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Fintech Influence on Banking Services

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Abstract

Purpose — This study aims to investigate fintech's influence on enhancing banking services. *Design/ Methodology/Approach* — Data was collected through semi-structured interviews. A total of 10 interviews were conducted, transcribed and analysed. *Findings* — The study revealed that fintech influences banking services through improved efficiency in banking services. Also, this study revealed the non-competitive relationship between banks and fintech companies. However, banks do perceive fintech companies as a threat. Further, the study found that IT innovation is a fundamental element enshrined in customer-centric business models that banks are pursuing. *Conclusions and Key Recommendations* — Banks should not only focus on fintech-enabled customer-centric business strategies and models but also note that the timing of fintech adoption is a critical competitive factor. Secondly, banks should consider investing in building innovative in-house infrastructure. Another option could be to look at acquiring fintech companies for a sustainable solution. Lastly, entering digital financial services to increase market share is recommended. *Practical Implications* — The present study validates the position that managing fintech influences banking services and is a fundamental element in the strategic focus and tactics of banks. Therefore, the influence of fintech is fascinating for all in the banking sector.

Keywords: Efficiency, Fintech, Collaboration, Business Models, Regulation

Introduction

The use of technology to deliver financial services is not something new in the financial industry. The industry has a long history of innovations dating back to the 19th century, following the introduction of telegraphy and the successful laying of the transatlantic cable in 1938 and 1866, respectively. This marked the first wave of technology—fintech 1.0, as well as the dawn of financial globalisation (Arner, Barberis & Buckley, 2019). The late sixties saw the gradual movement of finance from analogue to digital (fintech 2.0) with the launching of the Automatic Teller Machine by Barclays Bank. In the same vein, revolutionising customer experiences marked the start of the advancement of fintech as it is known today. This saw the fusion of several emerging innovations, such as magnetic stripe cards, algorithms that allow for a link between the encryption of a PIN and a customer's accounts, and networks linking a bank account to Automatic Teller Machines (ATMs) world-wide (Arner et al., 2019). Furthermore, the introduction of the ATM signified banks' aim to improve customers' banking experiences (Schindler, 2017).

The third wave ("fintech 3.0") is the current era. It is characterised by exponential technological innovation in finance, combined with the development of new players, channels and business models for delivery of financial products and services (Arner et al., 2019). The above suggests that fintech is neither a new phenomenon nor a sudden revolution. Banks have always depended on technology to introduce new banking platforms as well as

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improve efficiency in back-office functions. According to (Mayer, Tuddenham & Van der Wildt, 2021) experience about 10% of a dollar of technology-related expenditures with the aim of generating additional business value. Therefore, expenditure on IT goes a long way. However, it was during the mid-1990s that the demand for IT soared in the financial services industry, leading to the industry being positioned as the biggest user of IT products and services. Fintech development has created a significant focus for its influence in the financial sector. It has seen a combination of financial and technological principles that resulted in the launch of new or reinvented of business models and business processes (Gimpel, Rau & Röglinger, 2018).

Financial technology, commonly known as Fintech, refers to its disruptive innovation that is breaking down the barriers in traditional institutions and redefining ways, in which we store, save, borrow, invest, move, spend, and protect money (Mwencha, Hussein & Githaiga, 2019; Schindler, 2017). Although there is not yet a consensus, the working definition of FinTech adopted by the Financial Stability Board points to "technologically enabled financial innovation 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" (Financial Stability Board, 2017). Disruptive innovation is associated with changes in customer trends and expectations (Carstens, 2018). Customer behaviour is impacted by usage of the internet, use of smartphone, lack of necessity to visit a physical bank branch as customers increasingly value "simplicity, transparency and convenience" (Diener & Špaček, 2021). Globally, organisations that provide customised services create an emotional connection that is an important element of customer experiences. It shows that understanding customers' exact situations helps adapt the experience appropriately (KPMG, 2019). Further, it asserts that big data technologies and machine learning methods contribute to improved connections for customers and organisations.

Customers want convenience, accessibility and personalised services that are offered with ease and transparency and are cost effective (Davies, Jackett, Kashyap, Nicolacakis, Qureshi & Shipman, 2018). Fintech competitors are increasingly encroaching on the activities using IT-enabled platforms that provide innovative, seamless and cost-effective banking services, resulting in greater customer satisfaction (Coetzee, 2019). The rise of fintech is double-edged for the banking sector. On the one hand, fintech is revolutionised customer experiences using chatbots, mobile applications that give customers real-time access to their bank accounts and machine learning for protection against fraud. On the other hand, fintech brings competition to traditional banks, and some regard this as a threat to banking institutions (Thakor, 2020). This is because fintech allows non-financial companies to offer financial products. According to (KPMG, 2022) areas where fintech companies are prevalent in payments and transactions, lending, credit, wealth and brokerage. However, fintech has grown into blockchain, mortgages and neo-banks.

According to CISION, a business research company, the global fintech market was valued at around USD$127.66 billion in 2018 and is projected to reach USD$309.98 billion at a yearly growth rate of 24.8% through 2022. The increasing popularity of fintech is due to the fact that it offers accessibility, modernised and convenient services, and it takes advatange of automation and speed that humans cannot match. Hence, globally, the banking sector in general is undergoing significant transformation to embrace fintech into its business models. These include a shift from physical branches, investment in information technology, big data and use of specialised human capital (OECD, 2020). However, according to the PWC Global Fintech Report (2019) the question is no longer whether fintech will transform financial services, but which financial institutions will adopt fintech best and emerge on top? Hence, globally, banks are leveraging fintech as an enabling actor to achieve business models that are more customer centric as opposed to the traditional, products-orientated one (OECD, 2020). Globally, in 2017, about 1.7 billion people—or about two-thirds of all unbanked adults—had a mobile phone. In India and Mexico, more than half of the unbanked have one; in China, 82% do. In the developing economies of Eastern Central Africa, 83% of the unbanked—some 95 million adults—have a mobile phone. Providing unbanked mobile phone users with Internet access and digital financial services could be a key to expanding financial inclusion (World Bank, 2019). In America, between 70 and 86% of generation X and Baby Boomers prefer to use traditional banks. Whereas 43% of millennials would switch from companies including Amazon, PayPal, Apple, Google and Facebook if banking services were offered (Cocheo, 2019). Studies in Europe, Asia, and Africa reach similar conclusions (Arner et al., 2019).

In 2020, the population of Africa stood at 1.34 billion. The figure is estimated to reach between 1.87 billion and 2.48 billion by 2035 and 2050, according to statistics. This would make Africa, the fastest-growing continent in terms of fintech in the world. Additionally, the UN anticipates that by 2050, 945 million people in Africa will be under the age of 25. This would result in a large pool of tech-savvy young individuals, a population estimated to be double the young population of Asia (Mitchell, 2021). Africa presents opportunities for banking the unbanked, as only 43% of its population has access to traditional banking facilities, compared to 92% in advanced economies. Underinvestment, poor infrastructure, and comparatively low levels of financial literacy have contributed to the region being underbanked (IMF, 2019). In Namibia, less than two-thirds of the adult population has bank accounts. However, Sub-Sahara being the world's fastest-growing mobile phone market, is already the world's biggest mobile money market, providing numerous possibilities for financial inclusion (IMF, 2019). Additionally, fintech could be a leapfrogging opportunity for Sub-Saharan Arica to improve financial inclusion, bank competition and macro-finance in the region. Adoption of fintech globally was found to be at 64% in 2019, and 96% of global consumers have used at least one or more fintech services for payment (EY, 2019). Banks have reacted by investing in more innovative solutions (Melnyk, Kuchkin & Blyznyukov, 2022). Gogus and Atalay (2022) found that 70 banks in 38 countries in Europe, Middle East and Africa only adopt basic customer-centric activities. Only banks with organisational strategy focusing on improving customer services optimise customer relationships and financial value potential. To keep up with change, banks have recognised the need for reinvention and shifting business models from customer-focused to various role players that strengthen their differentiation strategies (KPMG, 2022). Digitalisation efforts by banks in Namibia are noted with the introduction of mobile banking and internet banking options (FirstRand Group Namibia, 2019; Standard Bank, 2021). Also noted is that fintech services and innovation in Namibia seem minimal. Banks in Namibia engage fintech companies for the use of third-party services (Hamukwaya, 2019). Fintech has led to disruptive innovation, user-friendly, efficient, transparent and automated financial services that are better than what traditional banks do (Baporikar, 2021). This has caused a change in customer expectations. These expectations include seamless and cost-effective banking platforms that keep abreast with the development of technology.

Consequently, banks around the world are remodelling their business models from those that are product-oriented to those that are more customer-oriented. According to FirstRand Group Namibia (2019), many Namibians remain unbanked or underbanked due to limited access to banks and ATM networks. The Eurpoean Investment Bank, 2017, estimates that less than two-thirds of Namibian adults have bank accounts. However, there are 2.82 million mobile users in Namibia (Statistic, 2021). This is an opportunity for banks in Namibia to exploit the use of fintech to reach the underbanked and unbanked population. Therefore, banks must take deliberate actions to engage in innovative banking opportunities, as slow intake of disruptive technologies in banking may lead to loss of customers to fintech companies when fintech becomes regulated. The current landscape may change from collaborative to competitive.

Methodology

Problem Statement

Fintech has led to disruptive innovation, user-friendly, efficient, transparent and automated financial services that are better than what traditional banks do (Baporikar, 2021). This has caused a change in customer expectations. These expectations include seamless and cost-effective banking platforms that keep up with the development of technology. Consequently, banks around the world are remodelling their business models from those that are product-oriented to those that are more customer-oriented. According to FirstRand Group Namibia (2019), many Namibians remain unbanked or underbanked due to limited access to banks and ATM networks. The Eurpoean Investment Bank, 2017, estimates that less than two-thirds of Namibian adults have bank accounts. However, there are 2.82 million mobile users in Namibia (Statistics, 2021). This is an opportunity for banks in Namibia to exploit the use of fintech to reach the underbanked and unbanked population. Therefore, banks must take deliberate actions to engage in innovative banking opportunities, as slow intake of disruptive technologies in banking may lead to loss of customers to fintech companies when fintech becomes regulated. The current landscape may change from collaborative to competitive. Thus, using an explorative approach based on innovation theory and coopetition theory, this study aims to investigate fintech influence on enhancing banking services in Namibia.

Research Design

The study used an exploratory research design to gain insight into the phenomenon under investigation (Saunders, Lewis, Thornhill & Bristow, 2019). The population in which the study was conducted is forty (40) participants, comprising five (5) participants from each of the eight (8) commercial banks in Namibia. These are FNB, Nedbank Namibia, Standard Bank, Bank Windhoek Limited, Banco BIC, Trustco Bank, NamPost and Letshego Bank. The sample was set at twelve (12) participants. The participants were selected using a purposive sampling method. Data was collected through semi-structured interviews, which were conducted mainly telephonically or via Microsoft teams. The data was analysed using thematic content analysis (Braun et al., 2022).

Literature Review

The term "fintech" is widely used, but there is still no common accepted definition, making it a challenge to discuss as various users of the term may hold different views of the definitions of fintech (Schindler, 2017). Abad-Segura et al. (2020) describe fintech as "a marriage of finance and technology", Puschmann, (2017) says the term symbolises the blend of the words "financial" and "technology" which are gaining popularity as reported by Deloitte Insights (2022). It is as well demanding the attention of regulators, consumers and investors in the financial industry since 2014 (Arner et al., 2019). However, there are various meanings attached to the term (Schindler, 2017). The term is used inconsistently and ambiguously in the business setup, and if fintech is to be profound and comparable, there must be consensus on what constitutes fintech and additionally, the definition is needed to improve communication on the subject (Ye, Chen & Li, 2022). According to the Oxford English Dictionary (2022), fintech refers to computer programmes and other technology used to support or enable banking and financial services. According to Arner et al. (2019) fintech is "the use of technology to deliver financial solutions". In addition to financial technology, other authors consider actors such as the depth and disruptive nature of financial innovation within the ambit of the definition of fintech. Therefore, the terms fintech and financial innovation are interlocked, resulting in the creation of novel products, services, processes, and new business models (Daud, 2021). Peek (2020) describes fintech as a broad range of technological innovations that offer to revolutionise consumers' means to gain access to financial services through software, including online banking, mobile payment applications or even crypto currency. According to IOCSCO (2017) Financial Technologies or "Fintech" refers to diverse modern business models and evolving technologies with capabilities resulting in the reshaping of the financial services industry, in the context of banking innovations that are changing the fundamental nature of how banking services are delivered.

The Financial Stability Board (FSB, 2021) defines fintech to be "*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*". The Basel Committee on Banking Supervision (BCBS) has accepted this definition partly, since that "This broad definition is considered useful by the BCBS in light of the current fluidity of fintech developments". This definition of fintech by the Financial Stability Board is broad and is inclusive of technology that allows for disruptive technology that impacts the financial sector and services being provided. It includes peer to peer lending, crowd funding, robot advisory, financial application of distributed ledger technology and financial application of machine learning (Schindler, 2017). The term fintech represents "companies or representatives of companies" involved in the integration of financial services with ground-breaking technologies (Dorfleitner, Hornuf, Weber & Schmitt, 2017). Despite various meanings attached to the term fintech, there are common elements, that characterise what fintech is and these include incremental and disruptive abilities. According to the Financial Stability Board, fintech includes disruptive technology innovation that brings forth new products, services, process efficiency and new business models and changes in consumer behaviour and this is the definition forms the basis of this research.

History of Fintech Banking

Over the previous centuries, the financial sector has grown with the establishment of the first bank in 1472 and comprises various large businesses, including those in areas like insurance, share or security companies and those in the restate sector (Alt, Beck & Smits, 2018). Financial companies are service providers, as they play a supporting role to businesses to carry out business in the primary market. In the process, contributing to shaping the secondary market in which financial service providers, including commercial and investment banks, operate and interact with each other (Fang, Lui, Basak, Zhu, Kiekinveld & Kamhoua, 2021). Technologies, the second component of the term fintech have grown to be central element in the processing of financial matters. Nye (2019) describes a technology as a means to enhance efficiency in organising, processing coordination and carrying out odd activities with ease. There is an appreciation of analogy as well as digital technologies in this definition, which is widespread in the financial sector (Alt et al., 2018).

Past studies on the development of fintech suggest that financial technologies have been around longer that the term fintech, which Arner et al. (2019) traced the existence of financial technologies back to the mid-19th century. Initial use of technologies in the banking sector and other businesses depended on the actual media including, banknotes and coins that reflecting the information. These presented limited access to various market worldwide as these documents and values could only be transported physically either by foot, road, air, or ship (Arner, Buckley, Dirk & Robin, 2020; Arner et al., 2019). This changed with the introduction of electrical telegraph in 1886, this invention revolutionised long-distance communication. Telegraph made possible the ability to transmit electrical signals over wire laid between stations. This marked innovations in information and communication technology and enabled the separation of information from its physical representation, making it possible to convey information faster and over longer distances (Schindler, 2017). Economic and political implications were significant. The electric telegraph transformed journalism and newspapers conducted business. The speed at which information was transmitted improved significantly; this disrupted and shifted delivery of information from physical to instant messaging between telegraph stations (Sawyer, 2020).

Even though the use of telegraph declined at the beginning of the 21st century, due to substitution by the telephone, fax machine and Internet, yet it has its critical place in industrialisation of modern times that laid the foundation for the development of communications and later innovations. These analogue technologies are a second phase of financial technologies that continued until the mid-twentieth century (Alt et al., 2018), which marks the start of digital information, communication, and digital financial technologies era. Towards 1980s, financial services have become more depended on digital transactions amongst various players in the financial market. Diffusion of technologies throughout the value-chain of banking is evident in the banking sector and this chain ranges from customers, channels, financial service providers to interbank service providers. Banks emerged as pioneers in using information technology internally and specifically, large banks were changing their structures to include IT departments for in-house development proprietary application systems and improve internal networks synergy amongst various departments and branches (Alt et al., 2018). Auto teller machines and online banking are some of the systems that allowed for electronic interfaces with customers and between banks and financial exchange (Alt et al., 2018). In as far as inter-banking is concerned; the development of multinational electronic networks grows, seeing the establishment institutions like the Society for Worldwide Interbank Financial Telecommunication (SWIFT) and the Trans-European Automated Real-time Gross Settlement Express Transfer System (TARGET) established in 1973 and 1999 respectively. Hence, physical trading floors are being replaced, with many exchanges globally moving towards automation and enable real-time trading of shares and other derivatives. Generally, the demand for calibration of systems in the banking sector emanate from challenges caused by incompatible systems in the banking value chain.

This era saw the introduction of World Wide Web in 1995 and in 2001 over a million customers was using online facilities from eight banks in the United States of America. Also, several Ebank was established during 2005 (Alt et al., 2018). The 1990s saw the first movements towards digital banking, with connected customers starting to manage their money in different ways. PayPal was launched in 1998 which would hint towards the new payment systems that would come as the world increasingly went online. Fintech 3.0 is the post-financial crisis. Following the financial crises of 2008, distrust in the banking sector increased. Additionally, it is during this period that mechanisms to increase the regulation of banks started, however, this came with increase compliance cost. This resulted in emergence new players in the market (Alt et al., 2018; The Payments Association, 2020). This era saw the introduction of blockchain technology, bit coin in 2009 followed later by numerous other crypto currencies. Furthermore, the adoption of Smartphone increased popularity as the main mean to gain access to internet and other financial services. This era became the era of fintech companies, with a strong desire for innovation amongst investors and consumers driving a wave of new products and services. According to the Payments Association (2020), banks have begun to imitate fintech companies by acting and branding as fintech companies do. Relying on new technologies to leverage the development and advancement of digital banking products or services (The Payments Association, 2020). Therefore, major improvements are noted, lessening the challenges posed by legacy systems and aiming to enhance the customer experience (The Payments Association, 2020), which are about as far from this cable infrastructure established in 1886. These countries are not encumbered with the traditional physical banking infrastructure, and for this reason, adoption of new technologies is swift and easy, better than most of the world. Fintech 3.5 indicates a shift from western dominated financial world and acknowledges the advances that are being made in digital banking around the world (The Payments Association, 2020).

Fintech development in Africa is a unique from that experience in other parts of the world. Whereas the emergence of Fintech 3.0 in the West was in reaction to the 2008 financial crisis, Fintech developments in Africa have been mainly driven by the quest of financial inclusion and economic development. According to Pazarbasioglu, Mora, Uttamchandani, Natarajan, (Feyen & Saal, 2020), only 20% of African households have any access to formal or semi-formal financial services. Consequently, telecommunications companies take the lead in fintech developments in Africa, instead of banks. Mobile money relates to deliverance of payment and savings facilities through what is known as e-money captured on mobile phones. Giving customers means to save and remit money safely for various purposes including payment of bills, means to receive government payments cost effectively (Misati, Kamau, Kipyegon & Wandaka, 2019). Arner et al. (2020), cautions that the success of M-Pesa in Kenya may not be relevent else where and that the expectation of local customers should be considerd when offering digital financial services if the provision of such services is to be a success. Electronic money indicates novelty in payment methods, through transmission of information that depict change of ownership of real monetary value (Vlasov, 2017). Despite this evolution, bank accounts remain critical at the stage when the physical funds are deposited or withdrawn from a bank account (Vlasov, 2017).

Namibia's Banking System and Fintech Companies in Namibia

The Namibia banking system consists of eight banks; these include First National Bank Namibia Limited, Standard Bank Namibia Limited, NedBank Namibia Limited and Bank Windhoek Limited, Trustco Bank, Bank Bic Namibia Limited and Namibia Saving Bank. Majority of these banks are private companies and subsidiaries of South African banks, except for Bank Windhoek, being the only bank with local ownership. (Standard Bank, 2021) (Bank Windhoek, 2020). The newest banks are Trustco Bank, Bank Bic Namibia Limited. According to Bank Windhoek Financial Stability Report (2022), Namibia has a sound, well-capitalised and proitable financial system, consisting of a range of intitutions. The Financial stability Report further states that balance sheet of the Namibia banking sector stood at N$144.0 billion at the end of December 2020. The most prominent banks are FNB Namibia, Nedbank, Standard Bank and Bank Windhoek Fintech innovation and the presence of fintech companies is negligible in Namibia with key fintech start-up including, Hyphen Technology, Mobi-Pay, AMR Corporations and Flexi-Pro. These businesses are not limited to providing electronic banking services but focus on a wide range of value-added solutions to various businesses involved in voluminous transactions across various sectors (Hamukwaya, 2019). Hence fintech companies in Namibia are more third-part services providers. Some of available fintech innovations are motivated by the pressure to provide financial services to a large unbanked population found in rural Namibia (Hamukwaya, 2019). Further Hamukwaya (2019) cited actions taken by the Basel Committee to understand the development and implication of fintech on banks and regulators. It is not a surprise that regulation of fintech is minimal in Namibia.

However, Melnyk et al. (2022) found that despite fintech companies offering seamless, cheaper financial services, banks will continue to have a strong competitve advantage. Banks rely on customer loyalty built on their ability to provide security, and banking activities are regulated. Also, banks have access to real money, which fintech companies may not have. Although the banking market may be unaffected by fintech, banks should keep abreast of new technologies that provide their customers with the best solutions and inexpensive swift and easy banking services. Furthermore, fintech companies may be a significant business opportunity for banks, equipped with novel ideas and digital capabilities, fintech companies may not be able to function absolutely independently (Diener & Špaček, 2021). Hence, there is an opportunity for cooperation between the bank and the fintech company in order to provide the best service to the customer.

These new entrants into the financial industry are competing with banks in the core of its business (Al Ajlouni & Al-hakim, 2018). Their advantage is their ability to provide core banking services with great flexibility, cost efficiently, less regulatory requirements and more swiftly than traditional banks do (Al Ajlouni & Al-hakim, 2018). Pierrakis (2019) asserts that fintech innovation will disrupt and distort industry boundaries and revolutionise the provision of banking services and products. Adversely, fintech innovations create challenges in relation to privacy, regulatory and law enforcement. Globally, fintech start-ups are increasingly competing with traditional banks by offering core bank services with greater efficiency (OECD, 2020). Hence, banks introduced new services, products, and mobile applications (Frame & White, 2018) to maintain their competitive advantage. However, a sustainable competitive advantage in the banking sector is dependent on banks' ability to recreate themselves and keeping abreast of customers' expectations from banking in the era of dynamic technological developments (Coetzee, 2019).

Fintech Companies

Saksonova and Kuzmina-Merlino (2017), define fintech companies as small to medium businesses, generally referred to as *fintech starts-ups*, with limited access to capital, however, have capabilities to create novel or enhance services. Nonetheless, the number of fintech companies is growing exponentially. According to the number of fintech companies entering the market is growing annually, resulting in fintech companies taking up about USD 94.7 billion in funding in the first three quarters of 2021 (Insider Intelligence, 2022), focusing mainly on areas including banking, ipayments, investment and wealth management, insurance, currency and exchange and lending and financing. Globally, IndustryARC (2022) estimated that the fintech market will reach USD161.2 billion by 2026, growing at a CAGR of 8.7% from 2021 to 2026. The increasing market is driven by the demand by businesses across all sectors to simplify and automate high-value and complex processes by using artificial intelligence. Further, the paradigm shift towards machine learning is supported by reductions in cost, increased efficiency and better customer experience as a result of improved digital lending and automated financial solutions (IndustryARC, 2022). In Africa, the largest number of fintech companies is recorded in South Africa, representing 154 fintech companies in 2021; following in the second and third places are Nigeria and Kenya, with 144 and 92 fintech companiess respectively, in the same year (Statistic, 2021).

As a result of the exponential increase of fintech companies, there is much speculation regarding the potential of fintech companies to threaten the survival of traditional banks (Hamukwaya, 2019) (Al Ajlouni & Al-hakim, 2018). The study by PWC (2016) extended to claim that by 2020, about 20% of the earnings of traditional institutions worldwide will be consumed by new fintech companies. Yet others predict the development of a new market segments led by telecommunications and mobile technology companies (Puschmann, 2017). Although banks are big players in the fintech environment, they could be facing a challenge when it comes to positioning their systems and culture in alignment with those of the fintech environment. While studies on how banks are reacting to fintech in the banking sector is still developing, there is indication that banks are emerging new digital infrastructures or adopting cooperative approaches, including partnerships (Oshodin et al., 2017). Also, there is a developing truth that fintech companies are creating a new ecosystem, where traditional banks and fintech companies are establishing alliances and partnerships (Oshodin, Molla, Karanasios & Ong, 2017; PWC, 2017).

Discussion

Table 1 below gives the respondents background. These were the interviewees with whom detailed discussions were conducted using an interview protocol.

Table 1

Respondent	Bank	Gender	Age	Education	Experience
R1	A - FNB	Male	31-50	Graduation	7-10
R2	A - FNB	Male	31-50	Post-Graduation	11-20
R3	B - Standard	Male	31-50	Diploma in Commerce	19-20
R4	B - Standard	Male	31-50	Commerce Undergraduate	10-12
R5	C -Nedbank	Female	21-30	Masters in Banking & Finance	6 -10
R6	C- Nedbank	Female	51-60	Masters in Commerce	20-23
R7	D – Bank Windhoek	Female	18-20	Double Masters Banking & Finance & Business	5-7
R8	Bank Windhoek	Male	18-30	Masters in developmental Finance	7 - 10
R9	Banco Bic Limited	Male	31-50	Technical Qualification from Bankers Association	5-7
R10	Namibia Post Limited	Male	31-50	Tertiary Qualification in Business	5-7

Further the followings themes with relevant questions were framed for enabling focused and detailed collection of data, information and insights form the participants.

Theme 1: Influence of fintech on enhancing banking services:

- T1Q1: Understanding of fintech and its impact in the banking sector? How has fintech contributed to the banking sector?
- T1Q2: Explain any changes in your operation that you believe are influenced by fintech? At what level are these changes being initiated?
- T1Q3: How else fintech can improve banking services?
- T1Q4: How else has fintech influenced the way banking is conducted? Provide your views on what are fintech's prospects are for improving banking services?

Theme 2: Opportunities through fintech:

- T2Q1: What available mechanisms have your bank use to increase the benefits from fintech?
- T2Q2: What are those mechanisms aiming to address?

Theme 3: Collaboration and competition:

- T3Q1: In your view what can banks do to strength competitive advantage in the fintech era?
- T3Q2: What action has your bank taken to ensure that it continues to benefit from fintech in the banking sector?
- T3Q3: Do you think from practical perspective banks need to explore coopetition as a strategy to benefit from fintech?

Theme 4: Business models:

- T4Q1: Do you think there is a link between fintech and banking models?
- T4Q2: Due to rise in Fintech companies globally, what is the effect on the banking services in Namibia?
- T4Q3: According to you what would bank's competitors look like in the near future?

After demographic details, the analysis and the discussion is based on empirical findings and presented thematically as below:

- Influence of Fintech on Banking Services
- Fintech Opportunity and Challenge
- Collaboration and Competition
- Business Models
- Future Banking Landscape
- Regulation of Fintech Companies

General Information

Out of 12 identified through purposive sampling only ten respondents participated in the interview process. Out of that 70% were male and 30% female. They were employed at FNB, Standard Bank, Nedbank, Bank Windhoek, NamPost - Savings Bank and Banco BIC in the study. Fifty percent of the participants fell in the 31 to 50 years age group and held post graduate qualifications. Fourth percent of the participants held mid-level qualifications with 6 to 10 years of experience in the banking sector. Figs. 1, 2, 3, 4, and 5 represent the demographic details like, gender, age, position, education and experience respectively.

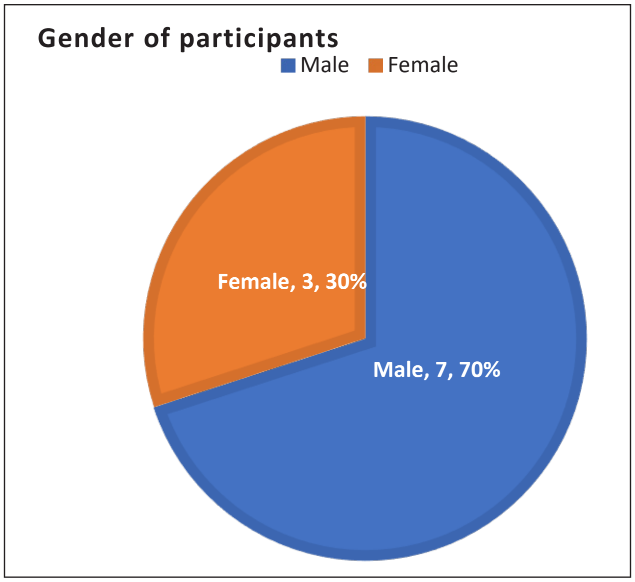

Fig. 1: Gender

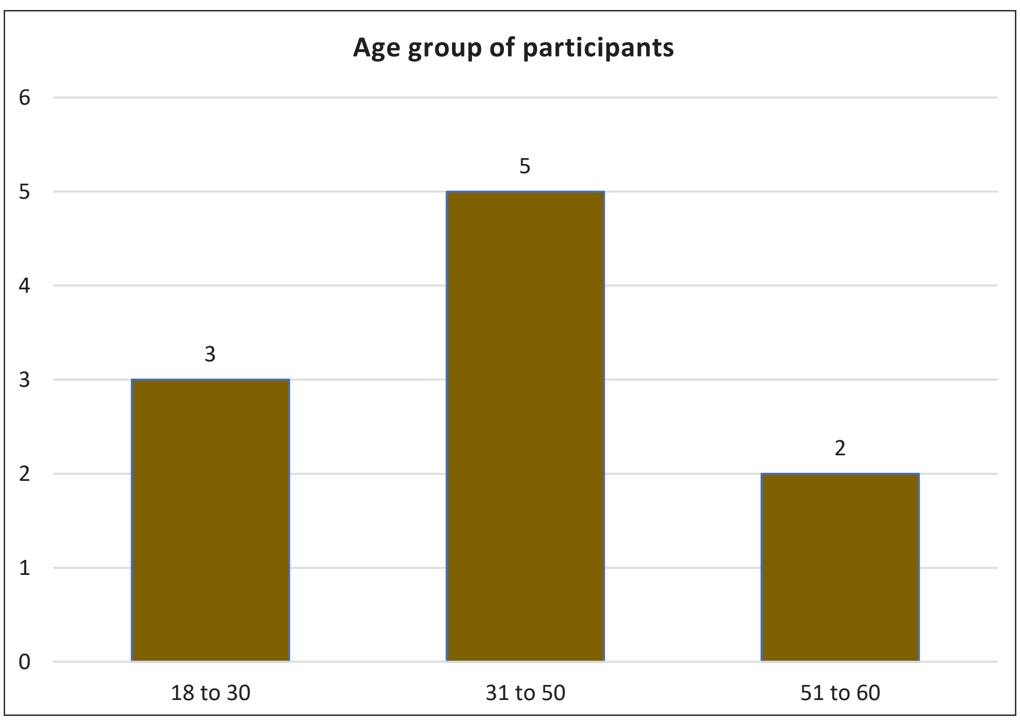

Fig. 2: Age

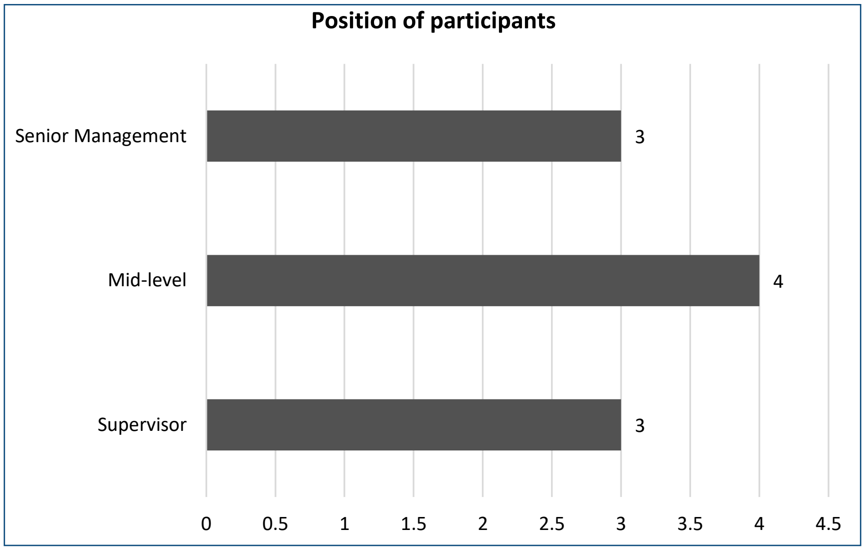

Fig. 3: Position

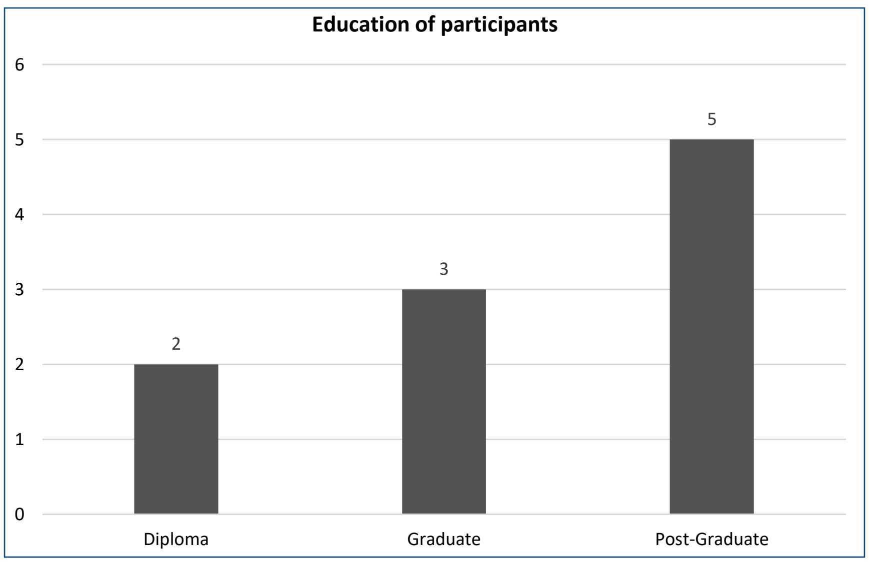

Fig. 4: Education

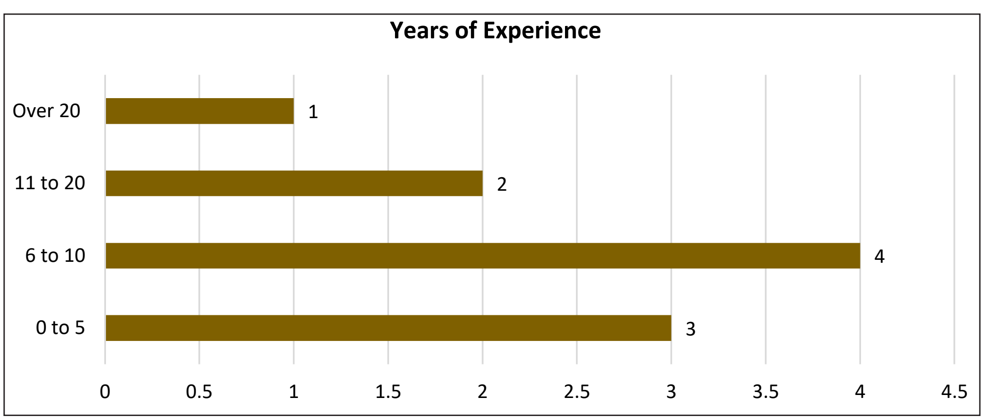

Fig. 5: Experience

Theme 1: Influence of Fintech on Enhancing Banking Services

As expressed in the literature review the history of financial technology in banking can be traced back to 19th century (Arner et al., 2020) when Barclay Bank introduced ATMs in 1967.

However, fintech emerged strongly following the financial crisis in 2008. This is the period when fintech companies mushroomed, offering value propositions resulting from integration of technology and innovation (Arner et al., 2020). It was around that time that the usage of the term fintech began increasing in popularity, and although until now there have been various meanings attached to the term (Ye, Chen & Li, 2022). Table 2 provides the major findings regarding on theme 1, the influence of fintech on enhancing banking services.

Table 2: Theme 1: Influence of Fintech on Enhancing Banking Services

Fintech Influence on Banking Services	*No. of Participants*	*%*
Increases automation ● Improved operational efficiency (time & Cost) ● Various payment and banking platforms ● Improved customer banking experience	10	100%
Collaboration	*No. of Participants*	*%*
With fintech companies ● Improve operational efficiency, Innovative technology skill and expertise central to customer-centric model	9	90%
Telecommunication companies ● Increase market	1	10%
Fintech Company Competition / Threat	*No. of Participants*	*%*
Perceived threat	7	70%
Not perceived as a threat	3	30%

In terms of opportunities presented by fintech, one participant mentioned that her bank is exploring fintech to benefit from increased market share. No indication how this will be done. However, literature suggested that fintech presents opportunity to increase financial inclusion of the under and unbanked populations (Arner et al., 2020; Vives, 2018). Some participants further see opportunities to take customer service to another level with using robo-chats on their platforms and robo-advisors. According to the responses from most participants, banks rely on fintech companies for technology innovation, because the banks do not have the time or the expertise. This is another opportunity that came out from the answers is that banks can leverage from IT innovation of fintech companies through partnership or cooperation to build competitive advantage based on internal resources and capabilities (Vives, 2018).

Theme 2: Fintech Opportunity and Challenge

Table 3 below gives the major findings on theme 2: fintech opportunity and challenge. 90% of the participants acknowledge the scarcity of innovative technology capabilities within banks, and therefore note the benefit of engaging fintech companies to address the gap in this area, if they are to ensure continuous provision of innovative banking services to customers and enhance service delivery to clients. One participant indicated that serious competition that telecommunication companies pose is significant due to their ability to reach more customers than banks are currently reaching. It is estimated that 20% of households in Africa may have some form of access to banking services (Pazarbasioglu et al., 2020). According to the World Bank (2019), 95% of adults in developing countries own a mobile phone. This creates an opportunity for banks to venture into digital financial services and expand financial inclusion. Overall, the study found that banks perceive collaboration with fintech companies to access innovative technology expertise as central to providing innovative banking services. Also, according the study, fintech companies may further offer an opportunity for banks to engage in the provision of digital financial services through telecommunications companies.

Table 3: Theme 2: Fintech Opportunity and Challenge

Fintech Influence on Banking Services	*No. of Participants*	*%*
Increases automation • Improved operational efficiency (time & Cost) • Various payment and banking platforms • Improved customer banking experience	10	100%
Collaboration	*No. of Participants*	*%*
With fintech companies • Improve operational efficiency, Innovative technology skill and expertise central to customer-centric model	9	90%
Telecommunication companies • Increase market	1	10%
Fintech Company Competition / Threat	*No. of Participants*	*%*
Perceived threat	7	70%
Not perceived as a threat	3	30%
Business Model	*No. of Participants*	*%*
Participants indicated that their banks are employing customer focused strategies with fintech as a central enabler	10	100%

Collaboration and Competition

Fintech companies are regarded as strong rivals in the banking sector (Al Ajlouni & Al-Hakim, 2018). This partly confirms the outcome of the study. Eight percent of the participants perceive the fintech companies as serious competition for your banks, forcing banks to deliver innovative payment services to meet consumer expectations to remain competitive with the fintech companies. Additionally, since the global trend is focusing on regulation of fintech companies, participants admitted that although banks have the capability to adopt the new technology, but the time, effort, and cost to take up new technologies in a legacy environment are quite considerable. Hence, opt to partner with fintech where a win-win approach is present. The participants expressed that banks have entered into alliances to leverage each other's strengths since banks have the market, data and capital but lack adequate expertise in technological innovation. Whereas fintech companies have the disruptive and innovative technological expertise but need customers. This is aligned with the finding by McKinsey (2021) and (PWC, 2017) that contended that as a strategic move, banks should consider collaborating with fintech to benefit from fintech companies' IT disruptive innovation resources. The study also confirms this theory, as majority of the participants deem the relationship between fintech companies and banks complementary as opposed to competitive. This finding further confirmed the claim made by Hamukwaya (2019), stated that fintech companies in Namibia engage more in the provision of third-party services to banks. Additionally, participants mentioned that collaborating with fintech companies results in increased cost efficiency and is beneficial to all parties involved. This is in line with the view that financial innovations are beneficial to all players in the financial system, since it level out market imperfections relating to cost or the functions in the market.

Fintech Threat

The study further revealed that, despite the competitive challenges that are presented by fintech companies and that banking institutions are improving customers' banking experiences, the unintended consequence is that customers' loyalty towards a specific bank is increasing but being eroded. Customers' focus is shifting towards the most efficient, flexible and interactive banking platform as opposed to the relationship with traditional banks. Hence customer flight among banks. Some participants also indicated that the presence of fintech companies in the e-commerce poses a serious threat to banking institutions.

Business Models

Literature also indicates that fintech is a critical enabling element in the strategies to revolutionise customer demand and expectations. Empirical outcomes suggest the critical link between the banking business models and fintech. Participants revealed that fintech is an enabler and crucial to the successful attainment of the business strategies, as it allows for two things. First, it disrupts organisational designs through process automation increasing overall efficiency. Secondly, fintech allows for disruptive ways to deliver new and current banking services, thereby strengthening customer banking experience through the use of artificial intelligence and big data software applications (Hamukwaya, 2019). All participants have indicated that their banks have taken measures to focus on strategies that leverage fintech to maximise operational efficiency through process automation and improve customer satisfaction. The results indicate that banking sector in Namibia is embracing technology and innovations by incorporating them as an important enabler to creating and strengthening their competitive positions. This finding is in line with the literature (McKinsey, 2021). Fintech can spread across places and provide an improved banking experience to customers otherwise would have been through traditional banking setup (Al Ajlouni & Al-hakim, 2018). This is confirmed by one participant, who hinted that his bank is looking to increase market share by broadening the market segment to include those previously regarded as not ideal bank customers. According to Vives (2018), fintech provides an opportunity for banks to capture the unbanked and underbanked into the banking net.

Another impact noted relates to the regulation of novel technologies. Participant C noted that there is a disconnection between the rate at which the banking sector is embracing digital technologies into their operations and the rate at which the regulators are incorporating technologies into regulatory policies. Also, the banks are constantly faced with the challenge of maintaining a balance between providing novel banking services that fintech offers and ensuring that the financial stability is not threatened.

Future Banking Landscape

Most participants agree that the competition by fintech companies is a reality and banks have various ways to deal with the threat. Banks may acquire the Fintech Company to benefit and strength competitive position. Some indicated that banks would enter into competition arrangement, leverage off one another's strength. Some participants indicate that fintech companies are willing to engage banks because banks have established customer base, regulated, and therefore trusted by customers. However, one participant indicated that when fintech become regulated, trust in their products and services will increase. This may be a turning point for current collaborating relationship. Siek and Sutanto (2019) found that customers consider safety offered by bank high, resulting in the impact of fintech companies on banks insignificant. It emanates from the responses that business models of banks are increasingly becoming customer focused and digitalised. The participants mentioned that banks are undergoing restructuring to be aligned with the digitalised approached. One participant mentioned that his bank has actions in place to encouraging its customer to move from branch banking to online.

Regulation of Fintech Companies

Some of the participants stated that lack of regulation of fintech companies presents an unlevel playing field in the financial sector since fintech companies are not faced with stringent regulation that inhibits banks from implementing innovative ideas. Hence, Fintech companies develop new solutions cost effectively. Schindler (2017) reinforces this view by stating that the purpose of fintech companies is mainly because of the changing financial ecosystem, regulatory obligations and increased risk-taking attitudes. Three of the participants (interviewee F, FNB Interviewees 2 and interviewee D) stated that the regulation should be activities-based. This supports the perspective of Magnusson (2019), who mentioned that the regulators should take into consideration differences between fintech companies and banks when formulating regulation for fintech companies. This is mainly due to the way fintech companies operate, different from the way banks conduct their operations. Although some participants stated rules, supervision and monitoring should be applied equally as both fintech companies and banks offer similar products and services. Further participants stated that regulators should stay abreast of changes in technology and the risks from this advancement and find a balanced way to regulate effectively without impeding innovations.

Findings

The findings of this study are:

- Various users of the term fintech attach different meaning to it, but there is significant influence of fintech on banking services in Namibia. Some use the term to refer to disruptive technologies; others use the term to refer to companies that develop the disruptive technologies. So, it is important to understand the context in which the term is used to correctly attach the meaning of the term when it is being used.
- Fintech (disruptive technologies) has resulted in numerous positive influences on the banking sector. These include improved operational efficiency, as disruptive innovation technologies play a significant role in automation of processes in banks and possibly a positive impact on profitability. Also, fintech improved data processing and data analysis through machine learning capabilities has led to improved customer satisfaction since new products and services that are assessable, interactive banking platforms such as mobile and internet banking platforms and overall improved customer involvement into their own finances.
- Some fintech opportunities that banks can exploit to broaden its market segments by entering into the digital financial services segment and offer banking services to the under and unbanked. This is currently a gap in the Namibian context. Further some banks are looking to place the customer service at another level using robo-chats and robo-advisors.
- Customer's loyalty towards banks may be eroding. An additional challenge is that the decision to use a certain service provider may no longer be based on the relationship or loyalty a customer has towards a bank. Rather the decision may be based on features including convenience, interactivity and cost of a banking platform that meet customers' expectations. This could mean not only customer be shift from banks to fintech companies but also customer flight from one bank to the other.
- Fintech companies are perceived a challenge and threat to banks, since they are offering financial and payment services which were previously traditionally offered by banks only. Although banks have the capability to adopt new technologies, it is time-consuming and costly in the legacy environment they operate. Hence the bank cooperates with fintech companies to timely benefit from their resources. Similarly, it is indicated that fintech companies are willing to cooperate as this is an opportunity to access rich data, which fintech company do not have. Currently, the study confirms that the relationship between banks and fintech companies in Namibia is not one of a competitive nature but a collaborative one.
- Lack of regulation of fintech companies present an unlevelled playing ground in the financial sector, since fintech companies are not faced with stringent regulation that inhibits banks to implement innovative ideas. That the regulation of fintech could be activities based to ensure appropriate supervision and monitoring. Further the study found that there is a perception that regulators are not keeping abreast with changes in technology and as a result are struggling to understand regulate effectively without impeding innovations.
- Banks are aware that the landscape of banking is not stable, and the current setup may change to from cooperation to competition between fintech companies and banks. Most banks are focusing on customer centric business model. Further it indicates that IT innovation is the critical enabler to ensure that the strategies are successfully implemented. Consequently, most banks are undergoing organisational redesigns that are aimed to improve efficiency through automations, allows for development of innovative banking services resulting in exceptional customer banking experience.

Implications

The study provides implications in the four perspectives: theoretical, practical, Social and managerial.

Theoretical: The study has brought forth a new perspective on this topical subject. Thus, the findings of the study attempted to fill a gap in the literature mentioned in the literature review. The study could determine the influence of fintech on enhancing banking services in Namibia. For example, due to the amount of time and cost involved in keeping the legacy system abreast of technological developments, banks opt to collaborate with fintech companies. In the process, efficiency and banking services are rationalised. Therefore, the study contributes to the existing literature about fintech, banks and fintech companies.

Practical: There are several practical contributions emanating from this study. First, all the participants understood the term fintech differently, which could be of interest to the banks. The study includes one fintech influence that could disrupt the sector in the future, but most participants are not aware of the situation anticipated by literature regarding the future of financial services and banks. Further, some participants are of the opinion that regulation of fintech might change the current collaborative relationship between banks and fintech companies. Regardless of the acknowledgement and possible future policies on fintech companies, there was no indication of building in-house innovative technology capabilities as a possible remedial action, should the current landscape change.

Societal: The study provides a wider spectrum to the banking sector on influence of fintech on enhancing banking services. In recent times, fintech is crucial and the conclusions of the study can be helpful to banks, specifically to smaller banks who might find out how fintech influence and enhance banking services. Further, smaller banks might find the relationships between fintech companies and banks in Namibia as well as the approach banks are taking to survive in the ever-changing financial environment due to fintech companies.

Managerial: This study illustrates how managers in banks react to the advancement of fintech and the present companies, by either taking decisions to develop their systems and services in-house or deciding to collaborate with fintech companies.

Recommendations

Following are recommendations made:

- Though the banks are refocusing on customer-centric business strategies and models, the timing of technology adoption is an aspect banks need to consider, as it is determining factor between leaders or followers in the game.
- Current cooperative interaction between banks and fintech companies is a good strategy. Hence banks may consider investing in building in-house innovative infrastructure, by investing significantly in data analytical tools to ensure timely analysis and use of information that will result in meeting customers' expectations. Attention should be directed at building the expertise in fintech innovation internally to ensure sustainable competitive advantage. The internal knowledge could also be improved by up-skilling large data interpretative skills of bank employees.
- Banks must also consider and minimise the threat if any by fintech companies by better collaboration and co-operation. This will ensure that access to innovation experts and skills is readily available, thereby providing a sustainable solution that guarantees market dominance in fintech development relating to banking services. Moreover, the influence of fintech has cracked traditional banking barriers. Banks need to consider expanding banking services by offering digital financial services to the unbanked or underbanked population. This may be a solution to increasing market share and maintaining dominance in the sector.

Future Areas for Research

The decision to pursue qualitative research was to get an in-depth understanding of the influence of fintech on enhancing banking services. This is a relatively new subject, especially in the Namibian context. Nonetheless, the influence of fintech, as revealed in the study confirms expectations by academia. However, the study found no indication of how the rate of adoption may influence competitiveness. Thus, future research can be carried out to determine the effect of rate fintech adoption on the competitive advantage of a bank. Future research can also be conducted to ascertain the effect of fintech adoption on profitability. Also, studies aiming to understand the preferred business strategies fintech companies pursue may help in anticipating possible reactions of fintech companies, should these companies be netted into a regulatory framework? As the study revealed that fintech companies may not be the only new threat banks are facing and there is an emerging threat that is eroding customer loyalty towards a bank. Customers' decision to bank with a specific bank may be determined by the accessibility, flexibility and instructiveness of a banking platform. A study to determine the magnitude of this shift may be helpful to the banking sector and provide further appreciation of customer trends and behaviours.

Conclusion

Fintech is topical and a popular subject in the banking sector especially research on fintech and how it influences the banking sector in Namibia is limited, hence this study fulfils the need to investigate fintech influence on enhancing banking services in Namibia. Further, many banks suffer from a lack of credible information about the creditworthiness of the borrowers which results in an inability to lend large amounts in some cases. Classical or manual working styles of financial institutions are known for longer processing times, heavy documentation and collateral processes and this still seems to be a legacy when it comes to operating procedures and approaches by financial institutions largely (Baporikar, 2021). Moreover, the banking sector is undergoing significant restructuring as a result of technological advancement, which influences the banking operations and delivery of banking services. Though, fintech has contributed to the improvement of banking services in Namibia in the form of improvement and enhanced efficiency due to automation and more interactive banking platforms, which threatens the competitiveness of banks. This change of perspective allows banks to timely adapt to the technological developments in the financial industry and banking sector. Further, cooperating with fintech companies strengthens competitive position of a bank and also show that the relationships between bank and fintech companies are more collaborative as opposed to competitive. It is clear that in emerging economies like Namibia, banks are pursuing strategies that are focused on offering hybrid customer channels and customer-centric digitisation aiming to improve customers' banking experience as well as to refine banking processes therefore redefining and reshaping banking (Puschmann, 2017). Sustainable competitive advantage is now dependent on the ability to rapidly innovate and or adapt disruptive technologies before rivalries do. To conclude, fintech definitely enhances the provision of banking services, as long as business models and business strategies are receptive to collaboration with fintech companies to mitigate challenges associated with the legacy system.

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