




Financial technology in a South African banking institution to achieve strategic sustainability



Authors:

Lomesh Panday¹ 
 Jabulani C. Nyawo¹ 
 Mlondi B.F. Vilakazi¹ 

Affiliations:

¹College of Law and Management Studies, Graduate School of Business and Leadership, University of KwaZulu-Natal, Westville, Durban, South Africa

Corresponding author:

Lomesh Panday,
 lomeshpanday@gmail.com

Dates:

Received: 24 Mar. 2024
 Accepted: 30 Aug. 2024
 Published: 31 Oct. 2024

How to cite this article:

Panday, L., Nyawo, J.C., & Vilakazi, M.B.F. (2024). Financial technology in a South African banking institution to achieve strategic sustainability. *South African Journal of Business Management*, 55(1), a4587. <https://doi.org/10.4102/sajbm.v55i1.4587>

Copyright:

© 2024. The Authors.
 Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

Read online:



Scan this QR code with your smart phone or mobile device to read online.

Purpose: The aim of this article was to better understand the alignment of banking business models with disruptive technologies.

Design/methodology/approach: An explorative study was used to uncover participants' views of technology adoption in a particular banking institution in South Africa. Data were collected via semi-structured interviews with 12 participants. Employing a qualitative approach, interpretive techniques were used to decode, describe and translate themes and concepts of certain phenomena.

Findings/results: Disruptive technologies offered by Fintechs are generally embraced, provided they are fit-for-purpose and deliver a value proposition to drive client-centric growth. Partnering with Fintechs plays a pivotal role in alignment between business and information technology, enabling banks to leverage technology to reach broader markets. This enables scalable growth, which is vital to sustainability.

Practical implications: The study assists South African financial institutions in aligning business models to continuously evolve with disruptive shifts in technology, and leverage technologies offered by Fintechs to maintain market relevance and grow competitive advantage in a sustainable manner.

Originality/value: It is especially pertinent to banks in South Africa and other developing nations, as it highlights important implications for partnering with Fintech companies. In addition to validating the Improved Technology Acceptance Model framework, it reveals more factors to consider when partnering with Fintechs. The results contribute to the literature on the adoption of disruptive technologies, as well as relations between banks and Fintechs, in order to improve partnerships between these entities.

Keywords: financial technology; Fintech; banking; strategy; sustainability; disruption; technology adoption.

Introduction

The world is currently going through a technological shift that has been dubbed the Fourth Industrial Revolution (4IR). In this period of 4IR, the adoption rate of digital products has exploded, creating opportunities for the digitalisation of business. Many industries, banking institutions included, are among the affected businesses.

For example, banks are witnessing consumer services such as Internet banking, integrated smartphone applications and payment systems becoming more reliant on technology. This, in turn, has an influence on how banks adapt their business models in line with disruptive advancements. The intangible nature of their relationship with technology has the potential to either provide sustainable competitive advantage, or conversely, hinder growth if they are slow to adapt to new innovations (Andersen & Wong, 2013; Louw & Nieuwenhuizen, 2020). Particularly in the banking industry, a new wave of technology-driven start-ups (Fintechs) threatens to overthrow established banks with disruptive innovation. This will continue unless these established banks offer new technologies and better services to customers (BusinessTech, 2020). Banking systems therefore need to adapt to take advantage of digital innovations and fulfil their role of facilitating sustainable growth in developing economies (Ajibade & Mutul, 2020). Such a shift from the traditional systems of banking has shown that new and emerging technologies in developing economies will foster value-driven business through digital products and services (Luyt, 2023; OfferZen, 2022; Rahman & Abedin, 2021).

For example, the uptake of cell phones in South Africa has enabled financial service providers (FSPs) to expand into areas otherwise outside the reach of the banking agency model and to customer groups previously excluded from access to bank accounts (Mungai, 2019).

With a greater adoption rate of digital products, businesses face disruptive changes in the way in which they compete. They either need to embrace change and approach their business model with a more client-centric outlook or risk losing market share until their offerings become obsolete (Andersen & Wong, 2013; Prinsloo & James, 2015). For a business to remain relevant and retain market share, it needs to adapt to new technologies (Alexander, 2022; Castleman, 2018; Weichert, 2017). Identifying these opportunities, evaluating their business value and determining how and when to leverage them are therefore vitally important. To mitigate the risk of falling further behind, the 4IR provides an advantageous platform for developing countries, such as South Africa to use these opportunities to catch-up and possibly leapfrog advanced nations.

The aim of the research was to better understand the alignment of business models with disruptive technologies to facilitate strategic sustainable growth. This contributes towards market relevance and competitive advantage. The research focussed on the banking industry, exploring Fintech adoption in a South African financial institution. It demonstrates that the relationship between Fintech companies and the banking incumbents has not only proven to be mutually beneficial, but is in fact a necessity for the sustainability, growth and progression of the industry. The research findings therefore assist traditional banks contending with digital banking entrants, seeking to prevent further loss of market share.

This article contains an introduction and then a literature review to present the existing knowledge on the topic, followed by the methodology of collecting and analysing the data for this study. This is followed by the results and discussion to explain the meaning of the findings, and finally a conclusion summarising the main points.

Literature review

The focus of this study lies within financial institutions and around the application of Fintech to achieve strategic sustainability. This includes the employment of disruptive and innovative technologies via technology vendors and partners for the purpose of achieving and maintaining competitive advantage in an organisation. These parameters guide the review on the existing body of knowledge. The scope is therefore based on their relevance to Fintech, specifically in a South African context. Additionally, the selected literature focusses on the role played by technology vendors and partners in the information technology (IT) goals of digitalisation, strategic alignment and competitive advantage.

Fintech

Fintech is a portmanteau of the words 'finance' and 'technology', and represents the combination of bank expertise with a plethora of computer technologies (Ng & Pan, 2022). It operates within the finance industry to apply innovative technology-enabled services for the purpose of improving the process, delivery and use of financial activities (Di Pietro et al., 2021; Shintre et al., 2023). While technology has always influenced the finance industry, the pace at which technological disruption is being introduced is faster than ever before. More importantly, technology firms are seeking to disrupt established financial institutions with competitive new products (Goldstein et al., 2019; Mention, 2019). Many believe that the development of Fintech will define and shape the future of the financial services industry, with the potential to change the competitive landscape by challenging traditional structures (Lee & Teo, 2015; Sy et al., 2019). This has a considerably greater impact in developing nations, as it carries significant gains for financial inclusion and increases the participation of those who have until recently been underserved (Makina, 2019). Furthermore, pressures on operational activities such as fraud checks and regulatory compliance could be eased through the use of innovative technologies (Von Solms, 2021). In doing so, Fintech can provide the ability to scale operations and therefore an opportunity to grow a financial institution more rapidly than traditionally possible (Lee & Teo, 2015; Makina, 2019). However, while Fintech presents several advantages, there is a need to balance the trade-off between the benefits and the potential risks and vulnerabilities that these technologies bring (Sy et al., 2019). Consideration therefore needs to be made to the sustainability of these solutions and the related implications thereof.

Disruption

Disruption is the practical application of innovation, the product of which is explosive technological, economic and social development. Some examples of disruptive innovations in the past include smartphones, streaming music, ride-hailing apps like Uber or accommodation services like Airbnb (Alade & Eroglu, 2023; Lepore, 2014). Understandably, innovative and disruptive technologies have been viewed as an existential threat to established businesses (Fjäder, 2022). In the banking industry, new entrants are able to compete and even challenge established banks despite having smaller companies with fewer resources (Burgazzi Rodríguez, 2024; Christensen et al., 2015).

According to a McKinsey report, Africa is the world's second fastest growing and most profitable payments and banking market after Latin America (Chironga et al., 2018). To support a cashless society coupled with digital currencies, additional pockets of innovation were identified that relate to instant card-less payments and the expansion of payment mechanisms (Van Gaalen, 2022). One such example is the Rapid Payments Programme (RPP) where the aim is to simplify the process and move away from cash transactions,

using convenient apps such as Facebook, WhatsApp or other Fintech-developed applications to allow digital transactions (Els & Bisschoff, 2023). This is an acknowledgement that a more client-centric outlook is needed in order to keep up with the increasing expectations of consumers (Finck et al., 2022). The term 'client-centricity' refers to identifying the needs of clients, customers, or people in general, and centring the business offerings on these needs (Coetzee, 2014; Halstrick, 2020; Mamonov, 2020; Nazarithrani & Mashali, 2020). This strategy ensures that businesses maximise customer value in order to create satisfaction and loyalty, thereby increasing profitability (Ching'andu, 2017).

Impact of competitive advantage and strategic alignment on market share

Those who have been slow to react to disruption have found themselves losing their competitive advantage to rivals (Andersen & Wong, 2013; Thomas, 2021). The basic emphasis is the comparative superiority that leads a firm to perform better than its competitors in the market (Gürlek & Tuna, 2018). In order to achieve and maintain a competitive advantage in a sustainable manner, an organisation needs to align IT with business goals. This statement is at the core of the studies by Haseeb et al. (2019) and Wei (2022), stating that strategic alignment is an essential factor in achieving sustainable competitive advantage. This two-way relationship ensures that IT systems are implemented in line with the strategic direction of the company. A business model with deeply inset goals of alignment will safeguard continually optimised returns from IT investments (Reed, 2023; Sabherwal et al., 2019). The primary goal here is to improve the Return on Investment (ROI) and create business value. For this to occur, business leaders and IT leaders need to step into and understand the dynamics of each other's landscapes (Elmorshidy, 2013; Schmidt et al., 2017). One of the by-products of strategic alignment is competitive advantage, which can translate to market share. Market share is a fundamental contributor to a banks' success and reputation. There is also a strong correlation between the market share of a bank and its profitability, growth and survival (Benson et al., 2023; Dinu & Bunea, 2022). Market share is therefore vital to the relevance and advancement of a bank.

Sustainable growth and strategic sustainability

The relevance of banks can be measured by their contribution to economic development and growth (Mihaela, 2013). For a conducive environment encouraging organisations to grow, IT needs to be aligned with business goals. In South Africa, one example of such an alignment is the drive to improve financial inclusion with entry-level banking accounts (Chikweche et al., 2024). Banks by offering loans and savings options to previously excluded populations showcase opportunities for long-term sustainable growth within an otherwise untapped market (Kostov et al., 2015). This speaks to the eighth Sustainable Development Goal (SDG 8) of the United Nations' (UN) 17 SDGs, which emphasises the impact

that financial inclusion has on these goals (Ozili, 2021; United Nations, 2023).

Financial inclusion

Financial inclusion is one of the nine goals of South African Reserve Bank's (SARB) Vision 2025, which sets out the goals and strategies for the national payments industry in South Africa (SARB, 2018). It involves access to, and use of, formal financial services by a previously excluded population. These previously excluded populations generally include poorer communities, but could also refer to populations previously excluded from certain financial products (Ozili, 2021).

Coopetition

The power of partnerships between established banks and Fintechs is starting to be visible. For Fintech firms, the partnership offers access to scale and to deep business expertise (Sakirovic, 2023). Established banks partnering with Fintech firms are able to access advanced digital capabilities to deliver innovative products and services, and in doing so maintain competitive advantage (Sakirovic, 2023; Scrivenger, 2021). This allows incumbent banks to take full advantage of disruptive innovations by partnering with technology companies experimenting with bleeding-edge technologies, particularly in developing nations (Si & Chen, 2020; Tanda & Schena, 2019). This is especially useful when these technologies are aligned within regulatory frameworks (Matsepe & Van Der Lingen, 2022). This partnership has been dubbed 'coopetition', and is a mutually beneficial relationship (Chelbi et al., 2022). It is defined as the strategic alliance of companies that would otherwise be competing with each other for the same market share (Corbo et al., 2022). This benefits banks by facilitating access to Fintechs' technological know-how, the agile nature of their processes, and provides more specialised services that are client-centric. Despite this kind of relationship introducing new challenges, such as security and regulatory concerns, the outcome is higher economic and financial stability (Barroso & Laborda, 2022). Additionally, Senyo and Karanasios (2020) conclude that because of coopetition, Fintech firms are able to leverage of the existing banking infrastructure to address financial inclusion.

Literature gaps

The banking industry is experiencing accelerated digital adoption, and further transitions are expected as operations become increasingly digital (BusinessTech, 2023). In developing countries, emerging technologies have been shown to foster value-driven business through digital products and services (Rahman & Abedin, 2021). Banks therefore need to align their business models with the current shift away from traditional systems of banking through these digital products and services. Despite this, there is an absence of South African business models aligned to the relationship between banks and their technology partners (Ajibade & Mutul, 2020; Nel & Boshoff, 2021).

With the shift from traditional to digital banking systems, traditional banking requirements have migrated to digital banking products and services (Kaur et al., 2021). Therefore, failure to adapt an organisation's strategy to the changing marketplace can lead to stagnation and obsolescence. While existing studies do cover the presence of strategic thinking and business models in the purview of digital banking systems, there is insufficient literature exploring how innovative and disruptive implementations impact sustainable growth and competitive advantage in the banking industry (Cullen & Calitz, 2016; Ng & Pan, 2022).

In light of the above, the objectives of the study were as follows:

1. To assess the existing business model with respect to the adoption of disruptive technologies in the South African banking institution.
2. To explore the effect of disruptive technologies on the sustainable growth of the South African banking institution.
3. To determine the effect Fintech has on the evolution of the business model in the South African banking institution.
4. To determine the possible business models that could assist the South African banking institution and their technological partners to build an effective relationship.

Technology acceptance model

The acceptance of technologies, including disruptive innovations in particular, is very relevant for the adoption of new technologies both from an organisational perspective and from a user's standpoint. There are several models tackling the user acceptance of information systems. One of the most highly regarded frameworks is the Technology Acceptance Model (TAM) (Davis et al., 1989), which depicts a user's intention to use a specific technology (Slazus & Bick, 2022). It has become one of the most widely used models in the field of IT adoption research, because of its ability to clearly explain the difference in consumer willingness to adopt new technologies (Zhang et al., 2018).

However, TAM is more suitable when considering technology adoption in areas such as e-commerce, mobile payments, and the like. The uniqueness of Fintech services calls for TAM needs to be adapted accordingly (Stewart & Jürjens, 2018). Hu et al. (2019) therefore proposed an improvement to the TAM by combining trust of Fintech services with TAM. The updated model incorporates these determinants of trust in order to investigate how users adopt Fintech services.

To better understand the adoption of Fintech in a South African banking institution, the Improved Technology Acceptance Model (iTAM) proposed by Hu et al. (2019) was used in this study. It was selected as the theoretical framework for its ability to facilitate deeper conversations surrounding the shift away from traditional systems of banking and the move towards banks offering digital products and services via technology vendors. These conversations allowed the

determinants and mechanisms of the banks' business strategies to emerge. Variables contributing towards competitive strategies and strategic growth could thus be identified. Consequently, guidelines for strategic partnerships with technology vendors could be established for the purposes of sustainability. This ultimately addressed the absence of literature on the alignment of South African business models to the relationship between banks and their technology partners for strategic sustainability.

The iTAM model (Hu et al., 2019) is comprised of eight factors to determine an end-users intention to adopt a new technology, that is Perceived usefulness (PU), Perceived ease of use (PEU), Attitudes (ATT), Trust (TRU), Brand image (BI), Perceived risk (PR), Government support (GS) and User innovativeness (UI). Each of these variables contributes towards measuring the end-user's intention to adopt a Fintech service (INT).

Methodology

Research approach

The aim of this study was to better understand technology adoption of Fintech in the banking sector, the drivers of such behaviour and if and how it may be changed. It was predominately interested in the relationship between business decisions and strategic behaviour, and how this facilitates more informed choices of an organisation's activities and direction (Saunders et al., 2019). This implies that the phenomenon being researched is not measurable in nature, but rather requires a deeper understanding using a more explanatory and descriptive approach. It has therefore been deduced that the best way to understand Fintech adoption in a more comprehensive manner is via increased contact time with participants of the study. Based on this, a qualitative approach was employed for this study, adopting a subjectivist, interpretive research paradigm.

As a consequence of the explorative nature of the study, qualitative data have been used to uncover participants' views of technology adoption in a particular banking institution in South Africa. The data were collected through the use of semi-structured interviews with 12 participants. As this study employs a qualitative approach, interpretive techniques have been used to decode, describe and translate themes and concepts of certain phenomena.

Study site

The chosen paradigm used a particular banking institution (study site) as a case study. The study was conducted at the Head Office of a bank located in Johannesburg, in the province of Gauteng, within South Africa. The reason for selecting this institution as the study site was because the researcher had access to information from this bank, which served to streamline the data collection. Additionally, the benefits of the study would primarily be felt by the institution being used as a case study, as well as financial counterparties within the

banking sector. Prior to selecting this particular banking institution as the case study, groundwork was undertaken to ensure that the company employs the use of Fintech and related disruptive technologies. It was also important that a stance on the adoption of these technologies has been defined and the philosophy on Fintech partnerships declared. This allows an elevated level of conversations between the researcher and interview subjects since the grounding stance and philosophy regarding the company's approach to Fintech have already been established. Finally, the willingness of participants was gauged prior to the study via conversations with several potential participants and senior management. This confirmed the feasibility of gathering data for this research study, with minimal resistance.

Sampling and data collection

The target population is comprised of executives in the selected bank as these are the individuals directing the IT strategy of the organisation. This particular bank was selected as the study site as it was the most accessible and familiar institution to the researcher, providing greater access to information, thereby streamlining the data collection. The researcher gathered qualitative data over a 2-month period (February 2023 to March 2023). Out of 12 interviews, 9 lasted for an hour, while the other 3 lasted for 90 min. Purposive sampling was used as the sampling strategy, and the sample size of the study was 12. This is in accordance with recommendations for qualitative data collection (Bertaux & Bertaux, 1981; Hennink & Kaiser, 2022). It is also in line with other Fintech studies employing a qualitative approach, such as those by Brantley (2022) who used 20 respondents, Alam and Saputro (2022) who used 10 respondents and Lestari and Rahmanto (2023) who used 8 respondents.

Semi-structured interviews were used as the data collection tool. This format was selected as it promotes an open yet structured dialogue whereby the discussion is guided by themes already defined in the iTAM framework. It allowed themes to emerge from the interviews, which are expected to coincide with variables identified in the iTAM (Hu et al., 2019). Semi-structured interviews achieve this by consisting of several key questions that help to define the areas to be explored, while allowing the conversation to diverge to related sub-topics in order to pursue an idea or response in more detail.

In terms of the inclusion criteria, each participant of the study possessed a minimum of 10 years' experience in the banking industry, with at least 5 years in senior management. This was based on a claim by Hutton et al. (2019) that most founders of Fintech start-ups have 5–10 years' experience in the industry. The researcher used this tenure in the Fintech industry as a guideline for the appropriate level of experience required for credible opinions. In addition to tenure, the participants ideally have influence in strategic decisions surrounding the adoption of Fintech, as this ties in with the topic of the study.

Data analysis

The qualitative data that were collected were analysed using thematic analysis in order to identify recurring themes. Analysis began in the interview phase, where interviews with participants were recorded using an audio recorder. These recordings were later transcribed, and the transcriptions were coded and analysed with NVivo, using the six-steps of thematic analysis (Braun & Clarke, 2006, 2012).

By following the six-steps of thematic analysis, latent themes were expected to emerge (Busetto et al., 2020). The approach of latent themes refers to interpreting the underlying data in a manner that involves reading into the sub-text, as opposed to the semantic approach which involves analysing the explicit content of the data. The latent approach is more interested in what the respondents' statements reveal about their assumptions and social context (Braun & Clarke, 2006, 2012; Maguire & Delahunt, 2017). This method of data analysis falls in line with the goals of the research, which are to uncover recurring themes in order to better understand the alignment of business models with disruptive technologies. Using this method, the interviews provided rich descriptive data. The data were then interpreted using thematic analysis (Braun & Clarke, 2006, 2012; Maguire & Delahunt, 2017). The use of this approach combined with the iTAM framework (Hu et al., 2019) allowed themes to emerge that were strongly linked to the data, as well as preconceived themes from the data based on existing knowledge. This process consisted of defining the unit of analysis from the expected themes, and then analysing, identifying and interpreting patterns of meaning from the interview conversations.

The quality of the data collected plays a huge role in the quality of the research study. The guidelines of Singh (2017) were therefore followed to encourage the reliability of responses to knowledge questions. Reliability is determined by the consistency or variance of the respondents' answers on an issue. Additionally, key criteria by Stenfors et al. (2020) and Nowell et al. (2017) were used to evaluate the trustworthiness of the research. These key criteria are credibility, transferability, dependability, confirmability and reflexivity.

Ethical considerations

This study was approved via written consent by the University of KwaZulu-Natal Ethics Committee (HSSREC) with protocol approval number HSSREC/00004625/2022. To protect the identities of the participants, the data have been anonymised by removing personal identifiers from the study documents, and segregating the content of the data from the identities of the participants. Informed consent forms were provided and obtained from participants prior to their involvement. While this ensured that the standards and guidelines for ethical collection of data were adhered to, it also served to protect the identities of participants for the study.

Results and discussion

The research results are discussed in this section to explain the meaning of the findings. They are structured by accompanying each research objective with an interpretation of the data analysis.

Existing business model with respect to adoption of disruptive technologies

One of the sub-themes identified in the data analysis established that the current stance on disruptive technologies varied, with some welcoming and embracing it. A general opinion from 8 of the 12 participants (67%) was that the use of disruptive technologies needs to be based on the business case. This is at the core of the study by Haseeb et al. (2019), stating that strategic alignment is essential to achieving sustainable competitive advantage, and ensures continually optimised returns from IT investments (Sabherwal et al., 2019). More importantly, the requirement that a technology be fit-for-purpose aligns with providing a positive impact on client needs (Mamonov, 2020; Mention, 2019). This effect has been captured by the views of Nazaritehrani and Mashali (2020), stating that as technology matures and is adopted by businesses, it provides customers with improved value. In turn, this contributes to increased market share and profitability.

Conversely, 5 of the 12 participants (42%) felt that there was an absence of opinion regarding the business stance on disruptive technologies. This was evidenced by the reluctance to pursue or explore disruptive technologies further, because of being overly cautious of the hype or to avoid adopting a technology because it did not bring tangible value to the business or clients. Regarding the iTAM framework, this reluctance can be attributed to a lack of TRU. Being cautious about its application ties in with PR, while a concern that it will not bring tangible value to the business or clients is related to BI.

Another sub-theme explored the preference of banks to partner with Fintechs offering disruptive technologies. Most of the respondents (9 of the 12 participants [75%]) agreed on partnering with Fintechs that already had established technologies at their disposal, rather than building it themselves. This aligns with the opinion of Si and Chen (2020), stating that the efforts of dominant incumbents fell short when compared against new entrants with newer technologies. Therefore, partnering with Fintechs enabled markets to be reached quicker and easier, and is more cost-effective and practical especially where the solution is non-differentiating. However, to ensure success, these technologies need to be aligned within regulatory frameworks (Matsepe & Van Der Lingen, 2022). Additionally, the presence of Fintech contributed towards a more competitive environment and opened up the financial services value chain, particularly in developing nations (Tanda & Schena, 2019). One example is the Open Banking offering, allowing customers to personalise their banking experience by

providing access to APIs (Application Programming Interfaces) (Luyt, 2023; OfferZen, 2022). This is necessary for banks to keep up with the pace of technology and for the industry to remain relevant (Weichert, 2017). As a result, Fintechs are viewed as leveraging towards the future sustainability of the industry. The presence of Fintechs and their contributions all speak to PU within the iTAM framework.

Another consideration was about being selective on what to partner with Fintechs on, in order to support or enhance client relationships and not jeopardise the trust of those clients. From the interviews, 4 of the 12 participants (33%) viewed this as a meaningful, value-added relationship between banks and Fintechs, as Fintech needed clients belonging to the banks and banks need Fintechs to enhance their service offerings to make it cheaper, better and faster. The TRU aspect between the banks and their Fintech partners, and of their clients, speaks to this factor of the iTAM framework.

The effect of disruptive technologies on sustainable growth

One of the sub-themes in the data analysis examined sustainable growth as a key factor when developing business goals. Sustainability is about growth, and therefore the aspect of scaling is prominent. Technology is a crucial enabler in the scaling process and allows for increasing the client base and extending for cross-sectional growth into other market opportunities (Hutton et al., 2019; Scrivenger, 2021; Sy et al., 2019). However, technology needs to provide a value proposition to drive client value and resonate with customers (Halstrick, 2020; Mamonov, 2020; Mention, 2019; Nazaritehrani & Mashali, 2020). A related sub-theme therefore explores how Fintech partnerships advance the structure of the banking industry in South Africa. This is needed to satisfy current objectives to address the opportunities of unbanked clients, increase financial inclusion, improve the volume of banking services and promote a better understanding of clients. In general, Fintech partnerships can advance the banking industry by promoting new ways of thinking, such as improved operations, problem-solving and business models. It therefore follows that Fintech services are best positioned via collaboration between third-parties and established financial institutions (Kassab & Laplante, 2022).

One of the challenges of turning business strategies into sustainable growth and competitive advantage is that of leadership and strategy. This involves educating the executive leadership on disruptive technologies. There is a need for greater communication between business leaders and IT leaders, for them to understand the dynamics of each other's landscape (Elmorshidy, 2013; Schmidt et al., 2017). To address this, Andersen and Wong (2013) propose that companies be skilful enough to undertake both exploration and exploitation activities simultaneously. Another challenge worth noting is the human resources element, as many high-end technology

skills are leaving South Africa (Banda, 2021). A people strategy is therefore crucial to invest in staff and ensure that they remain the core and critical function of the organisation. This entails skills development, retention, staff mindset and other facets that can promote a better staff culture towards technology adoption.

There also needs to be a core focus on turning business strategies into competitive advantage. It needs to be derived from sustainable characteristics, and not simply a zero-sum game where the gains from one bank come at the cost of another bank's loss (Wei, 2022). Especially in developing countries, this involves a strategy where organisations work together with their competitors, otherwise known as cooptation (Chelbi et al., 2022). Some of the opportunities to enable this are cross-selling to reach new markets and focussing on middle- to lower-income earners instead of exclusively the high-income individuals. In South Africa, the drive for financial inclusion aligns with one of the nine goals of SARB's Vision 2025 (Ozili, 2021; SARB, 2018). The transition from physical to digital is another opportunity offering customers to move from a cashless to a digital currency society. These exciting and innovative financial services are possible with a digital identity, which can then facilitate many other processes thereof, such as curbing and mitigating financial crime and corruption.

Generally, the details mentioned above contribute towards the INT factor of the iTAM framework (Hu et al., 2019).

The effect of FinTech on the evolution of business models in banking institutions

One of the sub-themes from the data analysis explores Fintech technologies and their influence on the business model. From a business development needs perspective, these disruptive technologies influence the business model because they need to fit the business case of the organisation, instead of the business simply adopting technology for the sake of it (Mamonov, 2020; Mention, 2019). It needs to fulfil a particular need and provide a differentiating factor that revolves around the client, to offer a unique product that creates competitiveness (Halstrick, 2020). Just as important is the need for these technologies to enhance operations within the business model. A clear advantage is where these Fintech tools take care of technology maintenance to allow the bank to focus on core business. Another advantage is the ability of a business to expand and scale according to an increase in market share, or to operate across geographical boundaries, or to cater for a diverse clientele. A currently trending topic is the ability to disseminate the banking license to other platforms, allowing for financial services to be offered by other organisations. This disruptive strategy extends the banks reach by allowing them to partner with other businesses and industries, for example, a supermarket.

In terms of the iTAM framework, PU may be attributed to the ability of disruptive Fintech technologies to influence the business model based on their fit to the business case of

the organisation. Similarly, UI may be attributed to the requirement to fulfil a differentiating factor for the client with a unique product (Halstrick, 2020; Mention, 2019). The potential resistance from staff towards disruptive technologies ties in with the ATT and TRU factors.

Finally, competitive advantage and market relevance have a significant influence on the evolution of the business model. Banks are aware of this, and as such are re-evaluating their strategic direction to ensure that they remain relevant and competitive (Weichert, 2017). This is because of a few factors, the first of which is innovation, as this provides a lot of cost savings when innovating around traditional processes. The position of Andersen and Wong (2013) is aligned to this view, stating that competitive advantage is bolstered through Open Innovation (OI), whereby partnerships and alliances share resources instead of owning them. This relates directly to the UI factor of the iTAM framework. In doing so, it increases market access to lower-income clients, bringing about competitiveness. Increasing access to clients speaks to the PEU factor of the iTAM framework. The second factor is market relevance, which will need to adapt according to the types of markets being targeted. For example, when targeting the Generation Z age group, the product offerings will be different to targeting a much older generation, and therefore personalised and unique to that target market. This is an opportunity for the BI of the business to be expanded.

Another sub-theme emerging from the data analysis, discussed factors to consider when implementing a technology model to support business sustainability. The first factor is strategic conceptualisation, as technology models need to have a strategic component where it incorporates business strategy as a key construct. The second factor to consider is that the model must incorporate the right infrastructure and governance measure. This is where appropriate technology architecture must be defined in order to prepare for the necessary infrastructure. Similar considerations need to apply to data governance, which pertains to the aspect of security and privacy measures. The third factor is value and purpose, where the value proposition of the technology must be defined, as it needs to be built on the concept of strong relationships (Mamonov, 2020; Mention, 2019). The final factor to consider is people. The right people with the relevant skills must fit the model in order for them to be motivated and driven towards disruptive technologies. A successful technology model needs to be built around all of these factors in order to support business sustainability. The first and third factors mentioned here relate to the PU of the iTAM framework. The GS factor, while not explicitly mentioned, plays an implicit role in the regulatory aspect and governance considerations of formulating a business model.

Business models assisting banking institutions and their technological partners to build effective relationships

Differing business models surfaced from the study, each with various approaches to relationships between banking

institutions and their technological partners. One approach to the business model encourages strategic alignment between these entities. Similarly, another approach is one whereby opportunities such as financial inclusion are outsourced to Fintechs, while the banking institution maintains a strategic focus on differentiation. Here, the drive for sustainable growth is the core focus. Other business models focus on how banks adapt and respond to evolving market dynamics, coupled with the expediting role that government plays in creating awareness and coordinating tech adoption.

The data analysis also explored the current mechanisms for strategic alignment between business goals and IT implementations. From this, technology was a constituent of the organisational strategic goals and objectives. By enabling the goals to be related to growth and cost-effectiveness, they become a key driver to organisational and strategic decision-making. The sub-theme also explored structural awareness in order for relevant stakeholders to be sufficiently educated on technology, thereby empowering them to make informed decisions on related implementations. These mechanisms for strategic alignment tie in with the PU factor of the iTAM framework. This approach encourages a business model deeply inset on strategic alignment between the banking institution and its technological partners.

Another challenge is the lack of priority being given to Fintechs, caused by a lack of understanding in the technologies they offer. Executives especially do not always appreciate the full potential of Fintechs and how they could be leveraged. For example, Senyo and Karanasios (2020) claim that through co-competition, Fintech firms are able to leverage existing banking infrastructure to address financial inclusion, primarily in developing nations. The lack of understanding of Fintechs, leading to reduced priority, is considered a PR. Equally, the ability of a Fintech to convert a challenge into an opportunity is reliant on UI from the iTAM framework.

One of the sub-themes arising from the study focussed on the constructs needed for effective relationship building towards sustainability. The first requirement of a sustainable relationship is partnering for a purpose (Mamonov, 2020; Mention, 2019). At the core of this relationship is a problem-solving nature, seeking to provide client solutions. The second requirement is that, the relationship must promote cohesive collaboration, with free-flowing communication and transparency to create trust within the Fintech partnership. These requirements tie in with the UI factor of the iTAM framework.

Coetzee (2018) points out that assessments of Fintech disruptors have forced banks to think more strategically about the use of new technologies. The last sub-theme therefore focussed on criteria for establishing the Fintech relationship. One of the criteria is that the partnership preferably be with an experienced and established Fintech

with a strong track record, which is solution-driven, and stable enough to sustain themselves outside of this partnership. Another important criterion is progression, meaning that the partnership be future-orientated and cognisant of future strategies. It correlates with sustainability, where Fintechs share a future-proof vision, such as taking a bank across geographical regions or scaling alongside the bank. The final criterion needed to establish a Fintech relationship is risk analysis. This involves the necessary due diligence and risk analysis being performed before engaging in a partnership in order to satisfy regulatory and compliance requirements. As discussed by Sy et al. (2019), there is a need to balance the trade-off between the benefits and potential risks and vulnerabilities that these innovative technologies bring. The last points correspond with the PR of the iTAM framework.

Conclusion

The data analysis uncovered sub-themes and related recommendations for each research question. Overall, while the current stance on disruptive technologies varied, the general opinion is in favour of Fintechs, provided that the solutions they offer are fit-for-purpose and provide a value proposition to drive client value and resonate with customers. Partnering with Fintechs therefore plays a pivotal role in automating traditional banking processes, enabling them to reach broader markets quickly and easily.

Additionally, disruptive technologies are crucial for enabling scalable growth, which is vital to strategic sustainability. It is therefore essential to garner the support of leadership, and for them to understand the full potential of disruptive technologies and how they could be leveraged via Fintechs. Doing so will aid in defining the necessary technology adoption and growth strategies of the business, to receive the required alignment from the top level. These kinds of strategies provide the opportunities to be translated into sustainable growth and competitive advantage, such as extending to broader markets or bringing new products to market.

It is also important to note that the partnerships between banks and Fintechs are a symbiotic relationship. The presence of Fintechs is therefore considered to be enriching the relationship instead of disrupting it. This is needed for banks to keep up with the pace of technology and for the industry to remain relevant. The end result is that these partnerships advance the structure of the banking industry and heavily influence the future sustainability of banking. Using the innovation offered by Fintechs provides a platform for clients to be placed at the centre of design thinking. This is especially useful in efforts to improve financial inclusion and the operations and efficiency of banks. From these advantages offered by Fintechs, it is clear that they have an impact on the evolution of banking business models, and by extension the competitive advantage and business sustainability of banks. Fintech partnerships are particularly beneficial when they materialise from a unique

product that can differentiate the bank and create competitiveness. Alternatively, these partnerships are valuable when they enable the bank to expand and scale in market share or across geographical boundaries.

Finally, to build effective relationships between banking institutions and their technological partners, strategic alignment is needed between business goals in IT implementations. This needs to be adopted alongside a client-centred business model to ensure that the client experience is significantly catered for.

Acknowledgements

This article is partially based on the author, Dr. Lomesh Panday's thesis entitled 'Exploring financial technology in a South African banking institution to achieve strategic sustainability' toward the degree of Doctorate of Business Administration in the Graduate School of Business & Leadership, College of Law and Management Studies, University of KwaZulu-Natal, Westville, South Africa with supervisors Dr. Jabulani Christopher Nyawo and Dr. Mloni Blessing Fika Vilakazi, received 13 October 2023. No link was available at the time of publication.

Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

L.P. contributed to the design and implementation of the research, to the analysis of the results and to the writing of the article. J.C.N. and M.B.F.V. supervised the research study.

Funding information

The authors received no financial support for the research, authorship, and/or publication of this article.

Data availability

The data that support the findings of this study are available from the corresponding author, L.P., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. The article does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

References

Ajibade, P., & Mutul, S.M. (2020). Big data, 4IR and electronic banking and banking systems applications in South Africa and Nigeria. *Banks and Bank Systems*, 15(2), 187–199. [https://doi.org/10.21511/bbs.15\(2\).2020.17](https://doi.org/10.21511/bbs.15(2).2020.17)

Alade, I., & Eroglu, Z.G.K. (2023). Disruptive innovations or enhancing financial inclusion: What does Fintech mean for Africa? *Vanderbilt Journal of Transnational Law*, 56, 673. <https://doi.org/10.2139/ssrn.4215020>

Alam, A., & Saputro, I.A. (2022). A qualitative analysis of user interface design on a Sharia Fintech application based on technology acceptance model (TAM). *Journal TAM (Technology Acceptance Model)*, 13(1), 9. <https://doi.org/10.56327/jurnaltam.v13i1.1142>

Alexander, R. (2022). *Key opportunities and challenges for 4IR in South Africa*. University of Johannesburg.

Andersen, B., & Wong, D. (2013). *The new normal*, The Big Innovation Centre.

Banda, M. (2021). *The evolution of digital transformation*. Retrieved from <https://www.intelligentcio.com/africa/2021/06/21/the-evolution-of-digital-transformation/>

Barroso, M., & Laborda, J. (2022). Digital transformation and the emergence of the Fintech sector: Systematic literature review. *Digital Business*, 2(2), 100028. <https://doi.org/10.1016/j.digbus.2022.100028>

Benson, D., Bord, V., Garner, A., & Taragin, C. (2023). *Size and survival of entrants to retail banking*. Board of Governors of the Federal Reserve System.

Bertaux, D., & Bertaux, D. (1981). *Biography and society: The life history approach in the social sciences*. Sage Publications.

Brantley, R.L. (2022). *Determinants of Black American FINTECH acceptance: A technology acceptance model (TAM) qualitative case study*. Northcentral University.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>

Braun, V., & Clarke, V. (2012). *Thematic analysis*. American Psychological Association.

Burgazzi Rodríguez, G. (2024). *Decentralized, iterative, and adaptive: Adoption of AR technologies in crisis within the pharmaceutical manufacturing industry*. University of Twente.

Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(1), 14. <https://doi.org/10.1186/s42466-020-00059-z>

BusinessTech. (2020). *Banks need to transform and find their higher purpose*. Retrieved from <https://businesstech.co.za/news/industry-news/381065/banks-need-to-transform-and-find-their-higher-purpose/>

BusinessTech. (2023). *Shake-up for banking in South Africa – These are the trends to watch*. BusinessTech. Retrieved from <https://businesstech.co.za/news/banking/659165/shake-up-for-banking-in-south-africa-these-are-the-trends-to-watch/>

Castleman, R.-L. (2018). *The role of dynamic capabilities in the strategic management of payment disruption in the South African banking industry*. <https://WorldCat.org>.

Chelbi, O., Rayna, T., & Souchaud, A. (2022). The creation of ecosystems as a mean for business model adaptation: How banks chose to respond to the rise of Fintech startups. *Journal of Business Models*, 10(1), 19–29. <https://doi.org/10.54337/jbm.v10i1.6804>

Chikweche, T., Lappeman, J., & Egan, P. (2024). Marketing financial services in Africa: Exploring the heterogeneous middle-class consumer across nine countries. *Journal of Financial Services Marketing*, 29(1), 1–16. <https://doi.org/10.1057/s41264-022-00179-4>

Ching'andu, B.M. (2017). *Client-centric strategy in South African banks: Perceptions of bank employees as staff members and as bank customers*. University of Pretoria.

Chironga, M., Cunha, L., De Grandis, H., & Kuyoro, M. (2018). *Roaring to life: Growth and innovation in African retail banking*. McKinsey & Company.

Christensen, C.M., Raynor, M., & McDonald, R. (2015). What is disruptive innovation? *Harvard Business Review*, 93(12), 44–54.

Coetzee, J. (2014). Client-centricity in South African retail banking. *International Business & Economics Research Journal (IBER)*, 13(5), 997–1016. <https://doi.org/10.19030/iber.v13i5.8767>

Coetzee, J. (2018). Strategic implications of Fintech on South African retail banks. *South African Journal of Economic and Management Sciences*, 21(1), 1–11. <https://doi.org/10.4102/sajems.v21i1.2455>

Corbo, L., Kraus, S., Vlačić, B., Dabić, M., Caputo, A., & Pellegrini, M.M. (2022). Competition and innovation: A review and research agenda. *Technovation*, 122, 102624. <https://doi.org/10.1016/j.technovation.2022.102624>

Cullen, M., & Calitz, A.P. (2016). *An evaluation of banking service levels in South Africa*. Research Gate.

Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003. <https://doi.org/10.1287/mnsc.35.8.982>

Di Pietro, R., Raponi, S., Caprolu, M., & Cresci, S. (2021). Fintech. In R. Di Pietro, S. Raponi, M. Caprolu, & S. Cresci (Eds.), *New dimensions of information warfare* (pp. 99–154). Springer-Verlag.

Dinu, V., & Bunea, M. (2022). The impact of competition and risk exposure on profitability of the Romanian banking system during the COVID-19 pandemic. *Journal of Competitiveness*, 14(2), 5–22. <https://doi.org/10.7441/joc.2022.02.01>

Elmorshidy, A. (2013). Aligning IT with business objectives: A critical survival and success factor in today's business. *Journal of Applied Business Research*, 29(3), 819–828. <https://doi.org/10.19030/jabr.v29i3.7783>

Els, D., & Bisschoff, C.A. (2023). A post-COVID model to measure brand loyalty of banking clients. *Banks and Bank Systems*, 18(2), 24–37. [https://doi.org/10.21511/bbs.18\(2\).2023.03](https://doi.org/10.21511/bbs.18(2).2023.03)

- Finck, N., Bowden, M., Carter, F., Carttling, C., Loreface, V., & Vanderveen, J. (2022). FinTech: the global wealth management industry. In N. Finck, M. Bowden, F. Carter, C. Carttling, V. Loreface, & J. Vanderveen (Eds.), *Transformation dynamics in FinTech: An openinnovation ecosystem outlook* (pp. 205–245). World Scientific.
- Fjäder, C. (2022). Emerging and disruptive technologies and security: Considering trade-offs between new opportunities and emerging risks. In C. Fjäder (Ed.), *Disruption, ideation and innovation for defence and security* (pp. 51–75). Springer.
- Goldstein, I., Jiang, W., & Karolyi, G.A. (2019). To FinTech and beyond. *The Review of Financial Studies*, 32(5), 1647–1661. <https://doi.org/10.1093/rfs/hhz025>
- Gürlek, M., & Tuna, M. (2018). Reinforcing competitive advantage through green organizational culture and green innovation. *The Service Industries Journal*, 38(7–8), 467–491. <https://doi.org/10.1080/02642069.2017.1402889>
- Halstrick, T. (2020). *Determining a bank's customer value proposition based on customer value dimensions*. University of Twente.
- Haseeb, M., Hussain, H.I., Kot, S., Androniceanu, A., & Jermsittiparsert, K. (2019). Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance. *Sustainability*, 11(14), 3811. <https://doi.org/10.3390/su11143811>
- Hennink, M., & Kaiser, B.N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Hu, Z., Ding, S., Li, S., Chen, L., & Yang, S. (2019). Adoption intention of Fintech services for bank users: An empirical examination with an extended technology acceptance model. *Symmetry*, 11(3), 340. <https://doi.org/10.3390/sym11030340>
- Hutton, M., Bhana, T., Allen, S., & Nursoo, U. (2019). *The SA FinTech in motion report*. R. M. Bank.
- Kassab, M., & Laplante, P. (2022). Trust considerations in open banking. *IT Professional*, 24(1), 70–73. <https://doi.org/10.1109/MITP.2021.3136015>
- Kaur, S.J., Ali, L., Hassan, M.K., & Al-Emran, M. (2021). Adoption of digital banking channels in an emerging economy: Exploring the role of in-branch efforts. *Journal of Financial Services Marketing*, 26(2), 107. <https://doi.org/10.1057/s41264-020-00082-w>
- Kostov, P., Arun, T., & Annim, S. (2015). Access to financial services: The case of the 'Mzansi' account in South Africa. *Review of Development Finance*, 5(1), 34–42. <https://doi.org/10.1016/j.rdf.2015.04.001>
- Lee, D.K.C., & Teo, E.G. (2015). Emergence of FinTech and the LASIC principles. *Journal of Financial Perspectives*, 3(3), 24–36. <https://doi.org/10.2139/ssrn.2668049>
- Lepore, J. (2014). The disruption machine. *The New Yorker*, 23, 30–36.
- Lestari, D., & Rahmanto, B.T. (2023). Fintech and its challenge for banking sector. *The Management Journal of BINANIAGA*, 6(1), 55–70. <https://doi.org/10.33062/mjb.v6i1.428>
- Louw, C., & Nieuwenhuizen, C. (2020). Digitalisation strategies in a South African banking context: A consumer services analysis. *South African Journal of Information Management*, 22(1), 1–8. <https://doi.org/10.4102/sajim.v22i1.1153>
- Luyt, R. (2023). *What is programmable banking?* OfferZen. Retrieved from <https://docs.offerzen.com/en/articles/6544440-what-is-programmable-banking>
- Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9(3), 3351.
- Makina, D. (2019). The potential of FinTech in enabling financial inclusion. In D. Makina (Ed.), *Extending financial inclusion in Africa* (pp. 299–318). Elsevier.
- Mamonov, S. (2020). The role of information technology in FinTech innovation: Insights from the New York City ecosystem. In *Conference on e-Business, e-Services and e-Society*, 06–08 April 2020 (pp. 313–324). Springer.
- Matsepe, N.T., & Van Der Lingen, E. (2022). Determinants of emerging technologies adoption in the South African financial sector. *South African Journal of Business Management*, 53(1), 2493. <https://doi.org/10.4102/sajbm.v53i1.2493>
- Mention, A.-L. (2019). *The future of fintech* (Vol. 62, pp. 59–63). Taylor & Francis.
- Mihaela, S. (2013). Issues of marketing strategies in the banking industry. *Ovidius University Annals, Series Economic Sciences*, 13(1), 611–630.
- Mungai, K. (2019). *The economic impact of FinTech in the South African banking industry: A case of digital disruption*. University of the Western Cape.
- Nazaritehrani, A., & Mashali, B. (2020). Development of e-banking channels and market share in developing countries. *Financial Innovation*, 6(1), 12. <https://doi.org/10.1186/s40854-020-0171-z>
- Nel, J., & Boshoff, C. (2021). Traditional-bank customers' digital-only bank resistance: Evidence from South Africa. *International Journal of Bank Marketing*, 39(3), 429–454. <https://doi.org/10.1108/IJBM-07-2020-0380>
- Ng, E., & Pan, S.L. (2022). Competitive strategies for ensuring Fintech platform performance: Evidence from multiple case studies. *Informing Systems Journal*, 34(3), 616–641. <https://doi.org/10.1111/ijis.12406>
- Nowell, L.S., Norris, J.M., White, D.E., & Moules, N.J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1609406917733847. <https://doi.org/10.1177/1609406917733847>
- OfferZen. (2022). *Programmable banking for software developers*. OfferZen. Retrieved from <https://www.offerzen.com/community/investec/>
- Ozili, P.K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, 50(4), 457–479. <https://doi.org/10.1080/07360932.2020.1715238>
- Prinsloo, C., & James, I. (2015). *Digital disruption, changing the rules of business for a hyper connected world*. Retrieved from https://www.gibs.co.za/aboutus/centres/Business%20Analysis%20And%20Research/Documents/digital%20disruption_GIBS_small_spreads.pdf
- Rahman, A., & Abedin, M.J. (2021). The fourth industrial revolution and private commercial banks: The good, bad and ugly. *International Journal of Organizational Analysis*, 29(5), 1287–1301. <https://doi.org/10.1108/IJOA-05-2020-2218>
- Reed, J.H. (2023). Modeling and measuring strategic alignment. *Journal of Strategy and Management*, 16(4), 654–671. <https://doi.org/10.1108/JSMA-11-2022-0212>
- Sabherwal, R., Sabherwal, S., Havakhor, T., & Steelman, Z. (2019). How does strategic alignment affect firm performance? The roles of information technology investment and environmental uncertainty. *MIS Quarterly*, 43(2), 453–474. <https://doi.org/10.25300/MISQ/2019/13626>
- Sakirovic, B.A. (2023). *Adapting to Fintech disruption: Comparative case study of banking strategies from developed and emerging countries*. Saint-Petersburg University.
- SARB. (2018). *The national payment system framework and strategy – Vision 2025*. South African Reserve Bank.
- Saunders, M.N.K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.
- Schmidt, J., Drews, P., & Schirmer, I. (2017). *Digitalization of the banking industry: A multiple stakeholder analysis on strategic alignment*. Americas Conference on Information Systems.
- Scrivener, E. (2021). *What's on the digital horizon for wealth management?* Investec. Retrieved from https://www.investec.com/en_gb/focus/innovation/what-is-on-the-digital-horizon-for-wealth-management.html
- Senyo, P., & Karanasios, S. (2020). How do fintech firms address financial inclusion? In *International Conference on Information Systems (ICIS) 2020 Proceedings, 13–16 December 2020*. Association for Information Systems.
- Shintre, P., Bhandwalkar, S., Zirkande, M.P., & Deshmukh, M.S. (2023). A study on select FinTech segment as a disruptive technology in financial services. *Journal of Research Administration*, 5(2), 5010–5021.
- Si, S., & Chen, H. (2020). A literature review of disruptive innovation: What it is, how it works and where it goes. *Journal of Engineering and Technology Management*, 56, 101568. <https://doi.org/10.1016/j.jengtecman.2020.101568>
- Singh, A.S. (2017). Common procedures for development, validity and reliability of a questionnaire. *International Journal of Economics, Commerce and Management*, 5(5), 790–801.
- 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>
- Stenfors, T., Kajamaa, A., & Bennett, D. (2020). How to ... assess the quality of qualitative research. *The Clinical Teacher*, 17(6), 596–599. <https://doi.org/10.1111/tct.13242>
- Stewart, H., & Jürjens, J. (2018). Data security and consumer trust in FinTech innovation in Germany. *Information & Computer Security*, 26(1), 109–128. <https://doi.org/10.1108/ICS-06-2017-0039>
- Sy, M.A.N., Maino, M.R., Massara, M.A., Saiz, H.P., & Sharma, P. (2019). *FinTech in sub-Saharan African countries: A game changer?* International Monetary Fund.
- Tanda, A., & Schena, C.-M. (2019). *FinTech, BigTech and banks: Digitalisation and its impact on banking business models*. Springer.
- Thomas, G. (2021). *Strategic responses to disruption by established SMEs in a declining industry*. Queensland University of Technology.
- United Nations. (2023). *Sustainable development goals: Goal 8*. United Nations. Retrieved from <https://sdgs.un.org/goals/goal8>
- Van Gaalen, P. (2022, May 04). Six innovation trends disrupting financial services. *Investec Focus*, 2023, p. 1. Retrieved from https://www.investec.com/en_zs/focus/innovation/six-innovation-trends-disrupting-financial-services.html
- Von Solms, J. (2021). Integrating Regulatory Technology (RegTech) into the digital transformation of a bank treasury. *Journal of Banking Regulation*, 22(2), 152–168. <https://doi.org/10.1057/s41261-020-00134-0>
- Wei, K.Y. (2022). *Slicing the social pie: How scarcity and competition shape symbolic zero-sum beliefs*. PhD dissertation. University of Chicago.
- Weichert, M. (2017). The future of payments: How FinTech players are accelerating customer-driven innovation in financial services. *Journal of Payments Strategy & Systems*, 11(1), 23–33. <https://doi.org/10.69554/IJHTK5372>
- Zhang, T., Lu, C., & Kizildag, M. (2018). Banking 'on-the-go': Examining consumers' adoption of mobile banking services. *International Journal of Quality and Service Sciences* 10(3), 279–295. <https://doi.org/10.1108/IJQSS-07-2017-0067>