BB16752935

Daniil, N. (2021). *Factors affecting FinTech adoption across countries* [Bachelor thesis]. HSE University.

Denzin, N. K. (2017). The Research Act. In *Routledge eBooks*. https://doi.org/10.4324/9781315134543

Donovan, K. (2014). Mobile money. *The International Encyclopaedia of Digital Communication and Society*, 1–7. https://doi.org/10.1002/9781118767771.wbiedcs023

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: a hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, *5*(1), 80–92. https://doi.org/10.1177/160940690600500107

Ferguson, K. K., Rosario, Z., McElrath, T. F., Vega, C. V., Cordero, J. F., Alshawabkeh, A. N., & Meeker, J. D. (2019). Demographic risk factors for adverse birth outcomes in Puerto Rico in the PROTECT cohort. *PLOS ONE*, *14*(6), e0217770. https://doi.org/10.1371/journal.pone.0217770

Feyen, E., Frost, J., Gambacorta, L., Natarajan, H., & Saal, M. (2021). Fintech and the digital transformation of financial services: Implications for market structure and public policy. *Bank for International Settlements and the World Bank Group*. https://ideas.repec.org/b/bis/bisbps/117.html

Firmansyah, E. A., Masri, M., Anshari, M., & Besar, M. H. A. (2022). Factors affecting Fintech adoption: A systematic literature review. *FinTech*, *2*(1), 21–33. https://doi.org/10.3390/fintech2010002

Frost, J. (2020). The economic forces driving FinTech adoption across countries. *Social Science Research Network*. https://doi.org/10.2139/ssrn.3515326

Gierdien, A., & Jokonya, O. (2023a). Factors affecting the adoption of financial technology at universities. In *Lecture notes in information systems and organisation* (pp. 3–15). https://doi.org/10.1007/978-3-031-24775-0_1

Gierdien, A., & Jokonya, O. (2023b). Factors affecting the adoption of financial technology at universities. In *Lecture notes in information systems and organisation* (pp. 3–15). https://doi.org/10.1007/978-3-031-24775-0_1

Gierdien, A., & Jokonya, O. (2023c). Factors affecting the adoption of financial technology at universities. In *Lecture notes in information systems and organisation* (pp. 3–15). https://doi.org/10.1007/978-3-031-24775-0_1

Gray, D. E. (2016). *Doing research in the real world* (3rd ed.). http://epubs.surrey.ac.uk/id/eprint/816104

Hamzah, M. F., Razak, T. M. T. A., Yahaya, C. K. H. C. K., Shamsuddin, Z., & Zahrin, S. N. A. (2019). Adoption factors of FinTech products & services in Islamic Banking industry in Malaysia: A literature review. *Journal of Positive School Psychology*, *6*(3), 8883–8893.

Harrison, H., Birks, M., Franklin, R. C., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum Qualitative Social Research*, *18*(1), 17. https://doi.org/10.17169/fqs-18.1.2655

Hasan, R., Ashfaq, M., & Shao, L. (2021). Evaluating drivers of fintech adoption in the Netherlands. *Global Business Review*, 097215092110274. https://doi.org/10.1177/09721509211027402

Israel, M. A., & Hay, I. (2006). *Research ethics for social scientists*. https://doi.org/10.4135/9781849209779

Karakara, A. A., & Osabuohien, E. (2019). Households' ICT access and bank patronage in West Africa: Empirical insights from Burkina Faso and Ghana. *Technology in Society*, *56*, 116–125. https://doi.org/10.1016/j.techsoc.2018.09.010

Khatun, N., & Tamanna, M. (2021a). Factors affecting the adoption of fintech: A study based on the financial institutions in Bangladesh. *Copernican Journal of Finance & Accounting*, *9*(4), 51. https://doi.org/10.12775/cjfa.2020.021

Khatun, N., & Tamanna, M. (2021b). FACTORS AFFECTING THE ADOPTION OF FINTECH: a STUDY BASED ON THE FINANCIAL INSTITUTIONS IN BANGLADESH. *Copernican Journal of Finance & Accounting*, *9*(4), 51. https://doi.org/10.12775/cjfa.2020.021

Lal, K., Rani, M. N. H. a. R. A., & Rajini, P. (2020). Factors that influence the customer adoption of Fintech in hyderabad, India. *International Journal of Recent Technology and Engineering*, *8*(5), 2417–2423. https://doi.org/10.35940/ijrte.d9114.018520

Lazarus, S., Nambadja, C., & Nakashole, P. (2023, September 5). *Thieves targeting FNB customers through eWallet*. The Namibian. https://www.namibian.com.na/customers-tricked-into-sharing-ewallet-pins-with-scammers-fnb/

Lincoln, Y. S., Guba, E. G., & Pilotta, J. J. (1985). Naturalistic inquiry. *International Journal of Intercultural Relations*, *9*(4), 438–439. https://doi.org/10.1016/0147-1767(85)90062-8

Lu, Y., Yeh, C., & Kuo, Y. (2024). Exploring the critical factors affecting the adoption of blockchain: Taiwan's banking industry. *Financial Innovation*, *10*(1). https://doi.org/10.1186/s40854-023-00523-0

Mahmud, K., Joarder, M. M. A., & Muheymin-Us-Sakib, K. (2022). Adoption factors of FinTech: Evidence from an emerging economy country-wide representative sample. *International Journal of Financial Studies*, *11*(1), 9. https://doi.org/10.3390/ijfs11010009

Makina, D. (2019). The potential of FinTech in enabling financial inclusion. In *Elsevier eBooks* (pp. 299–318). https://doi.org/10.1016/b978-0-12-814164-9.00014-1

Morgan, D. L. (2014). *Integrating qualitative and quantitative methods: a pragmatic approach*. https://doi.org/10.4135/9781544304533

Munyegera, G. K., & Matsumoto, T. (2016). Mobile Money, Remittances, and Household Welfare: Panel Evidence from Rural Uganda. *World Development*, *79*, 127–137. https://doi.org/10.1016/j.worlddev.2015.11.006

O'Reilly, M., & Parker, N. (2012). 'Unsatisfactory saturation': A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, *13*(2), 190–197. https://doi.org/10.1177/1468794112446106

Ozili, P. K. (2020). COVID-19 in Africa: Socio-economic impact, policy response and opportunities. *International Journal of Sociology and Social Policy*, *42*(3/4), 177–200. https://doi.org/10.1108/ijssp-05-2020-0171

Pakaja, F., Zainurrofiq, A., & H. M., H. M. A. (2023). Analysis of factors influencing FinTech adoption by students of information systems. *American Journal of Multidisciplinary Research & Development (AJMRD)*, *05*(09), 6–21.

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. http://ci.nii.ac.jp/ncid/BB18275167

Piyananda, S. D. P., & Aluthge, D. C. P. (2023). Factors affecting Fintech acceptance: A qualitative case study in Sri Lanka. *Colombo Economic Journal (CEJ)*, *1*(1), 49–68.

Rasheed, R., Siddiqui, S. H., Mahmood, I., & Khan, S. N. (2019). Financial inclusion for SMEs: Role of digital micro-financial services. *Review of Economics and Development Studies*, *5*(3), 429–439. https://doi.org/10.26710/reads.v5i3.686

Saadah, K., & Setiawan, D. (2023a). Determinants of fintech adoption: Evidence from SMEs in Indonesia. *LBS Journal of Management & Research*. https://doi.org/10.1108/lbsjmr-11-2022-0076

Saadah, K., & Setiawan, D. (2023b). Determinants of fintech adoption: Evidence from SMEs in Indonesia. *LBS Journal of Management & Research*. https://doi.org/10.1108/lbsjmr-11-2022-0076

Sa'diyah, C. (2021a). Analysis of factors affecting adoption of financial Technology Application. *Sentralisasi*, *10*(1), 57. https://doi.org/10.33506/sl.v10i1.1208

Sa'diyah, C. (2021b). Analysis of factors affecting adoption of financial Technology Application. *Sentralisasi*, *10*(1), 57. https://doi.org/10.33506/sl.v10i1.1208

Saldana, J. (2015). *The coding manual for qualitative researchers*. Sage Publications Limited.

Sazu, M. H., & Jahan, S. A. (2022). Factors affecting the adoption of financial technology among the banking customers in emerging economies. *Financial Studies*, *2*, 39–54.

Silverman, D. (2016). *Qualitative research*. SAGE Publications Limited.

Slazus, B. J., & Bick, G. (2022). Factors that influence FinTech adoption in South Africa: A study of consumer behaviour towards branchless Mobile Banking. *Athens Journal of Business & Economics*, *8*(1), 429–450. https://doi.org/10.30958/ajbe.8-1-3

Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, *11*(2), 63–75. https://doi.org/10.3316/qrj1102063

Urumsah, D., Ispridevi, R. F., Nurherwening, A., & Hardinto, W. (2022). Fintech adoption: Its determinants and organizational benefits in Indonesia. *Jurnal Akuntansi Dan Auditing Indonesia*, 88–101. https://doi.org/10.20885/jaai.vol26.iss1.art9

Utami, A. F., Ekaputra, I. A., & Japutra, A. (2021a). Adoption of FinTech products: A systematic literature review. *Journal of Creative Communications*, *16*(3), 233–248. https://doi.org/10.1177/09732586211032092

Vaicondam, Y., Jayabalan, N., Tong, C. X., Qureshi, M. I., & Khan, N. (2021). Fintech adoption among millennials in Selangor. *Academy of Entrepreneurship Journal*, *27*(5).

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, *15*(3), 398–405. https://doi.org/10.1111/nhs.12048

Vandana, & Mathur, H. (2022). Conceptual development of factors driving fintech adoption by farmers. *Purushartha: A Journal of Management Ethics and Spirituality*, *15*(01), 39–50. https://doi.org/10.21844/16202115103

Willig, C., Rogers, W. S., & Terry, S. (2017). The SAGE Handbook of qualitative research in Psychology. In *SAGE Publications Ltd eBooks*. https://doi.org/10.4135/9781526405555

Yermack, D. (2018). Fintech in Sub-Saharan Africa: What has worked well, and what hasn't. *Social Science Research Network*. https://doi.org/10.2139/ssrn.3240899

APPENDIX

Appendix A: Ethical Clearance

Figure 4: Ethical Clearance Letter

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: DEC FOC/40/11 **Date: 09/11/2023**

This Ethical Clearance Certificate is issued by the University of Namibia Ethics Committee (REC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the ethics committee.

TITLE OF PROJECT: **EXPLORING FACTORS AFFECTING THE ADOPTION OF FINANCIAL TECHNOLOGY SERVICES: A CASE STUDY OF TUKONDJENI OPEN MARKET**

Student: ROSA HAUKONGO

Student Number: 221024387

MAINSUPERVISOR(S): Dr Jesse de Beer

Centre for Research Services

Take note of the following:

1. Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the ethics committee. An application to make amendments may be necessary.
2. Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the ethics committee
3. The Principal Researcher must report issues of ethical compliance to the ethics committee (through the Chairperson) at the end of the Project or as may be requested by the ethics committee
4. The ethics committee retains the right to:

i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

ii) Request for an ethical compliance report at any point during the course of the research.

The ethics committee wishes you the best in your research.

Dr S. Kalumbu (Decentralized Research Ethics Committee)

Prof. Davis Mumbengegwi (Head, Multidisciplinary Research)

Appendix B: Research Questionnaire

Figure 5: Research Questionnaire

EXPLORING FACTORS AFFECTING THE ADOPTION OF FINANCIAL TECHNOLOGY SERVICES: A CASE STUDY OF TUKONDJENI OPEN MARKET

RESEARCH QUESTIONNAIRE

MASTER OF SCIENCE IN DEVELOPMENT FINANCE

BY

ROSA HAUKONGO
221024387

Supervisor: Dr Jesse de Beer

Preamble:

You Are Receiving This Questionnaire Sheet Because You Indicated and Given Your Consent To Participate In The Study Of *EXPLORING FACTORS AFFECTING THE ADOPTION OF FINANCIAL TECHNOLOGY SERVICES: A CASE STUDY OF TUKONDJENI OPEN MARKET*

Section A: Overview to Financial Technology (FinTech) Services in Namibia

1. Bank Windhoek

1.1. **EasyWallet**: Offered by Bank Windhoek, EasyWallet is a mobile banking solution. Users can send up to N$5,000 daily to any MTC Cellphone number. The service allows cardless cash withdrawals at Bank Windhoek ATMs, and the money can also be used to purchase airtime or electricity. A PIN ensures the security of funds.

1.2. **Internet Banking**: Bank Windhoek's Internet Banking platform provides foreign exchange services, electronic payments, transfers, and an option to print statements. An E-Secure Token enhances security, and users receive notifications for access.

1.3. **Cellphone Banking**: This service links to any Bank Windhoek account for banking on the go. Features include payments to DStv, buying electricity, sending money, checking balances, and more.

1.4. **GoPay**: With GoPay, users can pay for fuel using their cellphones. It's a cashless solution, quick, and can be used to pay for others too.

1.5. **Bank Windhoek Mobile App**: Available for Android and iOS, this app provides 24/7 banking. Users can track account activities, transfer funds, manage beneficiaries, and make purchases.

2. First National Bank Namibia

2.1. **eWallet**: FNB eWallet allows money transfers using a cellphone. Recipients can withdraw at FNB ATMs, buy airtime, electricity, and more without a bank account.

2.2. **Cash@Till**: With Cash@Till, users can withdraw cash during purchase at selected merchants using their FNB debit card, eliminating ATM queues.

2.3. **eWallet@Till**: At participating retailers, users can purchase or withdraw from their eWallet balance. An OTP system enhances security.

2.4. **CashPlus**: This service lets both FNB and non-FNB customers deposit or withdraw cash at an FNB CashPlus agent using a cellphone.

2.5. **Internet Banking**: A digital platform for managing and transacting on your bank accounts.

2.6. **Cellphone Banking**: Banking services accessible via your cellphone.

3. Standard Bank

3.1. **Blue Voucher**: Launched in 2016, BlueWallet is a virtual prepaid account by Standard Bank Namibia, allowing cashless payments at registered outlets.

3.2. **PayPulse**: Users can create a PayPulse wallet via USSD or app download. No Standard Bank account is required.

3.3. **Internet Banking**: A platform for online banking services.

3.4. **Cellphone Banking**: Access banking services using a cellphone.

4. Nedbank

4.1. **Nedbank MobiMoney**: This mobile-based account uses a cellphone number as an account number. Users can buy airtime, withdraw cash at Nedbank ATMs, and more. A PIN ensures security.

4.2. **Internet Banking**: Digital banking platform for Nedbank services.

4.3. **Cellphone Banking**: Banking services available through a cellphone.

SECTION B: DEMOGRAPHIC INFORMATION

1. Gender

Please indicate with a ✓

Male	Female

2. Age

Please indicate with a ✓

20-30	31-40	41-50	51-60	61-70

3. Nature of business

Please list all that you sell.

1.
2.
3.

4. What is your highest level of qualification?

Please indicate with a ✓

No Schooling	
Grade 1-7 (Primary)	
Grade 8-10 (JSC)	
Grade 11-12 (Matric)	
Certificate	
Diploma	
Bachelors/First Degree	
Postgraduate	
Master's Degree	
Doctorate (PhD)	
Other, please specify	

Section C: General Questions on Fintech Services

1. Are you familiar with any of the following fintech services: EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints? If yes, which ones?

---

2. How often do you use fintech services such as EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints in your daily business transactions?

---

3. Have you ever received any formal training or orientation on how to use fintech services like EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints? If yes, from whom or where?

Section D: Research Questions Based on the Study's Objectives

1.To investigate the readily availability of fintech's for informal traders at Tukondjeni open market

1.1. What is the level of availability and accessibility of fintech services (like EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints) at the Tukondjeni open market?

1.2. How do you traders at Tukondjeni open market perceive the accessibility of fintech platforms for their business operations?

1.3. Are there any specific fintech services that are more readily available than others at the Tukondjeni open market?

---

2. To identify the factors that hinder the intention to adopt Fintech services among the Tukondjeni open market traders

2.1. What barriers or challenges do traders at Tukondjeni open market face when trying to adopt fintech services like EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints?

2.2. How does the level of education or literacy among traders influence their intention to adopt fintech services?

2.3. Are there any specific fintech services that traders at Tukondjeni open market find more challenging to adopt than others?

---

3. To identify the perceived advantages and disadvantages of using financial technology services by the Tukondjeni open market traders

3.1. What are the perceived benefits of using fintech services (like EWallet, Easy Wallet, Blue Voucher, MobiMoney, Internet Banking, Cellphone Banking, and Speedpoints) among the traders at Tukondjeni open market?

3.2. What are the perceived risks or disadvantages of using fintech services among the traders at Tukondjeni open market?

3.3. How do the perceived advantages and disadvantages influence the traders' decision to adopt or avoid specific fintech services at the Tukondjeni open market?