



Digital innovation and disruptive potential by FinTech companies in South Africa

Amelia Freund

Student number: 556969

A dissertation submitted to the Wits Business School in the University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Innovation Studies

Johannesburg, February 2024

ABSTRACT

FinTech companies are seen bring innovation to the financial services industry that provide an enhanced customer experience and improves financial inclusion. A contradiction exists between academic and business literature around the potential impact of the FinTech revolution on the industry and banks as incumbents in the financial services industry. This paper aims to clarify this by assessing the degree of potential disruption that domestic new-entrant FinTech companies in the payments sub-sector have on incumbent banks in South Africa, so that both parties could make informed decisions that benefit the industry and its customers.

This qualitative study examines the drivers of potential disruption and the decisions made by both FinTech new-entrants and banks to develop a synthesis for a likely future scenario relating to potential changes in dominance within the financial services industry. It further analyses the advantages and challenges of each party in the context of a potential partnership and examines management views to determine alignment with the drivers of disruption. This cross-sectional study employs document analysis to examine 42 new-entrant FinTech companies in the payments sub-sector and 5 banks, in addition to the thematic analysis of semi-structured interviews 15 semi-structured interviews conducted.

It was found that domestic new-entrant FinTech companies are not likely to disrupt banks (to the point where FinTech companies become more dominant) in the payments sub-sector in South Africa due to the influence of banks in the industry and the proactive response from banks to potential disruptions. Banks should, however, take notice of developments and more seriously consider solutions in the cross-border remittance and blockchain spaces.

Managers may have slight differences in their opinions, but overall, they are aligned with the factors driving disruption and the influence of FinTech companies on the financial services sector. This alignment enables them to make strategic decisions effectively without significant misconceptions. The study discovered a potential mutually beneficial link between FinTech companies and banks that indicate partnerships between them might enhance their services to customers and enhance their overall competitive standing in the market.

KEY WORDS

Disruptive innovation; FinTech; incumbent banks; drivers of disruption; changes in dominant logic; FinTech and bank partnership; payments sub-sector

DECLARATION

I, Amelia Freund, declare that this dissertation is my own unaided work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Innovation Studies at the Wits Business School in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other University.

Signature: *AFreund*

On this ²³..... day of ^{September}.....20 ²⁰²⁴.....

Amelia Freund

Name

DEDICATION

I dedicate this work to my loving husband, Willie, without whom I would not be where I am today. I will forever be in awe of your unwavering support when I needed it, encouragement when I felt I could not go on and your listening ear when I needed to think through aspects of this work. Every morning as I wake up, I thank God that he has blessed me so much and that I get to be the one by your side. Love you always.

I also dedicate this to my children, Jaun, and Jayden, who give me the motivation to be the best I can be. You both sacrificed so much to support me in this journey, and I look forward to reaping the benefits with you. I love you to the moon and back.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank God for the strength, wisdom, inspiration, and talents I have received, which has enabled me to complete this journey and so that I could complete this journey.

Thank you to my advisor, Dr. Pelayo Omotoso, for the many hours of invaluable advice, guidance, challenge, and support that has allowed this dissertation to become something that I can be proud of. Thank you to Dr. Diran Soumonni for being a source of inspiration and support for the duration of the master's degree course, along with the esteemed lecturers I have been fortunate to learn from, that has challenged my thinking and allowed me to grow personally and professionally.

I would also like to thank the participants of this study who have provided immense insight into the FinTech revolution and freely gave their rich views, immense experience, and opinions. To Disrupt Africa, who have given me access to a list of FinTech companies, I appreciate this very much.

A big thank you to Raeesa Mohamed, Natasha Fourie and Willie Freund who helped with the proof reading, feedback and valuable suggestions and immense moral support during this journey. To my family, you have my deepest gratitude for the encouragement, unwavering support and for making my load lighter so that I can focus and produce the best possible work.

Table of Contents

LIST OF TABLES	IX
LIST OF FIGURES.....	X
CHAPTER 1: INTRODUCTION	1
1.1. PURPOSE OF THE STUDY	1
1.2. CONTEXT OF THE STUDY	1
1.3. RESEARCH PROBLEM STATEMENT	3
1.4. SIGNIFICANCE OF THE STUDY	4
1.5. DELIMITATIONS OF THE STUDY	5
1.6. ASSUMPTIONS.....	6
1.7. DEFINITION OF KEY TERMS	6
1.8. RESEARCH QUESTION	7
1.9. OUTLINE AND STRUCTURE OF THE REPORT	7
1.10. CONCLUSION.....	8
CHAPTER 2: LITERATURE REVIEW	9
2.1. INTRODUCTION	9
2.2. CHANGE IN DOMINANT LOGIC IN AN INDUSTRY	10
2.3. DISRUPTIVE INNOVATION THEORY	14
2.4. INNOVATION TARGET OF NEW ENTRANTS.....	17
2.4.1. CONSUMER TARGET MARKET	17
2.4.2. INNOVATION TYPE.....	20
2.4.3. VALUE NETWORK.....	21
2.5. RESPONSE STRATEGIES BY INCUMBENTS	23
2.6. PARTNERSHIP AS RESPONSE TO POTENTIAL DISRUPTION	28
2.7. THEORETICAL AND CONCEPTUAL FRAMEWORK	30
2.8. STATEMENT OF PROPOSITIONS	33
CHAPTER 3: RESEARCH STRATEGY AND METHODOLOGY	35
3.1. INTRODUCTION	35
3.2. RESEARCH STRATEGY AND DESIGN.....	35
3.3. INSTRUMENT	36
3.3.1. DOCUMENT ANALYSIS	37
3.3.2. SEMI-STRUCTURED INTERVIEWS.....	38
3.4. SELECTION OF PARTICIPANTS.....	38
3.4.1. DATA COLLECTION	39
3.5. DATA ANALYSIS.....	40
3.5.1. CONTENT ANALYSIS.....	40
3.5.2. THEMATIC ANALYSIS.....	41
3.6. LIMITATIONS OF THE STUDY	43
3.7. ETHICAL CONSIDERATIONS	44
3.8. RELIABILITY AND VALIDITY	44
3.9. SUMMARY	46
CHAPTER 4: PRESENTATION OF FINDINGS / RESULTS.....	47
4.1. OVERVIEW	47
4.2. PRESENTATION OF FINDINGS AND DATA RESULTS.....	47
4.2.1. PROPOSITION 1: INNOVATION TARGET OF FINTECH COMPANIES.....	48
4.2.2. PROPOSITION 2: RESPONSES OF BANKS	60
4.2.3. PROPOSITION 3: PARTNERSHIP LANDSCAPE	67
4.2.4. PROPOSITION 4: PERCEPTIONS OF MANAGERS	85
4.3. SUMMARY OF DATA PRESENTATION	109
CHAPTER 5: ANALYSIS AND DISCUSSION OF THE RESEARCH FINDINGS	111
5.1 INTRODUCTION	111
5.2 DISCUSSION PERTAINING TO RESEARCH QUESTION 1.....	113
5.2.1. PROPOSITION 1: INNOVATION TARGET OF FINTECH COMPANIES.....	113

5.2.2.	<i>PROPOSITION 2: RESPONSE STRATEGIES BY BANKS</i>	122
5.2.3.	<i>SUMMARY OF DISCUSSION PERTAINING TO RESEARCH QUESTION 1</i>	128
5.3	DISCUSSION PERTAINING TO RESEARCH QUESTION 2.....	129
5.3.1.	<i>PROPOSITION 3: PARTNERSHIP ENVIRONMENT</i>	129
5.3.2.	<i>PROPOSITION 4: ALIGNEMENT OF PERCEPTIONS OF MANAGERS</i>	133
5.3.3.	<i>SUMMARY OF THE DISCUSSION PERTAINING TO RESEARCH QUESTION 2</i> ...	142
5.4	SUMMARY OF THE DISCUSSION	143
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS		144
6.1	INTRODUCTION	144
6.2	MAJOR FINDINGS	144
6.3	KEY CONCLUSIONS OF THE STUDY.....	145
6.3.1.	<i>RESEARCH QUESTION 1</i>	145
6.3.2.	<i>RESEARCH QUESTION 2</i>	149
6.4	RECOMMENDATIONS FOR BUSINESS / STAKEHOLDERS	152
6.5	LIMITATIONS OF THE STUDY	153
6.6	SUGGESTIONS FOR FUTURE RESEARCH.....	153
6.7	CONCLUSION.....	154
REFERENCES		ERROR! BOOKMARK NOT DEFINED.
APPENDIX A – LIST OF FINTECH COMPANIES		162
APPENDIX B – LIST OF BANK SOURCES		164
APPENDIX C – INTERVIEW GUIDE		166
APPENDIX D – FINTECH COMPANY INFORMATION		168

List of Tables

TABLE 1: DEFINITION OF TERMS	6
TABLE 2: TYPICAL STRENGTHS OF TECH COMPANIES AND LARGE CORPORATES.....	29
TABLE 3: INSTRUMENTS USED FOR EACH PROPOSITION.....	36
TABLE 4: EXPLANATION OF FINTECH USE CASES	51
TABLE 5: RESPONSES BY BANKS TO SPECIFIC INNOVATION USE CASES.....	55
TABLE 6: RESPONSES BY BANKS TO CURRENT FINTECH USE-CASES.....	63
TABLE 7: AVERAGE COST OF A LOW VALUE CROSS-BORDER TRANSACTION	66
TABLE 8: AVERAGE TIME FOR CROSS BORDER TRANSACTIONS TO BE COMPLETED	66
TABLE 9: NUMBER OF DATA POINTS BY PARTICIPANT TYPE	68
TABLE 10: DATA POINTS BY PARTICIPANT GROUP REGARDING FINTECH CHARACTERISTICS	76
TABLE 11: STRENGTHS AND PARTNERSHIP REQUIREMENTS OF BANKS AND FINTECH COMPANIES	82
TABLE 12: RESEARCH QUESTIONS AND PROPOSITIONS OF THE STUDY.....	111

List of Figures

FIGURE 1: TRADITIONAL INDUSTRY LIFECYCLE MODEL	11
FIGURE 2: AN ALTERNATIVE MODEL TO THE TRADITIONAL INDUSTRY LIFECYCLE MODEL	11
FIGURE 3: CONCEPTUAL MODEL OF DIGITAL DISRUPTION DYNAMICS	12
FIGURE 4: A FRAMEWORK FROM IDENTIFYING POTENTIAL DISRUPTION	15
FIGURE 5: MODEL OF DISRUPTIVE INNOVATION.....	18
FIGURE 6: PROCESS MODEL OF ECOSYSTEM-LEVEL BUSINESS MODEL DISRUPTION DYNAMICS	25
FIGURE 7: RESPONSE STRATEGIES WHEN FACED WITH POTENTIALLY DISRUPTIVE BUSINESS MODEL INNOVATION	26
FIGURE 8: CONCEPTUAL FRAMEWORK OF THE STUDY	31
FIGURE 9: RESEARCH ONION OF THE STUDY	35
FIGURE 10: PROCESS FOLLOWED DURING CONTENT ANALYSIS	40
FIGURE 11: THEMATIC FRAMEWORK (CODEBOOK) OF THE STUDY	42
FIGURE 12: FINTECH COMPANIES IN BANK VALUE CHAIN (DOCUMENT ANALYSIS)	49
FIGURE 13: FINTECH COMPANY TARGET SEGMENT (DOCUMENT ANALYSIS)	50
FIGURE 14: USE CASES PER FINTECH COMPANY (% OF COMPANIES) (DOCUMENT ANALYSIS)	53
FIGURE 15: DISTRIBUTION OF USE CASES FOR ALL FINTECH COMPANIES (DOCUMENT ANALYSIS)	53
FIGURE 16: FINTECH USE CASES BY YEAR THE COMPANY WAS FOUNDED (DOCUMENT ANALYSIS)	54
FIGURE 17: EMERGING TECHNOLOGIES AND TRENDS IMPACT RADAR.....	56
FIGURE 18: HYPE CYCLE FOR BLOCKCHAIN	57
FIGURE 19: FINTECH USE CASES BY TARGET SEGMENT (DOCUMENT ANALYSIS)	58
FIGURE 20: KEY ROLE PLAYER IN SOUTH AFRICA'S NATIONAL PAYMENT SYSTEM.....	59
FIGURE 21: FIVE CHARACTERISTICS OF A SUPER-APP	62
FIGURE 22: THE MOTIVATION AND CAPABILITY TO RESPOND TO INNOVATIONS BY FINTECH COMPANIES.....	65
FIGURE 23: PROPORTION OF DATA POINTS RELATED TO ADVANTAGES COMPARED TO CHALLENGES OF BANKS	68
FIGURE 24: ADVANTAGES THAT BANKS HAVE (THEMATIC ANALYSIS).....	69
FIGURE 25: CHALLENGES THAT BANKS FACE (THEMATIC ANALYSIS).....	72
FIGURE 26: PROPORTION OF DATA POINTS RELATED TO ADVANTAGES COMPARED TO CHALLENGES OF FINTECH COMPANIES (THEMATIC ANALYSIS)	75
FIGURE 27: THE ADVANTAGES OF FINTECH COMPANIES.....	76
FIGURE 28: CHALLENGES FACED BY FINTECH COMPANIES.....	79
FIGURE 29: FINTECH TARGET MARKET ACCORDING TO INTERVIEW RESULTS (THEMATIC ANALYSIS).....	86
FIGURE 30: OBJECTIVES OF FINTECH COMPANIES (THEMATIC ANALYSIS).....	88
FIGURE 31: INNOVATION TYPE OF FINTECH COMPANIES (THEMATIC ANALYSIS).....	91
FIGURE 32: THE ROLE OF BANKS IN FINTECH VALUE NETWORKS (THEMATIC ANALYSIS)	93
FIGURE 33: ARE FINTECH COMPANIES COMPETITORS OR PARTNERS (THEMATIC ANALYSIS).....	95
FIGURE 34: THEMES INDICATING COMMON RESPONSE STRATEGIES BY BANKS (THEMATIC ANALYSIS).....	98
FIGURE 35: THEMATIC RESULTS OF PERCEPTION OF MANAGERS TO CHANGES IN DOMINANT LOGIC.....	101
FIGURE 36: REASON FOR CHANGING DOMINANT LOGIC (THEMATIC ANALYSIS)	101
FIGURE 37: THEMATIC RESULTS ON DISRUPTIVE POTENTIAL OF FINTECH COMPANIES ON BANKS	104
FIGURE 38: POSSIBLE RELEVANCE OF BANKS IN THE FUTURE (THEMATIC ANALYSIS).....	106
FIGURE 39: DEPOSIT AND CUSTOMER SPLIT ACROSS THE LARGEST BANKS IN SOUTH AFRICA	108
FIGURE 40: GROWTH IN SHARE PRICE OF THE BIG FIVE BANKS (3 YEARS)	108

Chapter 1: INTRODUCTION

1.1. PURPOSE OF THE STUDY

This study aims to assess the potential impact that FinTech companies may have on the financial services industry in South Africa. This is done by assessing the degree of perceived potential disruption to the banking industry through an analysis of the innovation landscape of FinTech companies and banks' responses to the so-called "FinTech revolution". In addition, the study seeks to determine whether perceptions and reality are in alignment and what the potential effects might be through the triangulation of documents and managers' perceptions and attitudes within the industry.

1.2. CONTEXT OF THE STUDY

Virtually every industry has undergone significant technological change due to the fourth industrial revolution, including the financial services industry, where digitalisation is stimulating the introduction of new concepts and business models (Barooso & Laborda, 2022). In addition, several new technologies, such as artificial intelligence (AI), robotics, blockchain, communication and information services are anticipated to fundamentally alter the way that financial services are provided (Mavlutova, et al., 2021), much like how the mobile phone did. This is corroborated by other scholars that state that the financial services industry is experiencing an emergence of new technology (Gomber, Kauffman, Parker, & Weber, 2018) that enable new opportunities and business models within the industry (Cziesla, 2014).

80% of South Africans have bank accounts, according to the 2018 FinScope SA Fact Sheet, but 33% of those people immediately withdraw all their money after receiving it, and another 7% don't use their accounts at all during a given month (FinMark Trust, 2018). The FinScope study also demonstrates unmet needs in terms of liquidity, support for achieving life goals, and instances where there has been an unanticipated loss of money (FinMark Trust, 2019). Therefore, we can conclude that individuals, particularly those at the lower end of the market, are underserved in terms of financial services. This underservice applies to both individual persons and Micro, Small and Medium Enterprises (MSME), who receive very little assistance from formal banking services. Only 34% of businesses have formal bank accounts in the business' name,

and they have very limited access to debt (39% access), savings (80% access), and insurance products (33% access) (FinMark Trust, 2021).

The underservice of consumers and the emergence of new technologies has led to the emergence of a new type of company, the FinTech company, where these new entrants are taking advantage of these gaps in the market to provide innovative financial services products. It's important to distinguish between FinTech and FinTech companies.

FinTech, which describes financial technology in general, helps companies to manage financial operations more efficiently in an automated way with a wide variety of applications (Harriss & Bayliss, 2016), e.g. blockchain, card technology, etc. A new era of fintech has evolved since 2008. The delivery of financial goods and services in this era is not what defines it; rather, who supplies the services and how quickly technology is being used at the retail and wholesale levels defines this era (Arner, Barberis, & Buckley, 2015).

It follows that FinTech companies are start-up companies ready to disrupt the financial industry by providing services and products using cutting-edge FinTech technology (PWC, 2016), i.e. a company that uses blockchain to provide a service whether that be to the end consumer or to a financial services provider (FSP). The focus of these companies is to increase convenience and lower operational costs, often to customers who are underserved. With a lot of debate globally as to the impact of this on the banking sector, McKinsey (2016) claimed banks' profits in developed markets could potentially reduce by \$90 billions by 2025 due to the increased competition from FinTech companies.

In 2020 there were 147 FinTech start-ups in South Africa, representing 30% of all Tech start-ups within the technology start-up eco-system (Disrupt Africa, 2022). A further 82 FinTech companies could be added to the list from the RMB FinTech report (Rand Merchant Bank, 2019) bringing the number of FinTech companies to 229, which includes established FinTech players and two FinTech companies that were bought by banks, the first being SnapScan by Standard Bank and the second being SelfPal by FirstRand (Disrupt Africa, 2022). In addition to these FinTech companies, established players from other sectors are starting FinTech units, most notably MTN's MoMo

(MTN, 2022), Fedgroup (FedGroup, 2022) and Shoprite (Shoprite, 2022)) although these companies will not be the focus of this study.

By May 2023, 163 (71%) of the 229 FinTech companies that were mentioned were still in business, with 25% (42) of those businesses engaged in the payment sub-sector. This demonstrates clearly that FinTech companies are attempting to address some gaps within the sector by making these solutions available to both individual and commercial users. However, from this data it also shows relatively high failure rates for FinTech companies which is also seen in India where Joy and Thomas (2023) found that 42% of FinTech companies were not profitable.

Different levels of technological, digital, and business model innovation are being used by these FinTech companies to create a service to customers that, in theory, fills a void that banks have missed, or that new technology has made possible but to which banks have not yet responded. This surge in new companies indicates that there are opportunities that have not been capitalised on, even though the market to which these new technologies could be applied to, is still in its infancy (Cziesla, 2014).

1.3. RESEARCH PROBLEM STATEMENT

Since this new era of the FinTech sector is still relatively young (Arner, Barberis, & Buckley, 2015), and because FinTech and FinTech companies are often believed to be the same, systematic academic research is still in its early stages. It focuses mostly on the effects of technology as opposed to innovation and disruption and lacks solid theoretical foundations from an innovation perspective.

In academic research, it is considered that FinTech companies primarily work alongside banks to advance development and financial inclusion (Demis et al. (2022); Morgan (2022)). Navorette (2018) argues that FinTech companies increase financial market competition, offering services that traditional financial institutions don't offer or perform inefficiently, but maintains the idea that FinTech companies will not displace banks as they are still able to adapt and reinvent themselves. Research indicate that FinTech companies have the potential to contribute to overall financial inclusion (Demir, Pesqué-Cela, Altunbas, & Murinde, 2022) with a major use case being Mobile Money facilitated through mobile technology (Makina, 2019).

In contrast, business literature (from consultancy firms) suggests that Fintech companies may have a big disruptive influence on banks (Deloitte, 2018). Furthermore, one of the challenges faced by FinTech companies is that banks see them as competition and therefore partnership opportunities are limited (EY Financial Services, 2019). Consultancy firms and banks have conducted extensive research on disruption of banks by FinTech companies (Zalan & Toufaily, 2017), however, the research lack strong theoretical principles.

As a result, empirical research does not clearly indicate whether banks (the incumbents) are in danger of being disrupted. Therefore, fear of displacement by banks may influence their strategic decisions which may not benefit consumers or industry as a whole. This fear could also potentially inhibit scaling of innovations from the FinTech industry due to this lack of collaboration (EY Financial Services, 2019).

Due to the conflicting views on how the FinTech sector impacts the financial services industry, players would act in a way that protect their overall interest, for example, banks may not want to partner with or support FinTech companies as a general approach. This could be detrimental to the financial services sector as FinTech companies would greatly benefit from collaboration with traditional financial services companies (Joy & Thomas, 2023).

1.4. SIGNIFICANCE OF THE STUDY

Financial inclusion relates to how easily firms or individuals can access and use financial services (Qamruzzaman & Wei, 2019). Deeper access to financial services enhances welfare by allowing more people to engage in the economy and enabling more effective supply of products and services (Beck, Demirgüç-Kunt, & Honohan, 2009) such as healthcare, education and starting or building businesses. However, many consumers are still not efficiently served in all four essential pillars of financial services: transactions, savings, credit, and insurance (FinMark Trust, 2019).

It is believed that FinTech companies help drive financial inclusion (Demir, Pesqué-Cela, Altunbas, & Murinde, 2022), and therefore it is important for policy makers and industry to understand the dynamics of innovation and the impact on the financial sector fully.

Managers at traditional banking institutions would benefit from clarity on the potential disruption, thereby allowing better decision making on how to respond to the FinTech revolution while managers and founders at FinTech companies may gain a clearer understanding on what drives behaviour in traditional institution.

This study aims to add a deeper understanding of how FinTech companies and the innovation that they inevitably bring to the market, impact the sector, thus guiding managers of banks, FinTech companies, and policy makers on potential strategies that benefit the sector as a whole while also cultivating the positive impact that the phenomena of the FinTech revolution brings to society.

1.5. DELIMITATIONS OF THE STUDY

This study examines domestic FinTech companies' disruptive potential to South Africa's top five banks in the payment subsector which makes up approximately 25% of the FinTech sector. Large corporate entities with FinTech units, and large international FinTech players are not examined in this research due to the large difference in innovation drivers and overall resources.

Overall, the study is concerned with innovation output and the drivers of disruption at a point in time and management views of innovation rather than the drivers of innovation, financial performance, or the product development process of FinTech companies. This will serve as a snapshot of the current state of the industry; however, it will not capture whether perceptions or actions by industry players evolves over time.

Therefore, the scope can be summarised as:

- Top five banks being, ABSA, Capitec, FNB, Nedbank and Standard Bank
- 42 Fintech companies in the payment subsector.
- Domestically owned companies that operate within South Africa. Other African business activities will be considered to understand context but not as a main driver of disruption in South Africa

The participants in this research will be managers of these FinTech companies and banks, through semi-structured interviews and will also use publicly available documents to gain a comprehensive view of current industry activities and context to triangulate insights. Managers' perceptions of the industry are particularly relevant to

the broader narrative because they drive the activities and responses by industry actors to the phenomena.

1.6. ASSUMPTIONS

The following will be used as assumptions for the basis of this research:

1. Participants are experienced within the industry and can therefore accurately share relevant insights and experience.
2. Participants have insights to the actions taken by FinTech companies and banks (at least within their own context and area of interest)
3. The level of understanding of innovation is expected of participants on a functional level (i.e., they understand innovation as it is applied in practice).
4. All publicly available documents are accurate, and a reflection of the actions chosen by industry participants.
5. Only companies in operation from 2020 and still operational will be considered.

1.7. DEFINITION OF KEY TERMS

Key terms for the purposes of the research are listed in the below table:

Table 1: Definition of terms

TERM	DEFINITION
BigTech	“Technology companies with established presence in the market for digital services” (Frost, Gambacorta, Huang, Shin, & Zbinden, 2019)
Disruption	A change in incumbents' market positioning because of innovation introduced by new entrants (Christensen C. M., 1997)
Dominant Logic	The collection of rules and structures that explain the prominence of specific business practises, values, and principles that drive how value is captured within an industry (Skog, Wimelius, & Sandberg, 2018)
FinTech	Financial technology in general, that helps companies to manage financial operations more efficiently with a wide variety of applications (Harriss & Bayliss, 2016).
FinTech company	start-up companies ready to disrupt the financial industry by providing services and products using cutting-edge FinTech technology (PWC, 2016)
Incumbent	The current market leader within a sector, which will be used to refer to traditional financial institutions (Christensen C. M., 1997)
New entrant	New participants within an industry, in this case domestic FinTech companies (Christensen C. M., 1997)

Transformation	New business practises and concepts develop and rise to dominance when the prevalent dominant logic evolves and changes significantly (Skog, Wimelius, & Sandberg, 2018)
Value Network	A products' value-creating system where various economic actors collaborate to co-produce value (Christensen, Anthony, & Roth, 2004).

1.8. RESEARCH QUESTION

The study will aim to address the concern of banks that FinTech companies are potentially disruptive to them by analysing the degree of impact of FinTech companies have on the financial services industry:

Research Question 1: Are there any signals within the financial services industry that indicate that the FinTech industry could have a potentially disruptive impact on banks?

Research Question 2: What is the degree of convergence between the perceptions of bank and Fintech company managers and how does this impact collaboration within the industry?

These questions will enable for synthesis of the existing financial services environment and attitudes of participants, allowing for recommendations on potential tactics for both banks and FinTech companies that will benefit the financial services industry and create a synthesis of what the potential state of disruption in the financial services industry by Fintech companies is and what the potential strategies that banks and FinTech companies could explore are to ensure they stay relevant in the future?

1.9. OUTLINE AND STRUCTURE OF THE REPORT

The outline for the remaining of the report is as follows:

Chapter 2: Literature Review

This chapter describes the theoretical and resulting conceptual framework used as a basis for the study. An in-depth view of disruptive innovation theory as outlined by Christensen (1997) and dominant logic is employed as the main determinants of propositions to be tested within the study.

Chapter 3: Research Methodology

This chapter describes how qualitative document analysis, and the use of semi-structured interviews will be employed to test the propositions set out in the conceptual framework.

Chapter 4: Presentation of Results

This chapter will provide a full presentation of the findings from both the document analysis and thematic analysis of semi-structured interviews showing the innovation target of Fintech companies and the resultant response strategies from banks.

Chapter 5: Analysis of Results and Discussion

This chapter will discuss the results presented in Chapter 4 in relation to the literature review presented in Chapter 2 by analysing how the results align with expectations based on existing theory.

Chapter 6: Conclusions and Recommendations

This chapter will review the main research findings aims and research questions and discuss the contributions to literature and practice, which includes managers at banks and FinTech companies. The chapter also discusses any limitations of the study and provide suggestions on future research.

1.10. CONCLUSION

The FinTech revolution is a phenomenon that is not well understood from an industry and academic perspective, even though the impact is potentially significant. The participants within the sector will, predictably, act in the most sustaining way for their organisation, however, this may not be the best course of action for the welfare of society or the industry.

This study aims to provide clarity in this regard, by evaluating the digital innovations brought by FinTech companies to the financial services sector and analyse the disruptive potential of the FinTech industry overall on banking. This could provide valuable insight to managers at both FinTech companies and banks, as well as policy makers on the best way forward for the industry that ensures sustainability which also fosters innovation that benefits society.

Chapter 2: LITERATURE REVIEW

2.1.INTRODUCTION

FinTech companies and banks would both benefit from a theoretical underpinning that provides insight into the potential outcomes of the current FinTech revolution; consequently, this literature study will examine the major theories now in use to assess the underlying disruptive potential of FinTech companies due to the innovation within the industry.

The idea of "creative destruction" is based on Schumpeter (1934)'s work, in which he discussed the continual process of product and process innovation that sees new production facilities replace old ones, thereby fostering economic progress. The term "Disruptive Innovation" in the context of the Innovators Dilemma (Christensen C. M., 1997), refers to the process through which a smaller firm with fewer resources can successfully challenge long-standing incumbent companies.

This is in line with the theory by Schumpeter (1934) which was initially used to explain the phenomenon seen in the late nineteenth century in Europe where numerous small firms (new entrepreneurs) entered an industry with new ideas, new products, new processes, launched new enterprises, and challenged established firms. This was labelled Schumpeter Mark I by scholars. As a result, the current modes of production, organisation, and distribution were continuously disrupted, effectively wiping out previous innovation (Malerba & Orsenigo, 1995).

As per Christensen's (1997) theory of disruptive innovation, disruption will therefore be defined (for the purposes of this study) as a change in incumbents' market positioning, in this case banks, as a result of innovation introduced by new entrants, in this case FinTech start-ups.

Skog et al. (2018) proposes a different definition of digital disruption: "The rapidly unfolding processes through which digital innovation comes to fundamentally alter historically sustainable logics for value creation and capture by unbundling and recombining linkages among resources or generating new ones." (Skog, Wimelius, & Sandberg, 2018)

Therefore, for an innovation to be disruptive (i.e., change the conditions under which an industry operates), it must first meet several requirements. When these innovations are diffused and adopted by users, a rapidly imposed new dominant logic results, which in turn creates new opportunities for innovation (Skog, Wimelius, & Sandberg, 2018) for the entire industry. This does not necessarily constitute a change in market positioning for incumbents. Transformation is then the aggregation of these innovations and changes in overall values and beliefs that changes the existing rules within industries (Skog, Wimelius, & Sandberg, 2018).

Therefore, for the purposes of this study, "dominant logic of an industry" refers to the collection of rules and structures that explain the prominence of specific business practises, values, and principles that drive how value is captured within an industry. New business practises and concepts develop and rise to dominance when the prevalent logic evolves.

From an industry perspective the emergence of FinTech companies can have one of two potential impacts on the financial services industry, which will be explored in more detail in the following sections of this chapter:

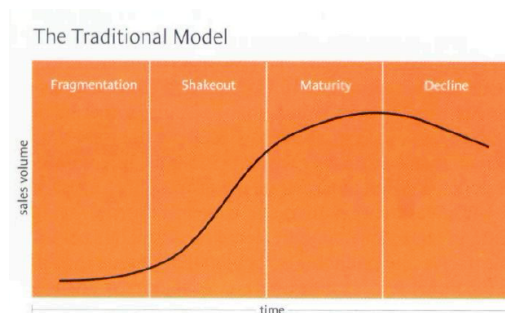
1. *Change in industry dominant logic:* There is a change in the accepted rules of engagement, in regulation and in customer expectation but not necessarily a change in the market structure (who the incumbents are, i.e., banks).
2. *Significant market disruption:* There is a change in market structure based on the innovation from the new entrants, i.e., FinTech companies become dominant in a specific area of business, such as payments.

2.2.CHANGE IN DOMINANT LOGIC IN AN INDUSTRY

Figure 1 and 2 shows the traditional life cycle model and a potential alternate model to industry development. It is crucial to understand how industries change within this lifecycle in order to understand how industry dominant logic changes. According to the traditional life cycle model, industries start off in a phase of fragmentation during which firms test out various market strategies. Sales volume is still low, and the businesses are often privately owned, entrepreneurial, and region-specific (McGahan, 2004).

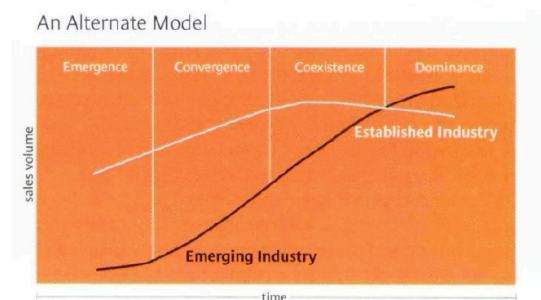
A product's dominant design is created over time and as a result, some firms gain more authority than others, and a sector shakeout occurs. Sales volumes rise, competitors grow more effective, and the industry delivers the highest level of value to suppliers and customers. Sales growth slows as an industry reaches maturity, and executives frequently hold onto their strategic positions. As sales volumes drop, the industry experiences decline, and firms usually look for small efficiency gains to restore profitability (McGahan, 2004).

Figure 1: *Traditional Industry Lifecycle Model*



Source: From "How industries change" by Mchahan (2004) (McGahan, 2004)

Figure 2: *An alternative model to the traditional Industry Lifecycle Model*



Source: From "How industries change" by Mchahan (2004) (McGahan, 2004)

According to McGahan (2004), a firm that is a part of an industry (value network) that is undergoing dramatic transformation would attempt to maintain its position in that value network even though it would be missing out on chances in both the existing and emerging industries. An alternate model is proposed, shown in Figure 2, that reflects this change in consumer and supplier behaviour.

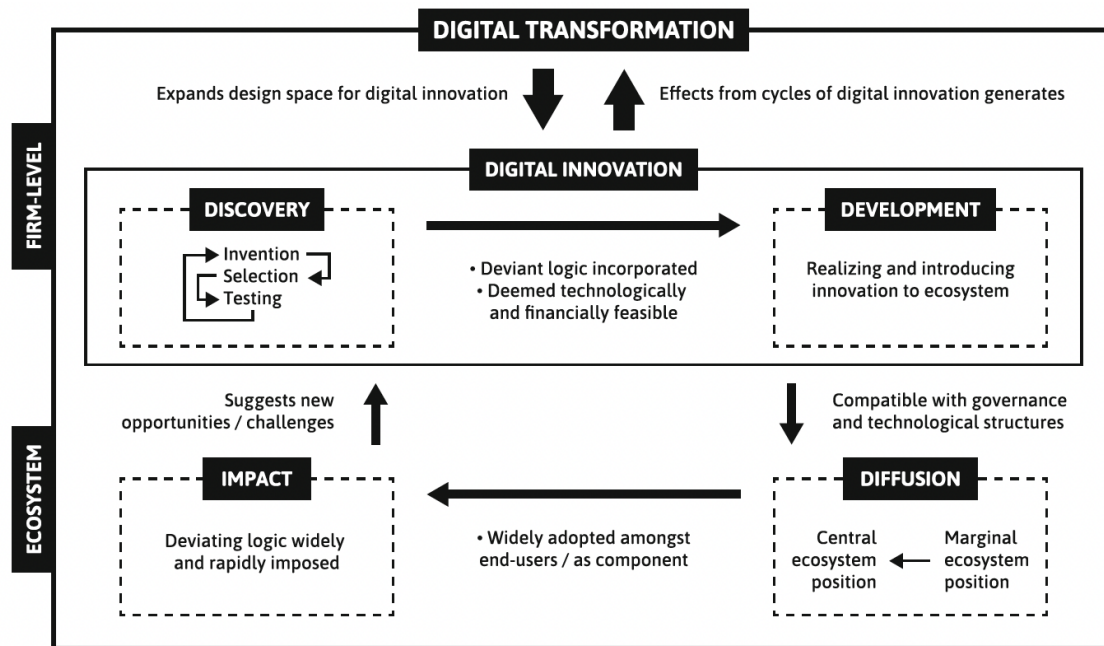
During the initial emergence of a new industry, new competitors are not significant enough to get the established companies' attention or cause them to modify their current business models. Incumbents may restructure parts of their current business processes as sales volume grows using the new business process or technology and converges with sales volume in the current industry. Consumers and suppliers evaluate the new industry with greater sophistication during the coexistence era, creating new potential for value creation (even in the old industry). In the final stage, a new dominant logic is attained, and goods and services are assessed according to the standards of the new innovation (McGahan, 2004).

The innovation process itself is established as an iterative, developing process where technological use cases are matched with problems they can solve and there is a

constantly changing narrative that changes as innovators co-create it, leading to new opportunities and solutions (Nambisan, Lyytinen, Majchrzak, & Song, 2017).

Skog et. al (2018) proposes a process for this constant change and establishes this evolving change in dominant logic as a positive occurrence for all players within the industry as new opportunities arise from innovations within the eco-system.

Figure 3: Conceptual model of digital disruption dynamics



Source: From "Digital Disruption" by Skog et.al (2018) (Skog, Wimelius, & Sandberg, 2018)

Figure 3 shows that an innovation by itself is not necessarily transformative, and innovations will go through phases before a change in the dominant logic is achieved, with the arrows indicating key moments within the process where the innovation may lose its transformative potential (Skog, Wimelius, & Sandberg, 2018).

The first phase of the process is the discovery of a new innovation, where the idea is conceptualised and selected. For the idea to be developed and introduced into the market (phase two), a key juncture is that the innovating firm must successfully be able to incorporate the deviant logic into a market offering that is deemed technologically and financially feasible (for the firm) (Skog, Wimelius, & Sandberg, 2018).

It is important to highlight that an asymmetry in motivation and capability may arise between incumbents and new-entrants, as an incumbent may have significantly

different feasibility thresholds than a new-entrant with no clients (and therefore no customers to lose or relationships with suppliers to maintain) (Christensen, Anthony, & Roth, 2004).

Nambisan et. al (2017) expressed a similar notion with the need to understand technology affordances. This would explain some differences in which type of companies implement disruptive digital innovations in that companies with large existing infrastructure may not be able to change their core architecture as quickly as a company who sets these up from scratch, and incumbents may have a difficult time responding to these innovations because of this.

Phase three is the diffusion of the new innovation within the ecosystem and is complete when the innovation becomes central within the eco-system, which would require the governance and technological structures within the eco-system to be compatible with the new innovation (with its deviant logic) (Skog, Wimelius, & Sandberg, 2018).

This would indicate a need for a change to occur within the industry regarding non-market players including potential changes in regulation to allow for the deviant logic and also could indicate change in how services are used by consumers, for example, customers may prefer a new distribution channel based on dynamics outside of the industry.

The deviated dominating logic is then generally acknowledged and accepted as the prevailing dominant logic, which presents new opportunities and challenges for all participants within the eco-system to take advantage of. This is the final phase, which is the impact of the innovation, and flows back into the first phase. The culmination of these innovations and shifts dominant logic is transformation of the entire industry (Skog, Wimelius, & Sandberg, 2018).

It is widely assumed that the new wave of FinTech technology will transform the dominant logic within the financial services sector with new services and business models (Gomber, Kauffman, Parker, & Weber, 2018). However, the question remains about how disruptive the industry change will be with regards to the market position of banks within the financial services industry.

2.3. DISRUPTIVE INNOVATION THEORY

Christensen's (1997) theory aims to explain how each participant behaves when a disruptive technology or business model enters the market, why incumbents often focus on sustaining innovation and would logically act in the same way regardless of the disruption, as well as what the key disruption pathways are. The theory also attempts to explain the driving forces behind newcomers' transition to more mainstream products (Christensen, McDonald, Altman, & Palmer, 2018).

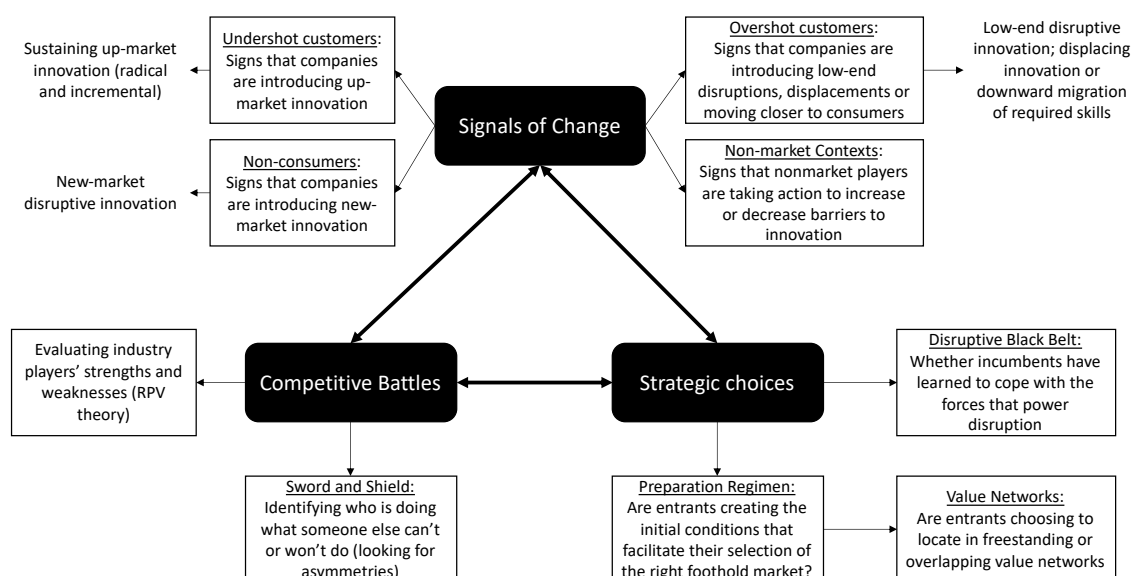
Disruptive innovation theory has been used quite often ex-anti to show why a specific industry has been disrupted and showed correlation between incumbents outperforming new entrants in a sustaining innovation context but underperformed in a disruptive innovation context (Christensen, Raynor, & McDonald, 2015).

There has been much debate on the theory's ability to predict the future or whether it is merely a concept that may be understood after the event. More studies have been conducted over time to establish a clear causal chain, particularly those by Christensen et al. (2004) and Raynor (2011a), who demonstrated how the theory might somewhat successfully forecast whether an industry will experience disruption (Christensen, McDonald, Altman, & Palmer, 2018).

Christensen et. al (2004) suggested a three-part analysis to predict industries that may be disrupted as shown in the figure below. The framework is not meant to be used as prediction but rather as signals that an industry is turning in a specific direction. Market players can behave differently if they know what signs to look out for even though theoretically, they are expected to act in a rational pre-determined way (Christensen, Anthony, & Roth, 2004).

Figure 4 outlines the framework of the three key environmental factors that interact to produce a disruptive environment. The first consideration is whether there are signals that change is about to happen within an industry. For disruption to occur, the question is specifically whether there are customers being overserved or not served at all in the current market that could lead to low-end market disruption or new-market creation. The other signals mentioned, undershot customers and changes in the non-market players actions (e.g. changes in regulation) indicating a change in the industry, that is not necessarily disruptive (Christensen, Anthony, & Roth, 2004).

Figure 4: A Framework from identifying potential disruption



Source: From “Seeing what’s next” by Christensen et. al (2004) (Christensen, Anthony, & Roth, 2004)

Secondly, the framework considers competitive battles in two parts, the motivations, and capabilities to respond to the potentially disruptive innovation. Evaluating the incumbent and new-entrant participant’s capabilities (what they can or cannot do) and the motivation of incumbents to respond, through threat framing are key considerations when evaluating whether an innovation is disruptive or not. Thirdly, the strategic choices of both new-entrants and the incumbent are considered. For the new entrant, the way in which they enter the market is very important. More specifically, do they target the right foothold and are they operating in overlapping value network or a completely different value network than incumbents (Christensen, Anthony, & Roth, 2004)?

In order to explain incumbents' inability to adapt to technological changes, Christensen (1997) and Christensen and Rosenbloom (1995) used the notion of value networks in conjunction with a prioritisation of performance attributes. Peppard and Rylander (2006) defined products as value-creating systems where various economic actors collaborate to co-produce value. This is because products are made up of components which in turn need to be used in combination with other complements to be used to their fullest potential (Christensen & Rosenbloom, 1995). Firms, therefore, do not operate within a vacuum, but rather in a network, and a disruptive innovation would not only impact the firm itself, but also the firm’s customers, suppliers and

complementors in way that is competency destroying or enhancing (Afuah & Bahram, 1995).

Disruptive technologies frequently serve as the basis for disruptive innovations, which necessitates that firms create business models that capture a portion of the disruptive technology's value through giving economic value to users of the technology (Chesbrough & Rosenbloom, 2002). The firm that initially innovates around the technology and the firm that innovates around the business model in order to scale the technology does not need to be the same firm (Markides, 2006).

There are scenarios where the incumbent stays at the top even if the new entrant pursues a new market or a market at the low end of the incumbents' mainstream market. To succeed, the new entrant must first establish the initial conditions that will guide them to the appropriate niche market. Due to many variables, such as the way the company model is set up, the managers employed, and the relationship with the business's financier, new entrants may fall into the trap of generating products for current or mainstream markets (Christensen, Anthony, & Roth, 2004).

Secondly, the new entrant may position their offering within the same value chain or value network as the incumbent. The new entrant must adhere to the incumbents' standards to enter the market, which could affect the entrants cost structure and potentially erode the asymmetries necessary for disruption to occur. This creates a strong environment for co-option rather than disruption. A value network consists of ancillary providers, upstream suppliers, and downstream channels to the market (Christensen, Raynor, & McDonald, 2015).

Thirdly, the incumbent, knowing the theory of disruption, may employ strategies to counter any disruptive attack. These strategies could include creating independent business units with their own procedures, success metrics, and management structures that are independent of the original parent organisation, or creating separate teams that identify, shape, and develop disruptive ideas (Gilbert C. , 2006). It is crucial that these strategies be kept separate from the sustaining innovation process, because a combined strategy could result in attempts to adapt the innovation to the incumbent's current mainstream client base (Christensen, Anthony, & Roth, 2004).

Markides (2006) argues that there should also be a distinction between the outcomes of technological innovation, business model innovation and radical product innovation. Disruptive technologies frequently lead to incumbent enterprises being displaced by newcomers (Danneels, 2004) and if that occurs, then existing companies will not have much of an option but to accept the disruption and find a way to profit from it. Such a radical stance is not supported by the literature that is currently available on business model innovation where new entrants with their new business model grows, usually very quickly, to a certain percentage of the market, but falls short of completely replacing the established business models (Markides, 2006).

Markides (2006) also highlights another potential path for industry evolution for radical technological innovations citing Klepper and Simons (2000) and Utterback (1994). These innovations shape expectation significantly, for example the mobile phone, internet, etc. This could be relevant to the topic of FinTech disruption due to the FinTech sector often adopting new technologies that banks may not have adopted as readily, e.g., Blockchain, artificial intelligence and robotics (PWC, 2016).

It is important to note that given the right action by incumbents, they can successfully counter disruptive developments (Christensen, McDonald, Altman, & Palmer, 2018). Gilbert's (2005) illustrated this in the newspaper where in response to the new digital age of information, media companies established digital news platforms that are entirely separate from their print business.

From this, two distinct areas of investigation occur for this study to establish the degree of likely disruption to the market position of incumbents. Firstly, the innovation target strategy that newly established FinTech companies employ in terms of customer segments, value networks and the innovation type (technological/ business model). Secondly, incumbent banks' motivation and capabilities to respond to possible disruptive innovations.

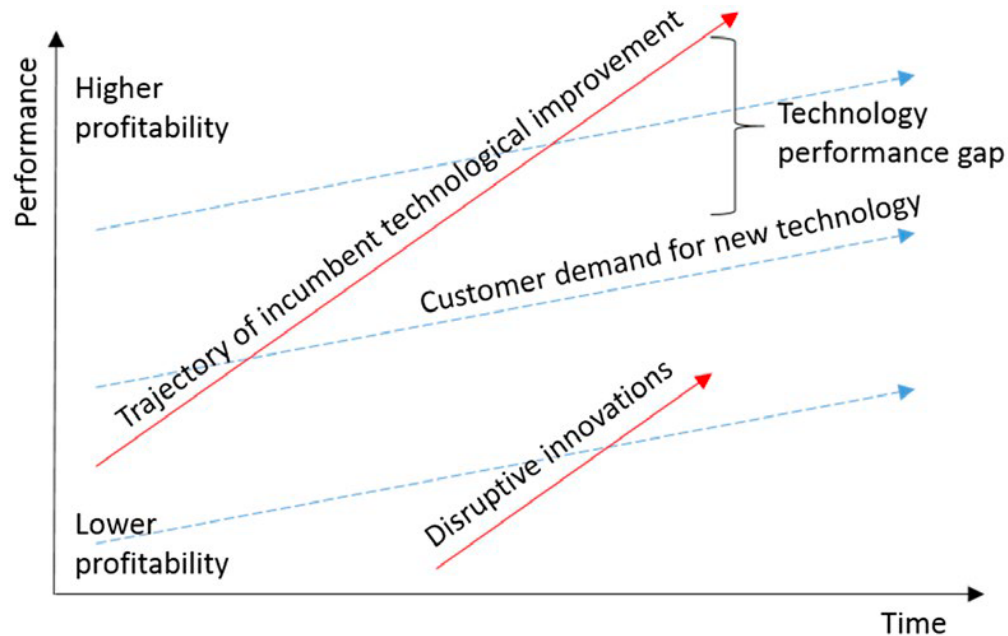
2.4. INNOVATION TARGET OF NEW ENTRANTS

2.4.1. CONSUMER TARGET MARKET

Disruptive innovation is the process by which high-quality products that first provided high-performance to a wide market are challenged by lower feature products at lower

price points that are also employed for a new growing application or area (Christensen C. M., 1997).

Figure 5: Model of disruptive innovation



Source: From "Disruptive Innovation: An Intellectual History and Directions for Future Research" by Christensen et. al (2018) (Christensen, McDonald, Altman, & Palmer, 2018)

Figure 5 shows how the main disruption process begins with incumbents focussing primarily on meeting the requirements of their most profitable clients through sustaining innovation and disregarding those requirements of people in the downmarket. At a lower cost and with a product that performs to a lesser quality than that of the incumbent, a new entrant will target the underserved or overserved markets that are mostly overlooked. The incumbent firms disregard these developments because they typically target a segment of the market that is not profitable with an inferior product and a whole different business strategy, continuing to concentrate on their most profitable customer (Christensen, McDonald, Altman, & Palmer, 2018).

As their items begin to fulfil those clients' high expectations for quality, the new entrant's product gets better over time and gains greater mainstream appeal. At this point, even if the incumbent realises the threat, internal processes and architecture would not allow such a drastic shift in business model. Once the newcomer has drawn a sizable portion of the mainstream clientele, disruption has taken place (Christensen, McDonald, Altman, & Palmer, 2018).

The reason incumbents focus on sustaining innovation is two-fold: Firstly, by focusing on offering solutions to their current clients, who supply the company with the resources it needs to survive, incumbents are influenced by the interest of these clients and do not necessarily look at new market segments. Secondly, internal procedures are codified to prioritise providing solutions to their mainstream clients, making it challenging for managers at all levels to transfer investment to disruptive innovation that impact less profitable or new market segments (Christensen, Raynor, & McDonald, 2015).

The same forces that lead incumbents to ignore early-stage disrupters also compel the disruptors to improve their products and drive their solutions upmarket, disrupting the incumbent. Customer segments start to overlap as product performance increases (Adner, 2002), where incumbents withdraw to uncontested higher tiers of the existing market, encouraging low-price/high-volume competitors to enter the market (Adner & Zemsky, 2016). The business models developed by disruptors are frequently substantially different from those of the established players, enabled by new technology, but the commercial success for some disruptive innovations is not a given (Christensen, Raynor, & McDonald, 2015).

The disruptive innovation theory has three main premises (Christensen, McDonald, Altman, & Palmer, 2018):

1. Firstly, that technology develops faster than consumer demand for these innovations in many industries. As a result, market leaders may provide products that are more technologically advanced and feature-rich than what customers want, thereby overserving the market and creating a performance gap that attracts competition (Christensen, McDonald, Altman, & Palmer, 2018).
2. Secondly, most innovations are sustaining, which means they enhance goods or services in ways that mainstream consumers value and that markets have traditionally valued. Due to these developments, market leaders might then sell more goods to their most profitable existing clients at better margins. Disruptive innovations are uncommon and underperform compared to offerings from established market leaders, but they have a special set of features that appeal

to specific client segments, often those at the bottom of the market (Christensen, McDonald, Altman, & Palmer, 2018).

3. Finally, an incumbent firms' ability to invest in new technology is restricted by existing customers and established business strategies, as articulated by the Resources, Processes and value theory (RPV) (Christensen, Anthony, & Roth, 2004) that will be explained in section 2.5. of this chapter.

Although it was initially thought that disruptive innovations mainly occurred at the low end of established markets, a few instances have since come to light in which disruptive innovations appear to establish themselves in entirely new sectors (Christensen, McDonald, Altman, & Palmer, 2018) and therefore a revision was made to the framework to allow for new market-creating disruption to be included. New market disruption occurs in new value networks where the initial consumers of the goods and services have not been used the previous generation of the product. These businesses are in a competition for customers who might not have otherwise used the product or service due to it requiring expertise or wealth (Christensen, Anthony, & Roth, 2004).

2.4.2. INNOVATION TYPE

As mentioned above, Markides (2006) theorises that technological innovation is significantly different to business model innovation when it comes to the resultant potential threat, stating that the literature does not support a disruptive stance on business model innovation by itself. This is supported by Habtay (2012), who finds that the business model innovation process often reaches a bottleneck, where the benefits of the initial strategic decision, model specialisation, and investments on disruptiveness potential are at their peak and then begin to plateau due to the same initial strategic decision and cost factors, while the disruptive innovation process for technological innovation is consistent with the patterns predicted by the disruptive innovation process (Habtay, 2012).

Markides and Geroski (2005) further breaks down technical innovation and highlights radical product innovation as having a different maturity process depending on where in the process the technology is. A radical innovation is an innovation that has a significant competency destroying effect on incumbents (or their suppliers) while also significantly altering how current customers behave and establish new habits (e.g. the

invention of the internet). Because the markets they establish devalue the skills and complementary resources that current competitors have relied on to succeed, they are disruptive to producers. These innovations are rarely prompted by consumer demand because they are disruptive to both consumers and manufacturers. Instead, they come about as a result of a supply-push dynamic that comes from the people who created the new technology (Markides & Geroski, 2005).

These developments attract copious new competitors, with many product varieties into newly developed marketplaces, despite significant technology and product uncertainty. Surprisingly, the expansion of the new market occurs much later than the increase in firm numbers. A massive shakeout kills early pioneers after the wave of entry. After the shakeout, a dominant design signals industry growth. Thus, in the early years of new markets, many more companies come and go than remain as the structure settles (Markides, 2006).

Thus, the structure of the new market is quite fluid, and the early pioneers may not be the eventual incumbents in the final structure, because the skill required to invent a product is quite different to the skills and capabilities needed to scale up the innovation. This resembles Christensen's (1997) disruptive innovation path, but with the "new entrants" being the early pioneer of the technology as the incumbent, leaving them open to disruption.

2.4.3. VALUE NETWORK

To conceptualise the value network, a parallel could be drawn to a unique (sub)industry, with relationships (suppliers, complementors, customers and competitors), technology stacks and distribution channels (Christensen, Anthony, & Roth, 2004) where all elements for a product to capture value is included. The degree to which a firm's product can be used to its full potential is dependent on the position of the firm within the value network (Christensen C. M., 1997). Further, the incumbent firm's centrality within the network reflects the incumbent firm's influence within the network and therefore the more central an incumbent is within the new entrant's value network the stronger the incumbent's strategic advantage (Madhavan, Koka, & Prescott, 1998).

Madhavan et al. (1998) identified three requirements for a structure-loosening industry event that leads firms to lose their network influence in their study on industry events and industry networks: Firstly, the event changes the rules of competition within the industry. Secondly, firms previously dominant in a value network would be constrained to immediately take advantage of the new technology (by their current relationships) and their positions within the network will likely weaken. Lastly, many times firms on the periphery initiate the event.

In addition to the product response, an incumbent firm facing disruptive innovation will also need to manage its current network partners and create new relationships to be successful, because the constraints it faces may only be temporary (Madhavan, Koka, & Prescott, 1998). According to Madhavan et al. (1998), disruptive technologies can force established firms to make alliances with new partners to acquire resources their current partners cannot give, thus, often leading reorganisation within the value network. Given that a company's relationships are a key resource for firms, Christensen et. al (2004) use resource dependence as a reason that incumbent firms cannot immediately capitalise on new technologies due to existing relationships with suppliers and legacy systems.

According to Christensen et al. (2004), new competitors who adopt a value network that overlaps with the value network of the incumbents lessen the disruptive threat to the incumbents in two ways. Firstly, the innovation must make sense to the current value network if the new entrant's offering overlaps with it. This might be done, for instance, by adhering to industry standards when integration is necessary or by adopting the incumbent's cost structure when employing the same suppliers. The value network is significantly influenced by the incumbents; therefore, the new entrant has little power to alter the dominant logic in those areas of the value network. By lowering the asymmetry of capability, incumbents will find it easier to develop the competence necessary to compete in the new value network (Christensen, Anthony, & Roth, 2004).

Secondly, when the value networks of the incumbent and the new entrant overlap, the incumbent gains knowledge of the new technology, value proposition, or product and recognises the new entrant as a potential competitor, which encourages the incumbent to react to the potential disruptor sooner through competing or collaboration. For an

innovation to be disruptive, the incumbent would ignore the innovation until it is too late for them respond and the new entrant is already entering the mainstream market. This means that by the new entrant selecting overlapping value networks, incumbents are more motivated to respond to potentially disruptive innovations with less asymmetry in their capability (Christensen, Anthony, & Roth, 2004).

Taking this into account, new entrants who operate in a value network where the incumbent has a lot of influence, or where the incumbent is central to the new entrant's value network, the disruptive potential of the innovation is significantly reduced.

2.5.RESPONSE STRATEGIES BY INCUMBENTS

The response of incumbent firms will depend on many factors, the most important of which is the motivation to respond and secondly, the capability to respond. Disruption requires that the incumbent ignore the innovation by the new entrant because it competes in a different market or because it chooses not to serve the low-end, frequently unprofitable market (Christensen C. M., 1997). The incumbent lacks the motivation or know-how to make the necessary changes to compete successfully. Many times, incumbents may take a potentially disruptive innovation and try to make it work for their existing market, changing it into a sustaining innovation where it loses its market disruptive capability (Christensen, Anthony, & Roth, 2004).

According to the Resources, Processes and Value (RPV) theory, incumbents frequently lack the motivation to pursue disruptive innovations that promise lower margins, target smaller markets, and provide subpar goods and services that their current customers cannot use as they aim to maximise financial performance. As a result, investments that are unfavourable to incumbents may be enticing to new entrants who lack many (or any) consumers and have fewer competitive investment options (Christensen, McDonald, Altman, & Palmer, 2018).

The theory on resources developed further when it was shown by Lant et al (1992) that resources could occasionally be earmarked for disruptive innovation purposes. It was shown by Leonard-Barton (1992) that whether executives regarded the new innovation as a threat, or an opportunity determined whether incumbents demonstrated fundamental structural impediments and by Gilbert (2005) that greater

resources were allocated to disruptive innovations as a result of threat framing rather than opportunity framing.

However, even when firms invested in disruptive innovations, other factors kept them from implementing the innovation, e.g. internal architecture, and processes (Christensen, McDonald, Altman, & Palmer, 2018). Resource rigidity and routine rigidity have been indicated as the two main reasons an incumbent may have difficulty in responding to potentially disruptive innovations (Gilbert C. , 2005).

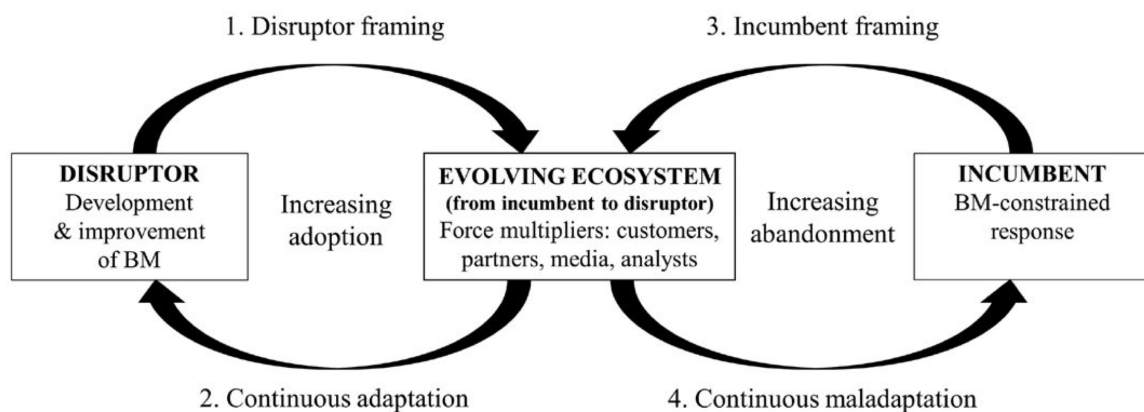
Resource rigidity is due to the combined effect of resource dependency and incumbent re-investment incentives (Gilbert C. , 2005). The theory of resource dependence maintains that an incumbents strategic choices is influenced strongly by the needs of their mainstream customer base, internal resources (e.g., staff and IT systems) (Christensen, Anthony, & Roth, 2004) and external resource providers (e.g., IT suppliers and shareholders) (Pfeffer & Salancik, 2003). Incumbent firms are incentivised to reinvest in their current market position rather than investing in a new technology, especially if that new technology may change their current dominant position in any way (Gilbert C. , 2005), through for example arbitrage.

Routine rigidity results from existing processes and repetitive patterns that are structurally embedded and becomes tacit routines, firmly aligned within the environment, and can be challenging to change due to their self-reinforcing nature and inability to adjust to discontinuities (Gilbert C. , 2005). This means that even if an incumbent is motivated to react to a potentially disruptive invention, their internal processes and governance will resist any meaningful changes, which will make it difficult for them to change.

There are cases, where new entrants do bring a potentially disruptive innovation, the incumbent does not have a choice but to compete. This may be the case when a large fixed cost base must be supported by a sizable customer base in order for the business as a whole to be profitable or where legislation requires the incumbent to service the targeted customer base; in this scenario, incumbents may react early enough before the new entrant has established the asymmetric capabilities necessary to be disruptive (Christensen, Anthony, & Roth, 2004).

Figure 6 depicts how the diffusion of technologies is influenced by changing ecosystems (customer expectations, partnerships, etc.), which shape how the technology is perceived. It also demonstrates how incumbents continuously maladapt their (previously successful) business models, leading to customers increasingly abandoning the solution, while new entrants continuously develop and adapt new technologies that leads to greater adoption by customers (Snihur, Thomas, & Burgelman, 2018).

Figure 6: *Process model of ecosystem-level business model disruption dynamics*



Source: From “An Ecosystem-Level Process Model of Business Model Disruption: The Disruptor’s Gambit” by Snihur et. al (2018) (Snihur, Thomas, & Burgelman, 2018)

As the incumbent will invest significant resources to counteract the potential disruption and respond early enough, the new entrant may not have enough economies of scale to effectively compete if it focuses on undershot customers (i.e., those seeking better products) or the mainstream market (i.e., displacing innovation where the new entrant is looking to do something the incumbent does in better and more cost-effective manner). A fight for market share would ensue – but not disruption (Christensen, Anthony, & Roth, 2004).

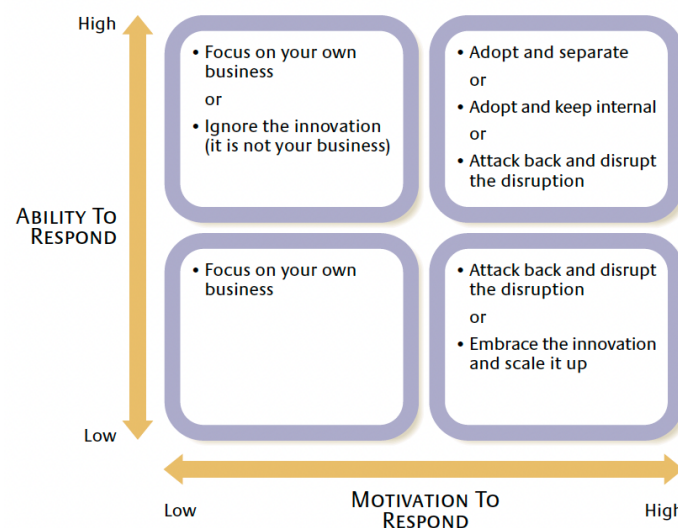
If the new technology is a radical product development (e.g., like the mobile phone or the internet) as described by Markides (2006), incumbents do need to respond to survive due to customer behaviours being altered significantly. Typically, this entails significant financial outlays to take advantage of economies of scale, progress through learning curves, and create powerful brands and channels for reaching the mass market. By enhancing usability, it is crucial to convert the technological value into economic benefit for the user at scale. The objective is to create a product that is

superior in terms of price and performance rather than the best product possible (Markides, 2006).

Markides and Geroski (2005) proposed one response strategy for radical product innovation: established companies should not even try to develop such innovations; instead, they should delegate the task of establishing these kinds of markets to small, start-up businesses that have the necessary competencies and characteristics to succeed in this game. Then, they should concentrate on combining these small, niche businesses with large, mainstream consumers (Markides & Geroski, 2005). There are several instances where the market leader in a technology was not the original pioneer, including Google, the iPod, and the iPhone as some examples of where this strategy has been successful (Buisson & Silberzahn, 2010).

The other main option is that firms should gain a first-mover advantage by building new (sub)markets (referred to as "Blue Oceans") instead of engaging in fierce competition in already established ones (referred to as "Red Oceans") in order to get an early-mover advantage and enjoy long-term market dominance and higher earnings (Kim & Mauborge, 2004). Good examples of this strategy being successful is with Dyson, Piaggio and Nespresso (Buisson & Silberzahn, 2010).

Figure 7: Response Strategies when faced with potentially disruptive business model innovation



Source: From "Responses to disruptive Strategic innovation" by Charitou and Markides (2003).
(Charitou & Markides, 2003)

Figure 7 outlines showed what the appropriate response strategies based on a firm's motivation and capability to respond to business model innovation could be. Given

that business model innovation does not necessarily (even though it may) lead to a change in market structure, companies with low motivation to respond will generally ignore the innovation and continue to focus on their existing business model, regardless of their ability to respond (Charitou & Markides, 2003).

For incumbents that have high motivation to respond, there are a couple of strategies that they could follow. Firstly, they can choose to adopt the disruption innovation and create a separate unit to pursue the opportunities that the disruptive innovation brings, which is only possible if the core competencies and architectures are not significantly out-of-line or when the incumbent identifies the disruption early on and can build the competencies at the same time as the innovating new entrant (Charitou & Markides, 2003).

The second option is to attack the disruption, by introducing another disruptive innovation through a blue ocean's strategy (Kim & Mauborge, 2004). When it comes to business model innovation, established firms operate by the one set of rules, highlighting particular product features and focusing on particular audience. Attacking them with a different strategy, disruptive innovators create their success by highlighting novel, unconventional qualities of their goods and services that appeal to potentially new clients. Then, incumbents can react by taking part in a third game and highlighting yet different product features (Charitou & Markides, 2003).

The final option is to abandon the existing business model and fully embrace the disruptive innovation, which is only an option where the incumbent does not have the necessary ability to compete with the disruptive innovation within existing architecture (Charitou & Markides, 2003). The two key components of innovation are defining a novel technological, strategic, or product concept and then developing a market for it. Both tasks must be successfully paired for an innovation to succeed, but they don't have to be done by the same organisation. Therefore, the goal when adopting this strategy is not only to imitate the innovation by new entrants but also to scale the innovation and offer it to the mass market (Charitou & Markides, 2003).

In summary, for both technological and business model innovation, the motivation, and the capability of the incumbent to respond are the most important factors when responding to a potential disruptive threat, even though the steps that the incumbent

can take to respond may be quite different depending on the type of innovation. The motivation to respond is dependent on the perceived threat that the potentially disruptive innovation has on the incumbent's mainstream business.

2.6. PARTNERSHIP AS RESPONSE TO POTENTIAL DISRUPTION

Incumbent firms do not only operate within a domestic context and must consider disruptive technologies from a global context. Partnerships is shown to be a useful strategic tool that can reduce the disruptive effects of new technologies, especially from foreign entrants (Crouse, 1991). The concept of open innovation is introduced by Chesbrough (2004) to describe a situation when a company uses the division of labour to leverage more ideas (external ideas) and to capture more value by utilising key assets, resources, or positions not only within the company's own business but also within the businesses of other companies. For banks, this is suggested as a prerequisite of future profitability and competitiveness (Fasnacht, 2018).

Cozzolino et. al (2018) suggested that there could be a two-stage process that occurs when incumbents adapt their business models because of a disruptive threat trigger. The first stage is where an incumbent would experiment on their own to attempt to capture new value by leveraging the new (external) technology. This phase is in alignment with opportunity framing of the disruptive technology, which from literature is less likely to lead the incumbent to allocate significant resources to the technology development (Gilbert C. , 2005).

If the first stage of this process failed (in terms of capability creation and learning) and new entrants employed the technology in models in a way that the incumbent perceived as a threat to their current business model, the second stage of this process would be triggered. Due to this, market leaders consider new ways to compete and stay relevant with a popular tactic being to partner with or acquire potential disruptors, which enables the leader to realise more value more quickly than they otherwise might (Cozzolino, Verona, & Rothaermel, 2018).

According to literature, there are many mutually beneficial reasons why an incumbent and a start-up may want to partner, especially for high technology companies, with both incumbents and start-up companies having its own strengths and weaknesses (Daunt & von Gehr, 1992).

Table 2 outlines potential strengths that technology companies and large corporations could bring to a potential partnership (Daunt & von Gehr, 1992). Not all strengths mentioned in Table 2 would be applicable to financial services, however it does show that Technology based start-ups and large corporate companies have different strengths within each step required to bring an innovation to market. A partnership could leverage the strengths of both companies to create solutions previously not possible.

Table 2: Typical strengths of Tech companies and Large Corporates

Responsibilities	Tech Company Strengths	Large Corporate Strengths
Product Development	Creativity Focused development Speed Less development bias Flexibility	Broad market expertise Broad technical capabilities Better lab and test facilities
Legal/Regulatory	Cutting-edge technology patents	Cross-licence opportunities Guidance on regulatory or patent approvals
Manufacturing	Faster Low volume capability Proto typing capability Specialised niche manufacturing	Component purchasing power, Tooling and manufacturing, Quality Assurance capability
Marketing	Understanding of niche markets New technology or new market excitement Creativity Competitive edge	Broad market understanding Established product lines Volume edge Trade name recognition
Distribution	Specialised niche distribution Flexibility	Established customer base Established distribution and shelf space Better storage and transportation
Service/Support	Expertise in new technology problems	Established quality standards Warranty Service and customer support procedures
Product Revisions	Next generation capability	Better product life extension Established user groups

Source: From "Corporate partnering: a strategy for high technology companies" by Daunt and von Gehr (1992) (Daunt & von Gehr, 1992)

Bidaul and Cummings (1994) assert that the context of partners (whether the incumbent or the new entrant) affects how much control they demand over information and the solution as well as how procedural they will be when carrying out the agreement. The partners' expectations and objectives, prior experience, attitudes towards risk, and economic variables are a few examples of contextual influences.

A successful partnership is one in which each party benefits more from the relationship than it costs (both financially and strategically) to fulfil the other party's expectations

(Daunt & von Gehr, 1992). Therefore, each partnership is different and dependent on the expectations from both the incumbent and the new entrant.

Although they have a great need for resources, start-ups take a big risk when they collaborate with established companies to get access to those resources as a result of power imbalances. As a result, start-ups face the greatest risk of being taken advantage of by a more powerful partner who controls those very resources when they need it the most (Knoben & Bakker, 2019). Power, whether structural or perceived power, plays a significant role within partnerships and is often used to obtain the desired benefits from the other party in the relationships. Incumbent would have structural power as a result of their strong resources and network position (Oukes, von Raesfeld, & Groen, 2019).

Even if it does not affect their structural power, start-ups may use power tactics, which may be either positive or negative, to increase their perceived power, which allows them to successfully realise the desired benefits from the partnership (Oukes, von Raesfeld, & Groen, 2019). This dynamic could create friction within the partnership process as the tension between benefits realisation and cost of meeting partner expectations interact. A suggestion by the literature is for start-ups to collaborate with multiple established companies to reduce the reliance they have on those partners (Knoben & Bakker, 2019), however, practically this would depend on the expectations from the incumbent partner and the nature of the partnership.

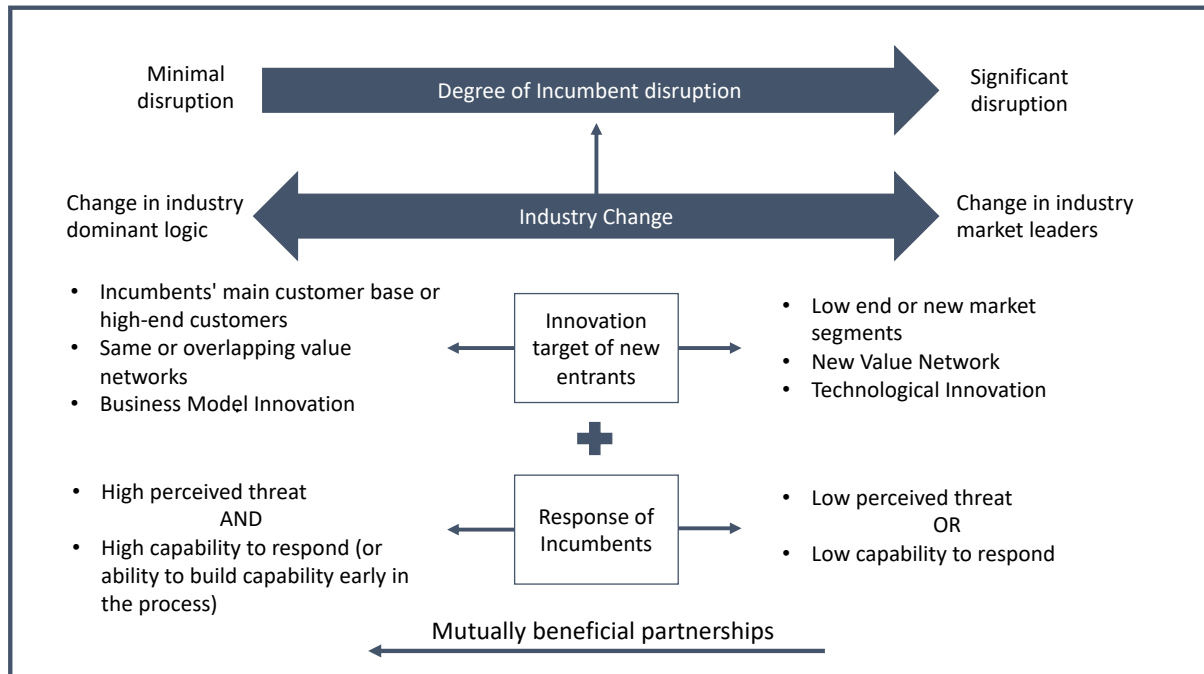
The acquisition of the new-entrant, which could either be a growth driven or defensive strategy, is another way incumbents react when faced with a potentially disruptive innovation, with new-entrants running into trouble when they do not make the business model unattractive to incumbents (Christensen, Anthony, & Roth, 2004). The decision on when to partner (via a joint venture) or acquire the start-up would depend on the potential synergies between the two companies, the resources both parties have and require and the market conditions (Dyer, Kale, & Singh, 2004).

2.7. THEORETICAL AND CONCEPTUAL FRAMEWORK

Figure 8 outlines the conceptual framework that will be used as the basis for analysis in this study and was adapted from the insights from the literature review. This

research will relate the potential disruptive threat to the potential industry change that could be seen by FinTech companies entering the financial services market.

Figure 8: Conceptual framework of the study



The impact of the FinTech revolution could either be a change in the overall dominant logic of the industry, bringing new rules of engagement but not a change in the market structure, or it could bring about a significant change in the market structure with FinTech companies becoming the new market leaders over the existing market leaders (Banks). The literature is not able to predict disruption and often used to explain disruption ex ante (Christensen, Raynor, & McDonald, 2015), however there are signals that could indicate a likely outcome.

For the purposes of this study, two key areas of investigation stand out: firstly, the design decisions made by the new entrant reflecting the innovation's target, which is conceptualised through the target market, value network, and innovation type; secondly, the decisions made by the incumbents to address the potential disruption, which is conceptualised through the motivation and capability to respond to the potential disruption.

For disruption of the industry to be significant, the FinTech market would have to make decisions that would result in banks having low motivation to respond and not have

the capability to respond to the potentially disruptive innovation. These decisions can be broken into three main categories:

- Technological innovation would enable FinTech companies to offer services on completely different cost structures where banks would not easily be able to compete ((Markides, 2006); (Christensen, Anthony, & Roth, 2004))
- Targeting customers who are underserved or who are not using financial services currently would mean that banks do not necessarily have the motivation to respond to the innovation because it may not be financially viable, and the bank's main customer base would take priority (Christensen, Anthony, & Roth, 2004).
- Operating in separate value networks would mean that the FinTech is not constrained by the same rules as banks enabling them to pursue completely different cost structures while also staying out of the banks' realm of influence (Christensen, Anthony, & Roth, 2004).

If this is not the case, the innovation may change customer expectation, but banks could easily respond reducing the overall disruptive potential of the FinTech to their business (Christensen, Anthony, & Roth, 2004).

FinTech's choosing the right innovation target is not enough for an innovation to be disruptive and lead them to become market leaders. Banks would also have to either not have the capabilities, not have the ability to build the capabilities to respond before disruption occurs, or not have the motivation to respond to the potential disruption. Motivation to respond is dependent on the overall perceived threat of FinTech companies to banks (Gilbert C. , 2005). If banks respond effectively and appropriately, their market power and resources would be strong enough to enable them to compete effectively against the disruptive threat even though the dominant logic of the industry would still have potentially changed (Christensen, Anthony, & Roth, 2004).

Partnership is shown as a viable option for incumbents to deter potential disruption from potentially disruptive technologies ((Crouse, 1991); (Cozzolino, Verona, & Rothaermel, 2018)), however effective partnership is dependent on the strengths each participant brings to the partnership (Daunt & von Gehr, 1992), what they require from the partnership (Bidaul & Cummings, 1994) and the resultant actions due to power dynamic between the partners (Oukes, von Raesfeld, & Groen, 2019).

2.8. STATEMENT OF PROPOSITIONS

This study focusses on the actions of two distinct groups, the new entrant (in this case domestic FinTech companies) and incumbents (in this case banks). The conceptual framework suggests two main propositions that can shed light on the research question that deals with the potential disruptive threat of FinTech companies on the market structure within the financial services industry:

Proposition 1: FinTech companies are entering the market with technological innovation aimed at the lower end and/or new markets of the financial services market and using completely distinct value networks (where banks are not central).

Proposition 2: Banks do not have the motivation and the capabilities required to respond to the potentially disruptive innovation emerging from the FinTech sector.

The second research question is concerned with whether the perceptions of managers converge with the potential state of disruption in the financial services industry, and how this affects potential collaboration within the industry. This is because, as seen in the conceptual framework, perceptions of incumbents of a potential threat is a significant indicator about whether they will respond to future potentially disruptive threats, and at the same time affects how each party will behave in a potential partnership.

Proposition 3: Bank and Fintech companies have a symbiotic relationship that is conducive to mutually beneficial partnerships that could protect banks from disruption.

Proposition 4: Managers at banks and FinTech companies are aligned to the outcomes of the FinTech revolution as indicated by the signals within the industry.

The outputs of these propositions will then be considered holistically to create a synthesis on a potential future scenario of what could occur in the industry. If Propositions 1 and 2 are supported by the findings, the risk to banks that the FinTech revolution could change the market structure, resulting in loss of dominance by banks in the financial industry is considerable, which is suggestive of a high degree of potential industry disruption. However, if Proposition 3 is found to be true, this is mitigated to some degree, thus indicating the increased competitiveness of banks while also ensuring the longevity of FinTech companies (Fasnacht, 2018), given that

the disruptive potential to banks could be considerably lower than if there is a incompatibility between FinTech companies and banks for partnership. If Proposition 4 is found to be supported, banks and FinTech companies would likely not be influenced by misconceptions when developing strategies for long term sustainability.

CHAPTER 3: RESEARCH STRATEGY AND METHODOLOGY

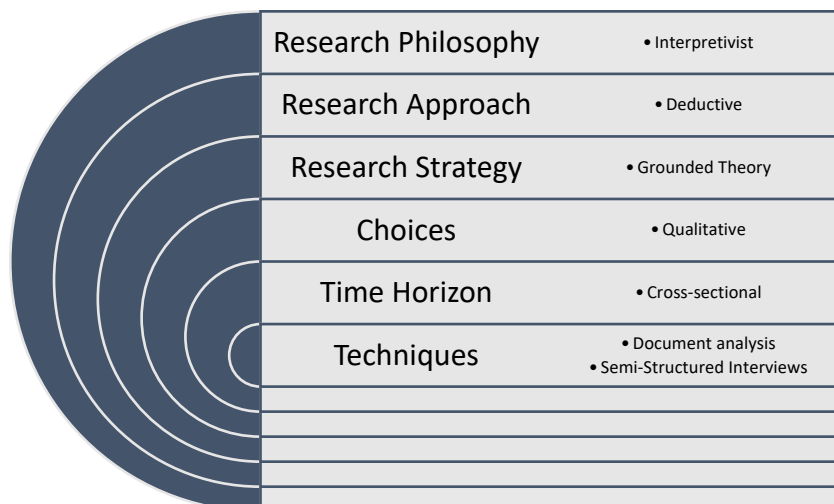
3.1. INTRODUCTION

The basic design and methodological components of the study will be outlined in this chapter to investigate the study's primary objective which is to evaluate whether the emergence of the FinTech revolution could have a potentially disruptive impact on the financial services industry.

3.2. RESEARCH STRATEGY AND DESIGN

Figure 9 gives an overview of the overall research strategy and design as adapted from Saunders et. al (2007):

Figure 9: Research onion of the study



Source: Adapted from "Research Methods for Business Students 6th ed." by Saunders et.al (2007) (Saunders, Lewis, & Thornhill, 2007)

Given the impact of individual perspective on how participants could respond in each situation (as shown in the threat framing example by Gilbert (2005)), it is important to garner different perspectives to get a clearer view of the potential actions each participant within the study will take given their unique view of the situation. This calls for a broad perspective on the industry and sentiments of the various market participants with the understanding that a FinTech will see reality very differently to how banks will see reality. This conforms to an Interpretivist world view (Chowdhury, 2014).

To understand this context, perspectives, and potential actions that the different participants in the financial services ecosystem may take, a deductive qualitative

approach will be undertaken, where the research data will be used to analyse the market signals to theorise what a potential future state of the financial services industry in South Africa may be, based on the drivers of disruption. The research made use of cross-sectional document analysis supported by semi-structured interviews to gain a deeper understanding of the target of innovation within FinTech companies as outlined in Figure 8 (the conceptual framework) and the resultant responses by banks to the potential threat. Both FinTech companies and banks were therefore units of analysis for the study.

3.3. INSTRUMENT

Document analysis was used to evaluate the high-level industry contexts of FinTech companies and banks. This includes value propositions, the customer base that they target, technology used, business model and partners. When used as a broad lens of the industry, a Grounded Theory Approach -through document analysis and semi-structured interviews - revealed trends that a more focused approach (such as using case studies) would miss. A more generalised perspective, which is what this study aims to achieve, can reveal patterns within the sector and, by employing theory as a basis for conclusion, can provide insight into what the industry might encounter in the future (Mfinanga, Mrosso, & Bishibura, 2019).

Table 3 below shows the instrument used for each proposition:

Table 3: Instruments used for each Proposition.

Proposition	Instrument
Proposition 1: Innovation Target of FinTech companies	Document Analysis
Proposition 2: Responses by banks	Document Analysis
Proposition 3: Partnership opportunities	Thematic Analysis
Proposition 4: Perceptions of managers	Thematic Analysis compared to Document analysis

To establish a foundational perspective on the industry and address Research Question 1, the methodology used was Document Analysis, utilising publicly accessible information. The data collected from participants in the industry was then compared to this information to generate a synthesis about the prospective actions and attitudes of managers and the impact on potential partnerships, in accordance

with Research Question 2. This information will then be used to create a synthesis around Research Question 3.

3.3.1. DOCUMENT ANALYSIS

Information was gathered on the 42 FinTech companies in the Payments sector (Appendix A) in accordance with the characteristics of innovations by FinTech companies as it related to main elements described in the conceptual framework, through document analysis, including:

- Technological basis
- Business model
- Value proposition
- Target market
- Customer pricing (where available)
- Key partners and integrations
- Competitive intent (i.e., are they currently suppliers, complementors or competitors to the payment that banks offer)

This information was used to establish FinTech companies' target market, value network and the innovation type compared to that of banks (Proposition 1). A list of companies and their websites are shown in Appendix A.

Using their annual investor reports and company websites, further document analysis was done on Banks to establish whether there have been specific actions taken by Banks in response (Proposition 2). The information gathered related specifically to the following:

- How are banks responding to potential competitive threats (strategic decisions, which could include declaring FinTech target markets as a strategic priority, developing “copy” products, integrating with FinTech companies, or buying specific companies that would enable competing in a sector)?
- Are banks taking steps to build capabilities that are already prevalent in the FinTech industry?
- Key partners

- Overall market conditions including existing regulation, actions by regulators, new laws that could favour either party in the analysis.

A list of sources is included in Appendix B.

3.3.2. SEMI-STRUCTURED INTERVIEWS

To gain a clear understanding of market perceptions as they relate to FinTech companies within the financial services market, interviews were conducted with managers at banks and FinTech companies in the payment sector of South Africa. These various points of view will shed light on the various perspectives and narratives that exist within the sector, enabling triangulation between the document analysis and the resultant thematic analysis for a more thorough multi-perspective interpretation of the phenomenon under study, namely the potential degree of disruption to the financial service industry by the FinTech revolution.

Questions were formulated in relation to the propositions of the study with the main purpose of guiding the conversation; however, it is expected that the participants would give information on a wide variety of sentiments. The interview questions for both managers in FinTech companies and banks are the same and is aimed to understand the different perspectives of those in the industry on the same issues. The interview guide is outlined in Appendix C as well as how each relates to each of the four propositions.

Given the broad topic and to formulate a synthesis for the propositions, this study does not require consistent answers within the semi-structured interviews but allowed for more nuanced discussion to gather themes that give a rich and multi-dimensional perspective. Each interview was considered through the lens of the conceptual framework (Figure 8) to create a meaningful basis for discussion.

3.4. SELECTION OF PARTICIPANTS

To get a full picture of the sector, data was gathered about all 42 Fintech companies in the payment sub-sector and about the five major banks in the South African landscape (FirstRand, Standard Bank, Absa, Nedbank and Capitec) who have 99% of all the customer market share.

Invitations for the semi-structured interviews were sent via LinkedIn to managers of all 42 FinTech companies, as well as managers in the five banks who specialise in payments. Interview requests were sent to 2 managers per Fintech company and 6 managers per bank. Potential participants were contacted directly on LinkedIn and then formally invited over email if initial interest was shown. Interviews were conducted via MS Teams or Google Meet, and they were recorded and transcribed for archiving and analysis purposes using “Otter.ai”.

Overall, 15 interviews were conducted where 8 of the respondents were managers at FinTech companies (9% response rate) and 7 were managers in the payments or transactional spaces within banks (23% response rate). Within the FinTech space, many of the participants worked for larger established FinTech companies with the exception of two, however all worked for different companies. These companies are on the list of FinTech companies shown in Appendix A, however, the names of the FinTech companies for respondents are not material in the discussion of the results. Responses were low for the smaller start-ups, as the only managers listed, that focus on the strategy, would be the CEOs and founders of these companies. This may create a bias in the results where the view of smaller companies is not adequately represented. From the five major banks, only interviews with managers from three of the banks could be sourced.

The information of the participants and the organisations they work for has been kept confidential and is not critical for the validity of the discussion. The importance lies within how those that work within the industry, in senior roles, perceive the phenomena of the FinTech revolution. The views shared were the personal opinions of the respondents and do not reflect the views and strategies of the companies they work for.

3.4.1. DATA COLLECTION

For the 42 FinTech companies within the sector the company website and LinkedIn pages was considered. These two sources, per company, was able to give enough insight to the high-level data points needed to evaluate the different propositions as discussed in the previous section. Personal and identifying information were not included within the final report including any names, email addresses or any specific product names and descriptions.

To augment the document analysis, semi-structured interviews were conducted. The interview started with the usual formalities, and for conciseness was not shown in detail in this section. Basic information, for categorisation was captured before the interview to correctly analyse the response in the correct context, followed by 7 semi-structured questions and one open-ended question. Within each discussion, clarifying and follow up questions were asked to ensure that the correct meaning behind the words were captured. The interviews lasted on average between 20 - 45 minutes depending on the interviewee.

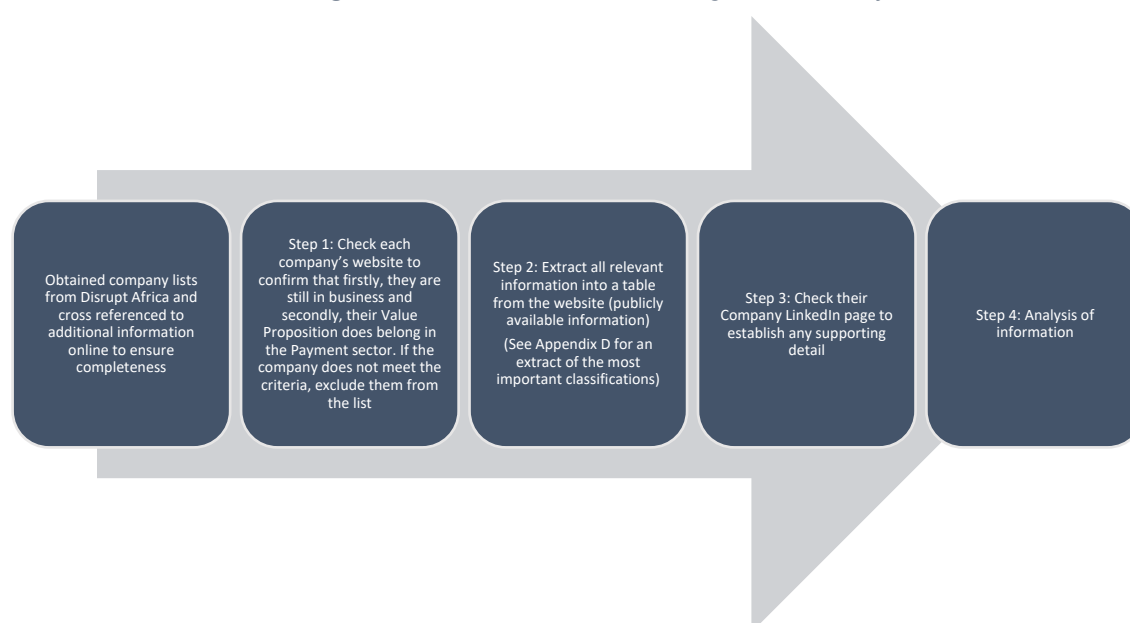
3.5. DATA ANALYSIS

To make sense of the qualitative data gathered through document analysis and the semi-structured interviews, two main analysis methods were used by analysing the key elements of the conceptual framework to look for trends within the documents and responses.

3.5.1. CONTENT ANALYSIS

Content analysis was used to analyse the information obtained from 42 FinTech company websites (as per Appendix A), LinkedIn profiles. The process followed is described in Figure 10 below:

Figure 10: Process followed during content analysis



The goal of the analysis was to categorise FinTech companies to the key themes within the analysis to gain a snapshot of the current innovations within the industry, and therefore, the data was codified (or categorised) to pre-determined categories. These categories were:

- Target customer segment
- Customer use case
- Value Proposition
- Business model
- Pricing (where available)
- Technological basis
- Whether they compete with banks (including any partnerships) based on the value propositions they have and the target customer.
- Whether they participate in the same value network as banks.

Additionally, an examination was conducted on the websites and LinkedIn profiles of banks, wherein the annual financial statements and investor reports of such banks were examined to obtain the same information that was obtained for FinTech companies. This includes as to whether banks share a common consumer segment, possess competitive value propositions, and any indications of perceiving FinTech companies as a potential threat at a high level. Additionally, given the information was first gathered for FinTech companies, information on specific value propositions that banks have developed that would compete with value propositions brought by FinTech companies. The information was used as a basis for what the innovations in the industry entails, specifically as it relates to Research Question 1 (Propositions 1 and 2).

3.5.2. THEMATIC ANALYSIS

Thematic analysis was used to analyse the themes that arose from interviews. To establish key trends and common responses, interviews were codified (or categorised) on “ATLAS.ti” to thematic groups that matched each of the propositions within the study, however, the specific themes were developed while analysing the underlying qualitative data in line with the processed proposed by Braun and Clarke (2006). The process followed is outlined below (Braun & Clarke, 2006):

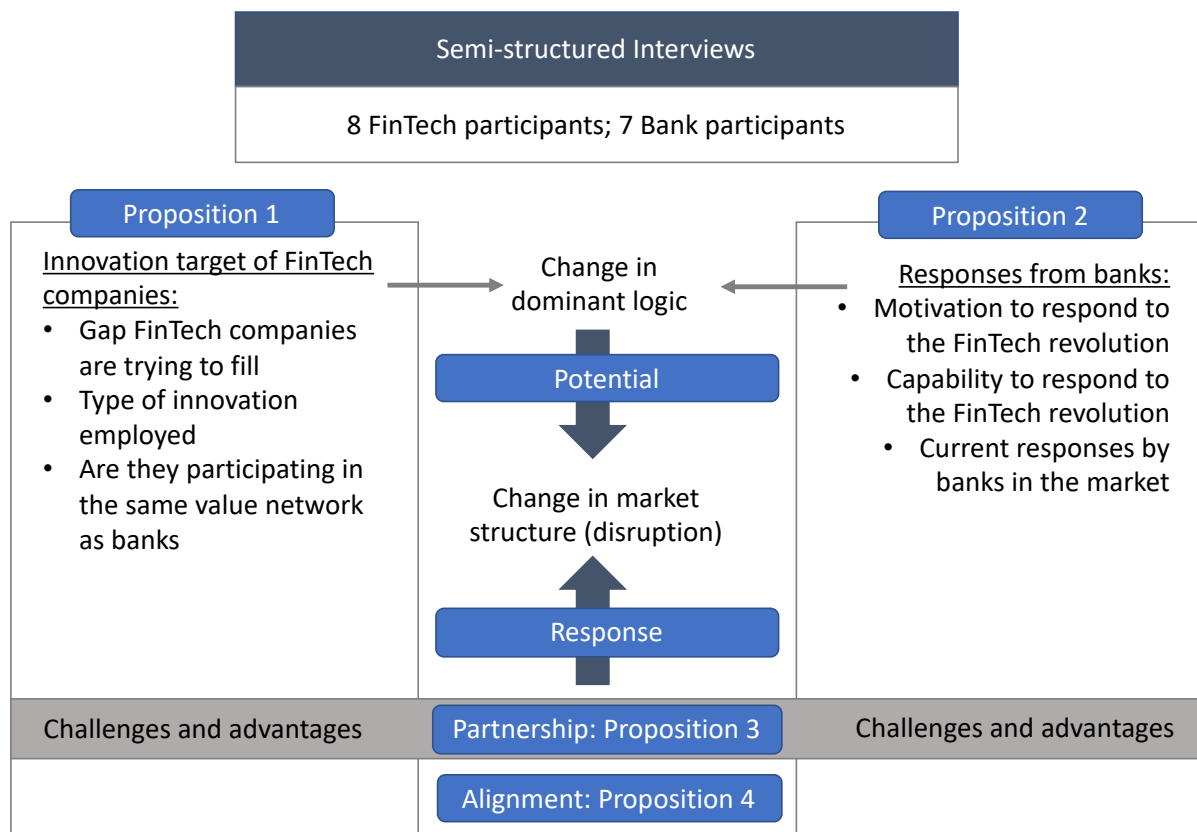
Familiarisation

Interviews were transcribed using “Otter.ai”, and then reviewed and corrected where needed by listening to the recordings and reading through the conversations.

Coding

To establish a standardised method for assessing the interview data, a "codebook" was created utilising the conceptual framework as a foundation, which initially identified the themes. The thematic framework employed in this study, as depicted in Figure 11, was derived from the conceptual framework and propositions.

Figure 11: Thematic framework (codebook) of the study



The interview data underwent a thorough review and was subsequently organised and categorised using this predetermined framework. Data codes were then generated based on the interviewees' responses, which were further classified into relevant subthemes. The process of coding involves the identification and annotation of specific

sections of text, such as phrases or sentences, using abbreviated codes that convey their intended significance (Braun & Clarke, 2006).

Generating themes

Themes emerged through the identification of recurring codes, which are further organised into bigger thematic categories or sub-themes. The codebook serves as a comprehensive reference for theme groups, and their corresponding sub-themes. For instance, an overarching theme such as "the target customer" of a FinTech company would encompass various sub-themes that provide specific information about the characteristics of different types of target customers.

Reviewing themes and data

Additional themes that were deemed significant to the study were incorporated as they emerged from the collected data. Following the initial phase of codification, a comprehensive evaluation and consolidation of all the themes were conducted. This procedure aimed to identify and emphasise the more robust themes and features derived from the data. Subsequently, an examination of the data was undertaken to ascertain that no data points were missed. Significant themes were limited to those that had a minimum of two data points from at least two distinct participants.

Analysis

The analysis encompasses an examination of each theme, considering the number of participants who addressed each theme, as well as the frequency of occurrence of each code. This approach allows for the assessment of the significance of each sub-theme in connection to the overall themes outlined in the codebook.

3.6. LIMITATIONS OF THE STUDY

Interviews were conducted with 15 respondents within the financial services industry. Given more time, more respondents would enrich and enhance the credibility and legitimacy of the findings of this study.

Since document analysis only provides insight into material that is already available to the public, it was difficult to determine strategic elements of a company, whether it be a bank or a FinTech. Furthermore, the data could be skewed depending on what

businesses wish to make available to the public. To reduce this risk, the same information was gathered for each company allowing a level playing field. The result is a clear view of the current landscape; however, this landscape is continually evolving at a rapid pace.

The study itself does not prove clear causality and is only indicative of a potential direction of the industry in the next couple of years. The main aim is to create a theoretical view of a potential theory and illustrate any theoretical relationships that may occur.

3.7. ETHICAL CONSIDERATIONS

In accordance with the Wits ethics policy, this research adheres to all outlined standards for ethical conduct in research and will only be carried out with the ethics board of Wits University's approval. This research does not entail any type of discrimination, while also having no influence on nature, and no bodily or psychological hazards to participants.

Additionally, all participants have consented to the interview and were free to withdraw at any moment. Participant information will also remain confidential. The participant was made aware up front that they shouldn't reveal any private or sensitive information. Every effort was made to ensure that participants understood the goal of the study and were able to decide for themselves whether to participate or not.

Only publicly available information was used for the document analysis; any documents or information that may have been acquired but is not in the public domain was discarded and will not have an impact on the study's conclusions.

3.8. RELIABILITY AND VALIDITY

The qualitative nature of the study made it more difficult to generalise the findings to different context and countries because the companies and participants in the study are subject to their specific context. For example, there could be a vastly different experience within the payment sector compared to (for example) the unsecured credit sector. Within academia, it is understood that qualitative research has a different purpose than qualitative studies when it comes to answering general questions,

requiring a broad perspective to ensure better generalisability (Gheondea-Eladi, 2014).

Even though this study is focused on the South African financial services sector, with a specific focus on the payments sub-sector, it adopted a broad perspective and clearly defined the environment to help other researchers determine whether contextual aspects significantly affect the study's findings.

The theoretical principles are not specific to financial services; rather, each theory is assessed in the context of financial services, enhancing the transferability to other sectors and sub-sectors and transferability to other countries should be enhanced. Further research should be conducted to validate any findings in other contexts and countries.

To ensure that the study produces credible results, three main strategies were employed. Firstly, triangulation between interviews and documents analysed was used to validate any insights. Secondly, specific attention was given to any cases where the data did not conform to the proposed relationships as by the literature review. And finally, during interviews, follow up questions and clarification questions were asked to ensure the correct interpretation of the narrative is maintained, while also clarifying any anomalies that were seen.

Interview results may not be replicable and therefore the approach of semi-structured interviews reduces the dependability of the findings. However, the use of document analysis as an additional method, strengthens the approach by allowing for validation within the results by triangulation.

In addition, bias among interviewees and interviewers must be considered. To lower this risk, the interviewee was asked if they would like audio or video within the meeting and were relatively senior members of the organisations in which they work. Only one participant opted for audio only, due to network stability considerations. Further, the interviewee's context was considered when analysing the information to increase the dependability of the study.

3.9. SUMMARY

To establish a richer multi-dimensional understanding, this qualitative study combined document analysis and semi-structured interviews to gather insights from dual perspectives. The qualitative data was codified into information and themes using content and thematic analysis, and they were matched (either positively or negatively) to the propositions discussed in the previous chapter.

CHAPTER 4: PRESENTATION OF FINDINGS / RESULTS

4.1. OVERVIEW

The findings from the qualitative research will be reported in this chapter in accordance with the methods outlined in chapter 3. To determine the degree of potential disruption to the financial services industry, this study examined the innovation landscape by analysing responses by banks and FinTech companies to the phenomena of the FinTech revolution through document analysis and triangulate this information with managers' perspectives and attitudes within the industry.

Of the 15 participants that took part in the study, 8 (53%) were managers at FinTech companies and 7 (47%) were managers at traditional banking institutions with experience in the transactional and payments sub-sector. The participants will be referred to as Participant 1, Participant 2, etc., to maintain confidentiality. Participants 1 through 8 are from Fintech companies, and participants 9 through 15 are from banks.

4.2. PRESENTATION OF FINDINGS AND DATA RESULTS

The results were broken up into four sections that reflect the conceptual framework and research questions and propositions. The focus of Section 4.2.1 will be on the actions and choices made by FinTech companies to ascertain their intentions, which will be used to develop a theory around Proposition 1. As a theoretical foundation for Proposition 2, Section 4.2.2 will, in contrast, focusses on the decisions and actions made by traditional banks in response to the strategies introduced by FinTech companies.

Thirdly, the practical experience and challenges observed with partnership attempts were then examined to determine a baseline for Proposition 3 in section 4.2.3. Highlighting the strengths and partnership requirements from both sides have been used to ascertain whether there is a mutually beneficial relationship that could exist for the benefit of the industry.

Section 4.2.4 will focus on the examination of managers' perspectives on the influence of the phenomena on the financial services industry, in comparison to the results presented in Sections 4.2.1 and 4.2.2. These insights will serve as a foundation for the discussion surrounding Proposition 4. This analysis will also examine managers

perception on the outcomes within the framework: the degree of change in the prevailing industry dominant logic and a potential change in market structures.

4.2.1. PROPOSITION 1: INNOVATION TARGET OF FINTECH COMPANIES

Proposition 1: FinTech companies are entering the market with technological innovation aimed at the lower end and/or new markets of the financial services market and using completely distinct value networks (where banks are not central).

Content analysis was used to establish to test Proposition 1 based on three sub-components (The FinTech target market, innovation type and value network). Within the results, the aim is to ascertain if there are any companies in the FinTech sector (based on the document analysis) that could meet all three of the criteria for disruptive threat based on the literature review and conceptual framework presented in Chapter 2.

4.2.1.1. Target market of FinTech companies

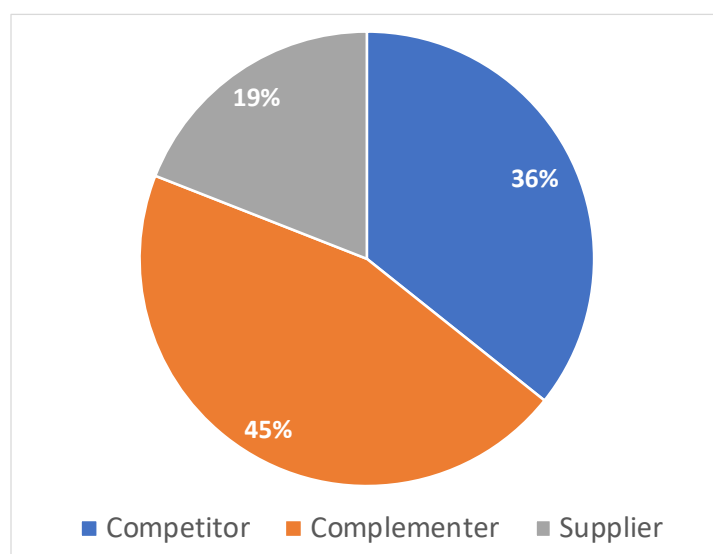
A new participant within an industry becomes integrated into the existing value chain of the dominant player as a supplier, complementor, or competitor. FinTech companies that have complementary value propositions or are suppliers are inherently part of the same value network as incumbents and therefore would not be a disruptive threat, therefore the focus of the analysis will be companies that have competing value propositions to that of banks.

In section 2.3., the literature revealed three primary customer segments that a new competitor entering the market could focus on. These segments include undershot customers, who are currently using the services provided by existing incumbent companies but may not be adequately served in terms of service quality or specific niche features. The second segment consists of overshot customers, who are located at the lower end of the customer base of the existing companies. The third segment comprises individuals who are not currently utilising the services offered by the existing companies.

Figure 12 shows the proportion of FinTech companies and their position within the banks' value chain, showing that 36% of FinTech companies have competing value propositions, 45% have complementary value propositions and 19% are suppliers to

financial services institutions according to the data collected during the document analysis (Appendix A).

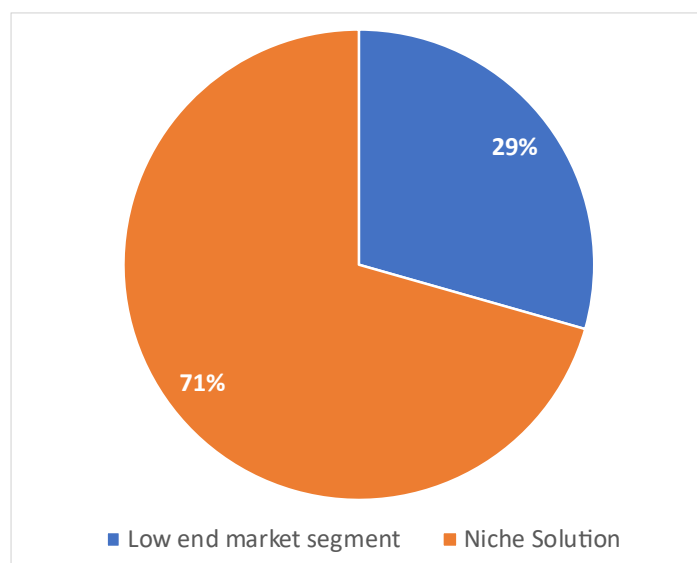
Figure 12: FinTech companies in Bank value chain (Document Analysis)



Suppliers to financial services organisations have the potential to offer services to banks' competitors, however their individual presence does not inherently present a direct competitive risk to banks. These companies by themselves would not generally provide a service to the end customer, but partner with another company that builds a value proposition on top of the technology that these companies provide. The possible threat arises from the value proposition of the customer of the supplier, such as a new FinTech, other corporate companies or another bank, rather than the supplier FinTech itself. The analysis of the data did show certain supplier links between FinTech firms and retail companies, which were not the focus of this research.

Figure 13 shows the proportion of FinTech companies (excluding suppliers) that target each segment, namely the low-end market segment, niche sector, and new market segments. The data indicates that a significant proportion (71%) of FinTech enterprises concentrate their efforts on catering to a single niche product or segment. For instance, they may offer services enabling online merchants to accept payments electronically, such as through a payment gateway. Alternatively, they may choose to focus on a particular niche market, such as educational institutions or event organisers.

Figure 13: FinTech company target segment (Document Analysis)



Approximately 29% of FinTech companies focus their efforts on catering to those who are either unbanked or underserved in terms of access to financial services, particularly from a payment perspective. Based on the findings of the literature analysis, these companies exhibit the capacity to significantly impact and perhaps challenge traditional banking institutions (if all other criteria are met). The data additionally demonstrates that there are **9** companies that focus on catering to low-end client markets and had value propositions that directly compete with those offered by banks.

The task of objectively classifying a company as having established an entirely new market segment proves challenging within the context of a study limited to a singular moment in time. In this instance, the examination of the document failed to identify a distinct market that was explicitly established, despite the observable expansion of existing markets such as the eCommerce market and micro payments. Nevertheless, it should be noted that FinTech companies in South Africa are not exempt from creating new markets; rather, they are classified among the two categories that could objectively classify data points (niche segment and low-end market segment).

4.2.1.2. *Type of innovation from Fintech companies*

According to the literature review and conceptual framework in Chapter 2, it was established that for an innovation to be potentially disruptive it needs to be technologically novel enough that the incumbent cannot easily implement the

innovation using their current resources, organisational design, and system architecture.

To gain insight of the type of innovation Fintech companies employ, document analysis was used to establish an overview of which themes or use cases emerge within the value propositions of FinTech companies, for example, a Fintech company could be a payment aggregator, or they could be a wallet (technology) provider. Some technical information about Fintech companies is proprietary and thus not freely available in the public domain. To understand the novelty of a certain technology (or use case), information from Gartner technology hype cycles were used (Gartner, 2023) in addition to the responding value propositions brought on by banks (i.e. have they managed to implement solutions for the same use cases to a successful degree).

Table 4 presents a high-level overview of use-cases or themes that have arisen from the document analysis. Each customer or technological use-case includes context to the main value propositions and implications of Fintech companies' new value propositions within the payments sub-sector. The use-cases are intentionally not overly detailed and does not include specific features at a granular level, as some companies have more features than others. However, the overarching characteristics of each use case remains consistent across companies.

Table 4: *Explanation of FinTech use cases*

Use Case/Theme	Description
Payment Aggregator	A third-party payment processor, or "payment aggregator," registers firms directly under its own merchant identification number (MID) to process transactions through a single master account and empowers businesses by letting them accept credit card payments and various other online payment types (Mindgate, 2023)
Mobile Wallet	A mobile wallet is a low functionality transactional or payments vehicle on a mobile phone that allows the user to make payments and purchases without the need for a formal bank account (GSMA, 2010).
Agency Banking	Instead of forcing customers to visit a physical branch, agency banking, also known as branchless banking, enables a provider to deliver their services to an agent, which could be a retail store, which is often closer to where the customer lives and works while also not needing to adhere to branch operating hours (Digipay.guru, 2023)

Use Case/Theme	Description
Merchant service device	Provision of a device and software that enable merchants to securely take payments from customers using their credit or debit card (from their own bank) (Bankrate, 2020).
Cross Border Remittances	The facilitation of a payment (also called a remittance) where the payer and beneficiary are not based in the same country (digiPay.guru, 2023).
QR code	Smartphones can scan QR codes with its camera, which are used as a kind of contactless payment which works similarly to a barcode. This has allowed companies to make cashless payments (payment and acceptance) a lot more accessible (to all who have a smartphone) (Investopedia, 2021).
Blockchain	With encrypted distributed ledgers that offer trusted real-time verification of transactions without the need for intermediaries like banks and clearing houses, blockchain technology could facilitate quick, secure, affordable domestic and international payment processing services (Faden, 2017)
Chatbot	With chatbots (which leverages AI, speech recognition, and Machine learning technology), users of a service can check their account balances, get customer service help, and make payments within the same chat (PayNearMe, 2022). This would not be a stand-alone offering; however, the solution potentially enhances the overall user experience significantly.

The complementary nature of use cases can be illustrated by examining the value proposition of a specific FinTech business, "Ukheshe" (refer to Appendix A). By taking the key elements of the value proposition, it becomes evident how the use cases work together harmoniously.

The provision of deposit and withdrawal locations is crucial for mobile wallets, as it facilitates the process of adding and retrieving funds. As a result, the use cases of agency banking, which facilitates the conversion of physical cash into digital form, and QR code payments, which offer alternative payment methods, align well with the mobile wallet use case.

The cross-border remittance use case is enhanced by the mobile wallet and agency banking use cases, providing individuals without bank accounts but possessing

physical cash that they wish to send to another country with a convenient method to convert their funds into digital format and facilitate international transfers.

Figure 14 shows how many use-cases any one FinTech company be involved in at once. The document analysis indicates that each FinTech company can be involved in more than one use case, however, most have a narrower focus with 86% of FinTech companies focussing on one or two use-cases.

Figure 14: Use cases per FinTech company (% of companies) (document analysis)

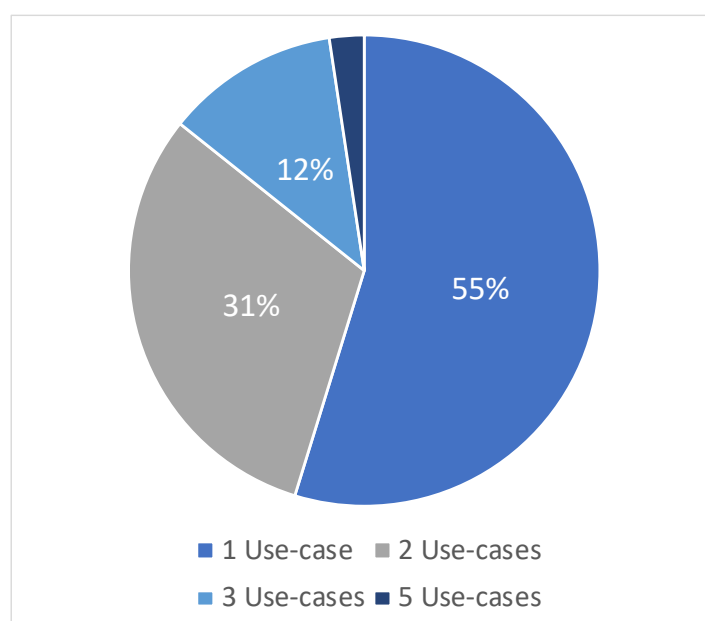


Figure 15 indicates how many FinTech companies operate within each use case, with the three major themes—payment aggregators, mobile wallets, and agency banking—accounting for 52% of the themes that FinTech companies are innovating within.

Figure 15: Distribution of use cases for all FinTech companies (document analysis)

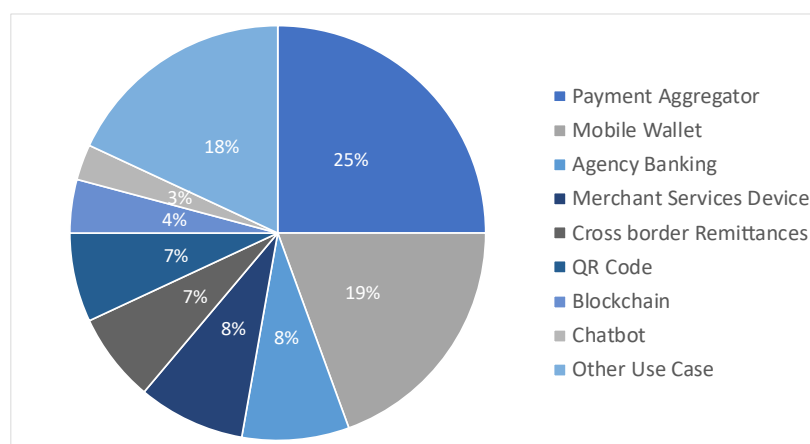
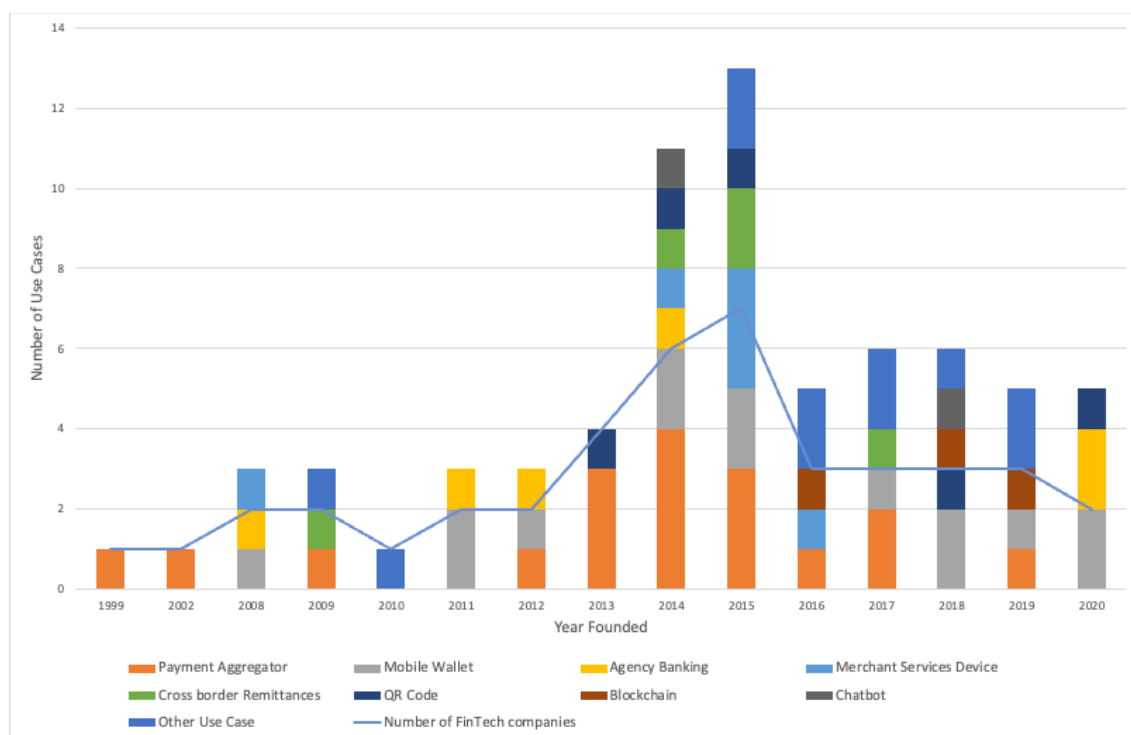


Figure 16 shows the use-cases by the year that the Fintech was founded. Earlier Fintech companies (who have thus far survived the longest) primarily are payment aggregators, with mobile wallets gaining traction by 2014 and new companies emerging until 2020.

Figure 16: FinTech use cases by year the company was founded (document analysis)



Some of the earlier mobile wallet players have gained some significant success in the last couple of years, including TymeBank obtaining a banking licence. It's interesting to note that between 2016 and 2020, three blockchain-focused companies emerged, and that number may increase significantly during the following decade. These businesses use blockchain technology not just for storing bitcoin, but also solve for consumer payment and merchant acceptance of cryptocurrencies for purchases (and potentially remittances).

To fully understand the potential disruptive threat posed by these use-cases/innovations, it is important to develop two dimensions. The assessment of the technical novelty of the innovation should consider the incumbents' ability to effectively adopt solutions that successfully respond to these new use cases, using their current assets, staff, and systems. Considering the aforementioned stipulation, regardless of the objective novelty and newness of a particular technology, the focus of the research

is to assess radical technological innovation that is fundamentally incompatible with its preceding technology.

Secondly, the information regarding radicalness of the innovation is overlaid with the target market of FinTech companies. Not all use-cases will be technologically novel enough to create disruption, however, the interest of this paper is to establish if there are any companies that operate in use cases that are technologically radical enough and target the low-end market segment with a value proposition that compete with banks.

Table 5: Responses by banks to specific innovation use cases

Use Case/Theme	Implemented with own systems
Payment aggregator	Partnership
Mobile Wallet	Yes
Agency banking	Yes
Merchant service device	Yes
Cross Border Remittances	Partnership
QR code	Yes
Blockchain	No solutions
Chatbot	Limited solutions

Source: Aggregated data from Appendix B

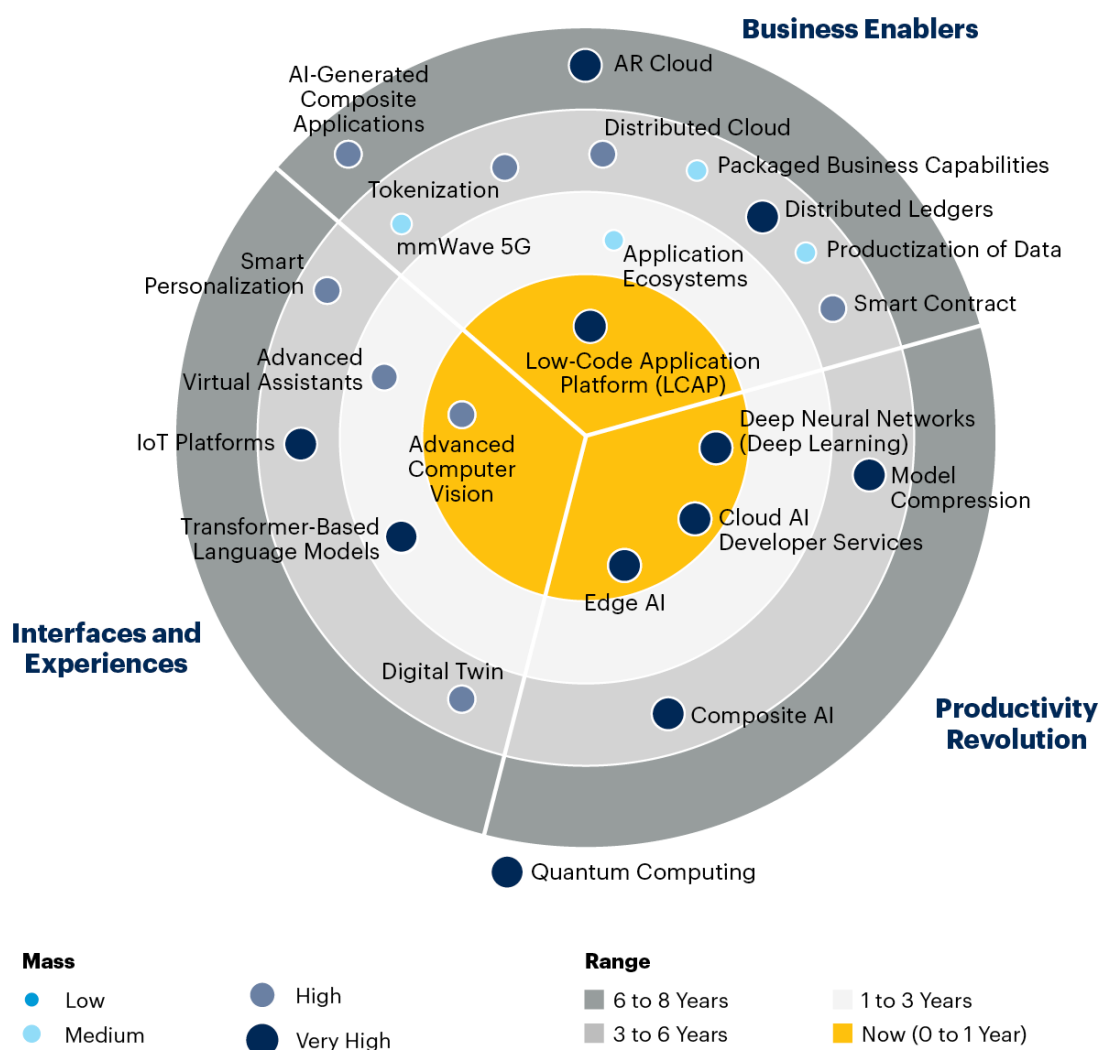
Table 5 shows the high-level view of whether there are any responses by banks and indicates that banks have been able to create competing solutions using existing resources for the Mobile Wallet, Agency Banking, Merchant Service devices and QR code use cases, indicating that these innovations are business model driven and not radically technologically novel that would create a potential disruptive scenario.

The Payment Aggregator use case, by definition, includes a third party that aggregates payments to create a cost advantage, however, most banks have partnered with these companies to enable eCommerce solutions. For the cross-border remittance use case, banks seem to still have a lot of work to do to compete effectively with FinTech companies. The solutions require many integrations and partnerships for participants in many countries. However, given that the main solution is not technologically novel, and that banks have the option to acquire partnerships with aggregators that hold

these relationships to effectively compete, these could also be classified as Business model innovation.

The technology for the last two use cases, blockchain and chatbot, is still relatively new, as evidenced by the fact that the first FinTech companies focused on payments only started to emerge in 2015. Banks are analysing what the technology may mean for them and how they can potentially address any emerging competitive threats.

Figure 17: Emerging Technologies and Trends Impact Radar



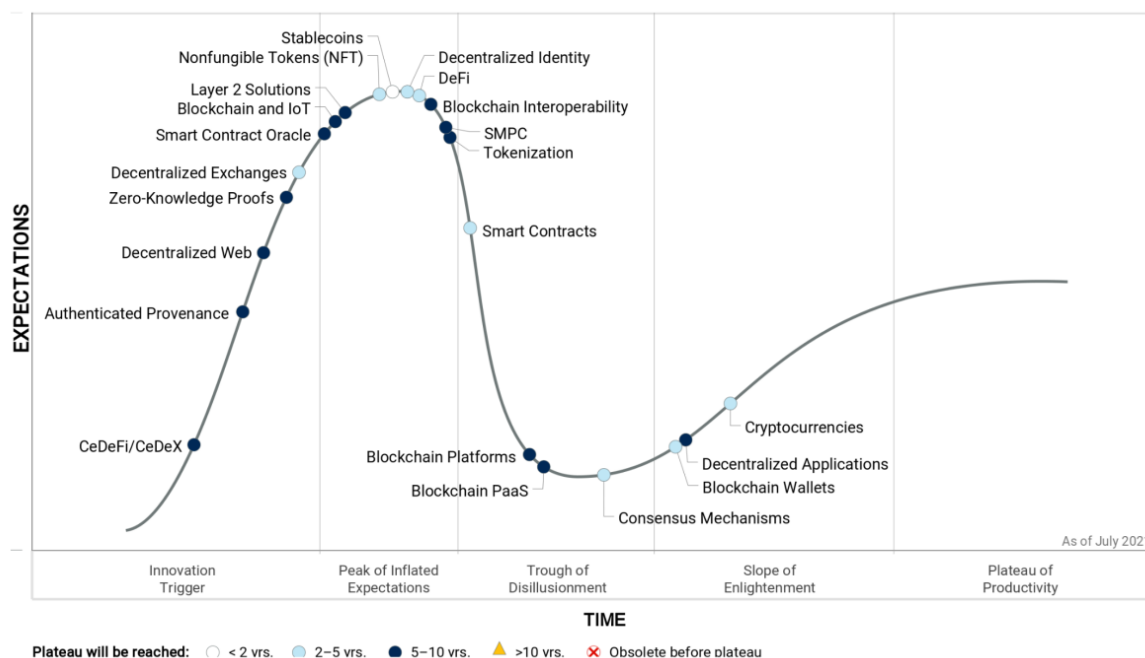
Source: From “4 Impactful Technologies” by the Gartner Emerging Technologies and Trends Impact Radar (2021) (Gartner, 2021)

Chatbot functionality, which is enabled by artificial intelligence and language processing technology, is still relatively novel and developing with Transformer-Based language models only becoming mainstream recently, as shown in Figure 17, aiming

to become more accurate and thereby improving user experience (Gartner, 2021). However, given that some banks have already implemented some initial use cases using this functionality, one could argue that the technology is not incompatible with current bank systems and functionality.

Figure 18 shows the 2021 Hype Cycle for Blockchain (Gartner, 2021) showing the maturity of Blockchain technologies. Its most common use case, cryptocurrency, is quite far advanced, and in its design is decentralised from formal banking structures. However, this is not its only use case, and other use cases are in its development stage with some of these technologies being quite far from the “Slope of enlightenment”, which is the phase in which the real value of technologies is starting to realise, solving real world problems. The graph also show that Blockchain Payments as a Service (BlockChain PaaS) is currently in the “Trough of disillusionment”, meaning that enough research and information has been gathered to understand what Blockchain payments cannot be, however, more development is required to understand the real value of the technology (Gartner, 2021).

Figure 18: Hype Cycle for Blockchain

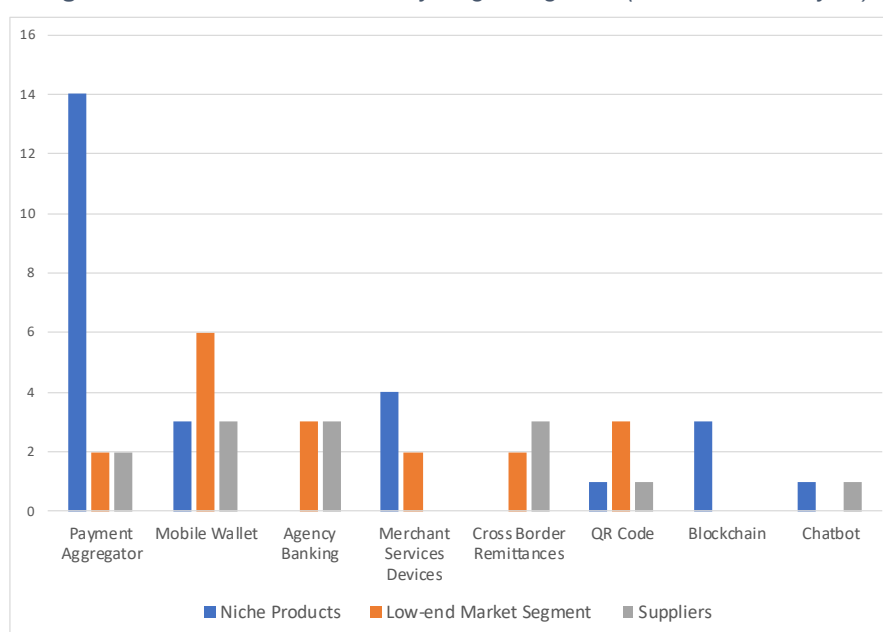


The predicted adoption of central bank digital currencies (CBDCs) is a major factor in the adoption of distributed ledger technology (DLTs) for the movement of money through payment networks, banking, and social networks (Gartner, 2021). Therefore,

considering the early stage of this technology and the absence of any practical applications in banking, coupled with the inherent decentralised nature of Blockchain technology, which fundamentally diverges from the centralised system design of banks, it can be suggested that Blockchain technology may possess disruptive potential.

Figure 19 illustrates the breakdown of FinTech use cases based on the target segment of the respective FinTech companies where FinTech companies targeting the low-end of the market are currently focussing on the more established use cases. Banks have successfully developed their own solutions for these specific use cases, thereby mitigating the risk associated with a radical change in market structures even though a change in market share may occur in certain cases.

Figure 19: *FinTech use cases by target segment (Document Analysis)*



4.2.1.3. Centrality of banks to FinTech value networks

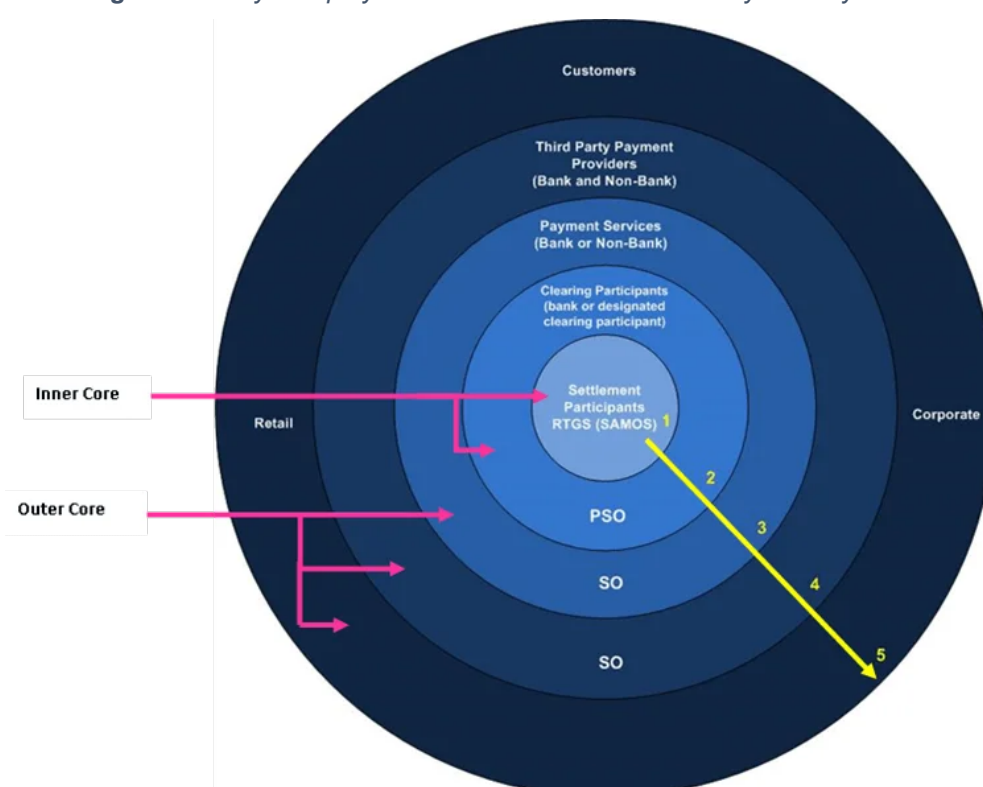
The relationships and integrations that FinTech companies have can be studied to determine how important and influential banks are within the new value networks that these FinTech companies operate in. FinTech companies could either choose integration and partnership to gain benefits, or they could be forced to do so by the industry through regulation.

This is supported within the document analysis. The rules on what each role-player within the financial services industry is allowed to do is determined by two key pieces

of legislation, the South African Reserve Bank (SARB) Act and the National Payment Systems Act (PASA, 2023).

Figure 20 shows all the key players within the National Payments system. The core of the system is made up of settlement participants, who can only at this time be registered banks and who have settlement accounts with the South African Reserve Bank.

Figure 20: Key role player in South Africa's National Payment System



Source: From “Key role-players” by PASA (2023) (PASA, 2023)

A minimum of one Payment Clearing House—of which there are four in South Africa, namely Strate Limited, BankServAfrica, Visa, and Mastercard—and clearing participants, which include banks and authorised non-bank participants, make up the second tier. If the clearing participant is also a settlement participant, the clearing obligations are settled directly; otherwise, sponsorship is required by a settlement participant (i.e. a bank). In addition, banks participate in layers 3 and 4 as a means of reaching the payment system's end user (PASA, 2023).

Layer 3 and 4 is where most FinTech companies would engage as providers of payment services. System operators (SO) – who must be approved by PASA – provide

payment instruction-related services in the third tier, such as a digital payment mechanism (which includes sending and/or receiving payment instructions). Payment Aggregators, also known as Third Party Payment Providers (TPPP), make up the fourth layer and are required to be sponsored by a system operator (SO) to temporarily store funds in their own bank accounts (PASA, 2023).

Each tier is dependent on the tier before it, with banks and the South African Reserve Bank at the core of the system and Payment Clearing Houses being critical to the functioning of the entire system. Stated differently, you need at least one bank and one Payment Clearing House to complete a transaction, with these players taking responsibility for the compliance of the entire system.

When analysing the partner structures of FinTech companies in the population (excluding Technology suppliers), 62% of them specifically name VISA and or Mastercard on their website as a partner or as having an integration with them. Given this and the regulations within South Africa regarding the roles and responsibilities of banks and Fintech companies, it can be assumed that all FinTech companies and banks operate in overlapping value networks, reducing the risk of potential disruption to incumbent banks.

4.2.2. PROPOSITION 2: RESPONSES OF BANKS

Proposition 2: Banks do not have the motivation and the capabilities required to respond to the potentially disruptive innovation emerging from the FinTech sector.

Based on the conceptual framework, there are two distinct components to determine the validity of Proposition 2, the motivation of banks to respond to innovations brought by the Fintech sector and the capability of banks to respond competitively to what FinTech companies do. Both these elements were analysed through document analysis, and then compared to the response strategies discussed in Section 2.5. to create a view on the intersection between motivation and capability.

4.2.2.1. Motivation to respond to innovation by FinTech companies

The main driver of motivation to respond to a potentially disruptive innovation is to examine whether banks perceive FinTech companies as a threat to bank's future competitive capability, as seen in section 2.5. that shows that framing a potentially

disruptive innovation as a threat would increase the incumbent's motivation to respond.

From an analysis of the Integrated Annual Reports of the big five banks (see Appendix B), it was evident that banks perceive the competitive environment to be rapidly changing because of new entrant FinTech, BigTech and non-traditional players and that banks acknowledge the need to invest in new technology and updated value propositions to remain relevant within their current market segments.

Therefore, at an aggregated level, there is a level of perceived threat from the changing environment that they need to respond to and a sentiment from banks that they do not want to be relegated to the background, but rather want to be central financial partners to their clients.

Supporting quotes:

"Large, strong competitors and the entry of new entrants, FinTechs and big-tech disruptors in the financial sector have ensured that competition remains fierce. These disruptors have been more active in the retail banking space and the risk of greater competition in the SME segment has increased." – Nedbank Integrated report (2022)

"Increasing competition, advancements in digital technology, embedded finance, the need for innovative risk prevention, and rapidly evolving customer expectations are just some of the factors that are placing pressure on traditional banking business models." – Absa Integrated report (2022)

"Our competitiveness in a rapidly evolving market where client expectations are constantly changing; Rapidly digitising to ensure future competitiveness" – Standard Bank Integrated Annual Report (2022), issues discussed at board level

It is clear from these reports that banks acknowledge changing customer expectations as a threat to competitiveness and are motivated to update their offerings to remain relevant, however, not many specifically mention local FinTech companies being a major threat.

4.2.2.2. *Capability of banks respond to innovation by FinTech companies*

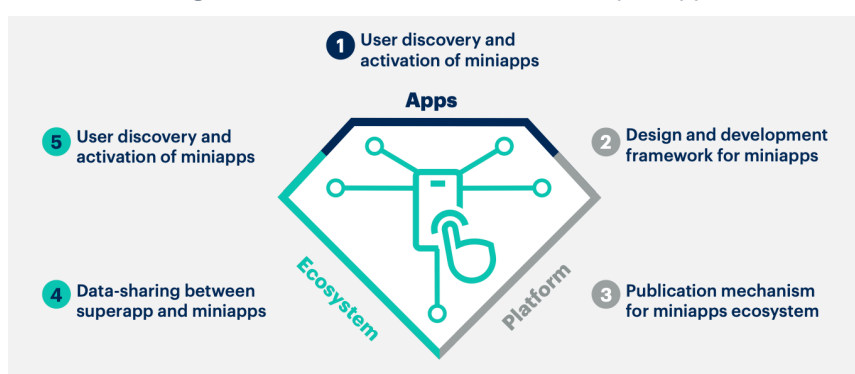
Another important piece to the discussion, is what banks are currently doing in response to the FinTech revolution which can give insight to the intersection between the motivation to respond and the capability to respond to innovations currently in the

financial services environment. This was considered from two aspects, primarily through document analysis because a lot of the information is public domain.

At a company level strategy level, four of the five banks explicitly indicated that an eco-system or platform strategy is central to their competitiveness going forward. Some notable eco-system strategies being launched into market is “Avo” by Nedbank, which is a super app for multiple needs and a execution on their “beyond-banking” strategy (Nedbank Group, 2022) and FNB’s “nav>” programme where they enable value propositions around specific customer needs including “nav>> Home”, “nav>> Car” and “nav>> Money Building” (FirstRand, 2021).

To give a theoretical view of what these eco-system strategies may emulate in practice, Figure 21 shows how a super-app provides users with core functionality built as a platform where independently created mini apps can be accessed, thus providing a highly personalised and holistic offering to the user (Gartner, 2023).

Figure 21: Five characteristics of a super-app



Source: From “Top Strategic Technology Trends 2023” by Garter (2023) (Gartner, 2023)

In recent years, the remaining three banks have also demonstrated a notable inclination towards establishing partnerships. Standard Bank’s approach has been to create a API marketplace for business clients, thereby also strengthening their value propositions to business clients (Standard Bank Group, 2022) while Absa is leveraging digital partnerships with mature start-ups with key regional and global networks (Absa, 2023). Even though Capitec does not mention a specific Eco-system strategy explicitly, when looking at their strategic implementation an eco-system or platform driven strategy is clearly followed with numerous FinTech partnerships that enable key value propositions.

A second strategy that seems to be employed by banks is that they establish separate incubator units. Three of the five banks had these type of units, as established by the document analysis, including Standard Bank's Moonshot division (Standard Bank, 2022), Nedbank's Digital Fast Lane division (Nedbank Group, 2021) and an innovation hub sponsored by Absa (Absa, 2023). These units do not follow the established selection rules and development timelines enabling faster time to market on solutions that may be potentially disruptive to the bank themselves (Christensen, Anthony, & Roth, 2004).

A third key strategy that is indicated through document analysis involves banks acquiring successful FinTech start-ups, leveraging the capabilities acquired to transform internal business processes and value propositions, for example FirstRand acquiring SelPal and Standard Bank acquiring SnapScan (Timm, 2019). From the Standard Bank website (see Appendix B), SnapScan is featured quite prominently and is used to bridge the gap in many on the use-cases discussed in the previous section (e.g., QR code and merchant service devices), which indicates a level of success from the strategy.

On the other hand, the SelPal website was not operational at the time of the analysis (see Appendix B), indicating that the company may not leveraged well to solve for what it was originally meant to solve for. Because this study looks at the information at a point in time, no conclusions can be made regarding the benefit realisation to FirstRand regarding the acquisition of SelPal.

Table 6: Responses by banks to current FinTech use-cases

	Use Case/Theme	Response
1	Payment aggregator	Banks provide an eCommerce solution, often opting to establish partnerships in order to facilitate the implementation of this solution. In addition, they have established partnerships with prominent entities such as ApplePay and Google Wallet, thereby expanding the range of payment alternatives available to their clients.
2	Mobile Wallet	All banks provide a domestic remittance service that enables individuals to transfer payments to recipients without a bank account, in addition to the provision of a no-fee account option.
3	Agency banking	Three banks have developed an agency banking solution in their African subsidiaries, thus demonstrating the ability to operate a similar system within the South African context.

	Use Case/Theme	Response
4	Merchant service device	Banks have implemented solutions that directly compete with the merchant services value propositions offered by FinTech companies.
5	Cross Border Remittances	The majority of banks continue to provide Swift options, in addition to establishing collaborations with Moneygram and Western Union.
6	QR code	All banks have addressed this particular scenario by developing their own solutions or forming strategic partnerships that enable the necessary value propositions.
7	Blockchain	Three banks have designated an individual to formulate the strategy pertaining to blockchain technology and its prospective use within the banking sector.
8	Chatbot	There is one bank that offers a ChatBanking option, while another bank uses chatbots for client assistance.

Source: Document analysis (Appendix B)

At a lower level, document analysis was used to determine if banks have already responded to the specific use-cases identified in Section 4.2.1. 2.. Table 6, which is an expansion of Table 5, indicates in more detail how banks have responded differently to specific use cases depending on their motivation and capabilities. Document analysis cannot, however, determine the quality of responses by banks objectively but that does not change the result. This is because a successful response indicates compatibility with current bank processes and systems to some degree.

4.2.2.3. *The intersection between motivation and capability*

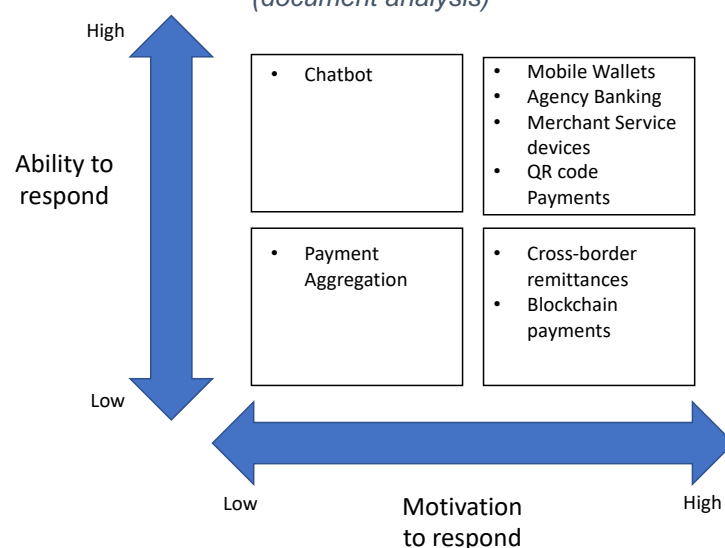
To analyse the intersection between motivation and capability to respond to innovations from FinTech companies, these response strategies by banks were plotted by use case on the framework by Charitou and Markides (2003).

Figure 22 shows the result of this analysis. The motivation to respond dimension was determined by any specific intent shown by banks, within the document analysis, to compete in the specific use case, and ability is determined by whether they have an existing offering that is similar to that of the FinTech industry.

From a Payment Aggregation perspective, banks show low capability to respond by the inherent nature of the use case (that it aggregates bank payments). Additionally, their motivation to respond is diminished as they are integrated into the value chain of

payment aggregation FinTech firms, thereby ensuring a minimal level of disruptive threat.

Figure 22: *The motivation and capability to respond to innovations by FinTech companies (document analysis)*



Despite being a relatively new technology, the fact that two banks have already implemented solutions utilising Chatbot technology suggests a certain degree of interoperability with existing bank processes and systems. With appropriate motivations, banks have the potential to seamlessly incorporate the technology-into value propositions, perhaps through collaborative partnerships. Considering that the technology has only been utilised in enhancing the customer experience and has not yet demonstrated a direct reduction in transaction costs for clients, banks may have other more pressing concerns given the limited disruptive threat.

Banks have effectively incorporated innovations within the Mobile Money, Agency Banking, Merchant Service devices, and QR code use-cases into their products and propositions, demonstrating a strong motivation and capability to respond to these developments within the FinTech sector.

When considering the Cross-border use-case, bank customers are often still required to go to bank branches (at least the first time) to set up beneficiaries with significantly more physical due diligence (compared to FinTech companies) and the transactions are more expensive and takes longer to complete (The World Bank, 2023).

Table 7 shows the average cost of a cross-border transaction for banks compared to that of FinTech companies. Western Union and MoneyGram is shown separately due to the partnerships between those providers and banks. This shows that even with the partnerships created, banks are still significantly more expensive than FinTech companies when it comes to Cross-border remittance transactions. The MoneyGram rates even though lower than Bank and Western Union rates is still 21% more expensive than the average FinTech company.

Table 7: Average cost of a low value cross-border transaction

Firm Type	Average cost % (low value transaction)
Banks	29.89
Western Union	14.92
MoneyGram	8.32
FinTech Companies	6.85

Source: Adapted from “Remittance Prices Worldwide” by The World Bank (2023) (The World Bank, 2023)

Table 8 further show the time for cross border transactions to be completed. This indicates that FinTech companies have a significantly faster completion time than banks, however, through their partnerships with Western Union and MoneyGram, this is mostly mitigated.

Table 8: Average time for cross border transactions to be completed

Firm Type	Time for transaction to be completed					
	Less than one hour	Same day	Next day	2 days	3-5 days	6 days or more
Banks				23.75%	72.41%	3.83%
Western Union	13.64%	23.86%	62.50%			
MoneyGram	75.71%	1.43%		22.86%		
FinTech Companies	63.12%	12.06%	16.84%	7.80%	0.18%	

Source: Adapted from “Remittance Prices Worldwide” by The World Bank (2023) (The World Bank, 2023)

Based on the information provided, banks have yet to fully develop the necessary capability to effectively compete with FinTech companies. Nevertheless, their demonstrated willingness to engage in partnerships does suggest a significant motivation to establish said capability.

Blockchain payments (Paas), as discussed previously, is an objectively novel technology that still needs development and regulatory clarification to show what the true potential of the technology is to banks. The appointment of designated individuals

in senior positions by three banks, however, suggests a strong motivation to actively participate in the development of technological competence. This is evident as these individuals are tasked with the responsibility of understanding the implications, following the industry trends, and formulating strategies for the utilisation of the technology within a banking environment.

4.2.3. PROPOSITION 3: PARTNERSHIP LANDSCAPE

Proposition 3: Bank and Fintech companies have a symbiotic relationship that is conducive to mutually beneficial partnerships.

Section 2.6. showed that partnerships may a useful way for incumbent companies to reduce the overall risk of disruption and that the specific strengths and requirements of the prospective partners need to be analysed in order to understand if a partnership will be mutually beneficial and whether there are any difficulties that may arise.

Therefore, the advantages and challenges faced by FinTech companies and banks will be considered and the current partnership landscape analysed from a thematic analysis perspective. The challenges encountered by a potential partner can be viewed as potential benefits derived from the partnership, or more precisely, as the partner's prerequisites for entering any prospective collaborations.

4.2.3.1. Advantages and challenges of banks

Thematic analysis of the interviews was done to get a nuanced view on the advantages that banks have (over FinTech companies) in addition to the main challenges that banks face. Interview participants were asked the following question:

“Do you think banks have the right capabilities, skills, and resources to effectively build the same solutions that FinTech companies have? Why or why not?”

However, within the analysis, comments made by interview participants are codified to get a view on the importance that participants place on a certain point across all interview questions. In other words, they may mention an advantage that banks have in response to the question above, however, they may mention it again to substantiate an answer to a different question again. A theme that has one data point is considered less important than one where there are multiple mentions from multiple participants.

From the analysis, 177 data points were collected with regards to the advantages that banks have and challenges that banks face. Figure 23 indicates which proportion of those data points were related to advantages versus how many data points were related to challenges, indicating a generally balanced view between what banks could potentially offer, versus what they require.

Figure 23: *Proportion of data points related to advantages compared to challenges of banks*

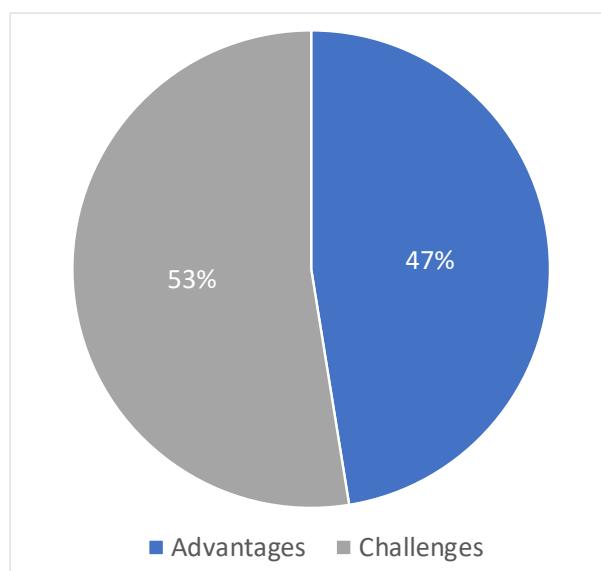


Table 9, gives information regarding the number of data points per participant type, showing that even though the advantages of banks were mentioned equally between bank and FinTech participants, bank participants have mentioned the challenges they face more (58% of the total data points related to challenges). This may be expected because participants face these challenges as part of their day-to-day duties, however, the difference is not large enough to be significant to suggest a difference in overall sentiment between participants.

Table 9: *Number of data points by Participant type*

	Bank Participants	FinTech Participants	Total
Advantages	42	42	84
Challenges	54	39	93

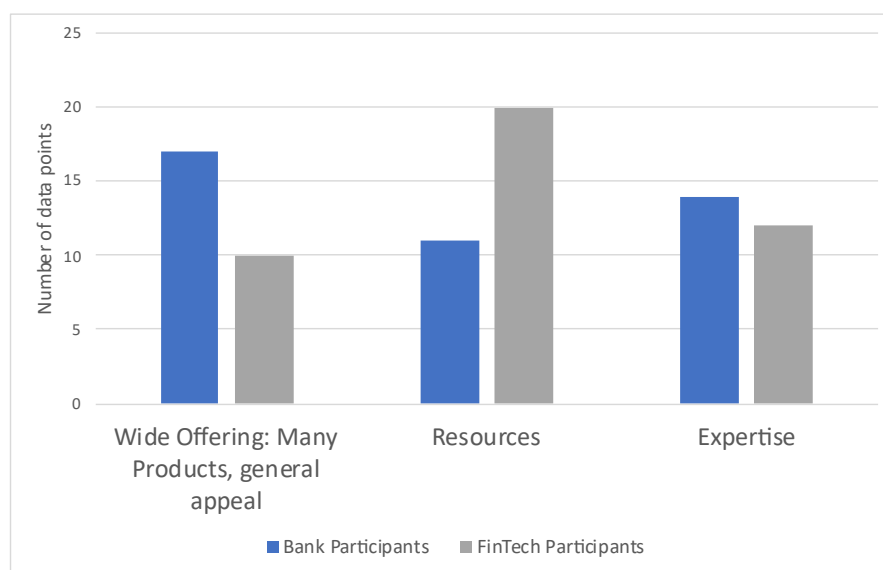
Advantages of banks

Three distinct themes were identified through the process of thematic analysis in relation to the competitive advantages that banks possess in comparison to FinTech

new entrants. These advantages are the strategic benefits that FinTech companies might leverage within the context of a potential partnership arrangement.

Figure 24 shows the three themes that emerged from the thematic analysis and the number of data points per participant type. All the themes had a similar amount of data points indicating they were equally important to the overall discussion.

Figure 24: Advantages that banks have (Thematic analysis)



Firstly, respondents believe that one major advantage banks have is their general market appeal where they have many products that could satisfy general customer needs with a single access point (whether that be Online banking, Apps or within the branch network). In addition, due to the size of their portfolio's, they are better able to protect themselves against threats from the competition and can provide a consumer a wider range of options from their whole product line. Bank participants exhibited a greater emphasis on this advantage compared to FinTech players, due to knowledge about their current strategies in defending against potential competitive from the FinTech industry.

Supporting quotes

"But I guess you're far better positioned to defend [against competition], versus if you're a single line. All you do is for example, credit card payments, and that's your [entire business], you're an issuing bank and you're very narrow focused you've got a lot more to lose" – Participant 14

Supporting quotes

“And I think that's where banks, while they might be slow in terms of being able to respond to very niche requirements, their single access point to a customer is what then allows them much more breadth in terms of bespoke solutions” – Participant 13

“There's so because banks look across such a wide range, they look after transact, lend, insure invest. So many different things across. [They service] retail commercial corporates. So, for them, it's so easy to be disruptive because they have skin in multiple games” – Participant 10

Secondly, banks own a wealth of resources that are limited in availability within FinTech companies. Banks typically have substantial IT teams and well-developed technical expertise, supported by robust financial resources. Additionally, they benefit from established customer bases and extensive data repositories, which greatly enhance their capacity to quickly scale an innovation once they have implemented it. More FinTech participants placed emphasis on this specific advantage, possibly because this contrasts with a specific challenge that new entrant FinTech companies face within the market. This could indicate, potentially, that this is a specific requirement FinTech companies may have when considering a potential partnership.

Supporting quotes

“Banks, obviously being traditional banks, they've got millions of customers that they're servicing and if a FinTech partners with or integrates to a bank, then it certainly has access to that captive audience from a banking perspective.” – Participant 12

“They actually have access to legacy lakes of data about the customers customer behaviors, etc.” – Participant 4

“The banks have way more IT staff than any FinTech could ever assemble. I mean, in a bank, there wouldn't be an IT team that didn't have 10 or 20 people inside that with people who could do infrastructure, people who can do front end, [and] people can do back end. Banks got tons of it.” – Participant 4

“The banks have more capability if you look at it from a manufacturing process. So the banks have way more IoT stuff than any FinTech could ever assemble...So, looking at it from a production lens, the banks and the accountable and financial institutions have all of that that they also have the customer base” – Participant 4

Supporting quotes

“The banks have the benefit of access to a lot of data and insight and accuracy...I do think that banks still do have an advantage when it comes to access to data, technology resources, especially funding” – Participant 10

“...big banks have got big money, big budgets, big everything and they can literally invest it and re-engineer their business models, ... depending on how flexible they are” – Participant 7

The final theme that arose is the expertise and trust banks have within the industry. For banks, their main priority is trust within the banking system to avoid overall collapse and to maintain their banking licences, and this results in consumer trust as well. They have a high fiduciary responsibility within the industry, and often takes responsibility for the compliance for the industry, helping and advising FinTech companies on how to reduce risk and be compliant to regulation.

Many times, banks will prioritise industry projects, enhancing and innovating at an industry level, reducing risk in the overall system. Those investments, in turn, enables all industry participants (including Fintech companies) to innovate on top of that capability. There was no significant difference between participant types, indicating that both participant types find this role that banks play extremely important for the industry.

Supporting quotes:

“[A] banks main priorities trust, and they live and breathe and die on that sword. And it's really important when it comes to money. It's very emotional for people and they need to be able to trust where their money is.” – Participant 10

“Let's use cryptocurrency as an example. Crypto exchanges will exist unregulated. They do whatever they want. The minute there's any aspect of financial crime, the bank gets the warnings the bank is issued from the Reserve Bank. So, it's sort of like you have this FinTech can do whatever it wants, and then the bank [who] is not even involved is the one that gets all the trouble for it. So, then the bank's going to [respond] from a risk perspective” – Participant 8

“But ultimately, who funds the infrastructure? ... The banks, the banks all invest in the infrastructure... And they basically sponsor and invest to keep the industry infrastructure running to upgrade where it needs to be upgraded” – Participant 14

Challenges banks face

Figure 25: Challenges that banks face (Thematic Analysis)

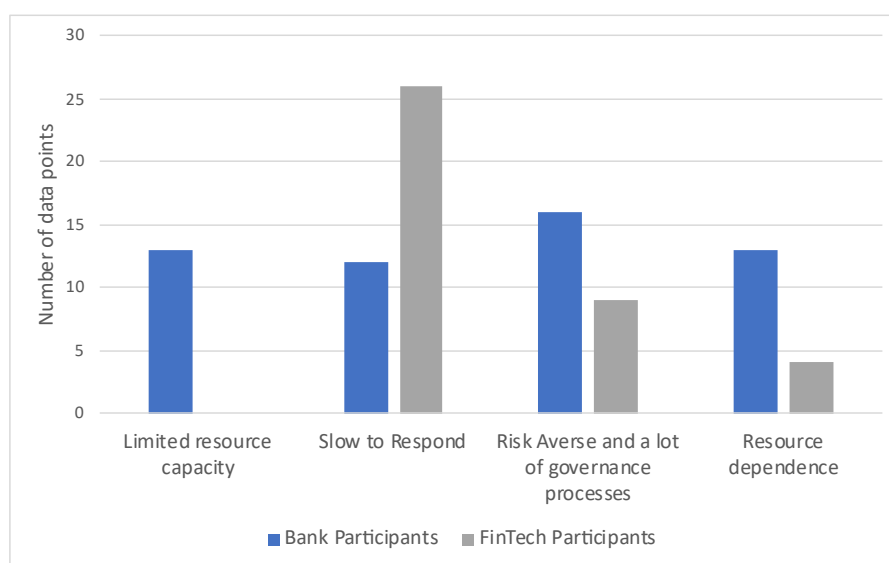


Figure 25 shows the themes that emerged from the thematic analysis regarding the challenges banks face. From this graph it is interesting to note bank participants have a much more nuanced perspective about what the challenges are that they face when it comes to innovation, with observations spread more uniformly across themes. The main theme that emerged from FinTech participants was that banks are slow, which could be a large frustration for FinTech companies when it comes to partnerships with banks.

When considering the challenges banks face, four themes arose within the interview data. Firstly, bank participants indicated that even though banks have large IT teams and rich financial resources, due to the wide product range and general appeal of banks, they have limited resource capacity and generally would need to prioritise strategic projects with a general appeal. They are therefore not able to effectively provide for niche customer requirements in the market, leaving significant gaps within their product offering.

Supporting quotes

"That's the biggest challenge they've got...big organizations like banks, in the sense that for a ship or an organization like a bank to operate, they need to almost find the most generic solution." – Participant 14

Supporting quotes

"When it comes to a personalized service and hand holding, you know, the banks just don't do that well." – Participant 5

"Whereas banks have to think about 'how do I solve for my entire base'" – Participant 10

Secondly, the most prominent theme encountered in the interview data was that banks are slow to respond which could be related to the routine rigidity that incumbent firms face according to theory (Christensen C. M., 1997). Big organisations often have a lot of governance with many decision makers, slowing down implementation significantly, while also reducing overall innovation output. Participants raised that within the corporate culture that banks have, employees who fail to meet performance expectations may go unnoticed a lot longer and employees typically make decisions based the impact on their remuneration packages. Leadership will tend to prioritise a shorter time horizon within strategy while aiming to maximise shareholder returns. Innovations are reduced to projects that fall within the pipeline and prioritised based on financial business case and impact to current business lines, and if a project fails to deliver, it is just sunk cost.

Supporting quotes:

"There are legendary projects in the banking world of people who would assemble a team of 100 people work on something for 18 months and you know, days years they decide, we're not going to do it. So, they just shut down the project [and] reallocate people somewhere else"– Participant 4

"Its a systemic banking issue, actually, in terms of committees and stuff. It's like, you're trying to do too many things. You want to do something and then there's like, oh, we want to do an advert there's an advert committee." – Participant 8

"To actually change the ships direction you need to get 54 people on board to at the same time, press the same button on the machine before we can actually make a two degree turn." – Participant 15

"With a bank, its project driven where it's, "is it in time, is it in scope, isn't on budget", and when you are measuring from that you're not measuring value." – Participant 8

Supporting quotes:

"They're not they don't see further than their own pay-check and bonus, it's for their from their perspective, they aren't afraid" – Participant 2

"But people are still very linked to their bonus structures and the goal structures and all of that, you know, so people will move just enough you know, so you're solving customer problems, but they know that they measures will consistently come back to personal rewards." – Participant 13

Furthermore, adding to the routine rigidity that banks face is regulation, that influences the risk adverse nature of banks who, as discussed previously, protect their reputation and trust within the banking sector at all costs. Banks have significant governance processes to ensure compliance, because protecting their banking licence and maintaining trust in the financial services system is critical to their longevity. This is understandable, and was cited as an advantage above, however, it does slow down decision making substantially.

Supporting quotes

"...what also makes it harder for banks as banks have to protect their banking license. So, I think that's a critical thing that also slows down a lot of innovations for banks. And that's a burden. So, it's not just the banking lines, but the compliance associated, and the regulation associated to it." – Participant 13

"And reputation as well. I mean, if a bank were to get fined, it's in the media immediately." – Participant 15

"Particularly because banks are so heavily regulated - for good reason. But it is really making it difficult for banks to compete. And it does sort of set an unfair playing field in some environments" – Participant 9

Based on the responses, resource dependence is a major challenge for banks. The resources that banks are highly dependent on includes large legacy systems (that may not be developed based on the newest technology), their existing customer base (who expect the best possible experience), and to existing employees (who may become redundant if new technology is implemented). Externally, they have a responsibility to shareholders (that is concerned with short term profitability) and to regulators (where significant consequences could apply for non-compliance).

Supporting quotes:

“Legacy systems that are not agile enough, that can't be changed very quickly, that require dev cycles of extended periods of time to get through.” – Participant 9

“Whereas banks don't have that same kind of luxury because of the shareholders responsibilities, and also they they're working with other people's money...And they have systems that are harder to build on top of because they're just legacy systems and [that is] the nature of big systems.” – Participant 10

“Where banks or big organizations need to also look at is how do they keep customer, regulation and shareholder happy... and that's the that's a triad that I think your big organizations are dealing with, and as your FinTechs to grow, they will then end up in the same triad going forward” – Participant 13

“And I think it boils down to people. That there are people in jobs now ... you want to go and change something you have people in jobs, the new technology you've built you potentially putting jobs on the line and that becomes a whole process - people management, change management, potential retrenchments, that sort of thing” – Participant 8

4.2.3.2. *Advantages and challenges of FinTech companies*

Similarly to the previous section, data points were collected across the interview data to give a nuanced view of what FinTech companies could potentially bring to a partnership (their advantaged) and what they would require (their challenges). Overall, there were 145 data points collected regarding the advantages and challenges of FinTech companies.

Figure 26: *Proportion of data points related to advantages compared to challenges of FinTech companies (Thematic Analysis)*

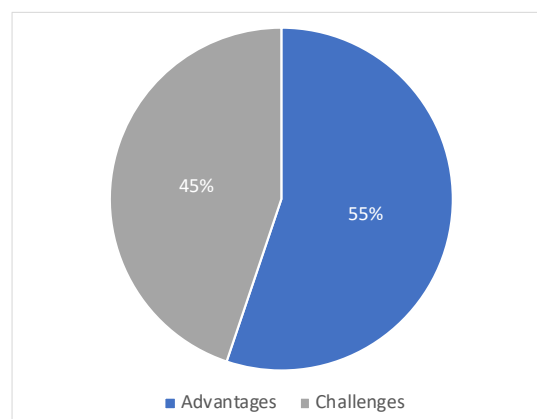


Figure 26 shows that 55% (80 data points) of data points were with regards to the advantages that FinTech companies have compared to 45% (65 data points) of data points that are related to the challenges they face.

This difference is strongly driven by the larger emphasis placed on the advantages FinTech companies have by bank participants, as seen by Table 10 below. Table 10 further shows that FinTech participants had a slightly higher emphasis on their challenges, which is similar to the results seen in the previous section where banks place more emphasis on their own challenges. The total number of data points were similar between groups, indicating that participants find the topic equally important.

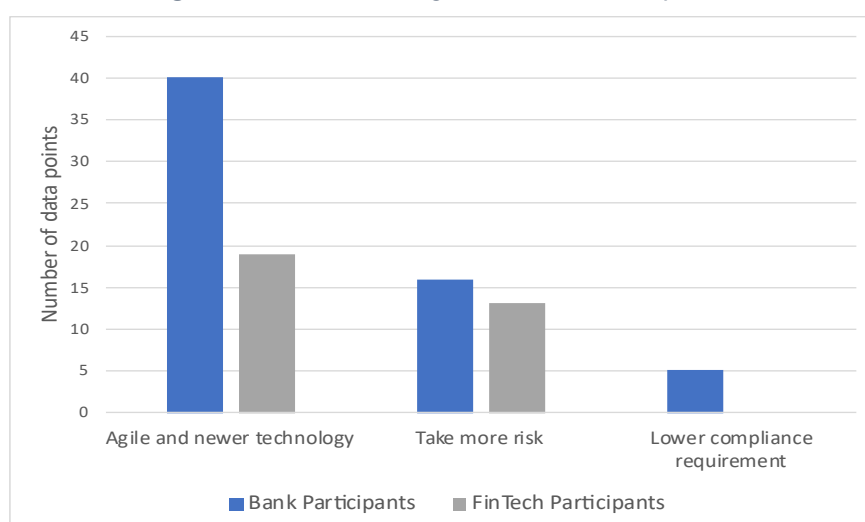
Table 10: Data points by participant group regarding FinTech characteristics

	Bank Participants	FinTech Participants
Advantages	48	32
Challenges	26	39

Advantages of FinTech companies

Figure 27 below shows the three major themes that arose from the interview data. FinTech companies are seen to be very agile, they use newer technology, they are willing to take more risk and bank participants indicated that they may have a lower compliance requirement.

Figure 27: The advantages of FinTech companies



The first of these themes, that Fintech companies are agile and use newer technology, was the strongest accounting for 63% (59 data points) of the data points. Bank

participants mentioned this numerous times in contrast to the routine and resource rigidity they face as a bank.

Participants indicated that FinTech companies are agile due to the usage of newer technology as well as the fact that these companies have a more focused offering, allowing them to quickly provide their niche customer base with a superior product. Fintech companies can build their IT system using more recent technology in the most effective way possible because they are starting from scratch in terms of their resources and systems.

Additionally, there is an attitude component that drives FinTech companies to move more quickly because they are passionate about the difference they want to create in the market and in society. In other words, they do not face the same routine rigidity that banks face.

Supporting quotes:

"Whereas FinTechs don't have that [resource dependence], they're using newer technology, very agile, very quick to make changes, like in a day or two, they can be a coding change" – Participant 9

"[They have] speed because they're solving for one tiny problem. So, they only ever have to consider how do I solve for this tiny portion of the market?" – Participant 10

"I think [for] FinTechs, their biggest thing is they start on a clean slate" – Participant 12

"The FinTech has the advantage because they're hungry. They've got a need to make a change. They've got a goal that they're aiming towards, and they feel the consequences." – Participant 4

"Where we'll start off so like they have nothing, they just go: "Man I was really, really frustrated when I tried to do this thing. We can build something better"" – Participant 8

The second and third themes that arose were the regulatory and compliance environment of FinTech companies being a key advantage. These themes are interconnected and show the contradiction between the views of bank and FinTech participants and will therefore be discussed together.

FinTech participants indicated that they manage compliance within the regulatory frameworks but may interpret the legislation differently and are willing to work within

the grey areas of legislation, taking more risk than banks would. This could be because they initially will have less to lose. Bank participants agreed with this but also indicated that a potential reason is that FinTech companies have less stringent compliance requirements that is applicable to them. No FinTech companies mentioned a lower compliance requirement.

Supporting quotes:

“Whole bunch of people who've come into the market and thought about it differently and willing to take on more risk than the bank” – Participant 1

“I think they always play by their own rules initially, I think as part of many FinTech innovations is they'll play in the grey. Blockchain, bitcoins [have] done that for a long time, there's a grey area, so we'll work in the grey.” – Participant 4

“FinTechs have found ways within the regulatory requirements within South Africa and Africa.” – Participant 6

“the big one being [FinTech companies having] very, very low compliance as compared to a bank” – Participant 15

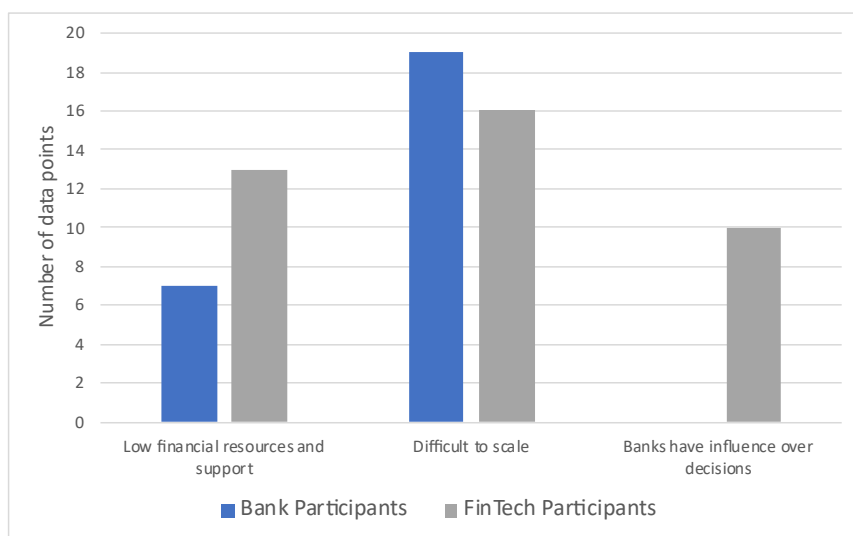
“Banks are actually under significantly heavier regulation than fintech. So FinTechs are able to get away with more and able to then move faster” – Participant 9

These two possibilities can both be true at the same moment. The FIC Act, which oversees client due diligence, is one example of a rule that applies to both FinTech companies and banks, although it may be interpreted differently by different legal teams, necessitating clarification from the regulator or case law. The company's operating licences, on the other hand, may control some obligations, with a banking licence requiring much greater responsibility than another form of operating licence (such as an Authorised Dealer with Limited Authority licence) (PASA, 2023).

Challenges that FinTech companies face

Discussions with those interviewed resulted in the identification of three key challenges that FinTech companies face, which is shown in Figure 28.

Figure 28: Challenges faced by FinTech companies



The first of these is that FinTech companies need cash and support to keep operating fully, and they frequently must set priorities each day based on their available resources (31% of data points).

Supporting quotes:

“The problem with a lot of [FinTech companies] is that they don't make enough money to survive and so they need very heavy venture capital investors that have very long horizons, especially in the FinTech space [operations] takes a long time to make money.” – Participant 2

“If you're a FinTech, how do you support 10 people unless you're Elon Musk, and you got lots of cash. You're having to raise that money from an investor and you have very, very limited access to capital as a fintech” – Participant 4

“The financial constraints that FinTechs have to operate within... But finances are super super stressed in FinTechs.” – Participant 7

“FinTechs need to be provided an environment in a support structure for them to succeed” – Participant 15

Secondly, while starting from scratch is advantageous, it also means that a FinTech has no clients at first, which makes it challenging to scale quickly (53% of data points). The need to standardise processes and systems to enable partnerships and integrations into industry systems, an increase in fraud risk that the business may not initially be prepared for, and regulations becoming more onerous (due to the increased

risk environment) will all present challenges for FinTech companies that do grow and scale.

Supporting quotes:

“What I would say possibly is a challenge around [FinTech companies] is that scalability of a very small market for an organization then becomes a challenge” – Participant 13

“We've seen the minute you start to scale, and then as you start to attract money, you become a target [for fraudsters]” – Participant 14

“Blockchain was unregulated and therefore illegal, and now it's becoming regulated and therefore becoming acceptable and there are those structures for how does a blockchain and crypto firm provide services...but it's never sustainable. No entity can play on a completely different set of rules for any long period of time. All arbitrage is closed” – Participant 4

Lastly, FinTech participants indicated that banks continue to have significant influence over decisions that have a significant impact on them from an industry perspective (15% of codes), especially where a bank is in the value chain and the company needs some kind of service from them. Banks manage relationships with FinTech firms using procurement procedures that cause some frustration to the firms, which want to move quickly.

Supporting quotes:

“[Banks] are very much “We're the power players” and we were just a subscriber even though our company had multiple ins with that same bank - online and physical cards - they had all of those established relationships, and we could do very little to flex to get what we needed.” – Participant 3

“And that's where the banks have realized that they can completely throttle any [type of] initiative is just by... for example, you've got an interesting blockchain. You want to use it well. You want to get money in via credit card or something like that. Banks just say no, and then doesn't work.” – Participant 4

4.2.3.3. *Strengths and Requirements of Banks and FinTech companies in a partnership*

Interview participants indicated that partnership would be mutually beneficial for both banks and Fintech companies. Banks have the potential to get valuable insights from

Fintech companies, as the latter introduce innovative solutions to the market and establish partnerships to expedite the delivery of specialised niche products.

Supporting quotes:

"In fact, the impression I get is [a Fintech company] has been given R&D money to just kind of go in play and figure things out. Even if it doesn't result in a successful product. It's about that learning curve." – Participant 10

"And they [are] becoming the source of fresh ideas for big organizations to become fast followers." – Participant 13

"I think when you when you see these other FinTech players looking to try and try new things on the market for a niche, you can almost observe and I guess, see how it plays out and then choose to play or not versus there's the space where you don't really see what could play out, so I think that that's been quite valuable" – Participant 14

"FinTechs can provide energy and focus" – Participant 4

"They [banks] can leverage what the FinTechs have out there with them to deliver much faster" – Participant 6

"But from a bank's perspective, the benefit is they get access to technology that maybe they haven't built yet, or a solution that works really well" – Participant 10

Fintech companies have the potential to enhance their legitimacy within the market by establishing partnerships with large banks, in addition to obtaining access to resources and clients that may not be readily available to them otherwise. This strategic collaboration enables fintech firms to scale their operations and expand their reach faster while also benefiting from the industry experience banks could bring to the partnership.

Supporting quotes:

"Banks can lend customer base and capital access to FinTechs." – Participant 4

"I do think however what I'm seeing now is this partnership between FinTechs and banks because banks have access to a base. So, what I've seen and this may not be true of all FinTechs, but just from what I've noticed in the SA market is FinTechs have great offerings, they come to market quickly, they are really able to solve for some customer need." – Participant 9

Supporting quotes:

“But when it comes to FinTechs, I think there's benefit for them in integrating into banks, because that can help them build trust with people and get access to a bigger base.” – Participant 10

“So, I think working together with banks from the FinTechs perspective can be valuable because it gives you trust in the market and not some dodgy person [that] is trying to take your money.” – Participant 2

From the findings gathered thus far, the following comparison of the advantages banks and Fintech companies would bring to a potential partnership, and what they may expect, which is captured in Table 11 below. FinTech companies offer agility and focussed development, can take more risk, niche market speciality while using next generation technology. Within partnerships with banks, they may need ability to scale their solutions, support when it comes to regulatory and compliance issues, legitimacy, and access to bank resources (whether that be money, customers, or data).

Table 11: Strengths and partnership requirements of banks and FinTech companies

	FinTech Company	Bank
Strengths		
Product Development	Focused development Agility Passionate attitude	Broad market expertise Scalability
Regulatory and Risk	Lower compliance requirement Ability to take more risk	Guidance on regulatory requirements
Marketing	Niche market speciality	Broad market knowledge Wide established product offering Reputation (trust)
Resources	Systems based on new technology. Next generation capabilities	Financial and technical resources
Distribution	Improved customer experience	Large customer base Large existing distribution network
Partnership Requirements		
Product Development	Scalability of offerings	Speed to market. New ideas (Innovation inspiration)
Regulatory and Risk	Reduction in fraud Support with compliance and industry frameworks	Offering specific solutions that own framework does not allow
Marketing	Legitimacy	
Resources	Access to funding	Leveraging new capabilities Leveraging external development capacity
Distribution	Access to customers Access to distribution networks	Access to a niche market

Banks offer a broad market expertise, the ability to scale solutions, guidance of regulatory and compliance matters, a well-established product offering with large

customer bases and rich data lakes. In addition, they have access to a lot of financial and technical resources and have a wide distribution network. Within a partnership banks often require new ideas, speed to market, specific solutions they cannot develop themselves due to resource dependence, access to new technological capabilities, development capacity and niche customer markets.

4.2.3.4. *Current partnership landscape*

Document analysis shows that 21% of FinTech companies under study had a direct and exclusive relationship/partnership with one specific bank, a further 17% have some form of direct relationships or direct integrations with multiple banks (often payment aggregators). However, 61% of FinTech company have no direct partnership or integration with banks.

The current landscape around partnership is extremely important to the discussion to use as a baseline to understand the level of alignment and challenges faced by Fintech companies and banks within the partnership environment. Both FinTech and bank participants agree that partnership is crucial to both groups' overall longevity and for the good of society.

Supporting quotes:

"So if there's one thing that we should do as an industry for better collaboration between FinTechs and banks, is to properly solve for de-cashing, which has been attempted many times"
– Participant 11

"But from a growth perspective, I definitely do think achieving that symbiosis balance between the two is something that is beneficial for both parties." – Participant 13

"I think partnerships can be very successful. However, I think even now, there's a level of maturity in thinking to say okay, it is actually potentially beneficial for us to partner however, there are so many obstacles to creating a good partnership with the bank that I think it is still extremely difficult." – Participant 9

"If [the message is] towards a bank. Its partnerships, I think FinTechs are going to be your friends. I think that's linked to - you'll probably get more value from enabling them than from trying to compete with them or overrun them. Or FinTechs. I think it's very much a similar message" – Participant 8

However, practically, these relationships and ways of working is still developing within the industry given that until very recently banks saw Fintech companies as competition. This is due to FinTech companies and banks being so culturally different, they work at different speeds while also following different rules and having vastly different priorities. These differences were also seen when examining the advantages and challenges that both FinTech companies and banks are experiencing.

Supporting quotes:

“The banks at the same time they needed to sort of revisit that now they have a FinTech engagement model, which is very different because they expect different things. You consider competition and anti-competition, NDAs, you consider sharing data, you can see cloud, you know, they work in different clouds.” – Participant 2

“But when we actually tried to do it, blending systems and people and that kind of thing, [it]either gets you stuck and you never get the benefit of the FinTech or the FinTech ends up just running its own thing and you don't get that mutually beneficial, the real synergies you were hoping for so I haven't seen it working out quite well yet.” – Participant 9

“[Banks and FinTech companies have] different priorities, different cultures, different pace, different profits, operating structures. So you'll take a FinTech, you bring it into organization. Next thing, the cost income ratio that 60% whether we're able to run it 30%, because they now have to comply to things that they never had to you know before” – Participant 8

This means that it is important for there to be some degree of separation between the FinTech company and banks, but also enough collaboration and support to get the best of both worlds. The reason is that the regulation, governance, and corporate culture would erode many of the benefits that FinTech companies bring.

Supporting quotes:

“Allow blue sky, allow people... it's the same effect same conversation I was having with the with the organization... be part of it, but not control it.” – Participant 13

“But when we actually tried to do it, blending systems and people and that kind of thing, [it]either gets you stuck and you never get the benefit of the FinTech or the FinTech ends up just running its own thing and you don't get that mutually beneficial, the real synergies you were hoping for so I haven't seen it working out quite well yet.” – Participant 9

Supporting quotes:

"I think there's certain instances where it really helps to keep a FinTech at arm's length. You don't want to encumber them with regulation and that type of stuff and erode the agility versus, this thing becomes a core function, and you bring it into the bank." – Participant 14

4.2.4. PROPOSITION 4: PERCEPTIONS OF MANAGERS

Proposition 4: Managers at banks and FinTech companies are aligned to the outcomes of the FinTech revolution as indicated by the signals withing the industry.

This section will provide a comprehensive examination of the thematic analysis conducted on managers' thoughts regarding the factors that drive disruption. It will also explore their perspectives on any changes in the prevailing dominant logic and their beliefs regarding the potential disruption of banks by FinTech companies. This will be compared to the results in section 4.2.1 and 4.2.2 to determine how closely managers' perceptions correspond to market signals (determined by document analysis).

4.2.4.1. *Managers perceptions on the drivers of disruption*

The drivers of disruption in this study are determined by the strategic choices made by FinTech companies in relation to their target market, the nature of their innovation, and the extent to which they intersect with established bank value networks. Moreover, the response of banks to these potentially disruptive innovations is examined in terms of both their motivation and capability dimensions.

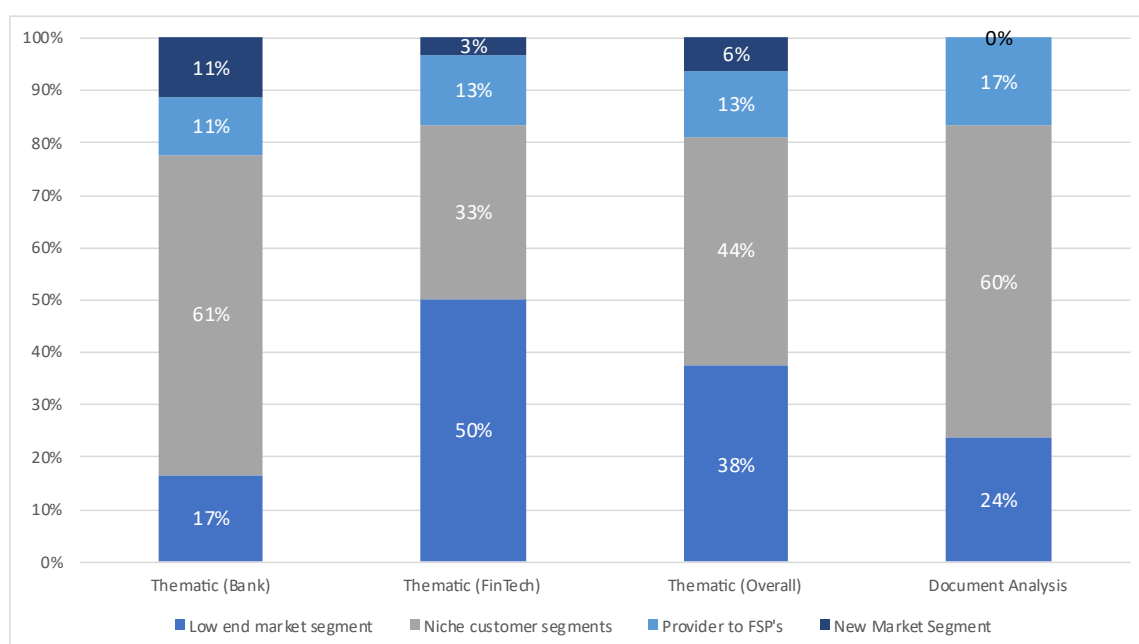
A secondary, but equally important, objective of this section is to gain a nuanced view of the reasons for these decisions by FinTech companies and banks. This view is useful in understanding the specific context of the industry (and its participants) that will enhance the discussion regarding partnerships (Proposition 3) and further the discussion regarding the potential disruption of banks (Proposition 5).

Target market of FinTech companies

Figure 29 illustrates the number of data points related to each of the themes within the thematic analysis where respondents were asked: "There is an emergence of FinTech companies entering the South-African market, what gap do you think these companies are aiming to fill?"

This is compared to the results from the document analysis in the same graph. The relative significance of the themes to the participants can be determined by analysing the number of data points, which may exceed one per participant. In other words, what proportion of the conversation related to the target market of FinTech companies was dedicated to which segment.

Figure 29: FinTech target market according to interview results (Thematic analysis)



There is a significant difference in how the different participant groups perceived the target market of FinTech companies. FinTech participants indicated that they focus more on serving the lower end of the market, specifically the unbanked or underserved population, in comparison to the observations derived from document analysis. This is indicated by 50% of FinTech participant data points compared to 17% of bank participant data points, in addition to document analysis indicating that 24% of FinTech companies target the lower end of the market. FinTech participants strongly indicated that they create value propositions for those who are not services adequately by banks.

Supporting quotes from interviews:

“[What a] lot of FinTechs are doing is going into markets that unbanked or underbanked, are excluded [from financial service], and providing banking services to them” – Participant 2

“Fintech is trying to bridge the gap between banked and the unbanked market to create a holistic ecosystem to bring everybody into equal standing from a financial perspective, giving everybody

Supporting quotes from interviews:

access to finances in some way, or in other utilizing the devices that they currently have available to them” – Participant 6

“If you want to get a job, you need to have a bank account for you to get opportunities. People are going to be asking for your bank account. And so if you look at this space where a lot of these FinTechs that have come up, they have been able to include people that generally don't have salary, people that are not employed” – Participant 7

“Yoco was more on taking the new market space. And you know, these guys were onboarding 1000s of merchants faster than, you know, banks onboarded a couple of 100 a year these guys are doing like 1000s in a month” – Participant 2 (see Appendix A for information on Yoco)

The proportion of FinTech companies focusing on niche customer categories, while still significant, was found to have lower emphasis in the overall in thematic analysis (44%) compared to the document analysis (60%). However, this is due to FinTech participants putting a larger emphasis on FinTech companies targeting the low end market. Banks and FinTech respondents indicated that due to the nature of FinTech companies they are able to focus on a narrow, specific subset and provide them with superior product offerings and that these offerings can often be complementary to bank value propositions.

Supporting quotes from interviews:

“What they do is they find one thing, and they get really good at it and then they just offer it for a long time” – Participant 10

“They've [banks] got a pretty entrenched product suite and FinTechs have found a way to see gaps in their product suite or spin it differently and really service a small group of people well, so they've stepped in nicely to supplement some of the bank's offerings.” – Participant 1

“I think that's where we've really caught on a very specific niche for us is where we facilitate that relationship very well” – Participant 5

According to the findings, 13% of the interview data points suggest that FinTech companies supply technical solutions to financial services providers (FSPs). However, it is important to note that these providers may not necessarily include the leading banks in South Africa. Some of the FinTech companies provide financial services

technology to smaller banks and retailers, for example, FinTech companies like Electrum and Causal Nexus (as per the document analysis – see Appendix A).

Supporting quotes from interviews:

“... [technology] companies that are wanting to help bridge the gap for banks to better compete with FinTechs. So as an example, I've even interacted with, with companies that say: Hey, we see in this payment space FinTechs are taking over and doing X, Y and Z. If you partner with us, we can help you, as a very old school bank and you know, we get it you've got legacy issues, etc. However, you've got a big base and all this cool stuff. We can help you get you there faster”
– Participant 9

“Typically, your financial services provider, that's who FinTechs provide services for... providing the service to the banks directly or to the financial institution” – Participant 4

Further, participants highlighted that FinTech firms are establishing new markets that were previously not served by traditional banks (6% of the codes). This aspect cannot be objectively determined through document analysis, however, is important to consider when determining the potential disruptive impact.

The interview data has also provided a nuanced view of the specific dynamics around the specific gap that FinTech companies are trying to fill within the financial services industry.

Figure 30: Objectives of FinTech companies (Thematic analysis)

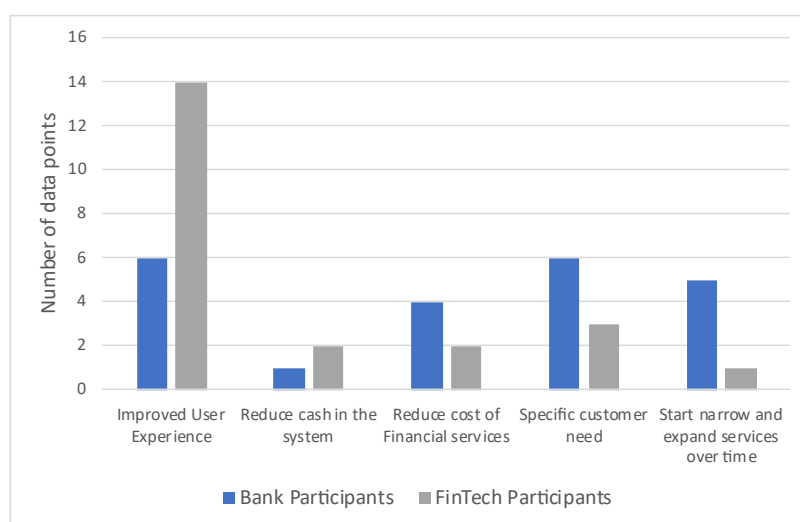


Figure 30 shows the five main themes related to the main goal of FinTech companies when entering the financial services market. The largest theme that emerged, strongly

from FinTech participants, was that FinTech companies provide an improved user experience enabled by using newer technologies providing greater efficiency and automation.

Supporting quotes from FinTech participants:

“But in general, I think that's why some of the market has been taken by FinTechs who move quickly and who understand user experience” – Participant 1

“[They are] looking at providing convenience to customers, where traditional financial services providers are not giving the amount of convenience that a customer could use” – Participant 4

“And I think what, what benefits everyone in the ecosystem is the card holder and customer have the most frictionless kind of checkout experience possible” – Participant 5

“But how we get clients in and how we make it is going to be different. And it goes also to what you mentioned about user experience. Then it becomes a user experience, or customer experience question.” – Participant 8

A large emphasis by banks participants was that FinTech companies target niche markets that banks have left underserved (due to challenges discussed in section 4.2.3.) and that FinTech companies focus on that offering and speaks to the customer need and the customer's service need. Bank participants have also emphasised their belief that FinTech participants tend to begin with targeting a specific niche, and thereafter aim to expand their offerings to service a broader and more comprehensive market.

Supporting quotes from bank participants:

“I think they've really honed into the bank's shortcomings and have done better than the banks in in in.... servicing the customer in plugging the actual problem” – Participant 15

“Because FinTechs can often go in their own direction go very niche about how they approach a customer” – Participant 11

“And I think because FinTechs can individually speak to what they [customers] need, they are disrupting and will continue to disrupt the market” – Participant 13

“I think when it comes to what actually causes someone to choose a FinTech over a bank, its more just, a single service satisfying a single need” – Participant 14

Supporting quotes from bank participants:

"[FinTech companies] target a niche where there's value and they can almost prove what they're trying to do and establish themselves. And then they start I guess branching out from there" – Participant 14

Further, participants indicated that FinTech companies aim to reduce the cost of financial services and to reduce the use of cash within the market through developing accessible solutions. These themes (20% of the codes) are indicative of the essential requirements for disrupting the low-end industry.

Supporting quotes:

"...being cheaper at banking" – Participant 2

"You have the pricing angle, where they are willing to give cheaper pricing for transacting, especially in closed ecosystems where they control both issuer and acquirer and try and mitigate the need to have you know, economics move between issuers and acquirers." – Participant 11

"So it brought that cost of participation right down for both sides of I guess the payment market" – Participant 14

"I just think there's a lot of opportunity because it's still quite cash orientated. And there's going to be a shift obviously through over time. From cash to digital." – Participant 2

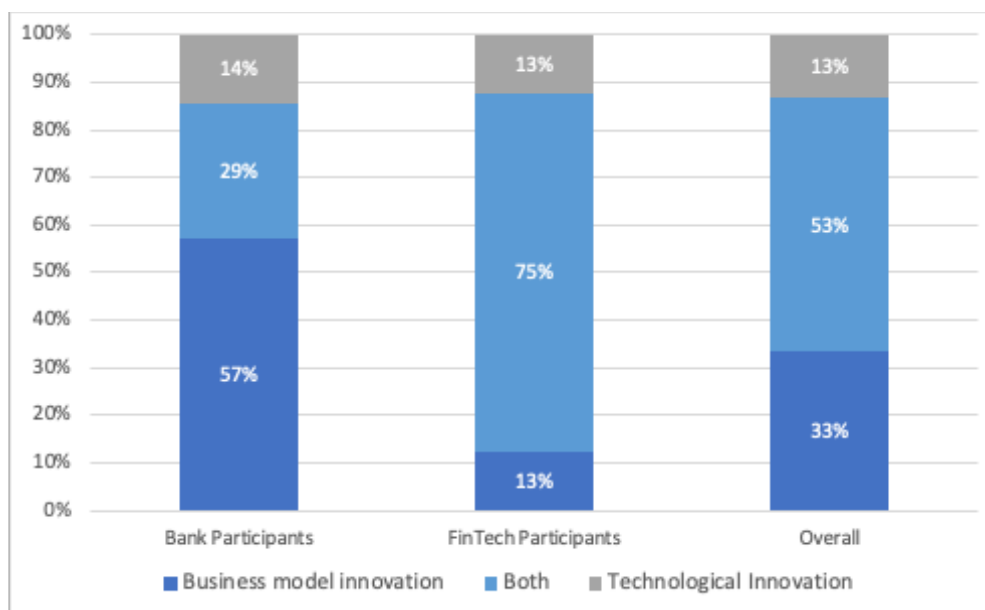
Type of Innovation from FinTech companies

To establish what the potential degree of technological and business model innovation by FinTech companies could be, interview participants were asked the question: "If you think about the innovations from the FinTech Sector, do you think these are mainly technology or business model based? Why?"

Figure 31 shows the overall sentiments from participants to this question. Bank and FinTech participants have significantly different views regarding this, where both groups indicated that FinTech companies bring significant business model innovation (86% of bank participants; 88% of FinTech participants). FinTech participants indicated that to be successful, FinTech companies had to innovate both the business model and the technology that enables the new business model, with 88% of

participants indicating technological innovation plays a significant role in FinTech value propositions.

Figure 31: Innovation type of Fintech companies (Thematic analysis)



Bank participants questioned the level of novelty of technology used in the FinTech sector, with 57% of participants indicating that FinTech companies innovate more on the business model Front. They consider a significant amount of the innovation to be secondary innovation imported from across the world or maintain that the general improvement in technology enables the new business models brought by FinTech companies.

Supporting quotes from bank participants:

"It's less about developing new technology. [It] is more around using existing, if I look at the stuff [that] has really taken off, well cellphone cameras have evolved to the point where they capture high resolution detail so you can actually capture a lot of data points behind a QR code using just about any phone camera now and those types of things, I think I think the evolution of technology in general sort of unlocks these opportunities" – Participant 14

"To what extent that that technology is innovative, I would question.... leveraging other markets and replicating what they see in other markets, bringing it into our country" – Participant 13

"Maybe the technology behind it isn't necessarily the game changer. Yeah, I'm seeing it leaning less towards technology, than [I] maybe would have thought before" – Participant 9

FinTech participants strongly lean towards success requiring innovation on both the technological and business model sides of the spectrum and maintains that new technology and technological innovation enables the innovation that takes place from a business model perspective. They further indicated that many FinTech companies may start from a technical innovation and then develop a business model as they mature and is necessitated by the market.

Supporting quotes from FinTech participants:

“So you know, the fact that from a technology point of view, it's like the experience... it's made the experience 10 times better. That's obviously a key role in why the technology piece is so critical and is so important. Then you [can] look at the business model.” – Participant 7

“I think it's really hard to separate both to be honest because you won't be successful. They might start off incubation wise, tech focused, but I think the second you hit the market, you have to be customer focused or it won't be adopted.” – Participant 3

“So it's things like AI advancements, document analysis, digital KYC those are the sorts of technical advances that the guys can wrap up in a bow and provide to them” – Participant 4

“So, it is breaking the status quo. Because what tech allows you to do, fundamentally is remove the bloat” – Participant 8

Centrality of banks to FinTech value networks

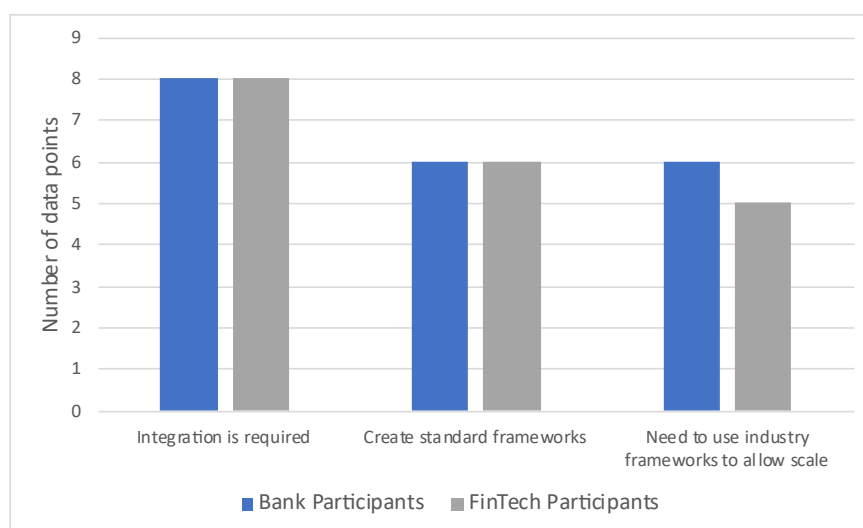
Interview participants were asked the following question relating to the role of banks in the value networks of FinTech companies: How important do you think banks, or integration with banks are for FinTech companies to be able to provide their products to their customers in the best possible way?

Figure 32 shows the three main themes that emerged from the interview responses from both bank and FinTech participants. Bank and FinTech companies agree that some sort of integration is required within the payments space, with no participants indicating that they can be separate.

The role of banks is categorised into three specific themes by the interview data: Firstly, a FinTech company needs integration with bank(s) in order to complete the transaction process (41% of data points); secondly, they have a large influence over the standard frameworks used within the industry, which also influences the dominant

design that emerges for technologies (31% of data points), and; lastly, FinTech companies cannot choose to adhere to industry frameworks if they want to scale their offerings (28% of data points).

Figure 32: *The role of banks in FinTech Value Networks (Thematic analysis)*



According to participants, banks play a significant role within FinTech value networks due to the way the payment and settlement system is developed within South Africa and regulations about which institutions can hold funds (it requires a banking licence).

Supporting quotes:

“I definitely think that FinTechs need banks for legitimacy, but they need to be interoperable with banks, right. ... a lot of the online stores integrate into these third-party vendors to facilitate it. And they [FinTechs] need to be associated with a bank.” – Participant 10

“For now, without the banks, you can't complete the transaction processes. Because they aren't aligned within the FinTechs to actually do that. So, you have to integrate into a banking platform, so that you can truly offer what's needed” – Participant 3

“If they want to be in the financial environments. They need to somehow partner with a financial institution or become a financial institution, based on regulations set out by governments and reserve banks” – Participant 6

“We very much pride ourselves on having a solid and secure and robust payment system. And that payment system is built on the backbone of the way we settle between the banks and our RTGS system at the South African Reserve Bank ... And that's why they wouldn't be able to get into the open loop space without having banks on board” – Participant 15

A sub-theme arose specifically from FinTech participants indicating that banks take a lot of responsibility for the compliance of the whole industry, including that of FinTech players, which could explain why banks have such a large influence over the standardised industry frameworks. This fiduciary role is considered vital to the industry sustainability.

Supporting quotes:

“The banks play a critical role with ensuring that the PSPs and the FinTechs are compliant from a scheme [perspective], a MasterCard, Visa perspective, as well as banking regulations. Just basically ensuring that there's an overarching regulation that everything gets facilitated with those kind of parameters” – Participant 5

“So bank, at the end of it is the responsible party for how a FinTech operates” – Participant 11

“I think what it's doing is it's making sure standards are set in place by companies that have the skills to manage them.” – Participant 1

“But ultimately, who funds the infrastructure? That actually is the banks... the banks all invest in the infrastructure. ... Bankserve is owned by the big, traditional big four banks. And they basically sponsor and invest to keep the industry infrastructure running to upgrade where it needs to be upgraded” – Participant 14

“FinTech, they need the banking environment, purely from a compliance perspective, which is dictated to by the Reserve Bank and the other institutions as to how money will flow. And that is the only reason they need them” – Participant 6

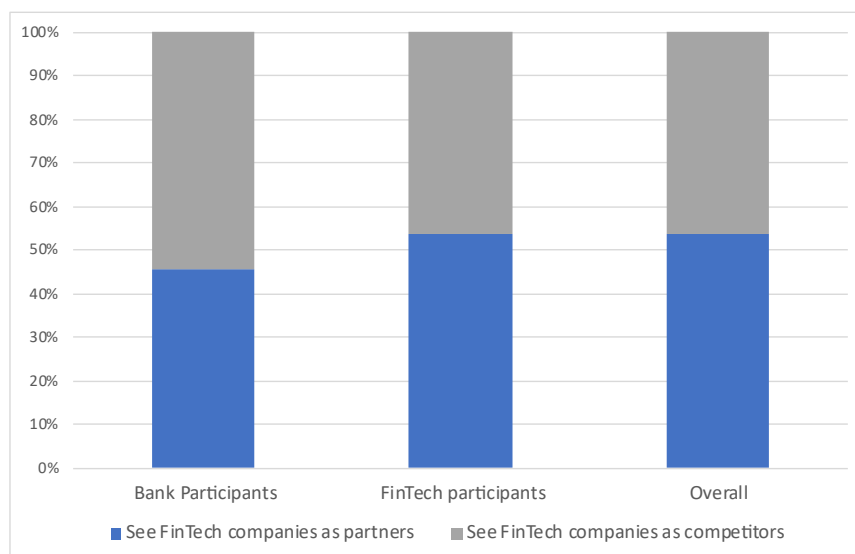
Banks motivation to respond to FinTech innovation

Interview participants were asked the following question to determine whether banks see FinTech companies as a threat and the responses were analysed thematically: Do you think banks view FinTech companies as potential competitors, complementors or partners and how does that play out in the market?

Figure 33 shows the results from the thematic analysis from bank participants and FinTech participants. The literature indicates that incumbents are more likely to respond to potential threats and less likely to act on opportunities. The responses are evenly distributed for both groups with 80% of participants indicating that banks see some FinTech companies as partners and others as competitors, depending on the competitive intent of the Fintech company on a case-by-case basis.

The focus of bank participants was slightly more towards competition, and the focus of FinTech companies was slightly more towards partnership, which could be an indication of the framing of the environment. Banks may focus on the competitive aspects because they need to scan the market for competitive threats, and FinTech participants may experience partnership more due to their own relationships with banks. However, this difference is not significantly different.

Figure 33: Are FinTech companies competitors or partners (Thematic Analysis)



Participants also indicated that due to the wide product offering that bank have, some Fintech companies may be considered a competitive threat to the specific business unit within the bank, but from an overall perspective (at the executive level) the threat is much reduced because banks have a wide product offering to a wide general population and that FinTech companies provide healthy competition for banks and motivates them to improve their services in those various business lines.

Supporting quotes:

“And maybe in some lines, they might see them as competitors, but I don't honestly think that the especially the big five, really see FinTechs as a as something to do to worry about” – Participant 2

“I would say a general misconception is that FinTechs are a large risk to banks... because it depends on, one where that Fintech is banked, and two how their transactions and funds flow.” – Participant 11

Supporting quotes:

"I think, to a large extent, it depends on who you're talking to in a bank.... It's so easy to be disrupted because [banks] have skin in multiple games" – Participant 10

Many of the participants highlighted the complementary nature of FinTech companies to banks, with participants indicating that this is due to the niche nature of FinTech companies who have a limited offering.

Supporting quotes:

"They see us very much as a complementary partner in that journey" – Participant 5

"Well, they are competing in some aspects or in most cases, it's more complimentary services because let's look at like Bank Zero, for example, or Tyme Bank or the others that exist. They have very limited offering" – Participant 7

"And then complementors because there's this new thinking in traditional banks about moving from being a traditional bank to becoming a platform business" – Participant 12

A key theme from bank participants is that there is an evolving narrative where FinTech companies are seen less as competitors and more as potential partners as more information is gathered within the market on the impact of FinTech companies. Banks are starting to see some FinTech companies, especially those focussing on niche segments and needs, as potential partners to solve for these niches given their resource dependence.

Supporting quotes:

"I actually think banks are seeing it as all [both competitor and partner], but I think it originally started as "you're a competitor to me, and we need to like fend you off as much as possible". But I do see a little bit of a change there, and maybe not in all instances, but in some instances, there is an openness to say, "Let's consider a partnership if it is mutually beneficial, and we can grow this thing together"" – Participant 9

'So, I think it's evolved from being a competitor to now seeing them as almost an alliance partner, to us going forward" – Participant 15

"I think the narrative has changed a lot over the years. So, early on it was about competing and take the traditional players lunch, and I guess thin margins, that type of stuff. Also then change

Supporting quotes:

the narrative to say, “You know what, we’re [FinTech companies] here to partner and help the bigger players solve for these niches” – Participant 14

Banks offer services over a very broad range of market sectors and business lines, so despite having plenty of resources, they must select projects based on those that have the strongest business cases or the broadest appeal, with participants highlighting that this means that they are unlikely to give a project that targets a highly specific customer segments top priority.

Supporting quotes:

“And I think that’s where banks, while they might be slow in terms of being able to respond to very niche requirements, their single access point to a customer is what then allows them much more breadth in terms of bespoke solutions” – Participant 13

“I think they don’t have the span, to deal the level of personalization that FinTechs are doing...because in order to do that, you can imagine how massive our technology teams would have to be to deal with that level.” – Participant 13

Banks capability to respond to FinTech innovation

To find out how respondents felt about banks’ ability to respond to FinTech start-ups, the following question was posed to interviewees: Do you think banks have the right capabilities, skills, and resources to effectively build the same solutions that FinTech companies have? Why or why not?

All participants (100%) agreed that, under the right circumstances and with the correct strategies, banks have the capability to respond to innovations from the FinTech industry but highlighted the specific challenges banks faced and advantages they have when attempting to respond (presented in Section 2.4.3.1). During the discussions, it was interesting to note that FinTech participants tended to highlight more strongly the advantages banks have (e.g. resources and experience), while bank participants more strongly emphasised the challenges faces (e.g. routine and resource rigidity).

Supporting quotes:

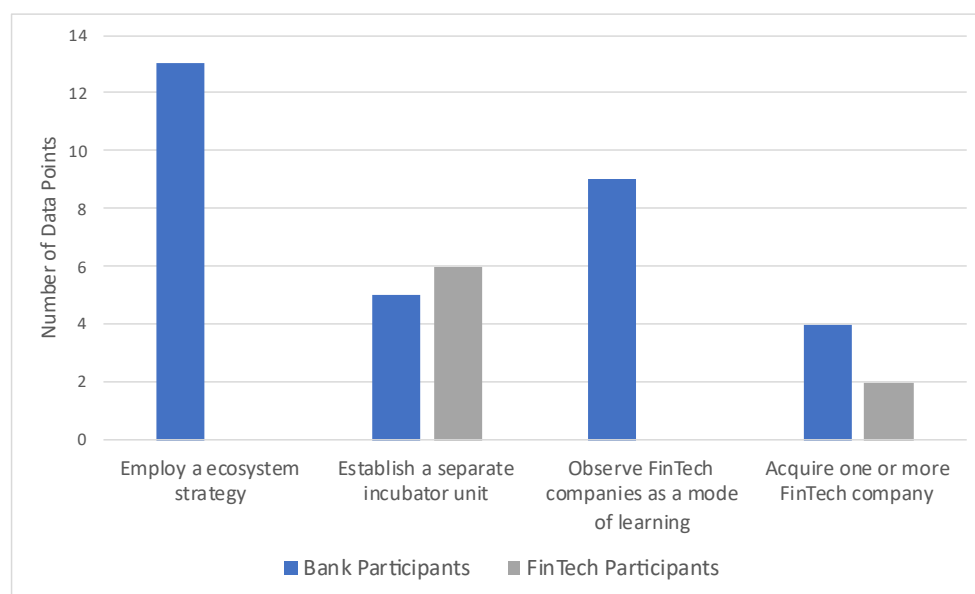
“Yeah, probably depends from bank to bank. I would say they listen the great capabilities within the bank” – Participant 1

“In my opinion, they do have the resources and the capability of doing it” – Participant 6

“So look, I do think we compete. I think it's just healthy competition that we more open to dialogue and explore partnership opportunities. So I think first and foremost, we do compete.” – Participant 14

However, another important element to the discussion was what banks are currently doing in response to the FinTech revolution which can give insight to the capability to respond to innovations currently in the financial services environment. Figure 34 shows four potential strategies that banks may employ were identified within the interview data. These themes align to that seen in the document analysis.

Figure 34: Themes indicating common response strategies by banks (Thematic analysis)



The first theme, which constituted 33% of the data points in the theme, was that of banks leaning towards an ecosystem strategy to ensure future competitiveness and longevity in the market. This potential strategy was raised by five of the seven bank participants, but not mentioned by any FinTech participants.

Supporting quotes:

"There's this new thinking in traditional banks about moving from being a traditional bank to becoming a platform business"— Participant 12

"I think banks have also competed in that space quite differently, right. So, I guess you get the Super App type view. So, we just try and like add as much to an app as possible to cater for every need"— Participant 13

A second strategy that seems to be employed by banks is that they establish separate incubator units (28% of data points). Participants in the interviews noted that while this strategy appears to have promise, there are some difficulties associated with it, including the necessity for these units to be autonomous from the larger bureaucratic machine and the practicalities of reintegrating the innovations developed into the overall eco-system once a certain level of success has been achieved.

Supporting quotes:

"I've seen more and more cases where they almost create these incubator type units, which don't get governed as hard as the rest of the bank in order to allow them to be kind of more entrepreneurial."— Participant 3

"If you took a bank and you said, we're going to create a start-up, not going to be anything to do with our banking structure, we're going to fund it but it has complete autonomy. [It] definitely [could work]. If they go and say we're going to build it within our structure, we're going to get a normal project manager, we're going to have normal waterfall IT releases. It's not it's not going to work." — Participant 8

"The time to integrate that team back into the big organization cause friction so there is a bit of coaching that needs to be done. And also, I think, clarifying as to how the integration is going to happen on our side once that once a piece or that piece happens."— Participant 13

Bank participants raised that the innovation that FinTech companies bring are becoming a big source of ideas for banks (23% of data points) and that they observe them and learn from them, often employing a fast follower strategy. This is indicated to be useful when the market is uncertain, or the technology is quite new.

Supporting quotes:

“But I think a lot of the banks have areas that are looking to partner with the FinTechs looking to understand what they're doing, to learn from them and also to partner with them.”– Participant 10

“And they [are] becoming the source of fresh ideas for big organizations to become fast followers.” – Participant 13

“I think when you when you see these other FinTech players looking to try and try new things on the market for a niche, you can almost observe and I guess, see how it plays out and then choose to play or not versus there's the space where you don't really see what could play out, so I think that that's been quite valuable”– Participant 14

The last theme observed was that banks invest in FinTech firms to compete in niche markets when they either lack the resources (whether it be IT capacity or skills) or the motivation to build the solution themselves (15% of data points).

Supporting quotes:

“There are quite a lot of start-ups and FinTechs that [a bank] has under their umbrella and they're starting to leverage them in order to meet those different market needs.”– Participant 3

“Hence, I think, for specific value propositions coming back to marketing and customer, it might be most beneficial for them to buy in that piece because it does not give them the bandwidth and to build it internally would be quite expensive” – Participant 13

“But then you will have other players, other banks, spin of other little brands - it's almost like FinTech competitors”– Participant 14

4.2.4.2. Changes in dominant logic of the industry

To test the assertion by literature that FinTech companies are changing the rules of competition and engagement within the industry, interviewees were asked the following question: Do you think FinTech companies are changing the rules of competition and business in the financial services industry and why? *Follow up:* How does this play out in the market?

The thematic results based on interview responses is depicted in Figure 35. Every interviewee confirmed, without exception, that FinTech companies are changing the

industry's rules of competition, with two key themes emerging as to why and how this is manifesting in the overall discourse. According to this model, changing client expectations and a growing influence of FinTech companies on industry discussion and regulation are the key drivers of change in the dominant logic within the industry.

Figure 35: Thematic results of perception of managers to changes in dominant logic

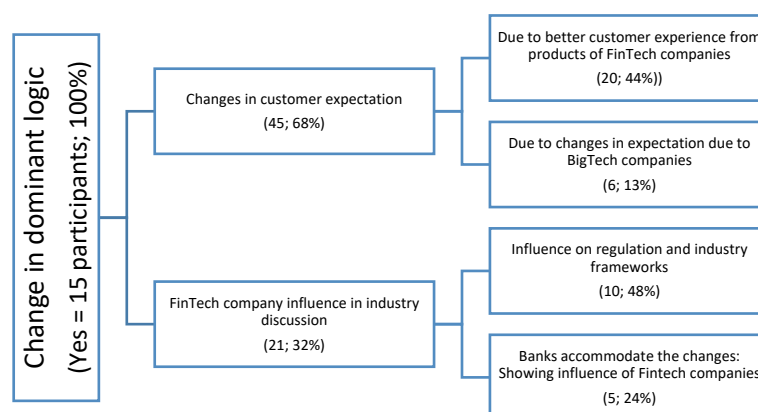
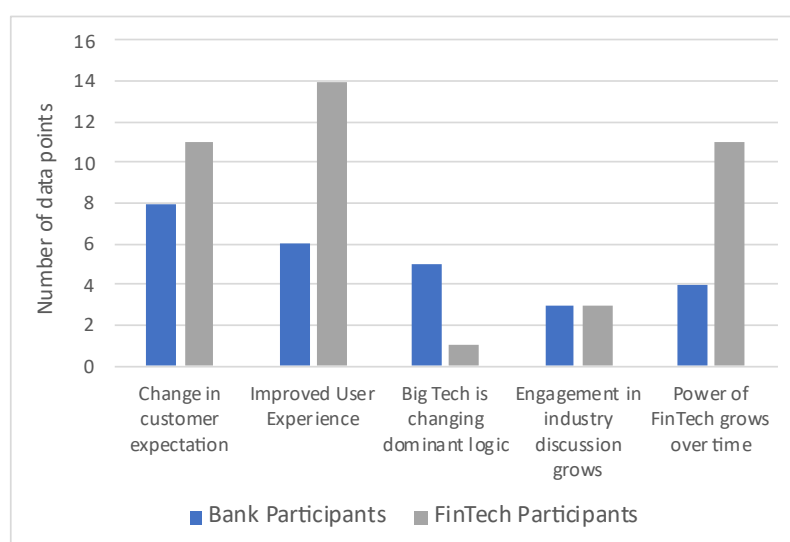


Figure 36 shows the number of data points per participant group, indicating that FinTech participants had more data points compared to bank participants. However, the themes remained mostly the same. The only theme where banks had more data points is with regards to the belief that BigTech plays a role in the changing of customer expectation.

Figure 36: Reason for changing Dominant logic (Thematic analysis)



The first theme, making up 68% of the responses (Figure 35), indicates that participants believed that the change in dominant logic is in part due to changing

customer expectations. Better customer experiences provided by FinTech companies change client expectations, which eventually become industry-wide hygiene factors (44% of the data points in the sub-theme).

Supporting quotes:

“Because they've almost created demand from customers to the banks to say, we're expecting this because this is what other people are doing”– Participant 2

“And they've pushed customer experience in ways that traditional banks hadn't done before. So now, people have an ability to compare their experiences versus what they're getting from the banks and that has challenged the banks a lot...” – Participant 12

“And so, think tanks have got like 24-hour contact ability on social media and social platforms which has changed the way that we communicate traditionally with you know, old banks or big banks. And then so the customer's expectation is instantly changed. Because they [are] expecting quick response, quick engagement, where they feel comfortable” – Participant 7

The experience of customers on BigTech platforms, such as Apple, Google, and the various social media platforms, was also mentioned as having an impact on these shifting expectations (13% of the data points in the sub-theme) mostly from participants from banks (83% of the data points were from bank participants).

Supporting quotes:

“And the market is maturing, they're using a lot of international apps, and they expect a high level of quality in terms of user experience” – Participant 1

“[If] we think about Apple's or Google's your Facebook's, Meta, I think we're starting to see a lot more influence coming down in terms of a) commercials b) around seamless experience expectations, because I guess that's where people are spending time”– Participant 14

This study focusses on the impact of domestic Fintech companies on the financial industry, however, there is also impact from a global perspective not only from a customer expectations perspective, but also from a competitive perspective. International Fintech companies are using South Africa as an entry into the market, while non-traditional players including Big Tech companies are increasingly entering the market. Although out of scope for this study, it is important to acknowledge as a contextual factor that will impact the discussion and recommendations.

Supporting quotes:

“That is, that is where banks have still got a relevance in the market, but their competitors are no longer other banks, it is other people that are fighting for the same value proposition because an Amazon can bring on board all those partners and compete equally to banks.”– Participant 2

“I think an area to consider is the local versus foreign dimension. Is the FinTech innovation, simply an adaption of a foreign trend or service, or is it a locally generated innovation?... how much value is captured locally by that how much capture is captured internationally.” – Participant 4

“And I just think also South Africa in particular, is often seen as the entry into Africa. So, I think that's where we just people, it's a more regulated so it's easier to find your footing and get going with it. And banking infrastructure is good, but so it's a good place to try and start and set up head offices and experiment.” – Participant 3

The second theme that emerged was related to the growing influence of Fintech companies on industry discussions and regulations, constituting 32% of the data points regarding a changing dominant logic. Participants believe that FinTech companies are increasingly leading industry discussions for change, with banks and the payments association accommodating them for the industry's benefit.

Supporting quotes:

“They brought specific payment participation levels of regulation as opposed to your traditional, well... you take deposits so you're a bank and this is the regulation versus you don't you're not a bank, you know? So, there's, there's that that is starting to shift.”– Participant 14

“You see FinTechs breaking the barriers of what is seen as a traditional payment or a traditional service in order to give a better customer value proposition. Also, what we're seeing in market at the moment is the local payments association is having to change the way in which they interact with entities because for a very long time, it was mainly bank driven”– Participant 11

This is supported through document analysis, where there has been significant action taken due to the FinTech sector, especially in the payments sector (Geral, Tibane, & Kern, 2023). In 2016, the SARB, Treasury, FSCA, FIC, and SARS formed the Intergovernmental FinTech Working Group (IFWG) to promote consensus among policymakers and regulators on financial technology developments and their potential impacts on the financial system and economy.

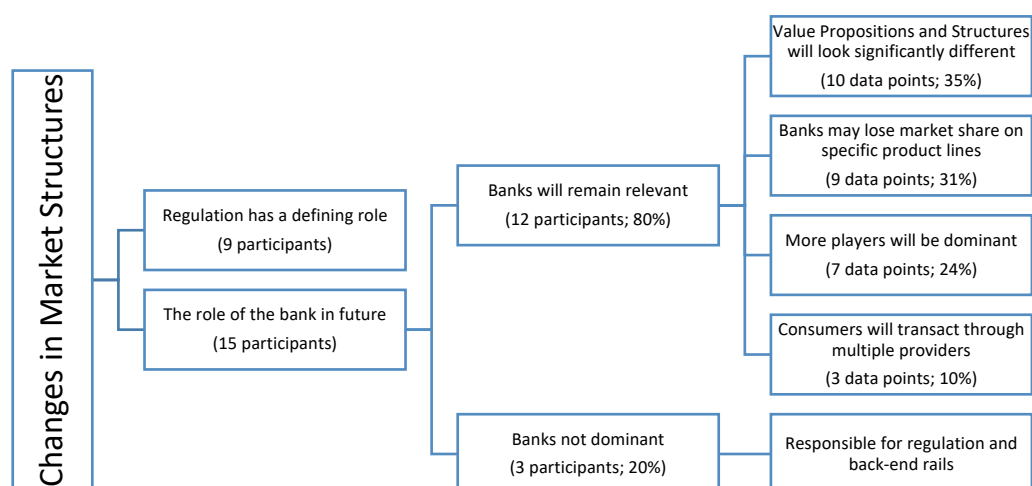
The South African Reserve Bank recently introduced a new Rapid Payments Programme (RPP). The RPP, which resulted in "PayShap", modernises national payment system real-time payments like instant credit push, pay by proxy, and request to pay (Baker McKenzie, 2022). The Financial Technology programme, which was launched by SARB with the IFWG in 2018, focuses heavily on blockchain technology and digital assets, and its impact on anti-money laundering and other regulation is another development showing the impact of FinTech on regulation (Geral, Tibane, & Kern, 2023). On a national level, the plan to drive financial inclusion does include specific intentions by the government to leverage FinTech companies “disruptors” to promote financial inclusion (Priority 16) (National Treasury, 2021).

4.2.4.3. *Potential disruption of banks by Fintech companies*

To establish what participants’ view on whether Fintech companies will disrupt banks in the future, the following question was asked: Do you think banks will remain the industry leaders in 20 years’ time or not and why?

Figure 37 shows the results from the thematic analysis:

Figure 37: Thematic results on disruptive potential of FinTech companies on banks



Nine participants (60%) indicated that the outcome of any potential disruption is heavily dependent on regulation and changes in regulation going forward, which will also be dependent on how the different industry participants influence regulators. Three key topics arose during the discussion as it relates to the effect of regulation on a potential future scenario:

- Both groups (banks and Fintech participants) agreed that over-regulation, even though regulation is important, is a risk and that would lead to less innovation in the industry.
- Bank participants specifically raised that regulation for banks need reform as some aspects prevent them from competing effectively with FinTech companies.
- Regulation influences how technologies evolve and disseminate in the market, which may play a crucial role in determining whether they develop disruptive potential.

Supporting quotes:

“It all depends on how legislation [changes], if legislation doesn't tighten up on cryptocurrencies, it could be a massive shift from just how we bank, and trade altogether and not even hit those platforms... the regulators will try and protect the banks for a slow rollout so they can catch up and do it if there's enough pressure to do it.” – Participant 3

“Finance legislation also is going to keep playing a key role and that's going to become a contributing factor. So, if we find that FinTechs aren't toeing the line with regards to financial crime requirements, we might find that that becomes heavy, have heavier legislation as well.” – Participant 8

“So, I think FinTechs are already pushing the boundaries and banks are then having to follow but actually to push back on regulators to say but hang on - the Fintech is able to do it this way, but I'm not able to do it this way. And that discussion is now with regulation bodies” – Participant 9

“And I have to say it slows down the process because it takes us a while to get to common understanding in the regulatory and the regulatory universe. So, we're trying as a as an industry to get regulators on the same page” – Participant 13

“There probably does need to be some level of control in place but don't make it overly difficult for people to transact and move funds because then we're just stifling the economy itself. The more money that's moving around the better it's [the economy] going to be” – Participant 8

Even though many participants expressed that a future scenario is dependent on many factors, given that 20 years is a long time, they were asked for a “gut feeling” based on the current market environment. From the responses, 80% of participants indicated that banks will still be relevant market players within the industry even though what

banks look like will be significantly different, while 20% believed that banks will still exist but believe that FinTech companies will be dominant.

Figure 38: Possible relevance of banks in the future (Thematic analysis)

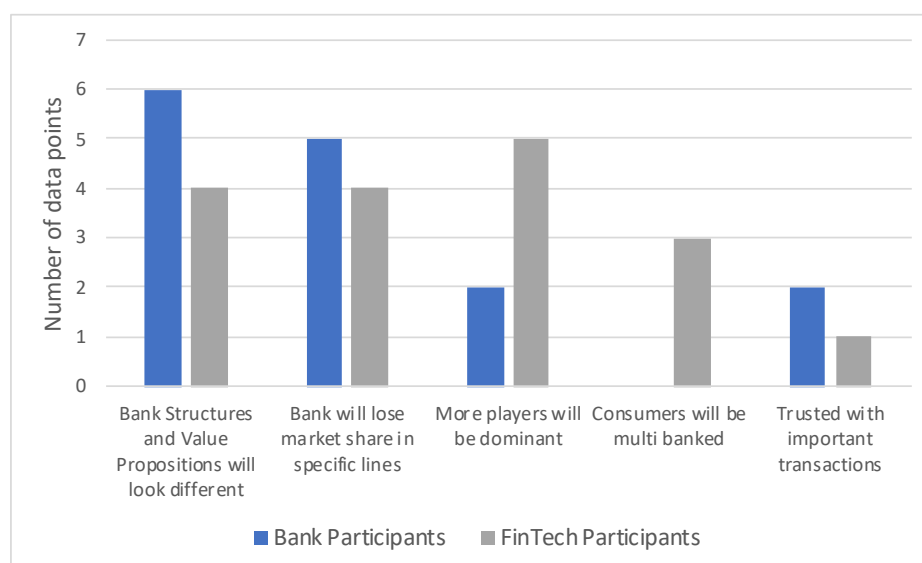


Figure 38 shows the results of themes arising from participants who believed that banks will still be relevant within the industry, and what they believe the future role of banks may be indicating that even though participants believe banks will remain relevant, the organisational structures and value propositions within the industry may still shift significantly in order for banks to remain relevant to customers (and not just a back-end enabler).

Participants indicated that banks would change significantly, particularly by shifting their emphasis to an eco-system strategy that integrates into more facets of their customer's life to remain relevant considering the possibility that they would lose market share in certain areas, such as the payments industry (35% of the data points related to the sub-theme).

Some participants indicated that while banks would lose market share in simpler and capital-light industries but would maintain their dominance in those are capital intensive, e.g., home loans and high value investments (31% of data points in the sub-theme).

Supporting quotes:

"I think the environment will look very different ... I think there'll be more lifestyle options for customers but with more partnerships, etc. So, I think that the pie will be shared with more participants than what we need today." – Participant 9

"I think with the platform model, that the future is going to look like a bank is no longer just a bank. A bank is a place where you can go to buy clothes, buy groceries. It's going to be a mall basically, that's I think, what the future is going to look like." – Participant 12

"We're going to lose market share. We're going to lose profits in the non-interest revenue space. That's a given because there are better solutions coming out at the moment... they play well in that space, but when it comes to balance sheet and, and actual backing up of assets and the whole credit game, they don't have a foothold at all in the in that space" – Participant 15

Participants also suggested that there might be more than five dominating banks (24% of the data points in the sub-theme) because highly successful Fintech firms eventually become banks themselves and as a result, the number of dominant players in the market may expand. This is very similar to what took place with Capitec, which is now recognised as a bank with a proven track record and therefore would need to keep innovating to be relevant.

Supporting quotes:

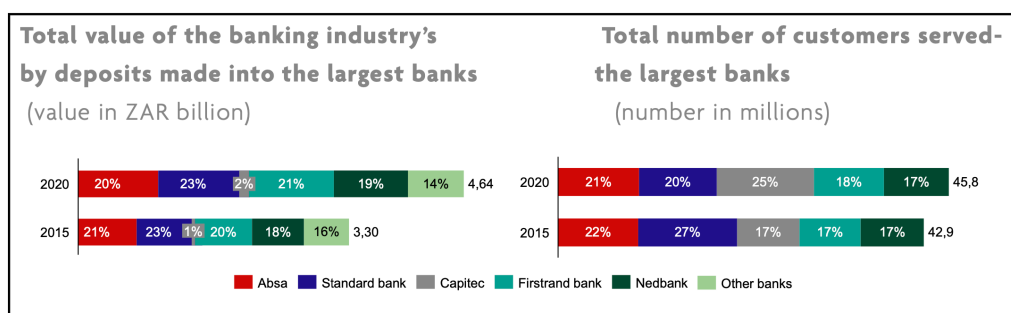
"In the unsecured market. 80% plus of unsecured credit was being provided by non-banks. They then became banks, so Capitec [and] African bank, all of these non-banks, lenders got banking licenses [and] became banks, so they sort of came into the fold, but Capitec could be a classic example of somebody who would not talk about as a bank, but 20 years ago it was a non-bank, FinTech providing a lending service." – Participant 4

"What we will see is a much more distribution of the power you know, right now it's sitting in a four/ five a big banks and that could probably be distributed to nine or ten" – Participant 1

"I don't think it will be this big four big five, running everything. I think the portions of the playing field will be much less, but in a very, ever changing way." – Participant 9

To support this with document analysis, Figure 39 shows that the size of the financial services market is expanding, and given that banks are the only institutions that can hold deposits, this would include deposits of the entire industry, with the value of the deposits increasing by 40% and number of customers serviced within banks increasing by 6.75% (Genesis Analytics, 2022).

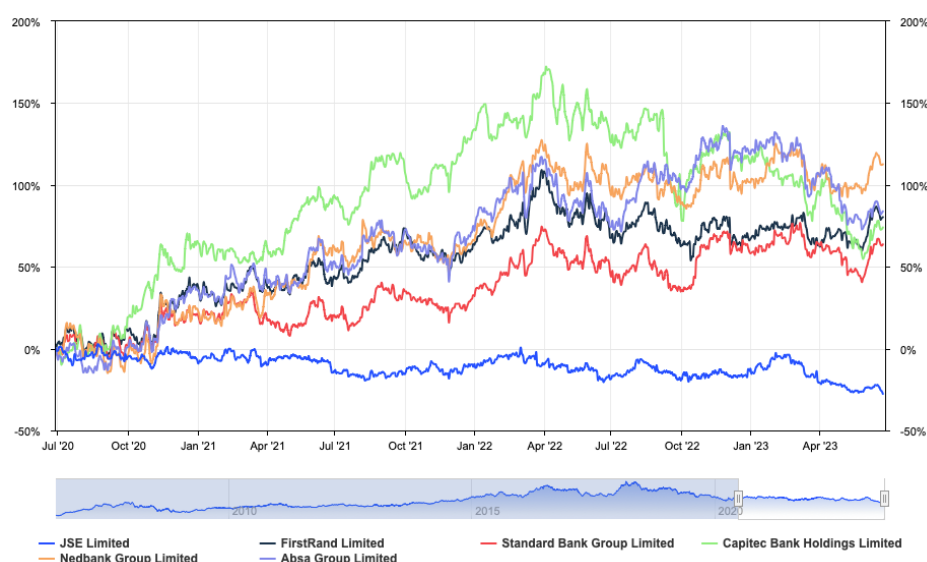
Figure 39: Deposit and customer split across the largest banks in South Africa



Source: From “2022 Financial Sector Outlook Study” by Genesis Analytics (2022) (Genesis Analytics, 2022)

Further, Figure 40 shows the growth in share price for the last 3 years (post-COVID) for the big five banks, indicating that all banks are growing and recovering from the pandemic, with the industry recovering better than the overall market (JSE Limited).

Figure 40: Growth in share price of the big five banks (3 years)



Source: Adapted from data on MarketScreener (2023) (MarketScreener, 2023)

A smaller theme that emerged, making up 10% of the data points, is that South African consumers are less likely to be loyal to a single bank or financial provider and are more likely to have multiple accounts. This would call for much more standardisation and interoperability within the market to ensure that they continue to have a seamless experience regardless of which provider they use to make a payment. However, due to the confidence that comes with a banking licence, banks will still be trusted with high value and significant transactions.

Supporting quotes:

“People are not going to interact with any one bank, but with a number of different banks... You won't just have one bank that does everything.” – Participant 2

“Look, the South African market is not loyal. Most people have around two products or more, two banking products or more, they bank with two or more banks.” – Participant 7

“When the players get together now, they start talking what is good for the industry is more on interoperability. So, regardless of your platform preference or bank preference, how do you simply move money from A to B regardless of where the recipient sits?” – Participant 9

“If you have a 1-billion-rand business, you're not going to hold your funds in a wallet, you're going to hold it in a bank accounts” – Participant 8

Due to the very low percentage of participants (20%) believing banks would not be dominant in the future there were no major sub-themes to discuss. However, they did indicate that banks would still be in existence, just perhaps not dominant in terms of value proposition to the market and that they may be the back end for many industry value propositions.

4.3. SUMMARY OF DATA PRESENTATION

In accordance with the research questions, this chapter presented the major findings from the document analysis and the semi-structured interviews. A broad range of themes and use cases are being innovated on by Fintech companies, some of which are complementary and others of which would compete with banks in their low-end market segments. Fintech companies frequently offer solutions to niche markets that banks have historically been unable to fully serve.

New technology enables Fintech companies to offer new business models where customers pay less than they would have from traditional providers. Due to regulations in South Africa, where only banks are permitted to keep customer deposits and be a settlement member in the National Payments System, banks play a key role in the value networks of Fintech companies. Being agile, focus on a particular need or use case, and a passion for impact and change are key benefits of fintech organisations. Their main challenges include funding and support, as well as scaling their businesses.

Banks consider the changing environment due to the entrance of FinTech companies a threat to their ability to compete, even though they do not specifically articulate that domestic Fintech companies are threats. There has been a shift in perspective from one where banks viewed fintech companies as competitors to one where banks are now looking at how they can collaborate with fintech companies in order to stay relevant. Banks have been able to successfully respond to most major themes where FinTech companies have innovated within the last 20 years, however they are still working on their response to the blockchain and chatbot use cases.

Key advantages that banks hold over FinTech companies are their wealth in terms of resources, customers and data. However, due to their size, they are dependent on keeping shareholders, customers, and employees happy, while also dealing with legacy systems. Banks are extremely risk adverse because their main priority is to maintain trust in the banking system and do not take on the same level of risk that a FinTech company does.

All participants agreed that FinTech companies are changing the rules within the industry and 80% of participants believe that banks will still be a relevant player in 20 years' time. Partnership is becoming an imperative for both FinTech companies and banks for longevity of both groups and for the sustainability of the industry, although practically there are still some hurdles to effective partnership even though partnership could potentially be mutually beneficial.

CHAPTER 5: ANALYSIS AND DISCUSSION OF THE RESEARCH FINDINGS

5.1 INTRODUCTION

The information presented in this chapter will discuss the findings from Chapter 4 in relation to the literature review in Chapter 2. The literature review can be used as a guide to interpret the findings to fully understand the impact and disruptive potential of FinTech companies in South Africa and whether managers within the industry is aligned to this potential outcome.

The payments sub-sector was chosen as the focal point of this study, and therefore it is important to evaluate the research results in that context. When disruption is discussed, the question remains whether new-entrant FinTech companies will disrupt the payment sector of incumbent banks. Chapter 4 demonstrated that banks offer a diverse range of product lines, which mitigates the risk of entire disruption. However, this does not imply that they are immune to disruption within specific sub-sectors.

Table 12 is a summary of the research questions and propositions and will serve as an outline for this chapter. Research Question 1 has two propositions that were analysed to construct a theory on the potential state of disruption in the South African financial sector according to the document analysis, and Research Question 2 had two propositions to examine the congruence between perceptions and the results of Research Question 1 creating a synthesis of the potential outcome within the financial services industry. In line with the literature review and conceptual framework outlined in Chapter 2, each proposition has essential drivers as shown in the conceptual framework.

Table 12: Research questions and propositions of the study

Research Question		Propositions		Key Indicators
RQ1	Are there any signals within the financial services industry that indicate that the FinTech industry could have a potentially	Prop1	FinTech companies are entering the market with technological innovation aimed at the lower end and/or new markets of the financial services market and using completely distinct	• Target market of FinTech companies • Type of innovation by FinTech companies

Research Question		Propositions		Key Indicators
	disruptive impact on Banks?		value networks (where banks are not central).	Centrality of banks in FinTech value networks
		Prop2	Banks do not have the motivation and the capabilities required to respond to the potentially disruptive innovation emerging from the FinTech sector.	- Motivation of banks to respond. - Capability of banks to respond
RQ2	What is the degree of convergence between the perceptions of bank and Fintech company managers and how does this impact collaboration within the industry?	Prop3	Bank and Fintech companies have a symbiotic relationship that is conducive to mutually beneficial partnerships that could protect banks from disruption.	- Strengths of banks and FinTech companies in a partnership - Requirements of banks and FinTech companies in partnerships - Power imbalances between FinTech companies and banks
		Prop4	Managers at banks and FinTech companies are aligned to the outcomes of the FinTech revolution as indicated by the signals within the industry.	Alignment between: - Perceptions of managers regarding the drivers of disruption - Perceptions of managers regarding a change in dominant logic - Perceptions of managers regarding potential disruption of banks by FinTech companies

5.2 DISCUSSION PERTAINING TO RESEARCH QUESTION 1

Given the competitive decisions of Fintech companies (Proposition 1) and the response from banks (Proposition 2), the first research question aims to evaluate what a potential future state may be within the financial services industry.

As per Chapter 2, the impact of Fintech companies on the industry could be viewed on a spectrum, where on one end they bring about transformation in the dominant logic or rules within the industry as per the model of digital innovation transformation by Skog et. al (2018). The other end of the spectrum would be where there is a complete change in the market structures and FinTech companies become dominant over banks, following the process set out by the disruptive innovation model by Christensen (1997).

As shown in section 2.3., for banks to be disrupted, it requires a very specific set of circumstances that lead them to not respond to the disruptive innovation in time due to a low motivation to respond because they do not see FinTech companies as a threat. By the time banks would decide to respond, they do not have the right capabilities to respond fast enough due to the innovations from Fintech companies having significantly different business models and technological architecture that is incompatible with their current processes and systems (Christensen, Anthony, & Roth, 2004).

The findings suggest that FinTech companies are different and should be considered on a case-by-case basis, some companies may have significant disruptive potential while other will not pose the same threat. For the purposes of simplification, this research will investigate if there are any FinTech companies that meet all the requirements to be potentially disruptive to banks at the time of the research. However, the discussion will also discuss potential future scenarios.

5.2.1. PROPOSITION 1: INNOVATION TARGET OF FINTECH COMPANIES

As outlined in the conceptual framework, not every innovation brought by Fintech companies are potentially disruptive, and the competitive choices FinTech companies make does affect the potential level of disruption to banks if the innovation is successful. This includes the target market that FinTech companies target (Christensen, Anthony, & Roth, 2004), what type of innovation the solution they bring

to market is (Markides, 2006) and how central banks are to the new value network of FinTech companies (Christensen, Anthony, & Roth, 2004).

Innovation by FinTech companies need to meet all three conditions outlined in Proposition 1 to be a truly disruptive threat to banks where they (Fintech companies) then become the dominant market player within the industry.

5.2.1.1. *Target market of FinTech companies*

The reason that the target market of the FinTech company plays an important role within the analysis is because this choice would have a large impact on whether banks see FinTech companies as a threat (giving them the motivation to respond) and therefore respond by building their capabilities early within the innovation's lifecycle, significantly reducing its disruptive impact on them (Christensen, Raynor, & McDonald, 2015).

The findings indicate that the 45% of FinTech companies may focus their innovation on complementary market niches (Figure 12 in Section 4.2.1.1.), for specific customer needs where banks fall short in providing adequate solutions due to their wide and generalised product offering. Through excellent customer service and a more focused approach, they are thus better equipped to meet the needs of those specific customers' needs and better serve that niche (Section 4.2.4.1.). These FinTech companies would not pose a disruptive threat to banks but instead be well positioned to enter mutually beneficial partnerships with banks.

A smaller portion of FinTech companies (19%) are suppliers of financial technology (Figure 12 in Section 4.2.1.1.) and would therefore not be a direct competitor to banks, however, they could supply technology to another market player enabling them to innovate around the business model. However, given that they would be prepared to supply the technological solutions to any potential customer (including a bank), it would not very likely lead to disruption on its own. As the premise is that banks would not have the capability to respond in a disruptive scenario, which would not be the case in this instance because banks can acquire the technology through licencing, any potential disruption would be due to business model innovation by the customers of the supplier FinTech company.

Of the remaining 36% of FinTech companies that do have competing value propositions (Figure 12 in Section 4.2.1.1.), with 29% of those (9 FinTech companies) focusing their efforts on underserved clients and those who are now not served at all by banks (i.e., the cash market) (Figure 13 in Section 4.2.1.1.) and could potentially be disruptive (if they meet the other criteria). When considering the use-cases that FinTech companies are innovating around, shown in Table 4 in section 4.2.1.2., are considered, some use-cases do seem to have significant financial inclusions and cash digitisation elements to them.

Mobile wallets aim to make bank accounts more affordable and accessible through simplified account opening processes. Agency banking aims to rethink traditional cash access points by bringing in a third party to enable cash deposits and withdrawals in closer proximity where they live and work which is especially valuable where there are many rural areas within a country that are not adequately served in terms of traditional points of presence. These use cases are modelled after Safaricom's MPesa model in Kenya, which has played a significant role in reducing financial exclusion (Banka, 2014).

Similarly, cross-border remittance focused FinTech businesses want to make these transactions more accessible, with cross-border remittances through Mobile Wallets increasing by 48% in 2021 (GSMA, 2022). When considering new developments in the merchant services device space, there may also be an inclusion aspect to that where devices become smaller, cheaper, and even available on a merchant's phone, making the acceptance of digital payments much more accessible than it was before the introduction of these value propositions (African Financial Inclusion Policy Initiative, 2023).

5.2.1.2. *Type of innovation of FinTech companies*

The disruptive effect of an innovation is different depending on whether it is based on technological innovation or business model innovation (Markides, 2006). The benefits of purely business model innovation is shown to plateau at some level of profitability and market share, but would not lead to the total disruption of incumbents (Habtay, 2012) while incumbents could respond in many different ways depending on their own context and decisions (Charitou & Markides, 2003).

Technological innovation enables a business model that is often so significantly different to the existing structures within the incumbent that they would not have the capability to respond to the innovations effectively because it would require a fundamental change in their existing business model (Christensen, McDonald, Altman, & Palmer, 2018). Supply-push technical innovations that does not solve for specific customer problems will go through a standardisation process where a dominant design emerges, the early pioneers may not remain dominant as other players innovate and scale the solution (Markides, 2006).

It follows then that for a FinTech company to be disruptive, they must solve for real customer problems enabled by technical innovation that allows a business model that is significantly lower cost than the traditional version of the product. The technical advancements should also be sufficiently different to the existing architecture that it would be hard for banks to respond with solutions of their own that compete in the same competitive space (i.e., it should make a fast follower strategy difficult).

Many of the technologies adopted by some Fintech companies have already been replicated by banks within South Africa (see Table 5 in Section 4.2.1.2.), which may indicate that, on the surface, although FinTech companies are enabled by new technology the solutions are still somewhat compatible with bank infrastructure. However, there are also a developing narrative around new technologies, that are sufficiently novel and that banks would need to build the capability for and may require significant redesign of systems.

The findings suggest that blockchain technology (a subset Web3) and chatbot functionality, which is made up of multiple technologies including artificial intelligence and language processing, is objectively novel and still developing. However, there are no FinTech companies that currently target low-end market segments or under-served customers with these technologies (see Appendix D), which reduces the disruptive potential of FinTech companies to the banking sector currently. However, this does not imply that it will consistently remain like this.

There is still a lot of uncertainty around the regulations and what potential actions could be taken by central banks globally that would influence how these technologies diffuses within the market. The use cases of these technologies are not exhausted

and therefore, there may be even more innovation in that regard in the coming years. Furthermore, due to the decentralised nature of blockchain, it is fundamentally different to the centralised payment systems that is in operation today for fiat currency.

One use case that is seen globally from a blockchain perspective is using blockchain to do cross-border payments at a significantly reduced price by removing the middleman (banks and clearing houses) and is currently used to transfer crypto currency (Crypto Council for Innovation, 2023). Even though there are still many regulatory and oversight discussions to be had, this process is outside of the current banking sphere and wholly incompatible with current bank processes, with the ability to create new markets in the longer term.

Banks are indicated to still be significantly more expensive than FinTech companies is providing Cross-border payments even with their partnerships with Western Union and MoneyGram (see Table 8). This indicates that there may be a significant advantage in the operational or technical environment that banks do not have access to, and therefore could be a sign that FinTech companies in this space have radically innovated in this space technologically.

From a Chatbot perspective, some banks have already implemented some solutions, mostly as part of the communication processes and FinTech companies usually use chatbot functionality as part of the value chain of another revenue generating proposition (see Appendix B and D). Therefore, although novel the value is primarily through improving the user experience, and therefore could provide benefit to those who implement the technology, but this may not be disruptive by itself in its current form.

From a document analysis perspective, banks seem to have effectively created similar solutions to that of FinTech companies (in South Africa or in their subsidiaries) to indicate that these solutions are compatible with current banking infrastructure (Table 5). However, it is important to note that participants in the study from the Fintech sector indicated that to be successful, FinTech companies must innovate both technologically (to reduce cost and improve user experience) and through the business model (the overall value proposition) . Bank participant did question the novelty of the technology

and indicated that many times FinTech companies employ secondary innovation and use technology that is easily replicable see Figure 31 and Section 4.2.4.1.)

5.2.1.3. Centrality of banks in FinTech value networks

As seen in section 2.4.3., Christensen et. al (2004) found that the choice on whether a new entrant chooses to operate in a completely separate value network (where the incumbent has no influence) or within an overlapping value network (where the incumbent still has some influence) has a significant impact on how disruptive the innovation from the new entrant would be. This is because in an overlapping value network the innovation must make sense and conform to the existing logics within the incumbents value network (which includes cost structures and pricing), and secondly, it encourages the incumbent to respond to the innovation sooner, thereby reducing the overall disruptive impact (Christensen, Anthony, & Roth, 2004).

The results indicate that currently, due to regulations established by the South African Reserve Bank, FinTech companies operating in the payment sub-sector are forced to operate in a value network that overlaps with banks. This is because every participant in the payments sub-sector requires sponsorship from at least one bank and a relationship with a clearing house (such as VISA or Mastercard), whether directly or indirectly (See Figure 20). Furthermore, the only participants permitted to store deposits or money on behalf of others are banks. This means money will need to be reflected (at an aggregate level) in an account with one of the main banks, for instance, if a FinTech company has a wallet-based solution (See Section 4.2.1.3).

This is further corroborated in the interview findings, where participants raised that some level of integration with banks is currently required before the FinTech can facilitate any transactions in the payments sector. Additionally, banks have significant influence over, and invest in, the standard industry frameworks used within financial services. Participants pointed out that if a FinTech company wants to operate within the wider system and want to scale their offerings, the use of industry frameworks and integration into banks is crucial (See Figure 32).

One element to consider is whether banks within this network has central influence over the environment that FinTech companies operate within. The findings indicate that Banks play a fiduciary role within the financial services industry, and that FinTech

companies must adhere to the industry standard set by banks. The findings further suggest that banks invest in industry initiatives that allow innovation for all participants in the industry, however this also strengthens their centrality within these networks (Section 4.2.4.1.).

FinTech companies are seen to have growing influence within industry discussions, which must be considered when looking to the future, and is already evident as some requests from FinTech companies are indicated to be accepted by banks (Figure 35). A potential shift in the power dynamic could result in a change where a particular FinTech may have more sway over the development of certain regulation and therefore the centrality of banks within that sphere, for example, more banking licences are issued or a specific licence with lower compliance requirements is implemented (Section 4.2.4.2.).

It seems unlikely that the power-dynamic will shift so much that banks will lose most of its influence and therefore this study would conclude that it is more likely that banks will remain part of the value network of FinTech companies within the payments sector because banks continue to invest heavily in industry initiatives (Section 4.2.4.1.) that may benefit all participants of the industry, but at the same time, it may also entrench banks more centrally into the system.

Another potential future scenario is where a powerful FinTech could arise and that banks become backend supporters of that FinTech company, thereby not having a significant part of the revenue distribution (See Figure 35). However, this was not a strong theme within the data and the results indicated that this is not a desirable outcome for banks and that they would need to respond effectively and in time to ensure overall competitiveness (see Section 4.2.2.1.). Given the current landscape, the study does not find any evidence that suggest that the current local FinTech participants would grow to be more powerful than banks, however it cannot completely exclude the possibility either.

In summary, FinTech companies operate in overlapping value networks with banks and at an aggregated level, banks are necessary, central, and influential participants within the value network of FinTech companies, reducing its disruptive potential significantly.

5.2.1.4. Summary of discussion pertaining to Proposition 1

For the FinTech revolution to be potentially disruptive to the banking industry, all three conditions set in the conceptual framework must be met and the disruptive threat of Fintech companies from a target market and technological innovation perspective needs to be considered on a case-by-case basis.

There are certain notable use-cases where FinTech companies seem to be promoting an important financial inclusion agenda, accounting for 24% of the FinTech population (Figure 13 in Section 4.2.1.1.), and therefore it is clear the first condition is objectively met when considered in isolation. However, what must be considered is whether all the other criteria is met by the same companies.

The findings further indicate that there are both strong business model-driven innovations and significant technological advancements on the innovation front. The strong use-cases for technical innovation (blockchain and chatbot) and the use cases for financial inclusion (mobile wallets, agency banking, QR code payments, merchant services), however, do not currently appear to intersect currently. Banks have yet to find a comparable solution for cross-border remittances, while future developments in blockchain technology may present a threat in the future, however, there is still significant regulatory discussions to be had regarding the diffusion of these technologies especially in the fiat currency space.

Currently, banks are found to be necessary participants that hold significant influence within the overlapping value networks that FinTech companies operate within in. A change in power dynamic could influence the centrality of banks within these networks, but the evidence of that being likely is not supported within the findings of this study.

Evidence in favour of Proposition 1

When considering the data of Section 4.2.1.1. and Section 4.2.1.2. together, one area where banks are more likely to be disrupted by FinTech new-entrants may be the Cross-border remittance space (Figure 22), especially if the role of banks becomes to keep the deposits of these companies but they are excluded from the rest of the value chain. In this scenario, the power balance is completely shifted to the provider of cross-border transactions, and they may start to influence regulation and industry standards in their favour.

Given that these FinTech companies that focus on these remittances, tend to target the lower end of the market, and make the service much more affordable with a better user experience. Banks have not been able to provide a similar service, which could be due to technological innovation or another aspect (perhaps the number of relationships and technological integrations required to make the proposition viable) that makes the solution difficult to replicate. In this way all three criteria for Proposition 1 are met in this scenario, and given the process of disruption, may lead to further disruption in the payments sub-sector in future.

Another potential scenario where there may be a potentially disruptive strategy from FinTech companies would be where as blockchain technology evolves and becomes more widely accepted and trusted, the FinTech industry creates solutions targeting underserved or unserved customers. Due to the decentralised system of blockchain technology, this may be technologically incompatible with banking systems and secondly operates in a way where banks may be completely excluded from the value network (depending on how regulation evolves). Significant developments in regulation and the diffusion and standardisation of the technology still need to take place before this could be a viable scenario.

Evidence that Proposition 1 is not supported within the data

Even though there are significant use cases where FinTech companies are targeting customers who are underserved or not served through traditional banking institutions, the technology has been easily replicable by banks in some of the key value propositions. The evidence does suggest that FinTech companies use newer technology, these technologies do not seem incompatible with current bank systems and resources, with banks creating similar value propositions (Figure 22).

The most convincing evidence that Proposition 1 may not be supported lies within the current regulatory environment, where banks are central to the Payment system as a Settlement participant (Figure 20). The interview data further established the ongoing influence banks have in the creation of industry standards and play a fiduciary role for the industry. Even though FinTech companies have growing influence within industry discussions, there was no evidence indicating that they will become more powerful than banks within the discussions, especially with all the industry infrastructure

investments banks are making that allow innovation for all participants (Section 4.2.4.1.)

Given this information, there are some scenarios where FinTech companies are making the correct strategic decisions to potentially be a disruptive threat, even though this is a very low probability event. Given the centrality of banks within the current regulatory environment, a more likely scenario is that Proposition 1 is not supported with an aggregate view of the research findings.

5.2.2. PROPOSITION 2: RESPONSE STRATEGIES BY BANKS

From the conceptual framework, for banks to combat the threat of potentially disruptive innovations, they must have both the motivation to respond to the innovation and the capability to respond to the innovation (Christensen, Anthony, & Roth, 2004). If one or both of these elements are not present, banks have a higher risk of being disrupted than if both are present.

5.2.2.1. *The motivation of banks to respond to FinTech innovation*

As found in section 2.5., two main themes determine whether banks will have the motivation to allocate resources to develop a response to a potential disruptive innovation. Firstly, if the innovation would make lower margins or targets a small base of niche customers, banks are unlikely to respond in their pursuit to maximise profit (Christensen, McDonald, Altman, & Palmer, 2018).

On a national level, the Treasury department has indicated a priority to drive financial inclusion, while regulation also supports the requirement of financial institutions (including banks) support these initiatives (National Treasury, 2021). In addition, Christensen et. al (2004) indicated that in instances where incumbents are dependent on large volumes to manage the cost of large, fixed infrastructure another instance where incumbents may consider the low-end segment of a market as very important.

This could also be the case for banks, where large branch and ATM networks come at a significant operational cost, and where banks have indicated a strategic priority to digitalise and create efficiencies to drive down the overall cost structures (Hirt & Willmott, 2014). This may have the result that banks perceive effective financial inclusion of underserved or excluded customers as a strategic goal and motivate them

to protect customers at the lower end to maintain their cost-to-income ratio, and as a result motivating them to act when a FinTech company introduces a potentially disruptive solution in that low-end market.

Additionally, on a use case level, banks have shown high motivation to respond to financial inclusion initiatives (Figure 22) may strengthen the hypothesis that the influence from the regulator that expect banks (along with other financial institutions) to solve for financial inclusion in South Africa, has a positive relationship to the motivation of banks to respond to use-cases where unbanked and underserved customers a strategic priority. Therefore, solutions that target this segment may automatically trigger a threat response, however, further research would need to be conducted to convincingly prove this theory.

The second aspect that would drive banks to respond to a potentially disruptive threat is whether banks see FinTech companies as a threat to their overall business operations. According to the literature, it is more likely that an incumbent will allocate resources to an initiative where it is considered a response to a possible threat that they are to prioritise an initiative that is regarded as an opportunity (Gilbert C. , 2005).

The document analysis indicated that changing customer expectations is a threat to their ability to compete in the market, however, these reports do not specifically consider domestic FinTech companies as the threat (Section 4.2.2.1.). If this is the case, partnership with FinTech companies may be a viable solution to combat the threat that BigTech companies pose to business viability given their agility and focus and given the resource dependence that banks face (Table 11).

As a measure of motivation to respond, the current responses overall strategic responses by banks to innovation by the FinTech industry was analysed. In response to the FinTech revolution, banks have been found to use three main strategies, which was corroborated in both document analysis (Section 4.2.2.2.) and the thematic analysis of interview data (Section 4.2.3.1.). These strategies include, creating a separate division that is free to pursue disruptive opportunities, pursuing an ecosystem or super-app strategy, and purchasing a FinTech company to fill a particular niche gap.

On a strategic level, this may indicate high motivation to respond to the changing customer expectations that is brought on by changes in dominant logic due to innovations from the FinTech revolution and BigTech companies (Figure 35). The results indicated no evidence that indicated that banks are complacent and have no motivation to respond on an overall strategic level, however, they may not have the correct capabilities to respond to specific threats, discussed in the next section.

5.2.2.2. *The capability to respond to FinTech innovation*

Over the last 20 years banks have been responding in different ways to the innovations brought by FinTech companies. The findings may indicate that banks have been able to effectively create a response for all but one of the use cases that primarily aim to increase financial inclusion, this indicates both a high motivation and capability to respond these use cases, whether it be through building the capability themselves or by partnering with FinTech companies (Table 6 and Figure 22).

The thematic analysis aligned with the literature (Section 2.5.) that banks face significant challenges as related to resource dependence and routine rigidity (Figure 25). Some banks have established separate incubator units, where these units do not have to follow the same governances as the rest of the bank. However, participants from banks indicated that there are challenges that arise as a result, especially when it comes to the integration of the new value proposition into the bigger bank, including differing cultures and difficulty with the integration (Figure 34).

This is supported as a valid strategy by Christensen et. al (2004), where incumbents create spinout organisations to launch a disruptive response. These units must be free to develop their own capabilities and internal processes and values, i.e., not be subjected to the same resource and routine rigidities that the main organisation will face. If the spinout organisation is subjected to the established processes from its parent company, the new company will gravitate towards a sustaining business model and lose its disruptive potential (Christensen, Anthony, & Roth, 2004).

Spin-out is only a viable solution where the main organisation does not have the skills or motivation to develop it internally (Christensen, Anthony, & Roth, 2004). Due to how different the technology and design of blockchain technologies, it could be argued that banks currently do not have the skills and capabilities to create solutions in this space,

in addition to the premise of the technology being fundamentally different (Section 4.2.1.2.).

When considering the specific individual responses of banks to innovations by the FinTech revolution (Figure 22), some of the solutions may not have been significantly different enough to the current architecture, processes, and resource structure to be significantly affected by resource and routine rigidity, even though they may be enabled by newer technology. Business models would be adapted, but could easily co-exist with existing business models, because these innovations do not require significant architectural change.

When considering the chatbot use case, this is evident. Even though the technology is novel and still developing, the findings did show that some banks have implemented some solutions (Table 6), with the use case lending itself quite well to integration into existing infrastructure, that can easily be acquired through technology partnerships. Because these solutions would cater to a niche, highly tech-savvy market segment, banks may not have a strong motivation to prioritise the development of these solutions, and therefore have low motivation to respond. As any threat arises, banks may then at that point choose to partner with a technology provider or FinTech company to remain competitive.

Navaretti et. al (2018) also assert that banks are well placed to adopt technological innovations by Fintech companies where FinTech companies find new ways of giving an existing service more efficiently. For these use cases, FinTech companies would compete with banks for market share, however complete disruption is unlikely (Christensen, Anthony, & Roth, 2004). This could be used as evidence that banks have the capability to respond to innovations brought by the FinTech sector.

However, there is some evidence that banks may not (yet) have the capabilities required to respond to some innovations by the FinTech sector. In terms of the Cross-border use case, the document analysis showed that banks are focusing on improving their own solution (SWIFT), while some banks have partnered with some remittance providers to compete, however for low value transactions this is still more expensive than the offerings from FinTech companies (Table 7). Internal processes may prevent banks from effectively responding due to the high-risk nature of cross-border

transactions (due to their own priorities – See Section 4.2.3.1.), which will strongly be affected by routine rigidity. However, based on the difficulty in replicating relationships, this may be the ideal space where partnership with a FinTech company could be mutually beneficial, thereby reducing the overall disruptive threat.

As previously shown, blockchain technology is still extremely novel with many variables still unclear which would dictate how banks should respond. The findings showed that three banks have created senior positions that look at what the use cases for blockchain could be at a strategic level, indicating a clear intent to respond to the technology, however, this is regarded from an opportunity perspective, meaning from a resource perspective it is unlikely that banks will create radical value propositions as these departments may be hindered by both resource and routine rigidity (Gilbert C. , 2005). In time, given that there are already a few FinTech companies that use the technology in the payments space, this technology could bring a significant change to the cost structures and in the manner in which payments are performed, however, this is not clear at the time of this study and future research would need to be conducted.

Lastly, even though banks have appointed executives to explore these opportunities, given that blockchain is designed as a decentralised system, the solutions would be so different that banks would be constrained by systems that are designed with centrality as a core principle, making the two architectural philosophies incompatible. Due to its decentralised nature, this spin-out company may be best placed to provide value at an industry level and therefore could perhaps be driven by a company like BankServ, which is owned by four of the five large banks in South Africa (BankServAfrica, 2023).

From a payment aggregation perspective, due to the complementary nature of these solutions by FinTech companies and the specific business model that would not make it very easy to copy, banks would have low motivation and low capabilities to create comparable solutions in this space. However, given the centrality of banks to the overall process of payments aggregation, this use case is unlikely to have a disruptive effect on banks overall.

5.2.2.3. *Summary of the discussion pertaining Proposition 2*

To find support for Proposition 2, banks need to lack either the motivation or the capability to respond to innovations brought by the FinTech sector.

Evidence in favour of Proposition 2

From the analysis it was established that banks have had mixed motivation in responding to certain innovation use-cases by FinTech companies, specifically payment aggregator and chatbot use cases (Figure 22). However, both these use cases do not seem to currently pose a significant threat as they are central to the processing for payment aggregators and could acquire a technology partner to remain competitive in relation to FinTech companies using chatbot technology as it is rarely a stand-alone offering currently. Therefore, from a motivation perspective this seems rational that banks focus on use-cases that may pose a definite competitive risk.

From a capability perspective, there are two use cases where banks seem to not have sufficient capability (yet) and would need to develop strategies to develop the capability. The results indicated that even though banks have exhibited some level (even if small) of motivation to respond to these use-cases, the use-cases have been difficult to solve for within the current banking structures and frameworks (Figure 22).

The cross-border remittance use-case seems to be the most urgent for banks to catch up to existing FinTech value propositions, whereas there is significant developments occurring within the blockchain technology sphere both from a regulatory and a diffusion perspective. The cross-border remittance use case seem difficult to replicate due to the significant number of integrations and external relationships required, however, the value propositions by FinTech companies lends itself well to partnership opportunities with banks.

Therefore, the evidence in favour of Proposition 2 is not very strong. Banks correctly choose to respond to innovations that could have a potential disruptive impact. Further, where they do not currently do not have the capability, they can partner to obtain the capability or the solution itself still has significant developments in progress.

Evidence that Proposition 2 is not supported within the data

For innovation use-cases targeting financial inclusion, banks shown clear motivation to respond to innovations by the FinTech industry and have developed their own value propositions, either internally or through partnerships, that are able to effectively compete with FinTech propositions. Further, banks have also clear motivation to respond at an organisational strategy perspective with eco-system and super-app strategies. Some banks have also created separate incubator units or have specifically acquired FinTech companies strategically.

From a capability perspective, banks have been able to overcome their resource dependency and routine rigidity for many of the innovation use-cases by FinTech companies including mobile money, agency banking, merchant service devices and QR code payments. This may indicate that the innovations were compatible with existing architecture and value propositions.

On an aggregate level, this evidence seems more convincing and therefore, for the purposes of this study, Proposition 2 is more likely to be supported by the research because for key innovations that could have disruptive potential (i.e., innovations aimed at the lower end), banks have both the motivation and the capability, or the ability to gain the capability, to effectively respond to the innovations from the FinTech industry.

5.2.3. SUMMARY OF DISCUSSION PERTAINING TO RESEARCH QUESTION 1

For the FinTech revolution to have a significant disruptive threat to banks, both Propositions 1 and 2 would have to be convincingly supported. The analysis, however, leaned towards the rejection of both propositions. Therefore, the disruption of banks where FinTech companies are dominant within the industry is not considered to be likely.

The disruptive threat of each FinTech company should be considered on a case-by-case basis. The discussion did highlight that banks should pay special attention to the cross-border use case, and that this space could be a good space where partnership could help banks remain relevant and competitive. Secondly, given the nature and uncertainty around blockchain technology, special attention should be paid to developments in regulation and diffusion. Both FinTech companies and banks could

look globally from inspiration, keeping in mind South-African contexts and customer behaviours.

However, banks have had both the right motivations and capabilities to respond to innovations brought by the sector. The scope of the analysis did not include the evaluation of the disruptive potential of international FinTech companies, non-traditional market players (e.g., retailers) and BigTech companies to banks. Frost et. al (2019) described a process whereby BigTech companies start providing services in the payments space and then expand their offering to different financial services offerings, making them a significant disruptive threat.

5.3 DISCUSSION PERTAINING TO RESEARCH QUESTION 2

Managerial perceptions influence the strategy formulation process and what the focus of the strategy is (Özleblebici & ÇETİN, 2015) while also having a significant impact on how any potential partnerships form. When managers have certain biases, depending on their perceptions of the environment, this can negatively impact several elements of the strategic decision-making process (Schwenk, 1985). Testing how aligned perceptions are to the potential future state of disruption within the financial services industry, could give a view on whether there is any potential impact on strategy formulation.

Further, as seen in section 2.6., partnership between FinTech companies and banks is crucial for the survival of banks (Fasnacht, 2018) and is a good strategy to guard against disruption, especially when faced with foreign competitors (Crouse, 1991). Banks often experiment with potentially disruptive technology, however if they fail to build the capability internally, they will often use partnership or acquisition as a tool to respond to the potential disruption (Cozzolino, Verona, & Rothaermel, 2018).

5.3.1. PROPOSITION 3: PARTNERSHIP ENVIRONMENT

The importance of partnerships is supported within the findings by both FinTech and bank participants and suggests that there are advantages to be had by both FinTech companies and banks which would allow each participant in the partnership to overcome specific challenges that they face within the industry, which seem to have a very good fit between the two parties.

For FinTech companies, the findings suggest (see Table 11) that they offer a potential partnership agility, focussed development, in-depth knowledge about their specific niche, improved customer experience and next generation capabilities. Their requirements of a potential partnership would depend on the specific FinTech company, but these may include funding, support from a regulatory perspective, legitimacy in the market, and scalability.

Banks offer a broad market expertise that includes market knowledge and industry expertise, an established customer base and distribution channels, financial and technical resources and a reputation built on trust. What they could potentially require from a partnership is speed to market in niche offerings, access to niche customer bases, the ability to leverage next generation technologies and to be part of solutions that they may not be able to offer on their own due to the resource and routine rigidity they face.

However, the success of these potential partnerships would depend on the tension between the additional value each participant gains from the partnership and the cost of meeting the expectation of the other party in the relationship (Daunt & von Gehr, 1992). Because banks are shifting away from the conventional branch-oriented systems (Dapp, 2015), which is enabled through the digitalisation that has occurred in recent years which enabled new leaner business models but may impact the potential value they would be willing to provide in a potential partnership (Hirt & Willmott, 2014).

Given the challenges banks face (in terms of resource and routine rigidity), they could leverage partnerships to manage certain gaps and situations as it relates to the potential disruptive threat of new technologies (Table 11):

- Given that banks would likely not prioritise projects where it affects a niche customer segment, partnerships with a Fintech who have specific knowledge in those markets may result in a superior customer experience when considering the customer in a holistic manner. This could lead to increased customer satisfaction as a result.
- In situations where development may take long due to requiring many integrations and relationships with many parties, partnership may fast track service delivery while providing another level of scale to the FinTech company.

A good potential use case for this would be to solve for cross-border remittances in this manner.

- Given that there is not a large overlap between highly novel technological use cases and financial inclusion use cases, and the imperative of financial inclusion on a national level, collaboration could be used to co-create solutions that solve specific needs for customer who are currently underserved or not served at all, with the potential impact of increasing the overall market size and accessibility.

According to the findings, there are some practical considerations currently hindering partnerships in a South African context (Section 4.2.3.3.). These challenges include that banks and FinTech companies work at different paces, and often banks (and regulation) slow down FinTech companies which is due to vastly different processes and cultures and that banks and FinTech companies have different priorities which often leads to a mismatch in vision. The findings also suggested that there is a need for a different engagement model between banks and FinTech companies (Section 4.2.3.3.).

Globally, partnership seems to be the most common form of cooperation between banks and FinTech companies, because FinTech companies do not want to sell their innovations, which banks would often struggle to integrate fully into their main architecture. Banks prefer to manage relationships with FinTech companies within a procurement process, which reduces cost and effort, and suggests a preference for modular components and interfaces (Drasch, Schweizer, & Urbach, 2018).

The findings suggest two key case studies where banks have bought FinTech companies to serve a specific niche (SnapScan by Standard Bank and SelfPal by FirstRand), with the findings indicating (although not conclusively) mixed results on the effectiveness of the solution (see section 4.2.2.2). This could be an area for future research.

Maintaining the characteristics of a Fintech and successfully blending them with banking controls, while maintaining innovation as the goal is crucial for partnerships to succeed (Drasch, Schweizer, & Urbach, 2018). The findings indicate that a level of separation between FinTech companies and banks is important to ensure that banks

do not impose their culture, the regulatory requirements and governance processes on FinTech companies (Section 4.2.3.4.). By imposing bank values and processes on FinTech companies, they would lose their innovation potential by pushing them into a sustaining innovation cycle (Christensen, Anthony, & Roth, 2004).

This supports the idea that acquisition is not the only option when it comes to co-operation with FinTech companies, even though there may be situations where acquisition is the preferred option (for example, if a bank wants exclusive use of a specific FinTech company's technology).

Finally, the findings also suggested a potential power imbalance where banks have significant influence over decisions that affect the livelihood Fintech companies due to the significant structural power they have (Section 4.2.3.2.). The structural power of banks is due to regulation and the centrality of their position in the National Payments system.

Fintech companies are not found to silent partners within the industry, with their involvement in industry discussions becoming more prevalent and with being a key part of the financial inclusion strategy on a national level. Some of these factors may be perceived power of FinTech companies, however, the findings suggest they are able to influence both industry and banks to change, indicating an ability to apply the perceived power to realise their desired benefits (Section 4.2.4.2.). This suggests that the exploitative risk of partnering with banks may be reduced or in the process of reducing.

Banks may be in a strong position to pursue a super-app strategy due to their current wide offering covering multiple needs. This aligns well with banks ecosystem and platform strategies (see Section 4.2.2.2) and allows for partnerships with FinTech companies without imposing bank values and rigid processes on them, however, requires banks to create integration opportunities and the system capability for outside participants to publish mini-apps within the system (with rules and guidelines to ensure compliance).

In summary, both banks and FinTech companies have strengths that indicate the mutually beneficial partnership would be possible between FinTech companies and banks. When considering the requirements that each participant may have from

potential partnerships, each partnership opportunity would need to be evaluated on a case-by-case basis, while there will be instances where they align. While the model of partnership still needs further evaluation and refinement, the findings indicated that the power imbalance between FinTech companies and banks may be reducing over time, reducing the exploitation risk for FinTech companies.

Therefore, Proposition 3 is found to be supported by the findings and the discussion and therefore, if banks were to choose this pathway, the disruptive impact of the FinTech revolution may be further reduced.

5.3.2. PROPOSITION 4: ALIGNMENT OF PERCEPTIONS OF MANAGERS

Transformation of the financial services industry is considered on a spectrum, where on the one end there is no disruption to the market structures in the industry, but the dominant rules and logic is significantly changed, and on the other where not only is the dominant logic of the industry changed but also the market structures.

Within the research, the alignment of perceptions and reality was tested with the drivers of disruption between the two participant groups, in addition to testing the validity of the claim that FinTech companies are changing dominant logic, and what managers believed the degree of change that could possibly emerge within the industry. These perceptions were then evaluated compared to the document analysis, creating a triangulation between the perception of bank managers, the perceptions of FinTech managers and the document analysis.

5.3.2.1. *Perceptions regarding the drivers of innovation*

The discussion in this discussion will follow the same classification as Propositions 1 and 2 and consider the drivers of innovations from both the Fintech and bank perspectives.

Strategic choices made by FinTech companies

The strategic choices of FinTech companies were evaluated, as before, in terms of the three drivers within the conceptual framework. The findings suggested that FinTech participants placed significantly more emphasis on FinTech companies targeting underserved customers and drive financial inclusion than what was seen in the document analysis and from bank participants (Figure 29). This may suggest that

they place significant value to the role that FinTech companies play in driving financial inclusion within the market.

Participants in both groups did highlight that there are FinTech companies provide complementary and niche solutions. Bank participants, while acknowledging that FinTech companies do provide solutions that drive financial inclusion asserted that may times FinTech companies fill a niche gap that banks leave open due to development capacity constraints. They highlighted that banks would be more likely to prioritise solutions that benefit a general population than a solution specifically for a niche customer base (Section 4.2.4.1).

Participants suggested that FinTech companies use newer technological advancements to enable new business models to create superior customer experience while reducing the cost of financial services and reducing cash in the system. They further suggested that FinTech companies start with a specific niche need and solve for that customer well, and later expand their services to be more generally applicable (Figure 30).

FinTech participants assert that in order to be successful in business they need to employ superior business models that is enabled by new technology, with 88% of participants indicating that FinTech companies innovate around technology to some degree (Figure 31). These participants indicated that they use technology to create a superior customer experience and enable them to reduce processing costs due to the use of technology (Section 4.2.4.1).

Bank participants questioned the novelty of the technology that Fintech companies use (Figure 31). This may not mean that the innovation itself is not novel, but it could suggest that the technical parts of some of the innovations brought by FinTech companies would be easy to replicate for banks (Section 4.2.4.1), indicating that the innovation is driven from a business model perspective, which is aligned to the findings of the document analysis for some use cases.

FinTech companies start from a clean slate allowing them to choose to build their infrastructure around the latest technologies, e.g. cloud solutions or phone cameras (Section 4.2.4.1). For banks, some of these technologies may be easy to integrate into

their existing infrastructure (like they did with QR codes) while others would take years to enable (cloud technology).

The document analysis suggested that banks are currently essential to the value network of FinTech companies, but it's also crucial to determine how much influence they have within the network (Madhavan, Koka, & Prescott, 1998). According to participants, banks play a central role in Fintech value networks in two ways. Firstly, they play a fiduciary role when it comes to compliance and risk within the financial services industry, which is a critical to reduce fraud risk and money laundering. Secondly, they invest heavily in infrastructure through industry initiatives which benefits all participants within the industry and enables further innovation that would not have been previously possible (Section 4.2.4.1).

Participants in the fintech industry also referred to the influence banks have over FinTech companies, including influence over standard industry frameworks that are necessary for FinTech companies to scale their solutions. They also have sway over some key decisions that affect FinTech companies since banks have the power to stop transactions from happening if they deem a FinTech companies' behaviour to be too risky (Section 4.2.4.1).

At an aggregate level, FinTech participants strongly believe that FinTech companies target the lower end of the market (more so than is evidenced by document analysis), while innovation is driven by technology that enables superior business models. The role of banks was considered central, and FinTech participants raised that banks have significant influence over the strategic decisions that FinTech companies make, while acknowledging the need to comply with industry frameworks to lower risk and scale their operations.

When considering the implications of this scenario, while acknowledging that there is much more nuance within the discussion, the main element that keeps FinTech companies from creating potentially disruptive strategies is the influence banks have in regulation and industry frameworks. Even though industry disruption is not the goal, a question that could be worth asking is whether regulation limits innovation from the domestic FinTech industry with some participants suggesting that it slows down the

innovation process and may be too punitive (Section 4.2.4.3). More research on this would need to be done to conclusively understand if this is the case.

Bank participants are more aligned to document analysis and acknowledge the role of FinTech companies that target customers in the lower end of the market, while leaning more towards FinTech companies solving for a niche need that could be complementary to banking services. They question the level of novelty of the technological innovation employed by FinTech companies and believe that FinTech companies bring significant business model innovation. Bank participants further believed that banks play an important role within financial services and FinTech value networks, playing a fiduciary role that promotes stability in the financial system and ensures the safety of the end consumer while investing significantly in the development of industry infrastructure that benefits all participants.

Banks' response to the FinTech revolution

The findings suggested that banks perceive FinTech companies as both a competitor and a potential partner depending on the company. A large theme that emerged from the interview data was the changing perceptions of banks where FinTech companies are increasingly perceived as potential partners. There was no significant difference in the views of FinTech participants and Bank participants (Figure 33). This may be related to banks considering Big Tech and changing customer expectations as a bigger threat, and banks could be starting to view partnership with FinTech companies as a viable response strategy to those threats.

Participants highlighted that due to the wide range of products banks manage, it is unlikely that the bank would perceive a single FinTech as a competitor at a group level but rather may be perceived as a competitive threat to specific business lines. They asserted that each FinTech company should be considered on a case-by-case basis, and that not all FinTech companies would be a competitive threat and could instead have complementary services (Section 4.2.4.1.).

This aligns with the literature that states that due to their extensive offering, dependency on their current customer base, and obligations to their shareholders, banks have been shown to prefer projects with a more broad appeal and stronger financial business case (which aligns to the literature on resource rigidity of

incumbents (Gilbert C. , 2005)). As a result, banks would not likely be motivated to respond to very niche offerings, which makes up many of the offerings by FinTech companies, however, they may be motivated to respond to offering that target large groups that fall within their customer segments.

The findings further indicate that banks, due to their wealth in important strategic resources, should theoretically be able for banks to respond to any potential threat that FinTech companies may bring. Banks have a lot of financial and IT resources, with a large base that would enable them to scale innovations quickly and rich data lakes that could enable very strong contextual value propositions (Section 4.2.4.1.).

The findings highlighted two ways banks face resource and routine rigidity, firstly through their compliance and risk structures and secondly through their corporate culture. For a bank, the most important imperative is to protect their banking licence, and with that to maintain the trust of banks within the financial system (Section 4.2.3.1. and Figure 25).

Because low trust could undermine financial stability, trust in the financial sector is essential for the financial system of a country to thrive (Guiso, 2010), and will therefore be a key priority for regulators as well. However, banks have had to put many processes in place to ensure this trust in the system is maintained, which results in a high focus on regulations and compliance, being very risk adverse and prioritising projects within the industry that would reduce risk (including fraud and money laundering). This is not something that could or should change, due to the risk associated to the economy, however, it does affect the capability of banks to respond to radical innovations that may push the boundaries of current regulation.

The corporate culture that is part and parcel of big organisations, was also indicated by the findings as significant a reason banks may be slow to respond to innovations, if they respond at all. Key themes that were raised in the analysis was that innovation is stifled by many decision makers, short-term thinking of staff and management and project-based decision making.

The reason there are so many decision makers would be because of the complexity of the decision-making process and the requirement of many perspectives, and the potential impact it could have on the organisation (Williamson, 1967). From the

findings, this seems to be the biggest contributor to how long banks take to implement solutions and would be exacerbated by the compliance imperative. It would be important for banks to find the right balance between enablement of innovation and the protection of the bank's interests.

This phenomena in large organisations, including banks (Tornjanski, Marinković, Săvoiu, & Čudanov, 2015), is well supported within the literature and is believed to be caused by incentive structures at the executive level (Sappideen, 2011) which have been found to negatively impact the investment firms will make into research and development (Demirag, 1998).

Linked to this, the findings suggested that innovations are reduced to projects that is pushed into the pipeline and measured based on implementation (on time, in budget, and in scope). This approach would make continuity easier, although it also makes it easier for projects to be scrapped, which was also highlighted in the data.

These challenges are not insurmountable, especially where the innovations are well aligned to existing resources, for example, it can be easily integrated into the existing systems while benefiting the broader customer base of the bank.

On an aggregate level, participants may not have the motivation to respond to specific FinTech companies and these competitive threats would need to be considered on a case-by-case basis, however when a threat arises banks would act. From a capability perspective, all participants believed that banks should theoretically be able to respond although it is not without challenges.

5.3.2.2. *Change in the dominant logic of the industry*

According to Skog et al. (2018), the concept of digital transformation is an ongoing process in which all industry participants benefit when the dominant logic of a given industry changes. Dominant logic is said to have changed once a solution is widely accepted by end-users and therefore rapidly imposed onto industry participants.

All participants agreed that FinTech companies are changing the way business is conducted in the financial services sector. The research's findings point to two potential signs that FinTech companies are creating a shift in the dominant logic within the South African financial services sector. Firstly, participants noted a significant

change in customer expectations for financial services in the industry. Participants indicated that this is because of the superior experience that customers experience when using products in the FinTech sector, and secondly, bank participants indicated that BigTech further plays a role in these changing expectations (Figure 35 and Figure 36).

Secondly, it suggests that FinTech companies' influence over industry discussions and regulations is growing over time, with banks accommodating the innovations from FinTech companies from an industry perspective. Given that consumers spend time on social media and other BigTech platforms, the findings also imply that BigTech has an impact on the customer expectation (Figure 35). The role of international players should not be discounted.

As a result, the claim made by Gomber et al. (2018) that FinTech companies transform the dominant logic within financial services with new services and business models is supported within the South African context, and managers' perceptions of FinTech companies changing the dominant logic within the sector are consistent with what is expected from literature.

This does not exclude banks from changing the dominant logic within the industry, which have been done before, for example, bank invest billions of Rands on loyalty programmes (Mackay & Major, 2017) based on the introduction of behavioural loyalty programmes that soon became a hygiene factor. It does, however, indicate that FinTech companies are an important source of change for the industry.

Due to the two criteria that determine an innovation's viability for market diffusion — technological and financial feasibility and compatibility with existing institutional and technological frameworks (Skog, Wimelius, & Sandberg, 2018) — FinTech companies may be uniquely positioned to introduce certain innovations (especially in niche areas). These innovations may not be viable for banks due to their higher financial return requirement and stricter governance processes. This change in dominant logic would suggest new challenges and bring opportunities that all industry participants can use as a source of new innovation (Skog, Wimelius, & Sandberg, 2018).

Therefore, a change in dominant logic of the industry could be seen as a positive occurrence that fosters new innovation that improve the industry to the benefit of customers and the economy.

5.3.2.3. *Perceptions on FinTech companies potentially disrupting banks*

The analysis of Research Question 1 determined that there may a low likelihood that domestic FinTech companies will have a disruptive impact that will significantly change market structures within the industry, which is supported by managers perception of a potential future scenario.

Most of the participants (80%) indicated that they believed banks will still be relevant in the future, but all agreed that the industry will look much different (Figure 37). Bank participants banks as institutions will look different as they respond and adapt to new technologies with updated strategies. It is also suggested that banks may lose market share in certain business lines and therefore would respond with many pursuing a larger eco-system strategy and offering services that is relevant to more aspects of customers lives to maintain profitability and growth. Banks are believed to remain trusted by consumers with large and important transactions (Figure 38).

FinTech participants agreed with this, although they more strongly indicated that over time, more industry players will become dominant, and consumers will transact with multiple different players (Figure 38).

Overall, the findings suggest that a potential outcome could be that there are more dominant players within the industry and that some Fintech companies may become banks, and the current banks would lose market share in certain lines while sharing the competitive space (Figure 38). History supports this view with the case of Capitec, who is now considered one of the dominant banks (Vermeulen, 2018), without having caused any of the previously big four banks to fail and with all of them still experiencing growth over the past three years post COVID-19 (Figure 40).

If it is assumed that Fintech companies who target non-consumption and low-end market segment that are underserved would most likely be the companies to gain dominance (based on the theory of disruption (Christensen, Anthony, & Roth, 2004)), it could be argued that the overall market will be bigger because more customers

would have access to financial services and more cash would be digitised, which is indicated by the increase in deposits held in banks over time (Genesis Analytics, 2022) (Figure 39).

The findings further suggested that regulation and how that changes will have a significant impact on what a potential future scenario could be depending on whether regulation favours a specific party and how regulation evolves for specific technologies. Banks still play a significant fiduciary role for the industry, which means that they will also continue to still have relevance in this regard to ensure risk measures are sufficient (Section 4.2.4.3.). This aligns to previous discussions where regulation influences how central banks are to the value networks of FinTech companies, playing this important fiduciary role, however, changes in power dynamics could significantly impact this.

Participants maintained that regulators should avoid over-regulation that hinders innovation within the industry, while keeping up to date with what the impact of new technologies have on the market and regulatory environment. Bank participants further indicated that regulatory reform is required to ensure that banks are able to compete with FinTech companies effectively (Section 4.2.4.3.).

5.3.2.4. *Summary of the discussion pertaining to Proposition 4*

During the discussion regarding Research Question 1, it was determined that domestic FinTech companies are unlikely to cause disruption to banks with the current trends seen, although this does not preclude the possibility of disruption by international Fintech or BigTech companies or of any future innovations. Due to partnerships being a valuable strategy to reduce the effect of disruption (Crouse, 1991), it has been proposed that there could exist potential synergies between banks and FinTech companies, albeit with a need for reevaluating the current engagement model. Partnerships between FinTech companies and banks could improve the domestic competitiveness in the global arena. The discussion regarding Proposition 4 would support this view.

Managers are quite closely aligned to the overall findings regarding a potential future scenario, however, there are slight differences in the perceptions of the underlying

drivers of disruption. Given this is critical that, to help FinTech companies and banks meet their goals, to develop a nuanced view of what is required.

FinTech companies, wanting to create new markets and drive financial inclusion, may want to consider whether creating competing or complementary value propositions would create more longevity, or whether there is technologies not used by banks that enable significant cost reduction are viable and what the role of banks should be in their operations.

Banks could use the information to better evaluate whether a FinTech company is a potential competitive threat, or whether they are a good fit for a potential partnerships, and ensure that, given FinTech companies should be considered on a case-by-case basis, that they respond early enough to ensure long term competitiveness.

In this way, banks and FinTech companies have the opportunity to make strategic decisions that benefit the industry as a whole, free from the influence of any perceived threats and can foster a collaborative environment that could ensure that the industry protects itself from external competitive threats (e.g., International BigTech firms).

Even though there are some differences in perceptions in the underlying drivers of innovation, on an aggregate level, the views of managers and banks and FinTech companies are not so significantly different to each other or to the documents analysis, which could indicate that Proposition 4 is more likely to be supported than not.

Due to dynamic nature of the environment, it is imperative to maintain and provide managers with current and readily accessible information that facilitates an accurate understanding of the environment. As the dynamic nature of the environment necessitates constant adaptation, it becomes imperative for managers to continually reassess their perceptions of the market and its potential future outcomes, considering the influence of diverse factors.

5.3.3. SUMMARY OF THE DISCUSSION PERTAINING TO RESEARCH QUESTION 2

During the discussion of Research Question 1, it was determined that FinTech companies may not likely pose a completely disruptive threat to banks. However, from the document analysis it was shown that FinTech companies provide value to the

financial services industry by driving increased customer service, especially for specific niche requirements, and by driving financial inclusion and increased digitisation of cash transactions (e.g., the mobile money and merchant services use-cases). Due to this value, it is important for policy makers and the industry leaders to cultivate this value by growing the FinTech sector, driving innovation and customer benefit further.

During the discussion of Propositions 3 and 4, as part of Research Question 2, it was indicated that there is a symbiotic relationship between FinTech companies and banks where there could be mutually beneficial relationship that could benefit both parties, but that work still needs to be done in refining a working model with power imbalances considered in any negotiations.

5.4 SUMMARY OF THE DISCUSSION

This chapter undertook an analysis and discussion of the factors that drive disruption and the extent to which managers' perceptions align with the research questions and propositions of the study. The evaluation of the disruptive potential of FinTech companies necessitates case-by-case analysis, and Propositions 1 and 2 were not found to be convincingly supported within this research. Nevertheless, when considering the industry, it has been determined that South African banks are unlikely to experience disruption from domestic FinTech companies. Moreover, establishing partnerships between FinTech companies and banks in the areas where banks currently face the most risk of disruption could reduce the risk significantly.

Propositions 3 and 4 were found to be supported within the research, and the results of the study provided evidence that FinTech companies are altering the prevailing dominant logic within the industry, and that FinTech companies may pursue novel innovations that traditional banks may not typically undertake due to resource dependence and routine rigidity. The perceptions of managers were found to be in general alignment with the findings of Research Question 1, with slight misalignments on the drivers of innovation, suggesting that managers within the industry do not have outrageously incorrect assumptions clouding strategy making decisions but could benefit by adding nuance within decision making. Additionally, a symbiotic relationship between FinTech companies and banks is indicated to be possible and should be considered on a case-by-case basis.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter will provide an overview of the important research findings pertaining to the research aims and research questions introduced in Chapter 1, in addition to their contribution to literature and stakeholders. The study's limitations and potential areas for further research will also be reviewed.

The objective of this study was to examine the potential ramifications of the FinTech revolution on the financial services sector, as well as the potential disruptive effects that may arise from the emergence of FinTech companies. The overall aim of the study was to address the uncertainty within the industry that causes concerns for managers at banks around the potential threat that FinTech companies may have within the industry.

A mismatch between academic research and research from business literature was seen, where academic literature finds that banks work primarily with banks to improve financial inclusion and business literature indicate a large potential disruptive effect. Understanding the impact of the FinTech revolution is critical to enable sound strategic decision making by banks and FinTech companies and provide a clearer direction for these companies when assessing potential partnerships.

6.2 MAJOR FINDINGS

The results of the study indicate that domestic FinTech companies are not expected to cause significant disruption to South African banks and that banks will remain relevant in the future although the landscape may look significantly different through an altered dominant industry logic.

Furthermore, the establishment of partnerships between local FinTech companies and banks may present mutually beneficial opportunities that have the potential to assist both parties in addressing significant challenges they encounter. This may also have the added benefit of reducing the disruptive threat to banks, while potentially safeguarding both FinTech companies and banks from external threats, even though future research may be needed to confirm this as a strategy.

There is a high degree of convergence between the perceptions of managers regarding the potential state of disruption within the industry and with slight misalignment in the drivers of disruption indicated by literature on the subject and document analysis. This suggests that both banks and FinTech companies have the potential to make strategic choices that can positively impact the industry, without being influenced significant misperceptions.

While considering potential partners on a case-by-case basis, there is the potential to foster a collaborative environment that could benefit the industry by promoting the mutual growth and prosperity of both FinTech and bank participants. This symbiotic relationship ultimately benefits consumers and society at large, especially in the case where FinTech companies solve for niche issues and customers.

6.3 KEY CONCLUSIONS OF THE STUDY

To address the research aims, the study formulated two primary research questions and five propositions, the significant findings of which will be summarised in this section.

6.3.1. RESEARCH QUESTION 1

Research Question 1: *Are there any signals within the financial services industry that indicate that the FinTech industry could have a potentially disruptive impact on Banks?*

The conceptual framework presents two fundamental propositions that offer valuable insights into the research question at hand which are contingent upon the strategic decisions and responses of industry participants, in this case banks and FinTech companies.

More specifically, the study considered the strategic decisions regarding the innovation, including the target market, innovation type and the chosen value network of the FinTech company (Proposition 1). Secondly, the motivation and capabilities that banks possess respond to any disruptive threat (Proposition 2) was examined.

The findings indicated that the disruptive threat of Fintech companies need to be considered on a case-by-case basis, and that even though there are innovations that target low-end market disruptions, these innovations may not incompatible with current bank infrastructure, in addition to banks needing to be part of the value network of

Fintech companies due to regulations that drive the stability of the financial services sector.

Furthermore, the findings suggested that banks have responded to most of the new innovations brought by Fintech companies and have therefore demonstrated their motivation and ability to respond to the innovations brought to market thus far. Responses by the banking sector is not limited to developing solutions internally, but also includes partnerships and separate incubator units, depending on the use case and the compatibility with current resources.

Blockchain technology was found to be an objectively novel innovation in the payments sector that seems to be incompatible with bank processes due to its decentralised nature. The research showed that there are still significant developments in the regulatory framework of the technology within the payment sector and regarding the diffusion of this technology to the lower end of the market. However, this is an area where banks should consider as a future potential threat given global use cases (including cross-border remittances).

6.3.1.1. *Proposition 1: The innovation target of FinTech companies*

Proposition 1: FinTech companies are entering the market with technological innovation aimed at the lower end and/or new markets of the financial services market and using completely distinct value networks (where banks are not central).

For innovation by FinTech companies to have a high potential disruptive effect, the literature indicates that the three elements within the proportion must support a disruptive environment at the same time. In other words, to have a disruptive effect, any one FinTech company must: Firstly, target customers at the low-end of the market or target customers that the bank does not currently target. Secondly, the technological base employed must be radically different and incompatible with the current infrastructure and business model of banks. Finally, FinTech companies need to operate in separate value networks to banks.

The discussion did indicate two potential scenarios where FinTech companies are making the right strategic choices to become potentially disruptive. Cross-border remittances seem to be a sector of the payments market that banks have not yet been

able to replicate, however, they could do so through partnerships. Blockchain technology, although another sector that in future could create innovations that are potentially disruptive, is still very uncertain in terms of the regulatory environment and diffusion. Therefore, disruption was found to be unlikely with the current information available. Therefore, Proposition 1 was found not to be supported convincingly within the research findings. Key findings related to each driver is summarised below:

Target market of the FinTech company

The findings suggest that the majority of FinTech companies engage in innovation targeted towards specific market niches that have been overlooked by traditional banks and compete with banks by providing offering an enhanced customer experience to customers. Some FinTech companies offer their services to financial service providers (FSPs), as well as aspiring FSPs. It is important to note that these companies alone do not possess disruptive capabilities. Instead, they necessitate collaboration with FSPs, who can leverage the new technology provided by the FinTech company to construct disruptive business models.

There are some FinTech companies that aim to increase financial inclusion, making up 24% of the FinTech population under study. Therefore, that it is true that (some) FinTech companies do target customer segments at the low-end market segments and those who lack access by current financial services.

Type of innovation by FinTech companies

Innovation from FinTech companies is a combination of both technological innovation and business model innovation. The findings suggested that the use of newer technology and technological innovation enabled business model innovation by FinTech companies.

The findings indicated that, even though there may be significant technological and business model innovation implemented within the FinTech sector, for the use-cases where FinTech companies target the low-end of the market the findings indicated that they are not technologically novel enough to be incompatible with current bank infrastructure.

FinTech company value networks

It has been observed that FinTech companies operate within value networks in the payments sub-sector that overlap with banks. This overlap is primarily attributed to regulatory requirements that mandate the integration to at least one bank in order to facilitate transactions. The reason for this is that banks are the sole entities eligible to be regarded as settlement partners within the National Payments System, as well as the only parties authorised to hold deposits on behalf of others.

Furthermore, the findings suggested that banks are central participants within FinTech value networks, indicating that they may have significant influence over decisions that have implications for FinTech companies. This includes the influence banks have over the establishment of standard industry frameworks, which FinTech companies must comply with to scale their operations. Banks are recognised for their significant fiduciary role in managing risk and ensuring compliance, particularly within the industry context.

6.3.1.2. *Proposition 2: The motivation and capabilities of banks to respond*

Proposition 2: Banks do not have the motivation and the capabilities required to respond to the potentially disruptive innovation emerging from the FinTech sector.

The ability for banks to respond to potentially disruptive technologies is contingent upon their motivation to respond to the disruptive threat and their capability to do so effectively. The findings suggest that banks may have both the motivation and capability to respond to potentially disruptive threats, and therefore, Proposition 2 is not supported within the research and therefore rejected and is summarised below:

The intersection between motivation and capability

The results indicate that banks evaluate FinTech companies individually to form an assessment regarding their likelihood as disruptive threats. Moreover, it appears that banks exhibit a greater level of anxiety regarding the impact of evolving customer expectations compared to their level of concern towards domestic FinTech companies operating in the payments sub-sector. In addition, the results suggest a changing narrative in which banks are increasingly recognising FinTech companies as potential collaborators, enabling them to maintain competitiveness within a global market.

The findings indicated that banks use a multitude of strategies to respond to potential disruptive threats, including the FinTech revolution, both from an overarching strategy perspective and from an individual use case perspective. The strategic prioritisation of low-end market segments and unbanked customers by banks may be influenced by the national-level emphasis on financial inclusion and the significant fixed cost associated with infrastructure. This, in turn, was indicated as potentially enhancing banks' motivation to respond to innovations within this sector.

The study indicates that banks have responded to the use cases targeting low-end customer segments, even though there are still some use cases where they still need to improve, especially to solve for small international remittances. However, banks have developed their own strategies to address the rise of mobile wallets, agency banking (within their subsidiaries), QR code payments, and merchant services devices.

6.3.2. RESEARCH QUESTION 2

Research Question 2: *What is the degree of convergence between the perceptions of bank and Fintech company managers and the potential state of disruption in the financial services industry?*

The development and focus of strategy can be influenced by the perceptions of managers. When managers possess biases stemming from their environment, this can have detrimental effects on various processes involved in strategic decision-making. The results indicate that there is alignment between the perspectives of managers and the outcomes of disruption, articulated through Proposition 4. This mitigates the negative impacts of wrong assumptions on the strategy development process, which could enable a more collaborative environment.

Further, the research indicated that banks and FinTech companies each have unique strengths and challenges they face within the market and that there is a potential symbiotic relationship between them to overcome these challenges, as articulated through Proposition 3. The findings suggest that each potential partnership should be considered on its own merits, considering the worth of what is acquired in the partnership versus the cost of providing for the requirements of the potential partner.

6.3.2.1. Proposition 3: Partnership opportunities

Proposition 3: Bank and Fintech companies have a symbiotic relationship that is conducive to mutually beneficial partnerships that could protect banks from disruption.

The literature presents partnership as a feasible strategy for incumbents to mitigate the threat of disruptive technologies. However, the effectiveness of partnership relies on three key elements. Firstly, it is important to consider the individual strengths that each participant brings to the partnership. Additionally, it is crucial to analyse the specific requirements that each party has from the partnership. Lastly, it is essential to analyse the impact of power dynamics on the overall dynamics of the partnership.

The results of the study provide support for Proposition 3, indicating that even though each potential partnership should be evaluated on a case-by-case basis, there is clear benefits to be realised by both FinTech companies and banks through partnerships. This is due to the respective strengths of FinTech companies and banks, which exhibit a favourable alignment.

Banks bring a wealth of broad industry knowledge and experience, have established customer bases and data and resources that a FinTech would not have access to. However, they are heavily constrained by routine and resource rigidity that makes it difficult to provide for niche needs or use and implement novel technologies on current systems. FinTech companies bring focussed development efforts, agility, newer technology and usually a niche market speciality that banks may find difficult to create on their own. However, they are constrained by limited resources and require legitimacy and scale for their innovations.

The findings do indicate that the industry has encountered certain difficulties in establishing successful partnerships thus far, and a new engagement model is required to get the most value from these relationships. Tensions may arise in partnerships when there is a discrepancy between the perceived value that participants derive from the partnership and the cost (financial and strategic) required to meet the expectations of the other party.

The findings indicate the potential existence of a tension when the FinTech partner requires the utilisation of bank points of presence. The reason behind this could be

attributed to banks adopting more streamlined business models to minimise overall costs. Consequently, they are less inclined to increase the volume of transactions processed through costly infrastructure.

The findings suggest that maintaining a degree of process separation between FinTech companies and banks is potentially crucial, particularly in cases where the innovation is potentially disruptive. The purpose of this is to prevent banks from imposing their cultural, governance, and regulatory frameworks onto FinTech companies. This suggests that acquiring a FinTech company is not the only approach to be considered when considering collaboration.

The findings further suggest that the perceived power of FinTech companies has led to observed changes within the sector, which in turn has contributed to a reduction in power imbalances between FinTech companies and banks. This has the potential to facilitate a greater degree of equity within partnerships, lessening the exploitive risk for FinTech companies.

6.3.2.2. *Proposition 4: Manager Perceptions*

Proposition 4: Managers at banks and FinTech companies are aligned to the outcomes of the FinTech revolution as indicated by the signals withing the industry.

The findings indicate an alignment between the perceptions of managers and the outcomes of disruption within the industry although there is slight misalignment in the drivers of disruption, indicating that strategic decisions are not hindered by significant misperceptions. The findings did suggest that more emphasis is placed on innovations that could potentially be disruptive, which is as expected by both parties. FinTech companies seemed to focus on the benefits of the innovation to society and banks effectively focussed on the potential threat to the banks allowing them to respond effectively.

The findings indicated an alignment with the current literature regarding how banks are constrained by resource and routine rigidity, however, they have managed to respond effectively to the major disruptive threats within the industry. The research indicated that the rules of engagement within the industry is changing with FinTech companies pushing the boundaries and changing customer expectations and

indicated that in future the financial services industry will look much different and may have more dominant players, even though banks will still play an important part. Banks were seen to create strategies that allow them to evolve with the FinTech revolution in addition to playing an important fiduciary role within the industry to reduce the overall risk of new innovations to the sector and to customers.

6.4 RECOMMENDATIONS FOR BUSINESS / STAKEHOLDERS

The findings indicated that 24% of FinTech companies in the payments sector focussed on providing services to the low end of the financial services market. The mission of these companies is a crucial one, that banks also strive towards. The findings further suggested that the potential disruptive scenario is not indicated, which should further allow banks and FinTech companies to collaborate more freely, especially to promote financial inclusion.

For FinTech companies, choosing the right target market, technology and value network are important decisions that affect the impact of the company within the market. Focussing on financial inclusion, where customers are underserved or not served at all, and new, next generation technology that is not easily replicable would be important for longevity, even if the decision is made to partner. Regulations necessitate the involvement of banks in a fiduciary capacity, and planning for that is important during business set-up.

To safeguard against disruption, banks could have a specific strategy to grow and partner with FinTech companies to solve for key niche needs that they may not have capacity for within their development timelines. This strategy could also assist banks in creating new value to clients using new technology, thereby closing potential gaps where they are open to disruption.

In addition, when a specific disruptive threat is identified, they have many options as to how to respond to that innovation, including to disrupt the potential disruptor and change their business model or technologies, partnership or by buying the potential disruptor. However, care should be taken to keep the processes separate enough so that the start-up is not stifled by the routine and resource rigidity that banks have.

6.5 LIMITATIONS OF THE STUDY

This research was focussed on the domestic FinTech payment sector and did not include cross sub-sector analysis, or an analysis on the impact of international companies on the banking sector. Further, the study was done at one point in time, and therefore could be improved by looking at data over time to see how this impacts the findings.

The study included 15 interview respondents, which could be expanded given more time and resources. FinTech respondents tended to be from larger, more established FinTech companies, resulting in a potential skew of that information. However, this was managed by the use of document analysis as a triangulation method. To further improve generalisability, a quantitative study could be conducted through a more standard questionnaire that could be analysed over a bigger sample.

Information used in the document analysis was based on what was publicly available at the time of the research and could change over time and any confidential company information regarding the strategies and motivations of companies were not available. Further, this could mean that FinTech companies that have failed, and therefore have no information available, was not included in the study.

6.6 SUGGESTIONS FOR FUTURE RESEARCH

Due to the limitations and the scope of the study, the following could be interesting areas for future research within the topic:

- Larger study on the entire FinTech industry within South Africa to obtain a cross sub-sector view.
- Analysing the intersection between new technological innovation in the financial services industry and financial inclusion.
- Analysis on the impact of regulation, and the centrality of banks within the value network of FinTech companies on the innovation output of the industry.
- Deeper analysis on what constitutes a beneficial partnership between FinTech companies and banks.

- Analysing how banks and FinTech companies integrate where a bank has acquired the FinTech company, and what are the key behaviours that influence the potential success of the partnership.
- An analysis of the power dynamics between FinTech companies and banks and how that impacts the innovation output.
- Analyse the impact of non-traditional corporate participants (including BigTech) on the competitiveness of banks and FinTech companies.
- Longitudinal study that examines how the industry, and the participants in the industry, evolve over time. In addition to examining how the disruptive threat changes given new technologies and use-cases that develop.

6.7 CONCLUSION

The study indicated that domestic Fintech companies in the payments sector do not currently pose a significant disruptive threat to banks, and that banks play an important fiduciary role within the sector while also responding to the changing environment to remain competitive. Further, the study indicated that there is a potential symbiotic relationship between FinTech companies and banks that could allow for potential partnerships that could reduce the disruptive threat banks face from new technologies.

Bibliography

- Barooso, M., & Laborda, J. (2022). Digital transformation and the emergence of the Fintech sector: Systematic literature review. *Digital Business, Volume 2, Issue 2*.
- Deloitte. (2018). *Disruptive digital technologies in the financial services industry*. Retrieved from Deloitte: <https://www2.deloitte.com/us/en/pages/financial-services/articles/disruptive-digital-technologies-in-the-financial-services-industry.html.html/#:~:text=From%20customer%20service%20chatbots%20to,changing%20the%20financial%20services%20industry>.
- FinMark Trust. (2018). *How South Africans are leveraging informal and formal financial markets: FinScope SA 2018 Fact Sheet*. Retrieved from FinMark Trust: https://finmark.org.za/system/documents/files/000/000/196/original/FMT_Finscope_factsheet.pdf?1601972787
- FinMark Trust. (2019). *FinScope South Africa 2019 Pocket Guide*. Retrieved from FinMark Trust: https://finmark.org.za/system/documents/files/000/000/242/original/FinScope_SA_2019_Pocket_Guide_2020.pdf?1604679365
- FinMark Trust. (2021). *Virtual Launch of FinScope MSME South Africa 2020 Results*. Retrieved from Finmark Trust: <https://www.finmark.org.za/Publications/FS%20MSME%202020.pdf>
- PWC. (2016). *Financial Services Technology 2020 and Beyond: Embracing disruption*. Retrieved from PWC: <https://www.pwc.com/gx/en/financial-services/assets/pdf/technology2020-and-beyond.pdf>
- Disrupt Africa. (2022). *The South African Startup Ecosystem Report*. Retrieved from Disrupt Africa: <https://disruptafrica.gumroad.com/l/qskszl>
- Rand Merchant Bank. (2019). *The SA FinTech In Motion Report*. Retrieved from Rand Merchant Bank: <https://www.rmb.co.za/files/pdf/other/fintech-report.pdf>
- MTN. (2022). *MTN Mobile Money*. Retrieved from MTN: <https://www.mtn.co.za/Pages/momo-mobile-money.aspx>
- FedGroup. (2022). *Impact Farming*. Retrieved from FedGroup: <https://www.fedgroup.co.za/ventures/impact-farming>
- Shoprite. (2022). *Shoprite Money Market Account*. Retrieved from Shoprite: <https://www.shoprite.co.za/money-market/account/>
- Zalan, T., & Toufaily, E. (2017). *Contemporary Economics; Vol 11, Issue 4*, 415 - 430.
- EY Financial Services. (2019). *Dutch FinTech census 2019*. Retrieved from EY Financial Services: https://assets.ey.com/content/dam/ey-sites/ey-com/nl_nl/topics/financial-services/ey-dutch-fintech-census-eng.pdf
- Qamruzzaman, M., & Wei, J. (2019). Financial Innovation and Financial Inclusion Nexus in South Asian Countries: Evidence from Symmetric and Asymmetric Panel Investigation. *International Journal of Financial Studies*.
- Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2009). Access to financial services: measurement, impact, and policies. *World Bank Res Observ* 24(1), 119 - 145.
- Demir, A., Pesqué-Cela, V., Altunbas, Y., & Murinde, V. (2022). Fintech, financial inclusion and income inequality: a quantile regression approach. *The European Journal of Finance, Vol. 28, no. 1*, 86–107.
- Schumpeter, J. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard Economic Studies.
- Malerba, F., & Orsenigo, L. (1995). Schumpeterian patterns of innovation. *Cambridge journal of economics* (0309-166X), 19 (1), 47.

- Mthanti, T., & Ojah, K. (2017). Entrepreneurial orientation (EO): Measurement and policy implications of entrepreneurship at a macroeconomic level. *Research Policy* (46), 724 - 739.
- Schumpeter, J. A. (1942). *Socialism, Capitalism and Democracy*. New York: Harper and Brothers.
- Gallouj, F., & Savona, M. (2010). Towards a theory of innovation in services: a state of the art. In F. Gallouj, & F. Djellal, *The Handbook of Innovation and Services: A Multi-disciplinary Perspective* (pp. 27 - 48). Cheltenham, UK; Northampton, MA, USA: Edward Elgar Publishing Limited.
- Pavitt, K., Robson, M., & Townsend, J. (1986). Technological accumulation, diversification and organisation in UK companies. *Management Science*, 35, 81 - 99.
- Saviotti, P., & Metcalfe, J. (1984). theoretical approach to the construction of technological output indicators. *Research Policy*, 141-151.
- Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy*, 26, 537-556.
- Christensen, C. M., Raynor, M. E., & McDonald, R. (2015, December). *What is disruptive innovation?* Retrieved from Harvard Business Review: <https://hbr.org/2015/12/what-is-disruptive-innovation>
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive Innovation: An Intellectual History and Directions for Future Research. *Journal of Management Studies* 55.
- Adner, R. (2002). When are technologies disruptive? A demand-based view of the emergence of competition'. *Strategic Management Journal*, 23, 667 - 88.
- Adner, R., & Zemsky, P. (2016). A demand-based perspective on sustainable competitive advantage. *Strategic Management Journal*, 27, 215 - 39.
- Christensen, C., & Raynor, M. (2003). *The Innovator's Solution: Creating and Sustaining Successful Growth*. Boston: Harvard Business School Press.
- Christensen, C. M., Anthony, S. D., & Roth, E. A. (2004). *Seeing What's Next: Using the Theories of Innovation to Predict Industry Change*. Boston, MA: Harvard Business Press.
- Gilbert, C. (2006). Change in the presence of residual fit: Can competing frames coexist? *Organization Science*, 17, 150 - 67.
- Charitou, C., & Markides, C. (2003). Responses to disruptive Strategic innovation. *MIT Sloan Management*, 44(2), 55-63.
- Chowdhury, M. (2014). Interpretivism in Aiding Our Understanding of the Contemporary Social World. *Open Journal of Philosophy*, Vol.4 No.3(2014), Paper ID 48986, 432-438.
- McKinsey & Company. (2016). *A brave new world for global banking*. Retrieved from *McKinsey global banking annual review*. Retrieved from McKinsey & Company: <https://www.mckinsey.com/~media/McKinsey/Industries/Financial%20Services/Our%20Insights/A%20brave%20new%20world%20for%20global%20banking/A-brave-new-world-for-global-banking.pdf>
- Morgan, P. (2022). Fintech and Financial Inclusion in Southeast Asia and India. *Asian Economic Policy Review Volume* 17, 183-20.
- Lant, T., Milliken, F., & Batra, B. (1992). The role of managerial learning and interpretation in strategic reorientation: An empirical exploration. *Strategic Management Journal*, 13, 585-608.
- Gilbert, C. (2005). Unbundling the structure of inertia: Resource versus routine rigidity. *Academy of Management Journal*, 48, 741-763.

- Soumonni, O., & Muchie, M. (Forthcoming early 2023). Endogenous Knowledge and Secondary Innovation in the age of COVID-19: A Global South Civilisation Dialogue. *SCIENCE, TECHNOLOGY AND SOCIETY SPECIAL ISSUE*.
- Pavitt, K. (1984). Sectoral patterns of technical change: towards a taxonomy and a theory. *Research Policy*, 13, 343-374.
- Miozzo, M., & Soete, L. (2001). Internationalisation of services: a technological perspective. *Technological Forecasting and Social Change*, 67 (2), 159-185.
- Skog, D. A., Wimelius, H., & Sandberg, J. (2018). Digital Disruption. *Business & information systems engineering*, 60(5), 431–437.
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, 35:1, 220-265.
- Danneels, E. (2004). Disruptive Technology Reconsidered: A Critique and Research Agenda. *Journal of Product Innovation Management* 21(4), 246 - 258.
- Markides, C. (2006). Disruptive Innovation: In need of a better theory. *Journal of Product Innovation Management* 23, 19 - 25.
- Markides, C., & Geroski, P. (2005). *Fast Second: How Smart Companies Bypass Radical Innovation to Enter and Dominate New Markets*. San Francisco: Jessey-Bass.
- Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). DIGITAL INNOVATION MANAGEMENT: REINVENTING INNOVATION MANAGEMENT RESEARCH IN A DIGITAL WORLD. *MIS Quarterly Vol. 41 No. 1*, 223-238.
- Chesbrough, H., & Rosenbloom, R. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and corporate change, Volume 11, Issue 3*, 529-555.
- Utterback, J. (1994). *Mastering the dynamics of innovation: how companies can seize opportunities in the face of technological change*. Boston: Harvard Business School Press.
- Klepper, S., & Simons, K. (2000). The Making of an Oligopoly: Firm Survival and Technological Change in the Evolution of the U.S. Tire Industry. *Journal of Political Economy*, vol. 108, no. 4, 728 - 760.
- Peppard, J., & Rylander, A. (2006). From Value Chain to Value Network: Insights for Mobile Operators. *European Management Journal Vol. 24*, 128-141.
- Christensen, C., & Rosenbloom, R. (1995). Explaining the attacker's advantage: technological paradigms, organizational dynamics, and the value network. *Research Policy* 24, 233-257.
- Afuah, A., & Bahram, N. (1995). The hypercube of innovation. *Research Policy* 24, 51 - 76.
- Kim, W., & Mauborge, R. (2004). Blue Oceans strategy. *Harvard Business Review*, 82(10), 76-85.
- Buisson, B., & Silberzahn, P. (2010). Blue Ocean or fast-second innovation? : A four-breakthrough model to explain successful market domination. *International Journal of Innovation Management* 14(03), 359-378.
- Madhavan, R., Koka, B. R., & Prescott, J. E. (1998). Networks in transition: how industry events (re)shape interfirm relationships. *Strategic management journal, Volume 19, Issue 5*, 439–459.
- McGahan, A. M. (2004). How industries change. *Harvard Business Review*, 86-94.
- Habtay, S. R. (2012). A Firm-Level Analysis on the Relative Difference between Technology-Driven and Market-Driven Disruptive Business Model Innovations. *CREATIVITY AND INNOVATION MANAGEMENT, Volume 21 (3)*, 290 - 303.
- Cziesla, T. (2014). *A Literature Review on Digital Transformation in the Financial Service Industry*. Bled eConference.

- Harriss, L. M., & Bayliss, S. (2016). *Financial Technology (FinTech)*.
- Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). The Evolution of Fintech: A New Post-Crisis Paradigm? *Arner, Douglas W. and Barberis, Janos Nathan and Buckley, Ross P., The Evolution of Fintech: A New Post-Crisis Paradigm? (October 1, 2015). University of Hong Kong Faculty of Law Research Paper No. 2015/047, UNSW Law Research Paper No. 2016-62, Available .*
- Makina, D. (2019). The Potential of FinTech in Enabling Financial Inclusion. *Extending Financial Inclusion in Africa*.
- Mavlutova, I., Volkova, T., Spilbergs, A., Natrins, A., Arefjevs, I., & Verdenhofs, A. (2021). The Role of Fintech Firms in Contemporary Financial Sector Development. *WSEAS Transactions on Business and Economics Volume 18*.
- Joy, B., & Thomas, A. E. (2023). The Ecosystem of FinTech Companies in India: A Futuristic Perspective. *International Journal of E-Business Research, Volume 18 Issue 1*.
- Mindgate. (2023, June). *What Is A Payment Aggregator And Why Would You Need One*. Retrieved from Mindgate Solutions: <https://www.mindgate.solutions/what-is-a-payment-aggregator-and-why-would-you-need-one/#:~:text=In%20simple%20terms%2C%20a%20payment,bank%20or%20financial%20services%20provider.>
- Digipay.guru. (2023, January). *Everything you need to know about agency banking*. Retrieved from Digipay.guru: <https://www.digipay.guru/blog/all-you-need-to-know-about-agency-banking/#:~:text=Agency%20banking%2C%20also%20known%20as,wait%20at%20a%20bank%20branch.>
- Faden, M. (2017). *Coming in 2017: "Live" Blockchain Deployments Promise to Accelerate Payment Processing Services and Trade Finance*. Retrieved from American Express: <https://www.americanexpress.com/us/foreign-exchange/articles/blockchain-to-accelerate-payment-processing-services/#:~:text=Blockchain%20technology%20promises%20to%20facilitate,as%20correspondent%20banks%20and%20clearing>
- PayNearMe. (2022, December). *Are Chatbot Payments the Future of Self-Service?* Retrieved from PayNearMe: <https://home.paynearme.com/blog/chatbot-payments-future-of-self-service/>
- PASA. (2023). *Key role-players*. Retrieved from Payments Association of South Africa: <https://pasa.org.za/national-payment-system/key-role-players/>
- PASA. (2023). *Legal and Regulatory Framework*. Retrieved from Payments Association of South Africa: <https://pasa.org.za/national-payment-system/legal-regulatory-framework/>
- Nedbank Group. (2022). *Integrated Report for the year ended 31 December 2022*. Retrieved from Nedbank: https://www.nedbank.co.za/content/dam/nedbank/site-assets/AboutUs/Information%20Hub/Integrated%20Report/2023/2022%20Nedbank%20Group%20Integrated%20Report_.pdf
- FirstRand. (2021). *CREATING VALUE THROUGH PLATFORM-ENABLED CUSTOMER ECOSYSTEMS*. Retrieved from FirstRand: <https://www.firststrand.co.za/media/investors/presentations/firststrand-ubs-conference-2021.pdf>
- Standard Bank. (2022). *Logistics and fin-tech combine to solve Africa's transport challenges*. Retrieved from Standard Bank: Newsroom: <https://www.standardbank.co.za/southafrica/news-and-media/newsroom/logistics-and-fin-tech-combine-to-solve-africas-transport-challenges>

Nedbank Group. (2021). *Ecosystems for a digital world*. Retrieved from Nedbank: [https://www.nedbank.co.za/content/dam/nedbank/site-assets/AboutUs/Information%20Hub/Corporate%20Presentations/2021/202110%20Nedbank%20Group%20UBS%20Ecosystems%20presentation%20FINAL\(A\).pdf](https://www.nedbank.co.za/content/dam/nedbank/site-assets/AboutUs/Information%20Hub/Corporate%20Presentations/2021/202110%20Nedbank%20Group%20UBS%20Ecosystems%20presentation%20FINAL(A).pdf)

Absa. (2023). *WorkInProgress co-creating innovation*. Retrieved from Absa: <https://www.absa.africa/about-us/work-in-progress/>

Timm, S. (2019). *Here are eight SA fintechs that local banks are working with*. Retrieved from Ventureburn: <https://ventureburn.com/2019/09/here-are-eight-sa-fintechs-that-local-banks-are-working-with/>

Geral, D., Tibane, B., & Kern, K. (2023). *FinTech in South Africa: overview*. Retrieved from Thomson Reuters: Practical Law: [https://uk.practicallaw.thomsonreuters.com/w-014-7399?transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://uk.practicallaw.thomsonreuters.com/w-014-7399?transitionType=Default&contextData=(sc.Default)&firstPage=true)

Baker McKenzie. (2022, August). *Regulatory and deal developments in South African fintech*. Retrieved from SA Financial Regulation Journal: <https://financialregulationjournal.co.za/2022/08/31/regulatory-and-deal-developments-in-south-african-fintech/>

Banka, H. (2014). *Journal of Payments Strategy and Systems*, Vol 7(4), 359 - 369.

GSMA. (2022). *State of the Industry Report on Mobile Money 2022*. Retrieved from GSMA: https://www.gsma.com/sotir/wp-content/uploads/2022/03/GSMA_State_of_the_Industry_2022_English.pdf

Gartner. (2021). *4 Impactful Technologies From the Gartner Emerging Technologies and Trends Impact Radar for 2021*. Retrieved from Gartner: https://www.gartner.com/smarterwithgartner/4-impactful-technologies-from-the-gartner-emerging-technologies-and-trends-impact-radar-for-2021?_its=JTdCJTlYdmlkJTIyJTlBNBJTIyN2UwYjBmYTQtMDgxZS00ZDBmLWE4ZjAtYmVIY2JlYTI2OGRkJTIyJTJDJTlYc3RhZGUlMjIIM0EIMjYbHR%2B

Gartner. (2021). *Hype Cycle for Blockchain 2021; More Action than Hype*. Retrieved from Gartner: https://blogs.gartner.com/avivah-litan/2021/07/14/hype-cycle-for-blockchain-2021-more-action-than-hype/?_its=JTdCJTlYdmlkJTIyJTlBNBJTIyN2UwYjBmYTQtMDgxZS00ZDBmLWE4ZjAtYmVIY2JlYTI2OGRkJTIyJTJDJTlYc3RhZGUlMjIIM0EIMjYbHR%2BMTY4NzI3MjY1NX5sYW5kfjFMTY0NjdfZGly

National Treasury. (2021). *An Inclusive Financial Sector for all*. Retrieved from Treasury: https://www.treasury.gov.za/comm_media/press/2020/Financial%20Inclusion%20Policy%20-%20An%20Inclusive%20Financial%20Sector%20For%20All.pdf

Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford Business Books.

Guiso, L. (2010, March). A Trust-driven Financial Crisis. Implications for the Future of Financial Markets. *EIEF Working Papers Series 1006*, Einaudi Institute for Economics and Finance (EIEF).

Williamson, O. C. (1967). Hierarchical Control and Optimum Firm Size. *Journal of Political Economy*, 75, 123 - 138.

Sappideen, R. (2011). Focusing on Corporate Short-Termism. *Corporate Governance: Comparative eJournal*.

Demirag, I. S. (1998). Boards of Directors' short-term perceptions and evidence of managerial short-termism in the UK. *European Journal of Finance*, 4, 195-211.

Gartner. (2023). *Top Strategic Technology Trends 2023*. Retrieved from Gartner: <https://emtemp.gcom.cloud/ngw/globalassets/en/publications/documents/2023-gartner-top-strategic-technology-trends-ebook.pdf>

- Genesis Analytics. (2022). *2022 Financial Sector Outlook Study*. Retrieved from FSCA - Financial Sector Conduct Authority: <https://www.fsca.co.za/Documents/FSCA%20Financial%20Sector%20Outlook%20Study%202022.pdf>
- Crouse, H. J. (1991). The power of partnerships. *The Journal of business strategy*, 12(6), 4–8.
- Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy*, 34(100), 761-799.
- Navaretti, G. B., Calzolari, G., Mansilla-Fernández, J. M., & Pozzolo, A. F. (2018). FinTech and Banking. Friends or Foes? *European Economy – Banks, Regulation, and the Real Sector*.
- Daunt, J. A., & von Gehr, G. (1992). Corporate partnering: a strategy for high technology companies. *Computer Law & Security Review, Volume 8, Issue 2*, 50-56.
- Tornjanski, V., Marinković, S., Săvoiu, G., & Čudanov, M. (2015). A Need for Research Focus Shift: Banking Industry in the Age of Digital Disruption. *Econophysics, Sociophysics & Other Multidisciplinary Sciences Journal*, 5(3), 11–15.
- Bidaul, F., & Cummings, T. (1994). Innovating through alliances: expectations and limitations. *R&D Management* 24, 1, 33 - 45.
- Oukes, T., von Raesfeld, A., & Groen, A. (2019). Power in a startup's relationships with its established partners: Interactions T between structural and behavioural power. *Industrial Marketing Management* 80, 68 - 83.
- Fasnacht, D. (2018). Open Innovation in the Financial Services. In *Open Innovation Ecosystems. Management for Professionals* (pp. 97 - 130). Springer, Cham.
- Cozzolino, A., Verona, G., & Rothaermel, F. T. (2018). Unpacking the Disruption Process: New Technology, Business Models, and Incumbent Adaptation. *Journal of Management Studies* 55:7, 1166 - 1202.
- Snihur, Y., Thomas, L. D., & Burgelman, R. A. (2018). An Ecosystem-Level Process Model of Business Model Disruption: The Disruptor's Gambit. *Journal of Management Studies* 55:7, 1278 - 1316.
- Knoben, J., & Bakker, R. M. (2019). The guppy and the whale: Relational pluralism and start-ups' T expropriation dilemma in partnership formation. *Journal of Business Venturing* 34, 103 - 121.
- Dyer, J. H., Kale, P., & Singh, H. (2004). When to Ally and When to Acquire. *harvard business review*.
- Drasch, B., Schweizer, A., & Urbach, N. (2018). Integrating the ‘Troublemakers’: A Taxonomy for Cooperation between Banks and Fintechs. *Journal of Economics and Business*, 4,(100), 26 - 42.
- Hirt, M., & Willmott, P. (2014). Strategic Principles for Competing in the Digital Age. *McKinsey Quarterly*, 1 - 13.
- Dapp, T. F. (2015). *Fintech Reloaded - Traditional Banks as Digital Ecosystems: With Proven Walled Garden Strategies into the Future*. Retrieved from Deutsche Bank Research: https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD0000000000451937/Fintech_reloaded_-_Traditional_banks_as_digital_ec.pdf;REWEBJSESSIONID=CF3AB0916099765A11269AF1F608EB5E?undefined&reload=hubHHQifwLRhSVUZxvL12YrKZ3~Wk7aD9O7oJZ7WZ2eRve8m99oA15OU4rpu/FHN
- Christensen, C. M. (1997). *The innovator's dilemma: when new technologies cause great firms to fail*. Boston, MA: Harvard Business Review Press.
- Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13, 111-125.

- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research Methods for Business Students 6th ed.* London: Pearson.
- Mfinanga, F. A., Mrosso, R. M., & Bishibura, S. (2019). Comparing Case Study and Grounded Theory as Qualitative Research Approaches. *International Journal of Latest Research in Humanities and Social Science (IJLRHSS) Volume 02 - Issue 05*, 51 - 56.
- Özleblebici, Z., & ÇETİN, S. (2015). The role of managerial perception within strategic management: an exploratory overview of the literature. *Procedia - Social and Behavioral Sciences* 207, 296 – 305.
- Schwenk, C. R. (1985). Management Illusions and Biases: Their Impact on Strategic Decisions. *Long Range Planning, Vol.18, No.5*, 74 - 80.
- Mackay, N., & Major, R. K. (2017). Predictors of customer loyalty in the South African retail banking industry. *Journal of Contemporary Management Volume 14*, 1194 - 1224.
- Vermeulen, F. (2018). How Capitec Became South Africa's Biggest Bank. *Harvard Business Review*.
- MarketScreener. (2023, June 28). Retrieved from MarketScreener: <https://www.marketscreener.com/quote/stock/JSE-LIMITED-1413379/graphics-comparison/>
- BankServAfrica. (2023). *Ownership Structure*. Retrieved from BankServAfrica: <https://www.bankserv africa.com/website/about-us/what-we-do>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77 - 101.
- GSMA. (2010, July). *Mobile Money Definitions*. Retrieved from GSMA: <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/mobilemoneydefinitionsnomarks56.pdf>
- Bankrate. (2020, Spetember). *Merchant services 101: A complete guide*. Retrieved from Bankrate: <https://www.bankrate.com/finance/credit-cards/merchant-services-a-complete-guide/>
- digiPay.guru. (2023). *Demystifying Cross Border Remittance: A comprehensive guide for MTOs*. Retrieved from DigiPay.guru: <https://www.digipay.guru/blog/cross-border-remittance-guide/>
- Investopedia. (2021). *Quick Response (QR) Code: Definition and How QR Codes Work*. Retrieved from Investopedia: <https://www.investopedia.com/terms/q/quick-response-qr-code.asp>
- Standard Bank Group. (2022, December). *Annual integrated Report*. Retrieved from Standard Bank Group: https://thevault.exchange/?get_group_doc=18/1680198603-SBG2022AnnualIntegratedReport.pdf
- The World Bank. (2023). *Remittance Prices Worldwide*. Retrieved from The World Bank: <https://remittanceprices.worldbank.org/data-download>
- African Financial Inclusion Policy Initiative. (2023, June). *DRIVING DIGITAL FINANCIAL SERVICES IN AFRICA THROUGH MERCHANT ACCEPTANCE OF DIGITAL PAYMENTS*. Retrieved from afi-global: <https://www.afi-global.org/wp-content/uploads/2023/06/Driving-Digital-Financial-Services-in-Africa-Through-Merchant-Acceptance-of-Digital-Payment.pdf>
- Gheondea-Eladi, A. (2014). IS QUALITATIVE RESEARCH GENERALIZABLE? *Journal of Community Positive Practices, XIV (3)*, 114-124.
- Crypto Council for Innovation. (2023, July). *How does Blockchain make cross-border payments better?* Retrieved from Crypto Council for Innovation: <https://cryptoforinnovation.org/what-are-cross-border-payments-and-how-do-they-work/>

APPENDIX A – List of FinTech Companies

FinTech name	Year of launch	HQ	Website	LinkedIn Profile Link
PayGate + Payfast	1999	Cape Town	www.paygate.co.za	https://www.linkedin.com/company/payfast/
Netcash	2002	Cape Town	https://netcash.co.za/about/	https://www.linkedin.com/company/netcashsa/
SureSwipe - rebranded Adumo	2008	Johannesburg	http://sureswipe.co.za/	https://www.linkedin.com/company/adumo/
Veneka	2008	Johannesburg	www.veneka.com	https://www.linkedin.com/company/veneka/
MFS Africa	2009	Johannesburg	mfsafrica.com	https://www.linkedin.com/company/mfs-africa/
PayGenius	2009	Cape Town	https://www.paygenius.co.za/	https://www.linkedin.com/company/paygenius/
DirectDebit	2010	Johannesburg	https://www.directdebit.co.za/	https://www.linkedin.com/company/direct-debit/
IMB	2011	Johannesburg	http://imb.co/	
Nomanini	2011	Cape Town	https://www.nomanini.com/	https://www.linkedin.com/company/nomanini/
Electrum	2012	Cape Town	http://electrum.co.za/	https://www.linkedin.com/company/electrum-payments/
TymeBank	2012	Johannesburg	www.tyembank.co.za/	https://www.linkedin.com/company/tyembank/
Causal Nexus	2013	Johannesburg	http://causalnexus.com/	https://www.linkedin.com/company/causal-nexus-solutions/
Peach Payments	2013	Cape Town	http://www.peachpayments.com/	https://www.linkedin.com/company/peach-payments/
SnapScan	2013	Cape Town	www.snapscan.co.za/	https://www.linkedin.com/company/snapscan/
Wallettec	2013	Cape Town	http://www.wallettec.com/	https://www.linkedin.com/company/wallettec/
Allxs	2014	Johannesburg	https://allxs.co.za/	https://www.linkedin.com/company/allxs-media/
iKhokha	2014	Durban	https://www.ikhokha.com/	https://www.linkedin.com/company/ikhokha/
Ozow (formerly I-Pay)	2014	Cape Town	https://ozow.com/	https://www.linkedin.com/company/ozowsecurepayments/
Ukheshe	2014	Johannesburg	https://www.ukheshe.com/	https://www.linkedin.com/company/ukheshetech/
VCpay	2014	Johannesburg	http://www.vcpay.co.za/	None
Whoosh	2014	Johannesburg	https://letswhoosh.com/	https://www.linkedin.com/company/whooshpayments/
Betr Finance	2015	Cape Town	https://www.betr.app/	https://www.linkedin.com/company/betrapp/
FinGo	2015	Cape Town	http://www.fingo.co.za	https://www.linkedin.com/company/digicash/
Mama Money	2015	Cape Town	https://www.mamamoney.co.za/	https://www.linkedin.com/company/mamamoney/
MaxiCash	2015	Johannesburg	http://maxicashapp.com/	https://www.linkedin.com/company/maxicash/
TradeSafe	2015	Johannesburg	https://www.tradesafe.co.za/	https://www.linkedin.com/company/tradesafe/
Walletdoc	2015	Johannesburg	https://www.walletdoc.com/	https://www.linkedin.com/company/walletdoc/
Yoco	2015	Cape Town	https://www.yoco.co.za/	https://www.linkedin.com/company/yoco/
Airbuy	2016	Johannesburg	https://airbuy.africa/	https://www.linkedin.com/company/airbuysa/
Waxed Mobile Payments	2016	Johannesburg	http://www.waxedmobile.com/	https://www.linkedin.com/company/waxed-mobile-pty-ltd/

Xago	2016	Cape Town	https://xago.io/	https://www.linkedin.com/company/xago-io/
Karri	2017	Cape Town	https://karri.co.za/	https://www.linkedin.com/company/karri/
Sasai fintech	2017	Bryanston	https://sasaifintech.com/about-us/	https://www.linkedin.com/company/sasaifintech/
Slide	2017	Cape Town	https://getslideapp.com/	https://www.linkedin.com/company/slide-financial/
Centbee	2018	Johannesburg	https://www.centbee.com/	https://www.linkedin.com/company/centbee/
My-iMali	2018	Johannesburg	https://www.my-imali.com/	https://www.linkedin.com/company/myimali/
Sticitt	2018	Cape Town	https://sticitt.co.za/	https://www.linkedin.com/company/sticitt/
6DOT50	2019	Cape Town	https://6dot50.com/	https://www.linkedin.com/company/6dot50/
Lipa Payments	2019	Johannesburg	https://www.lipapayments.com/	https://www.linkedin.com/company/lipa-payments/
Stitch	2019	Cape Town	https://stitch.money/	https://www.linkedin.com/company/stitchmoney/product/
abela	2020	Cape Town	https://abela.app/	https://www.linkedin.com/company/abela/
mojaPay	2020	Johannesburg	https://mojapay.app/	https://www.linkedin.com/company/mojapay/

APPENDIX B – List of Bank sources

First National Bank

First National Bank (2023). *First National Bank company website*. Website: <https://www.fnb.co.za/index.html>

FirstRand Bank (2022). *FirstRand Annual Integrated Report*. Website: <https://www.firststrand.co.za/media/investors/annual-reporting/firststrand-annual-integrated-report-2022.pdf>

FirstRand Bank (2021). *Creating Value Through Platform-enabled customer Ecosystems*. Website: <https://www.firststrand.co.za/media/investors/annual-reporting/firststrand-annual-integrated-report-2022.pdf>

FirstRand Bank (2019). *From guarding flamingo feathers to furthering fintech – how FNB made it to 180 years*. Website: <https://www.news24.com/fin24/from-guarding-flamingo-feathers-to-furthering-fintech-how-fnb-made-it-to-180-years-20190429>

Standard Bank

Standard Bank (2023). *Standard Bank company website*. Website: <https://www.standardbank.co.za/southafrica/personal/home>

Standard Bank (2022). *Standard Bank Annual Integrated Report*. Website: https://thevault.exchange/?get_group_doc=18/1680198603-SBG2022AnnualIntegratedReport.pdf

Standard Bank (2022). *Standard Bank Ecosystem Banking bets on SA entrepreneurs*. Website: https://thevault.exchange/?get_group_doc=18/1680198603-SBG2022AnnualIntegratedReport.pdf

Nedbank

Nedbank (2023). *Nedbank company website*. Website: <https://personal.nedbank.co.za/home.html>

Nedbank (2022). *Nedbank Annual Integrated Report*. Website: https://www.nedbank.co.za/content/dam/nedbank/site-assets/AboutUs/Information%20Hub/Integrated%20Report/2023/2022%20Nedbank%20Group%20Integrated%20Report_.pdf

ABSA

ABSA (2023). *ABSA company website*. Website: <https://www.absa.co.za/personal/>

ABSA (2022). *ABSA Annual Integrated Report*. Website: <https://www.absa.africa/wp-content/uploads/2023/03/2022-Absa-Group-Limited-Integrated-Report.pdf>

ABSA (2022). *ABSA Expand its Digital Partnership Ecosystem*. Website: <https://www.absa.co.za/media-centre/press-statements/2022/absa-expands-its-digital-partnership-ecosystem-through-collaboration-with-mest-citi-grindstone/>

Capitec

Capitec (2023). *Capitec company website*. Website: <https://www.capitecbank.co.za>

Capitec (2023). *ABSA Annual Integrated Report*. Website: [https://www.capitecbank.co.za/globalassets/pages/investor-relations/financial-results/2023/annual-report/integrated annual report 2023.pdf](https://www.capitecbank.co.za/globalassets/pages/investor-relations/financial-results/2023/annual-report/integrated_annual_report_2023.pdf)

APPENDIX C – Interview Guide

To complete my studies for the Master of Management in Innovation Studies (MMIS), which I am enrolled in at Wits University Business School, I must submit a research project. "Digital innovation and disruptive potential by FinTech companies in South Africa" is the research topic and aims to provide insight on the impact of the FinTech revolution on the market structure in financial services.

I hereby request your participation in this research project. If you consent to participate, this interview will be recorded and used solely for the purposes of this study. You are welcome to bring a witness or observer to the study, but you are also free to decline or ask to leave at any point if you feel the need to do so. You may also choose to exclude any information that you deem to be sensitive and confidential. If you don't understand any of the questions, kindly ask for more information, which I will gladly provide. With this background, are you willing to take part in this interview?

	Interviewer to pre-populate before the start of the Interview (not to be published):	Proposition
1	Company Group (Bank, Fintech Start-up or Established FinTech)	Categorisation and control
2	FinTech Sub-sector	Categorisation and control
3	Customer Type (Firms/Individuals/Intermediary)	Categorisation and control
3	Interviewee Name	
4	Role of Interviewee within the company	Used to check that the interviewee is at a manager or above level

There are 7 questions and will take approximately 30 minutes of your time, is that acceptable?

	Questions for all participants	Propositions
1	There is an emergence of FinTech companies entering the South-African market, what gap do you think these companies are aiming to fill?	FinTech (P1)- Target Market Bank (P2) – Threat Framing
2	How important do you think banks, or integration with banks are for FinTech companies to be able to provide their products to their customers in the best possible way?	FinTech (P1) – Value Network Bank (P2) – Threat Framing

3	If you think about the innovations from the FinTech Sector, do you think these are mainly technology or business model based? Why? (if Technology, which technologies)	FinTech (P1) – Innovation Type Bank (P2) - Capability
4	Do you think bank's view FinTech companies as potential competitors, complementors or partners and how does that play out in the market?	Banks (P2) – Threat framing FinTech (P1) – Target market
5	Do you think banks have the right capabilities, skills, and resources to effectively build the same solutions that FinTech companies have? Why or why not?	Banks (P2) – Capabilities FinTech (P1) – Innovation Type
6	Do you think FinTech companies are changing the rules of competition and business in the financial services industry and why? <i>Follow up:</i> How does this play out in the market?	Test – Change in dominant logic
7	Do you think banks will remain the industry leaders in 20 years' time or not and why?	Test – Market disruption
8	Open ended question – what have we missed with regards to the topic?	

APPENDIX D – FinTech Company Information

Startup name	Use Case	B2B/B2C	Partners	FinTech Partners	Supplier/ Competitor/ Complementor	Target customer
PayGate + Payfast	Payment Aggregator	B2B	Banks, VISA, Mastercard, Paypal, Zapper, ect.	Yes	Complementor	Niche Solution
Netcash	Payment Aggregator	B2B	Banks, VISA and Mastercard, OZOW, Zapper, etc. (not paypal)	Yes	Complementor	Niche Solution
SureSwipe - rebranded Adumo	Merchant Services Devices	B2B	ThymeBank, Mastercard, VISA, integrated with Banks	Yes	Competitor	Niche Solution
Veneka	Digital Banking, Agency Banking	FSP	Tieti, Zebra,		Supplier	Provider to FSP's
MFS Africa	Remittance Aggregator, Cross Border Remittances	Two-sided Network	Many financial institutions across Africa		Supplier	Provider to FSP's
PayGenius	Payment Aggregator	B2B	VISA/Mastercard, instant EFT. ABSA	Yes	Complementor	Niche Solution
DirectDebit	Debit Order Processing	B2B	BankServ, SnapBill, Mandate, GetCashflow	No	Complementer	Niche Solution
IMB	Mobile Wallet	B2C	Co-branded partner of FlexPay Pty Ltd	Yes	Competitor	Low end market segment
Nomanini	Agency Banking, Mobile Wallet	B2B + FSP	Not mentioned		Supplier	Provider to FSP's
Electrum	Payment Aggregator	B2B + FSP	Capitec, Nedbank, BankServ, Clicks, MassMart, Mr Price Money, PicknPay,		Supplier	Provider to FSP's

Startup name	Use Case	B2B/B2C	Partners	FinTech Partners	Supplier/ Competitor/ Complementor	Target customer
			Shoprite, Vodacom, and Mamma Money			
TymeBank	Mobile Wallet, Agency Banking	Two-sided Network	PicknPay, Boxer, TFG	Yes	Competitor	Low end market segment
Causal Nexus	Payment Aggregator	B2B + FSP	Standard Bank, Eccentrics, Shoprite, Massmart + Walmart, Dischem, Hollard and Zanaco		Supplier	Provider to FSP's
Peach Payments	Payment Aggregator	B2B	WooCommerce, Shopify, WiX, opencart, Magneto, nopCommerce	Yes	Complementor	Niche Solution
SnapScan	QR code payments	Two-sided Network	Standard Bank bought the solution	Yes	Competitor	Low end market segment
Wallettec	Payment Aggregator	B2B		Yes	Complementor	Niche Solution
Allxs	Payment Aggregator	B2B	Not mentioned	No	Complementor	Niche Solution
iKhokha	Merchant Services Devices	B2B	VISA, Mastercard, Samsung Pay, Apple Pay	Yes	Competitor	Niche Solution
Ozow (formerly I-Pay)	Payment Aggregator, Mobile Wallet	Two-sided Network	Capitec	Yes	Complementor	Low end market segment
Ukheshe	Cross Border Remittances, Mobile Wallet, Agency Banking, QR Code Payments, Chatbot	B2B + FSP	PicknPay (for Withdrawals), Bank partners (Nedbank, Ecobank, Access bank, BankABC, KCB), FinTech partnerships		Supplier	Provider to FSP's

Startup name	Use Case	B2B/B2C	Partners	FinTech Partners	Supplier/ Competitor/ Complementor	Target customer
			(Dzcard, VISA, EFT Corporation)			
VCpay	Payment Aggregator	B2C	Mastercard	No	Competitor	Niche Solution
Whoosh	Payment Aggregator	B2B	VISA, Mastercard and American Express	Yes	Complementor	Niche Solution
Betr Finance	Digital Banking	B2C	Powered by Access Bank and VISA	Yes	Competitor	Niche Solution
FinGo	Payment Aggregator, Debit Order Processing	B2B	All banks for integrations	Yes	Complementor	Niche Solution
Mama Money	Cross Border Remittances	B2C	Retailers (PicknPay, Shoprite, Spar, Makro, Game, Flash stores, Game, Makro) in South Africa, however partner with various players in other countries to allow for more payout options.	No	Competitor	Low end market segment
MaxiCash	Merchant Services Devices, Cross Border Remittances, Mobile Wallet	Two-sided Network	VISA, and some eCommerce plugins	Yes	Competitor	Low end market segment
TradeSafe	Escrow platform	B2B	Standard Bank, iToo (Insurance company), EY (Audit) and PASA	No	Complementor	Niche Solution
Walletdoc	Payment Aggregator, QR Code Payments, Merchant Services Devices	Two-sided Network	EasyPay	Yes	Complementor	Niche Solution
Yoco	Merchant Services Devices, Payment Aggregator	B2B	Integrations into VISA, Mastercard and Apple Pay	Yes	Competitor	Low end market segment

Startup name	Use Case	B2B/B2C	Partners	FinTech Partners	Supplier/ Competitor/ Complementor	Target customer
Airbuy	Voucher Platform	B2C	Does not mention specific partners	No	Complementor	Niche Solution
Waxed Mobile Payments	Merchant Services Devicesm Biometric Technology	B2B	They have quite a few technology partners listed, however no known names in the financial services industry	Yes	Complementor	Niche Solution
Xago	Blockchain, Payment Aggregator	Two-sided Network	Intergovernmental Fintech Working Group (IFWG) Regulatory Sandbox. Capitec is listed as a key investor in the platform and also partners with other key FinTech and blockchain partners.		Complementor	Niche Solution
Karri	Payment Aggregator	B2B	Powered by Nedbank, Partner with PASA and PCI to ensure compliance	No	Complementor	Niche Solution
Sasai fintech	SuperApp, Mobile Wallet, Cross Border Remittances	FSP	Partners with Banks, MNO's, and Remittance companies - partners with 3 of the 5 big banks in South Africa		Supplier	Provider to FSP's
Slide	Payment Aggregator, Marketplace	B2B	None Mentioned	Not mentioned	Competitor	Niche Solution
Centbee	Mobile Wallet, Blockchain, Chatbot	B2C	Many Social platforms including Twitch, Netflix, eBay. Also partnered with some Retailers	Yes	Competitor	Niche Solution

Startup name	Use Case	B2B/B2C	Partners	FinTech Partners	Supplier/ Competitor/ Complementor	Target customer
			including Checkers, Makro and Pick n Pay			
My-iMali	Bulk Wallet Payments, Mobile Wallet, QR code payments	Two-sided Network	They integrate with all the Scan to Pay providers (including Banks)	Yes	Competitor	Low end market segment
Sticitt	Payment Aggregator	B2B	VISA/Mastercard, PASA	No	Complementor	Niche Solution
6DOT50	Voucher Platform, Mobile Wallet, Blockchain	Two-sided Network	Retailers, CryptoPMTS, kasiCash	Yes	Complementor	Niche Solution
Lipa Payments	Merchant Services Devices	FSP	Capitec, Woosh (another FinTech on this list)		Supplier	Provider to FSP's
Stitch	Payment Aggregator	B2B	VISA, Mastercard	Not mentioned	Complementor	Niche Solution
abela	QR code payments, Mobile Wallet, Agency Banking	B2C	Pick 'n Pay and CashExpress as Cash Out points	Yes	Competitor	Low end market segment
mojaPay	Mobile Wallet, Agency Banking	B2C		Yes	Competitor	Low end market segment