The adoption of InsurTech in the traditional insurance industry value chain

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

01 November 2023

Abstract

Researchers believe that new technologies such as InsurTech (FinTech in the insurance industry) enhance competitive advantage of incumbent insurers by fostering value chain innovation. Scholars agree that the slow pace of digital transformation in the insurance industry and changing customer needs pose a dilemma for incumbent insurers. Incumbent therefore have an opportunity to embrace and collaborate with InsurTech. This study explores the adoption of InsurTech in the traditional insurance value chain. A qualitative and exploratory approach was adopted using data collected through twelve semi-structured virtual interviews. Interview data were analyzed using thematic data analysis. The study found that the rise of InsurTech in the industry has increased the need for innovation in the value chain and the potential to drive innovation in the value chain of existing insurers by innovating components related to competitive advantage, customer centricity, and operational efficiency. This study contributes to the literature defining the role of digitalization in the insurance industry. How to adopt InsurTech innovations into the insurance value chain to improve customer experience and increase efficiency while achieving sustainable competitive advantage by applying Porter's Value Chain and DOI It is now possible to explore what can be done. Another contribution is the expansion of knowledge for understanding technological advances and digitalization.

Keywords:
Diffusion of Innovation (DOI), Digitalisation, FinTech, InsurTech, Technological development

Declaration

I declare that this research project is my own research. This is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Sciences, University of Pretoria. It has not been submitted for any degree or examination at any other university. I also declare that I have obtained the necessary permissions and consents to conduct this research. After the declaration, the student's name, original signature, and date must be included.

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Lethabo Ramoroto

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List of Acronyms

4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
API	Application Programming Interface
BDA	Big Data Analytics
CAGR	Compound Annual Growth Rate
DOI	Diffusion of Innovation
FinTech	Financial Technology
FTIE	Firm's Technological Innovation Efficiency
IAIS	International Association of Insurance Supervisors
InsurTech	Insurance Technology
IoT	Internet of Things
IT	Information Technology
M&A	Mergers and Acquisitions
SAIA	South African Insurance Association

Chapter 1 Definition of Problem and Purpose

1.1 Introduction

The emergence of insurance technologies (also called InsurTech, a subset of FinTech) has prompted the insurance industry to be more adaptive to technological developments. Lanfranchi and Grassi (2021) define InsurTech as a phenomenon where traditional and non-traditional market players use technology to render insurance services. These InsurTech innovations include peer-to-peer insurance business, consumption-based Insurance (insurance products based on consumer behaviour), and cloud computing policy management (Xu & Zweifel, 2020). Bohnert et al. (2019) argue that InsurTech has gained some interest from the wider insurance industry because it promises to increase consumer satisfaction, enhance efficiency through improved products and services, and its ability to access the uninsured market. Furthermore, insurance companies have realised that InsurTech adoption can improve work efficiency, get consumers through new distribution channels and create consumer experiences. This, therefore, enhances the competitive advantage of incumbent insurers. However, the adoption rate by insurance companies could be faster, but the many reasons for the slow adoptions are the rapid technological changes, strict regulations, legacy systems and outdated infrastructure (Ching et al., 2020).

The impact of digitisation goes beyond just channels. They are changing customer expectations creating new ways to reach them. That is, businesses need to improve their services and communication to make them more convenient and available to customers at any time (Kwangsawad & Jattamart, 2022). In fact, an insurer's main goal should not be a digital strategy but the development of a business strategy for the digital age.

Digital innovation provides opportunities to develop better customer engagement, insights and experiences to meet customer needs more effectively. While most insurers are still focused on e-commerce, significant companies are leveraging their digital capabilities to gain better customer insights and use that information to more effectively profile customers, underwriting and customised solutions (PwC, 2020). Insurers have traditionally focused on automating processes, while

customers have grown accustomed to digital solutions in their purchasing and claims processes. However, the way they interact with insurers has mostly stayed the same. Therefore, the next evolutionary step will be the use of technology and data to influence overall customer interactions (PWC, n.d.).

Global revenue in the InsurTech market was estimated at 5.48 billion in 2019 and is projected to reach 10.14 billion by 2025, growing at a compound annual growth rate (CAGR) of 10.80% from 2019 to 2025. Global insurance premiums in 2017 surpassed $4.9 trillion, making the insurance industry one of the most complex businesses. The industry now appears to be at a critical turning point, with many experts seeing the digitisation of insurance as the next ample opportunity after FinTech.

Gore (2021) cited the Juniper Research Study, which shows that total premiums generated by InsurTech platforms will exceed $556 billion by 2025, from $250 billion in 2020. Gore (2021) further mentions that the declining customer loyalty and lower premiums are due to increased competition, and the digital shift will drive significant insurance changes over the next five years. Large insurers, therefore, need to focus on deploying InsurTech solutions to improve customer interactions by building data-driven models. Otherwise, they will lose market share to new, digitally native providers.

Warren and Dixon (2023) further mentioned that the COVID-19 pandemic has accelerated the adoption of digital shopping and increased consumer confidence in its use. This has fueled the growth of the digital insurance market. On-demand insurance is an example of allowing consumers to buy insurance online when they need it rather than having it sold to them when they do not need it. Moreover, as online shopping continues to evolve, consumers want quick and seamless purchases, allowing insurers to grow their market share and customer base.

Gray and Schlemmer (2020) further elaborate on how the COVID-19 global pandemic has spotlighted the challenges that the sub-Saharan African insurance industry is facing, and the slow pace of adapting to technological innovation is not easing the problem. It is further mentioned by Gray and Schlemmer (2020) that the pandemic has been a powerful catalyst for insurers to think more about digitalisation as its inefficiencies are primarily due to the lack of digitalisation of its value chain. According to Bichard and Mukhodhyay (2022), insurers must be

"on the offensive with digital". This would entail re-engineering its value chain to be more involved in the digital ecosystem. This would be achieved by building a cloud-forward and digital platform that will allow for collaboration with other insurers, InsurTechs and intermediaries, therefore contributing to the insurer's ability to offer on-demand products and services (Bichard & Mukhodhyay, 2022; Kimani et al., 2020).

1.2 Background to the Research Problem

Digitisation is drastically transforming industries, and many companies are embarking on large-scale transformation efforts to capitalise on these trends and/or to keep up with the competition (McKinsey & Company, 2018). Digitalisation is the use of digital technology and data to generate revenue, improve business, replace/transform business processes, and create a digital business environment with digital information at its core (Reis et al., 2020). Gebauer et al. (2020) define digitalisation as the use of technologies that result in the convergence of the physical realm with the digital world through the use of technologies such as the Internet of Things (IoT), machine learning, artificial intelligence (AI), cloud computing and big data.

Like any other industry, the financial industry is not immune to the effect of technological developments, with the emergence of financial technology (FinTech), the IT-enabled innovative financial solutions (Puschmann, 2017). Puschmann (2017) further explains that FinTech also relates to startups and the utilisation of IT-led solutions by incumbent companies to provide financial services. Bollaert et al. (2021) cited that the main reason for the initial growth of FinTech is technological advances that have exposed the relative inefficiency of traditional financing channels. Traditional financial intermediaries such as banks, venture capitalists, and stock exchanges increase investment efficiency through careful scrutiny and efficient revenue distribution.

It is also worth noting that FinTech innovation has the potential to improve financial inclusion as it promises to provide poor people with access to financial services such as payments, savings, loans, and insurance (Bollaert et al., 2021; Lagna & Ravishankar, 2022). A total of 1.7 billion people around the world, most

of them in developing countries, are excluded from these basic financial services and unable to escape the clutches of poverty (Lagna & Ravishankar, 2022). Small and medium-sized enterprises are the economic engine of most countries, but since the financial crisis, they have been unfairly excluded from credit markets. FinTech financing could help fill this gap (Bollaert et al., 2021).

The global FinTech market is valued at $194 billion in 2022 and is expected to grow at a CAGR of 16.8% from 2023 to reach $492.81 billion by 2028 (Benchmark International, 2023). The global FinTech investment market is growing steadily, and the adoption of strategies by leading companies is expected to continue to increase. Over the past decade, the InsurTech industry has grown tremendously and continues to grow. Market demands, new technologies and large-scale investments have given the insurance industry new leadership positions (Christensen et al., 2018). Digital insurance providers, ecosystem partners, underwriting, AI and Application Programming Interface (API) offerings, IoT and 5G are transforming insurance as we know it (England, 2023).

According to Xu and Zweifel (2020), InsurTech has impacted the entire insurance value chain, from product design, underwriting, actuarial activities, claim management, asset management and capital investment activities. The noticeable impact of InsurTech in the insurance industry is in interaction with consumers, adaptation to their behaviour, automation of business processes and decisions, and improvements to existing products and new product offerings (Lanfranchi & Grassi, 2021). Catlin and Lorenz (2017) argue that the traditional Insurance industry has proven to be resilient; however, it is starting to feel the effects of digitalisation and will soon have to adapt to this innovation to remain sustainable.

1.3 Research Statement

It is noted that approximately 80% of the South African population has no private health insurance, and 65% of vehicles are uninsured (Gatherer, 2021). This is primarily due to the current strained economic climate of the country and the need for more education about the need for and benefits of Insurance. Consumers are price sensitive when taking Insurance; consumers continuously seek seamless

and lower-cost insurance, where claims can be submitted and amended cover from a click away (Timm, 2019). If the insurance industry is to stay relevant, it must find the untapped need, the hidden asset and its value of the uninsured (Mahlangu, 2019). This can be achieved by creating customer-centric innovative solutions that address the needs of the uninsured population. According to Gatherer (2021), this uninsured market can be reached using digital technologies that aid in creating innovative products and consumer experience that allows for flexible and accessible insurance products. It is further noted that consumers are also gravitating to using technology solutions such as Chatbots, enhanced communication technology and an omnichannel that enables new business, which will result in improved efficiency across the value chain, reduce costs, improve consumer access, and ultimately create trust and loyalty (Ching et al., 2020).

Technology is changing the insurance industry in many ways and has received academic attention, with systematic reviews of prior research on its impact on the insurance value chain and the impact on the insurability of risks. Since the 2008 global financial crisis, the financial services industry has been increasingly faced with process disruption and business transformation due to technological innovation (Chen et al., 2019; Pashkov & Pelykh, 2020). Digitalisation has since triggered the need for the financial services industry to move to a "virtual plane", which has also resulted in the emergence of FinTech startups (Gomber et al., 2018). According to Shamsuddin et al. (2023), consumers are used to conducting financial transactions and managing their lives using the Internet and mobile devices, and they seek the same digital experience as Insurance.

Insurance companies were quick to jump in to meet the growing demand for digital solutions. Insurtech companies like Naked, a fully digital company focused on car and home insurance in South Africa, offer customers competitive prices by reducing operational costs through automation and offering customers the ability to get a quote and sign. It boasts a 3-minute upload process. Naked has also introduced differentiating features that can be activated via the mobile app. Another InsurTech, CoverPause, allows customers to reduce their insurance premiums for days they don't drive. Pineapple, a comprehensive personal insurance provider, has developed a decentralised, digital and scalable model based on peer-to-peer lending. The model allows customers to upload images of

the products they wish to insure on a product-by-item basis, and image recognition allows them to generate a quote within 60 seconds. Literature suggests that digitalisation involves the vertical integration of the value chain and the digitalisation of product and service offerings and the value chain (Gomber et al., 2018). Stoeckli et al. (2018) and Porter (2011) argue that for industries and companies to remain competitive, they need to consider the effects and impact of digitalisation when formulating their strategies and value chains.

Despite its ability to create new markets around consumer demands and emerging risks, the insurance industry is still not necessarily the first mover when it comes to innovation, as fewer insurers systematically pursue innovation (Ellingrud et al., 2022). In Africa, the transition to digital channels is in full swing, and expectations for service provision are increasing accordingly. Notwithstanding its transformative potential, research suggests that traditional insurers have faced challenges in embracing these new solutions because of outdated business models, complex processes, and disconnected customer experiences. This has prompted the need for change for many insurers in South Africa to digitise the customer journey and accelerate this in many markets (Bagus et al., 2020). However, what has been covered in previous studies did not provide adequate insight into how the incumbent insurers had adapted and innovated to leverage the benefits of technology and overcome the potential pitfalls.

Most studies have not shown how digitalisation has impacted incumbent insurers, like Santam, Old Mutual Limited, etc., in South Africa on all value chain phases to reach the uninsured population. According to Gatherer (2021), this uninsured market can be reached using digital technologies that aid in creating innovative products and consumer experience that allows for flexible and accessible insurance products. It is further noted that consumers are also gravitating to using technology solutions such as Chatbots, enhanced communication technology and an omnichannel that enables new business, which will result in improved efficiency across the value chain, reduce costs, improve consumer access, and ultimately create trust and loyalty (Ching et al., 2020).

The study focused on closing the knowledge gap by exploring how the incumbent insurers navigated the new era of digital insurance. In the main, the aim of this

study was to explore how InsurTech had influenced the insurance industry with reference to incumbent insurers such as Santam and Old Mutual Limited and contributed to the competitive advantage for incumbent insurers to offer tailored products, improved risk assessment, optimised operations, and responded to market demands to address the needs of the uninsured population. The study will contribute to a new body of knowledge with respect to understanding the various nuances pertaining to the adoption of InsurTech in the traditional insurance industry value chain.

1.4 Research Purpose

The motive for this research stems from the accelerated emergence of InsurTech in the insurance industry and how it influences the competitive advantage of incumbent insurers as customer insurance needs to evolve and the uninsured market through value chain innovation. Furthermore, given the novelty of this phenomenon and its promise to enhance competitive advantage, the researcher will understand the key drivers, threats and opportunities regarding the emergence of InsurTech in the insurance industry.

The study aims to help insurers understand which areas of their value chain will be most impacted by InsurTechs and focus on the value chain and/or value chain innovations needed to respond to InsurTechs. Additionally, this study aims to provide insights into the capabilities needed to meet evolving customer needs, serve untapped markets, and maintain competitive advantage.

1.5 Benefits of the Research

Given the novelty of the concept of InsurTech, the research contributes to the academic body of knowledge by providing a comprehensive view of the factors that influence InsurTech adoption by insurers (Ching et al., 2020). From a business perspective, the insights gained from this research allow the incumbent insurers to address the potential and inherent threats that InsurTechs present by

leveraging on technological developments in the industry and the capabilities of these InsurTechs.

1.6 Research Scope

The scope of the research was limited to the technological developments in the insurance industry and the impact that these developments have on the insurance value chain. The research covers the South African insurance industry: life and non-life Insurance. The target population for the study is middle and senior management of traditional life and non-life insurance companies and policyholders. The research period is limited to five months after submitting the proposal. The focus is on technology development and digitisation constructs in the insurance industry.

1.7 Initial Assumptions of the Study

The assumptions of this study are:

- InsurTech is an important force that will shape the insurance industry value chain as posited by scholars in the extant (Faizova et al., 2020; Irbeck et al., 2022; Lanfranchi & Grassi, 2021; Ma & Ren, 2023; Reinartz et al., 2019).
- The sample chosen for this study is representative of the population the researcher wishes to make inferences.

1.8 Layout of the Research

The research proceeds as follows: The literature review provides an overview of the literature related to FinTech, value chain, and value chain innovation in the financial services industry. Chapter 3 presents the research questions that form the basis of this research. Chapter 4 describes the research methods and study design used to collect and analyse the data in this study. Chapter 5 presents the findings, and Chapter 6 discusses these findings. Chapter 7 concludes the

research study with key findings, practical recommendations, and suggestions for future research.

1.9 Chapter Summary

This chapter introduces the research activities. The research below highlights the importance of understanding the adoption of InsurTech in the incumbent insurance value chain. The development suggested that this could pose a challenge for incumbent insurers as the industry has been slow to adopt this technology. This chapter concludes with the proposed implications of this study and assumptions.

Chapter 2 Literature Review

2.1 Introduction

The preceding chapter presented the problem the current research aims to solve. The chapter further presents the research question on which this study is established and also foregrounds the academic and business benefits of this study. According to Boote and Beile (2005), the purpose of a literature review is to allow researchers to clearly delineate what is. It is not within the scope of the study, and identify what still needs to be known within the scope of the study. This chapter begins with a discussion of the concept, definition, and building blocks of the value chain from a theoretical lens. It reviews existing literature related to financial technology (FinTech). It examines FinTech in the insurance industry context, that is, insurance technology (InsurTech), by applying the Diffusion of Innovation (DOI) in the financial services industry. It explores the literature on the adoption of InsurTech in the insurance industry with a particular focus on the incumbent value chain and its innovation. The chapter ends by exploring value chain innovation and a discussion of the benefits and barriers of value chain innovation through the lens of DOI.

2.2 The Digitalisation and Evolution of FinTech

Digital transformation is an organisation's actions to introduce new digital technologies to gain benefits and bring about significant changes in the organisation's performance (Naimi-Sadigh et al., 2021). Digitisation impacts the market in many ways; traditionally, market outcomes have been affected by information asymmetries, agency issues, and difficulties allocating residual control through contracts (Bollaert et al., 2021). Eling and Lehmann (2018) argue that in its simplistic form, digitalisation is defined as the availability of digital data, which is stored in "interconnected databases, enabling real-time exchange. Technology is regarded as one of the primary sources of competition, with technological innovation as a catalyst of structural change across industries. It is viewed as an equaliser by impeding the competitive advantage of incumbent companies (Porter, 1985). Lanfranchi and Grassi (2021) also elaborate that

technology positively impacts a company's productivity, enabling it to compete in highly competitive markets. Recent research by Urbinati et al. (2020) argues that digital transformation is pivotal for innovation. It is further argued that innovation increases the interconnectedness between companies due to heightened knowledge sharing within and outside organisations (Urbinati et al., 2020). However, this interconnectedness and openness implies a need for effective management of the flow of knowledge and information.

The general idea of digital transformation affects all areas of human activity, and the technologies and communication systems associated with it will change traditional value chains and the modern world beyond recognition (Pashkov & Pelykh, 2020). To achieve digital transformation, organisations need a clear strategy, the right organisational structure, digital capabilities, a supportive organisational culture, and a balanced governance system (Naimi-Sadigh et al., 2021). Entering the digital world and presenting innovative models offers financial institutions an excellent opportunity to present new and valuable products, especially by combining existing services with new digital possibilities.

Financial Technology (FinTech), first mentioned by Citicorp Chairperson John Reed in the 1900s, reflects the emergence of IT-related transformation within the financial services industry (Puschmann, 2017). The FinTech revolution is in full swing around the world. While technology has been part of the financial services industry since the 1850s, FinTech is a general term for technological breakthroughs that have the potential to transform financial service delivery and drive the creation of financial services (Murinde et al., 2022). A variety of new frontier technologies drives FinTech. These are a range of new business models, new technology applications, and new products and services that significantly impact financial markets and the provision of financial services.

Despite the growing interest in Fintech, there is still no consensus among academics and practitioners about its definition or the theoretical underpinnings of the field (Milian et al., 2019). Moreover, the scientific literature contains studies that deal with this topic systematically, or that try to express it in such a way that a brief overview of the existing literature indicates new research activities and structures the scientific discoveries in this field. It is clearly lacking.

According to Gomber et al. (2018), the financial service industry comprises companies' primary function is to offer "retail banking, commercial 111 management (mutual funds, hedge funds, etc.)" (p. 2). The evolution of digital transformation has triggered the emergence of FinTech in the financial industry, with its rapid development driven in part by the sharing economy, regulations, and information technology (Suryono et al., 2020). According to Merello et al. (2022), the FinTech industry is made up of business models that are aimed at providing convenient financial services around the clock irrespective of the location and at lower cost through the use of various technologies innovations such as AI, blockchain, cloud computing and big data. Whilst Li and Xu (2021) agree with Merello et al. (2022), they further elaborated that FinTech promotes the development of the financial industry by facilitating data collection and analysis in financial markets and reducing information asymmetry. Trading and investment strategies based on AI and big data. Furthermore, it promotes liquidity and increases efficiency in financial markets.

FinTech is known to address problems of information asymmetry and reduced transaction costs. As banking is an information-intensive and technology-driven business, the development of FinTech can help banks further expand their business and, in turn, improve their performance (Zhao et al., 2022). Zhao et al. (2022), however, argued that the development of Fintech may also worsen banks' performance, as online lending and investment platforms limit banks' operations and reduce profitability. It is further noted that FinTech developments negatively impact firm technological innovation efficiency (FTIE) by increasing business risk and debt pressure through risk transfer and regulatory arbitrage, respectively, with the effects more evident in the eastern region, non-manufacturing industries and state-owned enterprises (Xu et al., 2023). Another known concern with the emergence of FinTech is exposure to cyber risk, where transparency and confidentiality of data may threaten trust in the digital environment (Pashkov & Pelykh, 2020). This evolution has impacted financial services operations by minimising the human element at a transactional level and improving consumer satisfaction and risk management through machine learning and AI (Gomber et al., 2018). It is, however, worth noting that with its promises, FinTech presents regulatory challenges for a variety of reasons, and the current formal regulatory framework only sometimes suits new technologies (Bollaert et al., 2021).

The 2008 financial crisis brought sweeping and systemic regulatory changes to the financial industry not seen since the 1940s. However, given their innovative nature and impact on the market, these reforms fall short of the challenge for FinTechs. Bollaert et al. (2021) further cite that FinTechs are calling for conceptual changes in financial regulation that balance adequate levels of investor protection with the risk of stifling efforts with unduly costly restrictions. Moreover, regulatory uncertainty can limit the scalability of innovation in large companies where institutional investors themselves require legal certainty.

2.3 Overview of the Insurance Industry

According to the International Monetary Fund (2022), South Africa's insurance industry is an important pillar of the financial sector. Insurers account for 18% of the total sector, and this share has remained relatively stable over the past decade. The insurance industry consists of the life insurance (long-term) and the non-life insurance (short-term) (Slavova, 2021). The life insurance includes products such as life, health, disability, and death insurance. The non-life insurance includes vehicle, commercial, and property and casualty insurance. In South Africa, there are 170 insurance companies (67 life insurance companies, 70 non-life insurance companies, nine reinsurance companies, 23 captives, and one other company). The industry is highly concentrated, particularly in the life insurance sector, with five large insurance companies accounting for 72% of the life insurance market and 48% of the non-life insurance market. The industry welcomes extraordinary diversity in many business models, including traditional equity-based models, bank-led corporations, groups focused on wealth management, and new entrants focused on technology (MarketLine, 2017; South African Reserve Bank, n.d.).

According to Kaffash et al. (2020), insurance is a risk management financial concept aimed at securing economic growth and protecting against uncertain risk events or exposures. Lanfranchi and Grassi (2021) describe insurers as providing protection against risk and risk-reducing management tools for protection against risk. Lanfranchi and Grassi (2021) further cited that technological innovations create new insurance opportunities. These technological innovations include AI,

machine learning, blockchain, smart contracts, peer-to-peer, on-demand Insurance, big data, and data analytics.

The insurance industry has not traditionally been perceived as a technology-intensive industry. Ma and Ren (2023) argue that this view may have changed in recent years as the insurance industry entered the Fourth Industrial Revolution (4IR) era and experienced technological transformation. As insurance is inherently data and intelligence-intensive, new technologies based on big data and AI are expected to improve insurance products and increase efficiency (Ma & Ren, 2023).

Technology-driven innovation is fundamentally changing the insurance industry, has transformed nearly every aspect of the insurance value chain, and continues creating new and improved omnichannel customer experiences (Irlbeck et al., 2022). According to Hickman et al. (2020), omnichannel is an emerging retail approach that responds to changes in the way customers shop between online and offline stores and the increased use of digital devices (such as smartphones and tablets). As a result, retailers are focusing on and establishing a seamless, integrated approach to service. Omnichannel is currently gaining traction in the retail industry; however, there is a lack of empirical research on the factors that influence omnichannel experiences (Hickman et al., 2020).

Most empirical evidence and academic studies find that relationships between InsurTech startups and incumbents are synergistic and non-competitive. Incumbents, therefore, regard InsurTech startups as digital partners rather than disruptors. Nevertheless, InsurTech is claimed to be an innovation that has disrupted, enabled, and accelerated the insurance industry's transformation. (Chang, 2023).

The three main roles of InsurTech companies in the insurance industry are disruptor, disintermediator, and enabler (Chang, 2023). The author further elaborated that to avoid disruption from InsurTech companies and achieve a competitive advantage, incumbent insurers should invest in technology through InsurTech-focused external or internal investments to increase operational efficiency and reduce operating costs. Effective strategies include external investment, mergers and acquisitions (M&A), venture capital investments, and strategic alliances with InsurTech companies. From the perspective of internal

investments in technology, digitalisation, automation, and big data analytics (BDA), linked technology applications can be used to increase organisational efficiency and synergy.

Insurtech has played a fundamental role in promoting and transforming the insurance industry by using technology to meet business and customer needs and solutions based on the availability of new data sources, interconnectivity between parties, and access to new opportunities related to risk hedging (Sosa & Montes, 2022). Whilst Slavova (2021) agrees with Sosa and Montes (2022), it is highlighted that InsurTech is also changing the way insurers determine risk by providing opportunities to monitor customer behaviour and engage in advisory-focused customer interactions directly. The competitive demands of the industry require that underlying data be transformed into information in real-time to achieve a competitive advantage (Slavova, 2021). The level of personalisation is, however, limited by data privacy and fairness concerns.

Eling and Lehmann (2018) argue that currently, InsurTech startups are categorised into either customer experience, business processes or new products. From a customer experience perspective, Eling and Lehmann (2018) state that InsurTech optimise the incumbent analogue link between the insurer and policyholder by providing online administration capabilities and software for tracking applications. The second category that Eling and Lehmann (2018) view is that InsurTech can also enter the insurance industry through business process optimisation. This entails developing and providing aggregator platforms where consumers can compare quotes. Further to this, InsurTech can provide claims management services to the incumbent insurer. The third category that Eling and Lehmann (2018) believe InsurTech can enter is offering new products. In this instance, InsurTech will provide a single product instead of end-to-end insurable risks.

2.4 Theoretical Lens

2.4.1 Value Chain: An Introduction

Porter's (1985) definition of a value chain is a system of subsystems with inputs, transformation processes, and outputs that deliver value. Value chain is a conceptual model that describes an organisation's main advantages and operations or processes. Further to this, it is a fundamental applied tool to enhance the strength of enterprises and, therefore, achieve competitive advantage (Marsh & Stock, 2006; Raun, 2020). According to Porter (1985), value chains are known to influence market access for the following reasons: Value chain determines the key participants and key companies in the supply chain and improves compliance with the rules and regulations applicable to the industry. Similarly, Miao (2021) argues that the core of value chain theory is value creation, and this represents an important method for analysing a company's competitive situation and managerial capabilities. Miao (2021) cited Porter (1985, 2001), who points out that companies achieve value creation through various value activities and in an enterprise value chain system, the elements of value activities work together to create and transfer greater value.

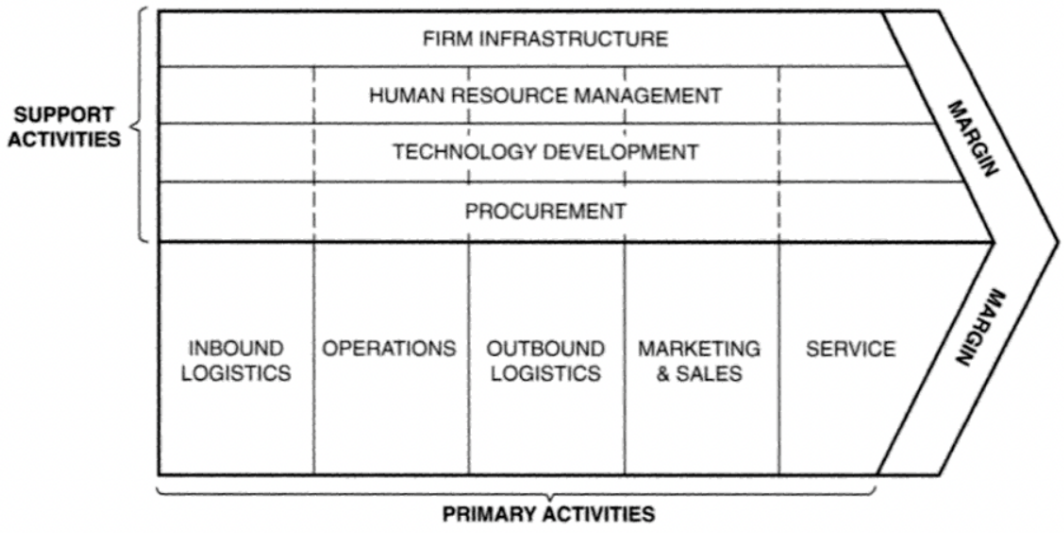

Figure 2.1: Porter's Generic Value Chain

Source: (Porter's, 1985).

Porter (1985) further details the components that make a value chain, which are primary and secondary activities, as depicted in Figure 2.1. The primary activities involve physical production and delivery of products to customers, and each category can be divided into several specific activities depending on the industry and company strategy (Cappiello, 2020). These activities include inbound logistics, operations, outbound logistics, marketing and sales and after-sales services. The secondary activities are there to sustain the primary activities (Cappiello, 2020). These secondary activities include firm infrastructure, human resource management, technology development and procurement. These primary and secondary activities create a competitive advantage (Porter, 1985). These activities in a value chain are not independent, as one value chain activity often influences the cost and performance of other activities (Porter's, 1985). There may be connections between primary and supporting activities, where the interrelationships between business areas form the basis of overall organisational strategy (Porter's, 1985). These connections between business areas can be identified through value chain analysis. Further mentioned by Kumar and Rajeev (2016), a value chain is a process that can be traced at every stage, from procurement to the end user

The research considered this as the basis of the value chain and considered various value perspectives and superior added value for the company. Customer perceived value and customer lifetime value are the three most important elements of the value chain.

2.4.2 Insurance Value Chain Innovation

There are two types of competitive advantage that can be achieved through the value chain: cost advantage and differentiation (Ricciotti, 2020). Throughout Porter's work, it is clear that information technology (IT) plays the most important role. This impacts both differentiation and cost reduction as it provides a means to create competitive advantage, create new business and change the way companies operate. In order to survive, it is fundamental to respond to changes in technological development.

Until now, customer satisfaction has rarely been discussed in the insurance industry

According to Linkov et al. (2020) and Moore (2014), the Fourth Industrial Revolution (4IR) has resulted in the emergence of a “new value” that is driven by:

- Open innovation where companies include consumers in the development processes;
- The decentralisation of production structures and
- Horizontal and vertical collaboration between companies.

Digital transformation drives and enables new ways of creating value, as it allows companies to meet long-standing consumer needs in an unprecedented way (Reinartz et al., 2019). The emergence of the 4IR has accelerated the automation and interconnectedness of businesses and their operations (Catlin & Lorenz, 2017). Automation refers to all activities and processes that occur automatically, without active human input or control (Reinartz et al., 2019). Reinartz et al. (2019) further elaborate that at the customer interface, automation impacts value creation in two ways. First, automating marketing processes, such as automated communications (such as reminders, inventory alerts, and chatbots), provides customers with real-time information and answers. Second, automating consumer processes such as (re)purchasing simplifies or eliminates routine processes for consumers.

This interconnectedness between companies has created opportunities for value chain optimisation through creating lean processes. With digitalisation comes a rapid change in the insurance value chain (Moore, 2014). The difference in the value chain results from the introduction of technological innovations such as machine learning, AI, blockchain, telematics, and robo-advisers, to name a few.

From a regulatory perspective, existing insurance industry regulations do not support digital technologies (South African Insurance Association [SAIA], 2019). Globally, consumer rights and data protection are important trends influencing policy and regulation in the insurance sector. Technology innovations directly impact the growing privacy and security challenges for insurance companies and

other IoT technology users (Zhou et al., 2019). Policyholders may not be aware that their data is travelling through their insurance company's networks and storage devices and its service providers. This invisible data collection poses new digital trust and privacy challenges for the insurance industry (Moodley, 2019). The use of InsurTech for data collection enables insurers to render services to the policyholder that it could otherwise not render. It simultaneously places an obligation on the insurers to mitigate any possible leakage of this data, as such leakage could affect the security or compromise the privacy of the policyholder (Moodley, 2019). In an interconnected world, it is often difficult to quantify how the data generated is used to benefit the policyholder directly and what data generation unnecessarily compromises the policyholder (Zhou et al., 2019).

2.4.2.1 Insurance Value Chain and The Need for Innovation

Based on value chain theory and insurance industry practice, the core chain includes product design and development, product marketing (promotion and reviews), and claims settlement, and the auxiliary chain includes employee management and customer service (Wang, 2019). Insurers view the value chain as a fundamental approach for conducting internal analysis and considering the specific operations and functions that enable an organisation to create meaning and relevance and compete aggressively in its industry.

The introduction of a new product or process represents the end of the knowledge acquisition and transformation process and also the beginning of the exploitation process that leads to improved product performance of an innovative company (Roper et al., 2008). Recursive knowledge acquisition, transformation, and exploitation processes encompass the innovation value chain.

Cappiello (2020) explains that digitalisation is revolutionising the finance and insurance ecosystem, transforming the insurance value chain from product development, pricing/underwriting, sales and distribution, policy and claims management to asset and risk management. Further to this, insurance market players are now facing a new insurance scenario 4.0 that enables insurers to be part of new ecosystems created by the development of connections between incumbents and new entrants.

All players in the insurance industry are being challenged to act in the face of the macroeconomic conditions that are driving the rapid growth of insurtech startups. The focus of these new entrants has shifted from pure software solutions to activities that clearly compete with those of insurance companies and brokers.

Eckert et al. (2022) digitalisation is influencing and changing customer behaviour, expectations, and requirements. The insurance market is observing the insurtech phenomenon, which is said to be beneficial to customers because of the flexibility and simplicity of the innovation process. Therefore, managing customer satisfaction is becoming increasingly important and demanding for incumbent insurance companies. At the same time, digitalisation also brings significant benefits to insurance companies by improving the customer experience, bringing policyholders and insurers closer together, and evolving their role from pure risk protectors to risk predictors and preventers (Eckert et al., 2022).

As competition in the global market increases, companies increasingly focus on maintaining the value of their products and services to succeed in this competitive environment (Kwangsawad & Jattamart, 2022). Innovation has proven to be an important tool for corporate success and sustainable development. Insurtech is disrupting every link in the traditional insurance industry chain. It was relieved that due to many factors such as capital investment, development of new technology, and high penetration rate of e-commerce, China has become an important market for insurtech development. Given the novelty of InsurTech and its infancy stage in developing countries, Diffusion of Innovation (DOI) is used based on the characteristics of the technological innovation and the user's perception of the innovation (Ching et al., 2020). There are several studies using DOI, where researchers believe that in order to promote the spread of innovation, one would need to consider four main elements: innovation, communication channels, time and social systems (Rogers, 1983). The DOI five-step Innovation-Decision Process insurers will be able to analyse and decipher whether an innovation such as InsurTech is worth implementing. The five steps are knowledge, persuasion, decision, implementation and confirmation.

Incumbent insurance companies require the knowledge and understanding of the key drivers of Insurtech. Characteristics of the decision-making unit include socio-economic characteristics, personality variables, and communication behaviours.

2) Persuasion is when individuals express a positive or negative opinion about an innovation based on their feelings and emotions. 3) Decision-making is the step of deciding whether to reject or accept an innovation by weighing the pros and cons before making a decision. 4) In the implementation step, she is the one who practices the innovation. However, resistance to an innovation can arise if there are questions about the usability or unique value of the innovation. 5) Finally, during confirmation, the user confirms that the innovation is a good choice.

It is further explained that the adoption rate of innovations and technology depends on five main characteristics: relative advantages, compatibility, complexity, trialability and visibility (Rogers., 2010). Figure 2.2 illustrates this decision-making process. Knowledge requires personal understanding. Characteristics of the decision-making unit include socio-economic characteristics, personality variables, and communication behaviours. 2) Persuasion is when individuals express a positive or negative opinion about an innovation based on their feelings and emotions. 3) Decision-making is the step of deciding whether to reject or accept an innovation by weighing the pros and cons before making a decision. 4) In the implementation step, she is the one who practices the innovation. However, resistance to an innovation can arise if there are questions about the usability or unique value of the innovation. 5) Finally, during confirmation, the user confirms that the innovation is a good choice.

Given the InsurTech above adoption is an industry and firm-level phenomenon, the DOI model is ideal for understanding InsurTech key drivers and their influence on the insurance value chain. Therefore, the researcher used these characteristics to better understand InsurTech's adoption.

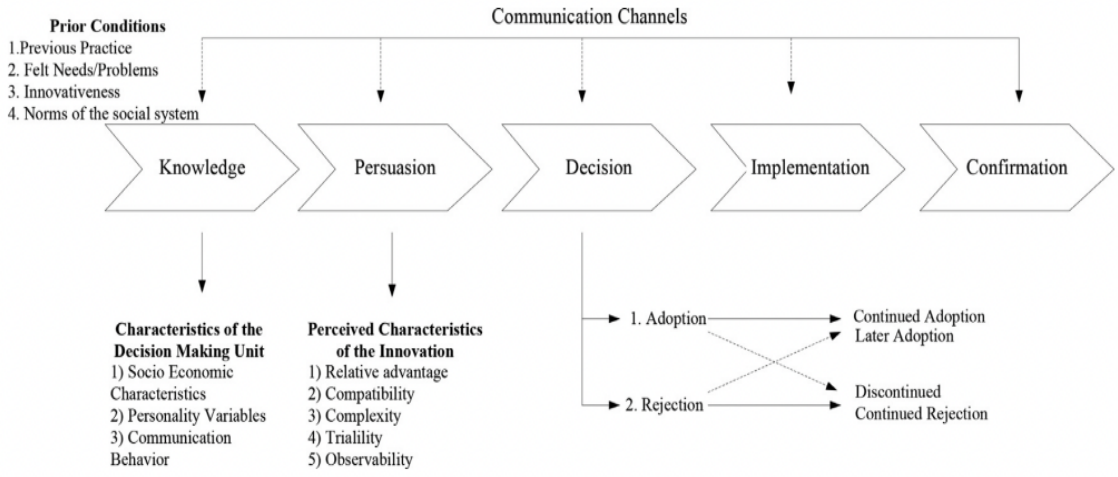

Figure 2.2: A Model of Five Stages in the Innovation-Decision Process

Source: (Rogers, 1983).

The relative advantage refers to the benefit realised with an innovation compared to the current one. It aims to improve quality and performance, increase productivity, and increase the effectiveness of users of the innovation (Rogers, 1983). Relative advantage is one of the most critical factors when adopting technological innovations such as chatbot technology, cloud computing, blockchain, AI, and big data, to name a few, in the context of the South African insurance industry (Ching et al., 2020). Bohnert et al. (2019) argue that part of the relative advantage of the emergence of InsurTech is the promise of increasing consumer satisfaction, increasing efficiency through improved products and services, and providing access to the uninsured market.

Cao et al. (2020) argue that the rapid development of InsurTech has significantly impacted the traditional insurance industry in two main ways. First, the new Internet sales channel has changed the industry's sales structure. The role of insurance intermediaries is forcing insurers to change to accommodate the new business ecosystem. In this instance, The relative advantage is the reduced commission paid, and administrative costs have led to lower prices for insurance products and increased demand. Second, the rise of e-commerce has fragmented the market demand for insurance accordingly.

Compatibility refers to the extent to which the new systems, values and processes are compatible with the incumbent systems. Given the legacy systems within insurance companies, the compatibility of innovation and incumbent systems is crucial post-adoption (Rogers, 1983).

Complexity refers to the level of difficulty that the user may encounter with the adoption of the innovation (Rogers, 1983). It is also noted that companies may face challenges when trying to adopt the innovation due to a lack of technical expertise in IT specialists (Ching et al., 2020).

Observability refers to the extent to which results are realised and the innovation is visible to others. The study also shows that it is easy for people to observe the diversity and wide use of mobile broadband applications (Rogers, 1983). The observability of mobile broadband applications has become increasingly important. When consumers see its effects or benefits, they are more likely to adopt innovations (Ching et al., 2020).

Trialability refers to the intent in which the innovation can be tested in a limited timeframe. It is deemed one of the most critical stages of any innovation adoption; therefore, it is crucial for companies to have a trial version of the innovation (Rogers, 1983). This, thus, allows the adopter to redesign the innovation based on the feedback received at the trial stage (Ching et al., 2020).

Figure 2.3 below depicts the impact of technological innovation at various stages of the value chain.

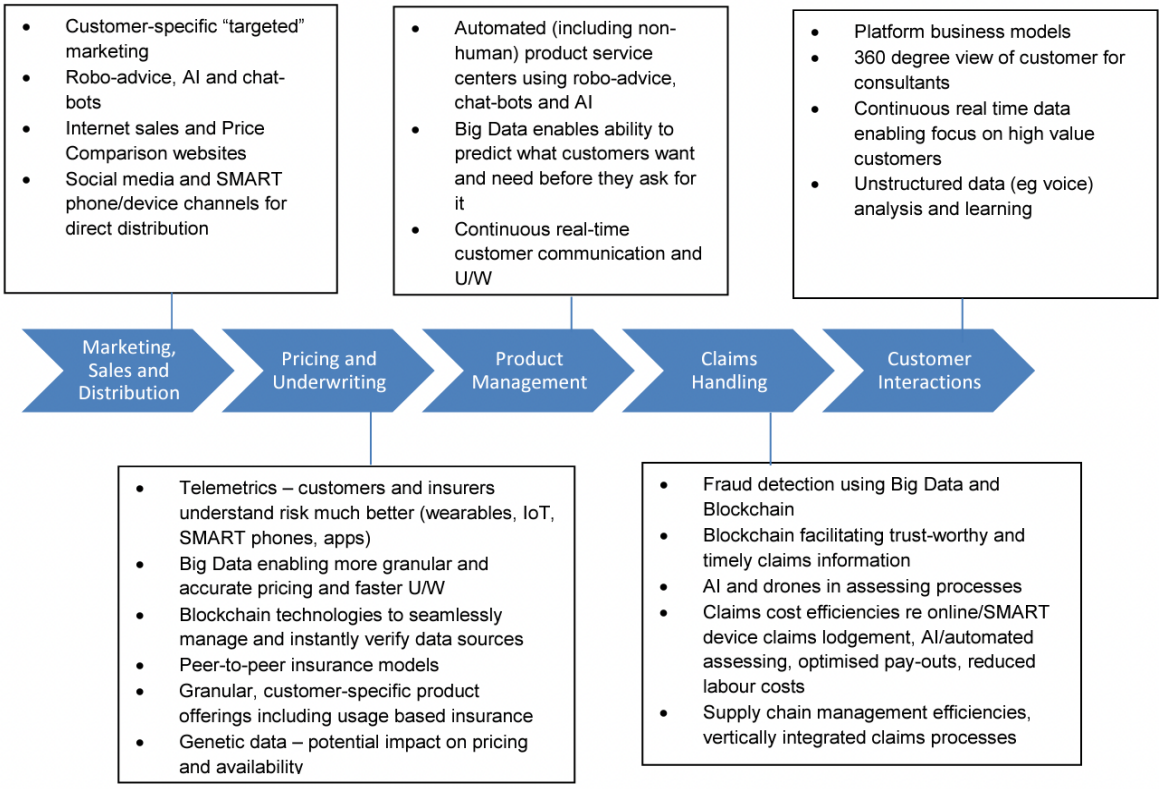

Figure 2.3: Digitalisation and Insurance Value Chain

Source: (International Association of Insurance Supervisors [IAIS], 2018).

Digital transformation of insurance value chain activities is imperative (Ching et al., 2020). Ching et al. (2020) elaborate that InsurTechs are enhancing existing insurance value chains, creating better consumer experiences, and leveraging multiple technologies to design and deliver innovative products and services. Furthermore, InsurTech adoption does not refer to a single technology but rather the use of two or more technologies to achieve the most value (Ching et al., 2020).

According to Eling and Lehmann (2018), digitalisation impacts the insurance value chain in various ways; however, the most noticeable impact is from a customer service, processes and product and service offering perspective. Firstly, from a customer service perspective, Eling and Lehmann (2018) argue that InsurTech influences how insurers interact with existing and prospective policyholders. Customers are moving more and more to virtual communication. Therefore, the insurer would need to adapt by creating aggregator platforms where customers can request and compare quotes without physically engaging

with the insurer or intermediaries. Eling and Lehmann (2018) further argue that insurers must develop applications (apps) where consumers can register and track claims along the value chain. Secondly, Eling and Lehmann (2018) state that InsurTechs influence insurer business processes, as InsurTech promises to aid in the automation of business processes, increasing efficiencies in the value from the sales and marketing stage to the consumer interactions stage. Thirdly, Eling and Lehmann (2018) also argue that Insurech influences incumbent insurers' product and service offerings. InsurTech allows for new product offerings. The widespread data through telematics will enable insurers to offer on-demand Insurance based on consumer behaviour. There are, however, challenges that arise with the emergence of InsurTech. These include the difficulties in analysing extensive data due to big data, cybersecurity, and regulations imposed by the government regarding the accessibility and use of information by insurers (Eling & Lehmann, 2018).

2.5 Discussion Between Insurtech And Incumbent Insurance

On the digital front, incumbent insurers are threatened by InsurTech startups and feel pressured by the advent of new technologies to review their processes, governances, and organisations beyond the regulatory requirements to respond to the digital demand and protect their legacy business. Using InsurTech tools offers many benefits to insurance companies. The implementation of digital technology increases the speed of decision-making in all business processes for insurance companies. It enables the development of new personal insurance products that meet the needs of modern customers. Another advantage of using InsurTechs is that they can take into account real data to create a more accurate and personalised assessment of the risks underwritten by insurance companies (Cappiello., 2020).

However, navigating complex challenges and staying ahead requires a new approach, which is a challenge to some incumbent insurers; they are slow to embrace change and remain married to their old infrastructure at the expense of innovation.

Nicoletti (2016) argues that whilst digital tools have changed the way consumers interact with businesses and affected purchasing behaviours, habits and preferences, most incumbent insurers have been static for a long time. Shree (2018) contends that it is now time for the incumbent insurers to change under the push of four “disruptive factors”, viz. demand for innovation, agility, security and cost optimisation. Thus, the move from the physical to the virtual world is already reaching the insurance industry.

Chan (2017) argues that despite the deployment of innovative digital solutions, consumers still prefer to buy insurance offline rather than purely online and favour a traditional face-to-face rather than an unorthodox interaction (Chan, 2017). Reviewing consumer behaviour specific to the insurance industry denotes peculiar patterns and explains why the online acquisition journey may still not appeal to insurance buyers.

Bell (2019) holds the view that the insurance industry has a reputation of distrust among customers, leaving customers feeling alienated and disengaged. Bell (2019) contends that it is not only the digital tools that matter in the insurance industry; trust in the advice is the main purchasing trigger. Whilst customers believe that new technologies help offer wider and clearer coverages and services, the entire purchase is supposed to be facilitated by a trustworthy person (Nicoletti, 2016). Thus, most life insurance policy buyers still favour face-to-face rather than online advice (Braun & Schreiber, 2017). They got their needs created through the Internet, after discussing with a financial adviser, and from the influence of family members. While consumer behaviour theory tools have created new needs and have changed how consumers look for information, make decisions and buy products, the interaction between consumers and businesses is affected by purchasing behaviours, habits and preferences (Shree, 2018).

Kaur (2019) also explains that consumers feel the Internet acts as a good information agent, helps evaluate alternatives, and gives better decision-making power. Salim (2019) corroborates, stating that new technologies have actually opened doors and given access to more and better purchases. However, developing the right set of information to reach, educate, and influence the consumer is critical for the marketer. Braun et al., 2016) state that brand credibility and trust are critical in the intention to purchase and customer satisfaction is also

strongly correlated to the advice provided during the purchase. They also consider the intervention of the human touch more pertinent to understand and evaluate truly their needs, more engaging and more reliable (Braun & Schreiber, 2017).

Crowe (2017) confirms the importance of reliability in insurance, stating that consumers still buy based on the recommendations of people within their network, that is, family, friends, trusted co-workers and those we see every week.

Mamun (2009) concludes that the selling activity in the insurance industry is tremendously dependent on the personal selling function. Insurance sales agents formulate different strategies to win the client both in the short and long run. Innovation has proven to be an important tool for corporate success and sustainable development. Ching et al. (2020) elaborate that InsurTechs are enhancing existing insurance value chains, creating better consumer experiences, and leveraging multiple technologies to design and deliver innovative products and services.

2.6 Advantages of Value Chain Innovation

Using InsurTech tools offers many benefits to insurance companies. The implementation of digital technology increases the speed of decision-making in all business processes for insurance companies. It enables the development of new personal insurance products that meet the needs of modern customers (Faizova et al., 2020). Another advantage of using InsurTechs is that they can take into account real data to create a more accurate and personalised assessment of the risks underwritten by insurance companies (Cappiello., 2020). Additionally, modern technology provides better fraud detection and risk management opportunities for insurers.

Technology allows insurers to gain insight into changing consumer behaviour. This allows for better underwriting for a specific risk and product development where new services are created and risk protection based on the customer's personalised needs (Faizova et al., 2020). This will ultimately result in a good customer experience. Blockchain smart contracts, AI, self-driving transportation,

and cybersecurity protect consumer identities and enable new things compensation for risks (Lanfranchi & Grassi, 2021; Yan et al., 2018). According to Cappiello (2020), value chain innovation allows for more accurate calculations in underwriting activities where insurable risks are identified. In this regard, IoT/BDA technologies open the door to new possibilities for risk and claims assessment and management.

2.7 Disadvantages of Value Chain Innovation

Contrary to the benefits of the use of InsurTechs, the use of IoT technology is recognised as a serious invasion of privacy and the unauthorised access and use of personal information, as it may be seen as a tool to obtain personal data about customers (Faizova et al., 2020).

Insurtechs are pushing the boundaries of the industry and raising questions about how the insurance industry will deal with its regulation. Despite the use of technology to improve processes and improve customer satisfaction, challenges will remain until algorithmic underwriting (risk assessment and analysis, pricing) is regulated (Chatzara., 2020).

Furthermore, Faizova et al. (2020) highlighted that using AI technology will enable insurers to do this. Individually assesses the risks taken by insurance and reduces the risk of fraud, but its use may lead to reduced reliability consequences of modelling errors or poor data quality. When data is missing, mobile technology usage leads Insurers to face additional risks of incorrect data entry, whether intentionally or unintentionally.

2.8 Chapter Summary

This chapter has reviewed the academic literature on digitalisation and its impact on financial services through the emergence of FinTech and InsurTech specific to the insurance industry. The chapter explored the insurance industry landscape and identified the key drivers for InsurTech and how its emergence has benefited the insurance industry. It is also worth noting that the chapter presented the

challenges that come with the emergence of InsurTech on the incumbent insurer and its value chain. The chapter to follow considers the research methodology used to answer the research question outlined in Chapter One.

Chapter 3 Research Questions

3.1 Introduction

This chapter presents the research questions that formed the basis of the study. The research questions were derived from the review of existing literature presented in Chapter 2. These questions were designed to gain deeper insights into the adoption of insurtech on the incumbent insurance value chain as the financial industry faces the realities of digitalisation.

3.2 Research Question 1: What are the drivers of InsurTech in the insurance industry?

Innovation through new technologies has been a major driver of change in the financial sector, resulting in immense efficiency gains. However, these changes may initially be accompanied by uncertainty and doubt. In recent years, such innovations have occurred against the backdrop of new technological developments. The insurance sector is no exception, with advances in technology creating opportunities for new service delivery methods and improved data collection capabilities that lead to better risk identification and mitigation, known as “InsurTechs”.

The research question aims to understand the concept of InsurTech and the drivers that contribute to the emergence of InsurTech.

3.3 Research Question 2: Does InsurTech drive innovation in the insurance value chain?

The range of technologies InsurTechs uses continues to expand and evolve, changing how insurance is delivered. The research question addresses the current challenges in the traditional insurance value chain. Further, the inquiry

aims to establish whether InsurTech has influenced the incumbent insurer's value chain and uncover the opportunities and/or threats that InsurTech have on the insurance industry and its value chain.

3.4 Research Question 3: What are the gaps and opportunities that InsurTech has on the traditional insurance value chain?

InsurTechs use new technologies to develop and deliver innovative, customer-centric products rapidly. However, InsurTechs often need more production capacity and, therefore, face problems when planning to increase production capacity.

The research question aims to identify the gaps between the existing insurance value chain and the value chain needed to factor in the emergence of InsurTech. Further, the question seeks to establish whether insurers need to be agile and innovate their current value chains in response to the emergence of InsurTech.

3.5 Chapter Summary

In this chapter, the research questions presented form the basis of this study. This study aims to answer these questions to better understand Insurtech on the incumbent insurance value chain. The next chapter describes the methodology used to conduct this qualitative study.

Chapter 4 Research Methodology and Design

4.1 Introduction

This chapter outlines the research design used to answer the research questions, which was aimed at discovering and understanding the adoption of InsurTech in the traditional insurance value chain.

The qualitative data was collected using semi-structured interviews. The researcher interviewed middle to senior managers and executives in the insurance industry, and the data collected was analysed and coded to establish themes based on the literature review.

The study was exploratory; according to Saunders and Lewis (2017), an exploratory study is a research design aimed at seeking new information about a topic that the researcher is unfamiliar with, and explorative research aims to gain insights and reach a definitive conclusion. In order for the researcher to understand InsurTech by identifying its key drivers and nuances on this InsurTech phenomenon, she conducted an exploratory study. Further to this, the study also explored the influence InsurTech has on the incumbent insurance value chain. Given the topic's novelty, the study gathered primary data through semi-structured interviews.

4.2 Philosophy

The underlying philosophy that guided the study was the interpretivist paradigm, which Saunders and Lewis (2017) describe as a way of understanding differences in human behaviour as people come together to create unique social experiences. It is a philosophy that promotes the importance of the core idea of interpretivism, which is to capture the subjective interpretations and meanings that people attribute to social experiences (Saunders & Lewis, 2017). Interpretive philosophy was an appropriate approach for this study as it allows the researcher to discover the reality through the participants' perspectives and perceptions

regarding the implementation of insurtech in the existing insurance value chain. The researcher adopted an interpretivism philosophy to understand participants' views and opinions on new technologies in the insurance industry and how they foster innovation within the traditional insurance value chain. By adopting an interpretivism philosophy, the researcher was able to extensively explore InsurTech's impact on the traditional insurance value chain through the lens of industry participants, in this case, middle to senior managers of insurance companies.

4.3 Approach Selected

In alignment with the research philosophy, the researcher followed an inductive approach to the study. Woiceshyn and Daellenbach (2018) suggest that a study can adopt either a deductive or inductive approach. According to Woiceshyn and Daellenbach (2018), the deductive approach entails developing a hypothesis from theory and testing the hypothesis. Contrary to the deductive approach, the inductive approach entails developing concepts and ideas based on the empirical observations made about the phenomenon (Woiceshyn & Daellenbach, 2018). Saunders and Lewis (2017) identified a third approach to theory development: abduction, a combination of deductive and inductive. Given that the study was qualitative, an inductive approach was deemed suitable as it entailed observing specific patterns and similar occurrences and later formulating a hypothesis based on the observations. The approach, therefore, allowed for a better understanding of how technology influences the traditional insurance value chain.

4.3.1 Methodological Choices

The study adopted a mono-method qualitative methodology; this method entailed the researcher gathering a single type of information. The researcher conducted semi-structured interviews to gather the data required to understand better the emergence of InsurTech and its adoption on the traditional insurance value chain. It is worth noting that a mixed method is not suitable for a study at this level and

for the study duration; therefore, the researcher focuses on the mono-method approach.

4.3.2 Strategy

Saunders and Lewis (2017) argue that research strategies are primarily designed to answer the research questions and fulfil the research objective. After conducting the study, the researcher gained nuances regarding the complexities around InsurTech by answering questions about the "what", "how", and "why.

The research questions were formulated to understand the role and importance of InsurTech and further understand the influence on the traditional insurance value and conclude by drawing attention to the advantages and disadvantages of the emergence of InsurTechs.

4.3.3 Time Horizon

Due to the time constraints for conducting the study, the researcher followed a cross-sectional study. According to Wang and Cheng (2020), a cross-sectional study is an observational study that analyses data from a population at a specific point in time. Unlike other types of observational studies, cross-sectional studies are easy to conduct and do not require the researcher to follow individuals over time. Furthermore, it aims to provide preliminary evidence when planning future follow-up studies. The researcher collected data from the participants at a point in time. Given that the study was not developed over time, a longitudinal study was unsuitable.

One of the notable advantages of this design was that it is relatively quick in collecting data, making this design ideal given the limited time available to the researcher to conduct the study. It is, however, worth noting that a cross-sectional study may be prone to non-response bias if participants who consent to participate differ from those who do not, resulting in a sample that is not representative of the population (Kogevinas et al., 2015). Therefore, the researcher was aware that this study was not immune to the possibility that potential participants might decide to no longer part-take.

4.4 Unit of Analysis

The unit of analysis outlines the fundamental objects or processes the study intends to interpret (Ritella et al., 2020). The study's analysis unit comprised middle-to-senior management in insurance companies. This allowed the researcher to understand better perceptions and opinions on InsurTech's influence on the traditional insurance value chain.

4.5 Population

Saunders and Lewis (2017) define the population as a group of individuals or groups that represent a scientific study. The population of the study consisted of individuals assuming the roles of middle and senior management of traditional short-term and long-term insurance companies. Given the time and financial constraints around the study, the researcher collected data from various groups: middle to senior managers from traditional insurance organisations.

4.6 Sampling Method and Size

The study followed a non-probability sampling technique, and given the small sample size, purposive sampling was utilised for conducting this study. According to Saunders and Lewis (2017), when using the purposive sampling approach, the researcher used their judgment in choosing the individuals that would be best suited to answer or respond to the questions in the interview, therefore meeting the research objective. Furthermore, the purposive sampling variety was heterogeneous because the patterns emerging from the data collection were of interest and value (Saunders & Lewis, 2017). The study also considered the sampling method selected did not necessarily aggregate the entire population of the insurance industry.

The sample size ranged between 15 to 20 individuals. The number of participants was determined by the progress made in the study and based on when the saturation point was reached. Theoretical data saturation is defined as the following interviews in which no new categories, themes, or explanations

emerged (Fucsh & Ness, 2015). Researchers defined saturation as the point at which no new information, discoveries, or themes emerged regarding the adoption of InsurTech.

4.7 Research Instrument

Saunders and Lewis (2017) suggest that semi-structured interviews are conducted where the interviewer asks open-ended based on predetermined themes. In this case, the themes relate to InsurTech, the value chain, and the innovation thereof. The semi-structured interviews consisted of 10 questions and took no more than 45 minutes to conclude. The questions focused on the interviewees' understanding of the concept of InsurTech and its influence on its value chain. The interview guide consists of simple, open-ended, neutrally worded questions to uncover comprehensive insights that describe a person's perspective on the adoption of InsurTechs on the incumbent insurance value chain. According to Saunders and Lewis (2017), the interview guide facilitates a semi-structured interview process and helps researchers follow an overall structure by determining in advance what important questions need to be asked

4.8 Data Gathering Process

The purpose of the interviews is to discover the insights and opinions of the representatives of the South African insurance industry on the influence of InsurTech on the incumbent insurance value chain.

The data was collected via semi-structured interview, the participants were identified, and a meeting was scheduled once they confirmed their formal participation. Given that the interview was held virtually, the interviews were recorded and coded to establish key recurring themes for a thematic analysis.

The interview consisted of 10 questions addressed to the middle to senior managers of incumbent insurance companies. The duration of the interviews was between 30 minutes to 45 minutes.

The researcher conducted pilot interviews with family and friends, given how data was collected. The pilot study's purpose (Saunders & Lewis, 2017) was to test whether the interview questions were understandable. This also comforted the researcher when conducting the study (Saunders & Lewis, 2017).

4.9 Data Analysis

A phased approach was used to analyse the data collected during the semi-structured interview. The data collected from the interviews was analysed using the six-phase process outlined in Figure 4.1. In preparation for the first phase, the researcher transcribed verbatim audio data collected from interviews with study participants. Researchers conducted Phase One in parallel with data collection to determine when the study reached a saturation point (Nowell et al., 2017).

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Figure 4.1: Phases of thematic analysis

Source: (Clarke et al., 2015).

The audio recordings of the data collected were transcribed verbatim from the interview recordings with the participants. While the researchers familiarised themselves with the data, she identified when the saturation point was reached (Clarke et al., 2015). The transcripts were thoroughly analysed to understand the topic's concept better; in this case, it is InsurTech. In the second and third phases, the researcher used the insights gained from participants on their understanding of InsurTech and its influence on the traditional insurance value chain. Once

these codes were generated, themes were established and thoroughly reviewed in the fourth phase. Upon reviewing the themes, the themes were defined, named and later reported.

4.10 Quality Control

Quality control is vital in ensuring that the data gathered from the study is reliable. The literature review aims to guide the research's focus area and the data collected from the representatives of incumbent insurers.

Nowell et al. (2017) detailed the importance of ensuring that the data collection and the thematic analysis are trustworthy. Trustworthiness is achieved when the research can influence those reading the research findings that the findings are "worthy of attention" (Nowell et al., 2017). Further to this, to ensure trustworthiness, the researcher needed to address the six criteria of trustworthiness.

The researcher ensured the creditability of the study by ensuring that fellow researchers and readers could relate to the topic through prolonged engagements, observations, and triangulation of the findings on the influence of InsurTech on the incumbent insurance value chain, as suggested by Nowell et al. (2017).

The researcher ensured that the study was transferable to other researchers conducting further studies on this InsurTech phenomenon. Furthermore, the researcher maintained trustworthiness by providing that the study is dependable and confirmable with an audit trail.

Saunders and Lewis (2017) argue that qualitative research is approximate and that this research might be affected by some form of bias. Therefore, the researcher was very cautious of the sample, sample size, and participants. Given that the study was conducted virtually, the interviews were recorded and converted into a transcript to address all questions and areas of focus (Saunders & Lewis, 2017). To avoid any bias, the collected data was reviewed with peers.

From a storage perspective, the interviews and related documentation were securely stored on the GIBS servers. This is to ensure the integrity of the

information gathered is maintained. The aim was to ensure that the data was protected from any distortion to ensure the integrity of the information for future reference.

From an ethical perspective, the participant's identity was confidential, and the interview was used for the sole purpose of the interview and the study. Therefore, the information shared was not intended to compromise the participants.

4.11 Research Limitations

The study aimed to understand better how InsurTech influences the insurance value chain. InsurTech is a subset of FinTech. Gomber et al. (2018) describe FinTech as the revolution that has impacted financial services by minimising the human element in financial transactions and enhancing service delivery and consumer satisfaction.

Given the novelty of this InsurTech, there is an inherent opportunity to discover nuances of this phenomenon and its influence on the insurance industry, in this study, the impact on the incumbent insurance value chain. Furthermore, given the size of the South African insurance industry, the information gathered from the interviews only represented part of the industry, therefore creating opportunities for further research. Being a novice researcher, the researcher was aware of the challenges that were raised during the study. Furthermore, the timeframe for the study's conclusion was a limiting factor.

The selected measurement instrument also created limitations because it did not ask a question that, in hindsight, might have allowed for the discovery of further nuances that helped the researcher better understand the influence of InsurTech on the traditional insurance value chain. Considering that the research was inductive, this limitation was only discovered post-completion of the study.

4.12 Ethical Implications

Particularly in qualitative studies, research must adhere to ethical standards. Ethical standards must be followed by researchers in order to safeguard

participants and prevent the use of deception, coercion, or incentives (Arifin, 2018). To resolve ethical concerns, the study necessitates careful and transparent execution.

Data collection adhered to the provisions outlined in the Protection of Personal Information Act. Additionally, ethical approval from the Ethics Committee of the Gordon Institute of Business Sciences was obtained (Appendix E). The confidentiality of the information was upheld, including the names and organisations of the participants (see Appendix A for the invitation to participate in the study). It is the obligation of the researcher to ensure that participants' trust is not exploited for personal gain (Bos, 2020). Participants were briefed on the concept of informed consent and voluntary participation and were required to provide their signature on an informed consent letter (Appendix B).

4.13 Chapter Summary

The research design aimed to understand the adoption of InsurTech in the traditional insurance value chain through exploratory, interpretivist, and inductive approaches. The interpretivist philosophy was used to understand participants' perspectives on InsurTech's impact on the traditional insurance value chain. The study adopted a mono-method qualitative methodology, focusing on semi-structured interviews to gather data. The research strategy was designed to answer questions about InsurTech's role, influence, and advantages and disadvantages.

The study used a cross-sectional design to analyse data from middle-to-senior management in traditional insurance companies. Purposive sampling was used due to the limited time available, and the sample size ranged from 15 to 20 individuals. Semi-structured interviews were conducted to gather insights on the adoption of InsurTech and its influence on the traditional insurance value chain.

The study was conducted virtually, with interviews and related documentation securely stored on GIBS servers. The interviews were recorded and coded to establish key recurring themes for a thematic analysis. A phased approach was used, with transcribed verbatim audio data that was analysed to understand the topic. The study was also verified for trustworthiness, reliability and ethical

implications, with the researcher addressing six criteria of trustworthiness and upholding standard ethical practice in research. The study had limitations, such as the small size of the South African insurance industry and the inductive nature of the measurement instrument.

Chapter 5 Findings of the Study

5.1 Introduction

The preceding chapter presented the research methodology used to collect data. In this chapter, the findings of this study are presented in accordance with the purpose and aim of the study, which was to explore how InsurTech is expected to influence the insurance industry and the competitive advantage for incumbent insurers. In this chapter, themes and codes were developed during the qualitative analysis in relation to the research questions and key constructs presented in the literature. These key themes and codes were used to provide insight into participants' knowledge and awareness regarding InsurTech. This chapter presented the findings in relation to the research objectives by exploring industry representatives' views and understanding of InsurTech and investigating how the traditional insurance industry is adopting it. Furthermore, the analysis presented in this context is grounded on a rich dataset obtained through interviews, comprising both direct quotations and qualitative codes. These codes were then consolidated into categories or sub-themes and then themes.

5.2 Overview of Participants

The study involved 12 in-depth interviews, which were conducted over a three-week period. The interviews were conducted with representatives from various insurance companies and InsurTech startups (Table 5.1).

Table 5.1: Profile of Participants

Participant ID	Business Title	Period in the industry (Years)
Participant 1	Manager: Risk Finance Managing Executive: Insurance Captive	16 years

Participant ID	Business Title	Period in the industry (Years)
Participant 2	Head: Insurance Portfolio	22 years
Participant 3	Head: Group Compliance	30 years
Participant 4	Managing Director: Microinsurance	17 years
Participant 5	Head: Compliance	25 years
Participant 6	Manager: Digital & Data Centre of Excellence	15 years
Participant 7	Manager: Business Change	29 years
Participant 8	IT Executive	25 years
Participant 9	Chief Product Owner (retired)	16 years
Participant 10	Chief Information Officer	15 years
Participant 11	Manager: Risk and Admin	15 years
Participant 12	Manager: Insurance	20 years

The participants' profiles varied, including professionals from traditional insurance companies and companies conducting insurance business via a cell within a cell captive. Table 5.1 above details the participants' diverse experience in business management, customer service, technology, and risk management. The names of the participants and the organisation have been concealed to maintain anonymity. The interviews provided a comprehensive view of the subject matter, encompassing different perspectives within the industry. The industry experience of the participants ranged between 10 to 30 years. The profile of the participants confirms the relevance of the participants, who were purposively selected from various insurance companies and companies where insurance business is conducted via a cell within a cell captive.

The initial individuals were contacted via email; in some instances, former and current colleagues connected the researcher to the participants. Those interested in the study were sent the consent form and the interview guide. The interview guide was sent to the participants prior to the interview to dispel any concerns regarding the nature of the questions. Upon consent, the interview was booked according to the participant's availability. The interviews were conducted via MS Teams, where the recordings from the interview were transcribed and coded into

common themes to conduct a thematic analysis. The interviewer identified, analysed, and reported themes from the data collected relating to the topic (Clarke et al., 2015).

The word cloud was developed to assess the relevance of the empirical data and its alignment with the research questions. Keywords aligned to the study were evident, such as insurance, technology, InsurTech, advantages and disadvantages, data, capabilities, risk, and value (Figure 5.1).

Figure 5.1: Word Cloud of the Data

5.3 Research Question One: What are the drivers of InsurTech in the insurance industry

This section of the study presents the findings of the qualitative research aimed at understanding the key drivers of InsurTech by considering the role and importance of InsurTech in the traditional insurance industry value chain. The research question guiding this investigation is Research Question 1: *What are the drivers of InsurTech in the insurance industry?*

The twelve interviews unveiled significant themes that provide insight into the drivers of InsurTech within the insurance industry, where the participants' views

strongly agree with each other. The identified themes are further divided into sub-themes derived from the coded interview data and presented extensively in Table 5.2 above. For a detailed reference, Appendix F contains a comprehensive list of all the codes utilised during the thematic analysis.

Table 5.2: What are the drivers of InsurTech in the insurance industry

Research Question	Subthemes	Key Themes
What are the drivers of InsurTech in the insurance industry	Digital Innovation	Role of InsurTech (Defining, driving force and evolutionary trajectory)
	Cost Reduction	
	Enhanced Customer Experience	
	Data and AI Integration in Multichannel and Omnichannel Strategies	
	Value Creation	Importance – Driving Sustainability and Competitiveness
	Efficiency and Simplification	
	Dual Role	
	Technological Advancement	
	Internal Efficiency	Importance – Enhancing Internal and External Processes
	Distribution Channels	
	Claims Processing	

5.3.1 Role of InsurTech in the Insurance Industry

The drivers of InsurTech in the insurance industry are contextualised by delving into the fundamental aspects of InsurTech, providing a comprehensive understanding of its definition, key drivers, and evolutionary trajectory. The overarching theme was the role and importance of InsurTech. It explores how InsurTech has emerged as a transformative force in the insurance industry, redefining how insurance is delivered and experienced.

5.3.1.1 Defining InsurTech and its Driving Factors

The research participants illustrated a strong understanding of InsurTech and were able to define it. InsurTech, as explained by all the study participants, represents an amalgamation of technology and insurance, fundamentally reshaping the industry's landscape. It serves as a manifestation of the ongoing digital revolution, with primary emphasis on the digitisation of insurance processes. All of the participants have provided valuable insights into this definition.

The participants have provided valuable insights into this definition:

Participant 1: "*InsurTech essentially entails the conduct of insurance activities digitally. It is propelled by technological advancements, cost-efficiency considerations, and the relentless pursuit of enhancing the customer experience".*

Participant 2: "*InsurTech basically is … a combination of insurance and technology".*

Participant 3: "*So, for me, InsurTech refers to the use of technology innovations to arrive at efficiencies, effectiveness, and cost savings within the insurance industry".*

Participant 4: "*So I think first of all, just my understanding of InsurTech is really how we combine insurance and technology…".*

Participant 5: "*I think InsurTech can be one of two mechanisms. One is technology that insurers use to digitise and automate their own internal processes. And the other, for me, InsurTech, is a technology that extends into the external part of the value chain. So, the first part is very much internalised in terms of the internal processes, and the second is more external in terms of client-facing capacity and capability."*

This definition encapsulates the essence of InsurTech, underscoring its core objectives, which encompass harnessing technology, optimising operational costs, and elevating the overall customer experience.

The evolution of InsurTech is catapulted by several driving forces, with technological advancements occupying a central role. All the participants have emphasised the importance of technology, data analytics and utilisation, AI, and the utilisation of cloud capabilities in steering the industry toward innovation. Furthermore, five research participants indicated that the customer experience and cost efficiencies are the key driving forces of InsurTech adoption in the industry.

Participant 1: *"I would think then the technology and digital innovation would be then the drivers for InsurTechs. Something else that I've seen that a lot of InsurTech companies talk about is the customer experience. They tell you about how easy it is for you to sign on or onboard clients. They talk about the value added in terms of their customer experience when it comes to settling claims… So, I think something else that I find a key driver for InsurTech is usually the issue with driving costs or cost reductions…You come; you deal directly. I think something else that I see is really the driver. It's usually the risk management aspect of insurance. Whereby what we then hear about is that you're able to manage your risk more effectively because they're able to communicate with you".*

Participant 4: *"…creating value for clients, creating value for the insurance company... how you acquire customers, how you service customers is driving the growth of InsurTech. Other drivers, I think, just from a client point of view, customers are looking for convenience.. technology plays a role in terms of how you make decisions, how you collect data and analyse data, and convert that data into usable insights that can then help you create new products and create new experiences for clients*".

Participant 8: "*In my perspective, InsurTech revolves around how we leverage technological advancements. This encompasses aspects such as data utilisation, AI integration, adopting multichannel and omnichannel strategies, and harnessing cloud capabilities to simplify and enhance the customer experience when dealing with insurance*".

Participant 10: "*My understanding of InsurTech revolves around the utilisation of technology within the insurance domain, with two primary drivers. Firstly, a strong focus on meeting the needs and expectations of clients, both existing and potential. Secondly, from a business perspective, a keen exploration of cost-effective and efficient solutions to enhance operational efficacy".*

These insights underscore the dual nature of InsurTech's driving factors, emphasising a profound commitment to customer-centricity and a simultaneous pursuit of cost-effectiveness, streamlined solutions. The responses of the research participants were aligned. **Participant 4** also highlighted another big driver of InsurTech: ensuring that incumbent insurers develop self-service platforms that provide customers with real-time service experience. Where one does not need to engage necessarily with a call centre agent if it's not necessary. Data plays a huge role as a call centre agent if it's not necessary.

As the insurance industry adapts to the digital age, InsurTech continues its evolutionary journey. It has transcended its initial definition, branching into various domains, from enhancing customer experiences to data-driven underwriting. The evolution of InsurTech mirrors the broader transformation occurring within the industry in response to shifting customer expectations and dynamic market forces.

Participant 3: "*This is called the fourth industrial revolution. I think as the world of technology matures, you need to be out there with the best, moving with the best and also the technologies that the small players in the market are developing. You get an app. So, what I see is that they are maturing and also gravitating towards using technology in the sales front, but also in the backend using technology".*

Participant 6: "*There was a heavy reliance on advisors, who were seen to be giving. But as we move into this tech world, there's a narrative that says, in short, tech starts nullifying the role of advisors, which starts giving".*

Participant 7: "*So, we've got our client solutions business unit. That's fairly new in its current format, but it's creating a direct client channel".*

This section lays the foundation for the comprehensive exploration of InsurTech, delineating its essence, highlighting its driving forces, and acknowledging its ongoing evolutionary trajectory. InsurTech's significance within the insurance industry is underscored by its capacity to seamlessly integrate technology, reduce operational costs, and elevate customer experiences, compelling us to delve deeper into its multifaceted impact in the ensuing sections.

5.3.2 Importance of InsurTech in the Insurance Industry

The study highlighted two importance of InsurTech in the insurance industry. These are for driving sustainability and competitiveness and enhancing internal and external processes.

5.3.2.1 Driving Sustainability and Competitiveness

InsurTech is at the forefront of leveraging technology to create substantial value for clients while ensuring insurers' long-term sustainability within an increasingly competitive landscape. Technological advancements and the unrelenting demand from customers for heightened convenience have primarily led to this paradigm shift. As justly expressed by one participant:

Participant 3: "*InsurTech revolves around the utilisation of technology to create value for clients and secure sustainability within a fiercely competitive landscape. Its propulsion is rooted in the continuous advancement of technology and the insatiable customer demand for convenience*".

Indeed, the core of InsurTech's value proposition lies in simplification, translating into enhanced efficiency for both insurance buyers and sellers within the insurance ecosystem. This extends to the streamlining of the claims process and, notably, the simplification of intricate decision-making:

Participant 2: "*InsurTech simplifies complexities, enhancing efficiency for both buyers and sellers. It elevates the claims process and streamlines decision-making".*

The transformative prowess of InsurTech becomes even more apparent when considering its dual role in internalising processes within insurance companies while concurrently enhancing external, client-facing capabilities through the judicious application of technology.

Participant 5: *"InsurTech plays a dual role, internalising processes for insurers and augmenting external client-facing capabilities through technology".*

Furthermore, innovation within InsurTech thrives on data and blockchain technology, reinforcing its commitment to driving change through technological advancements.

Participant 9: "*Innovation within InsurTech is strongly rooted in data utilisation and blockchain technology, solidifying its dedication to driving change through technological breakthroughs".*

In conclusion, the driving force behind InsurTech finds its anchor in technology and digital innovation, with the ultimate objective of creating sustainable value for clients and aiding competitiveness within the insurance industry.

5.3.2.2 Enhancing Internal and External Processes

InsurTech has ushered in a new era of possibilities, offering innovative distribution channels that expand the horizons of insurance companies. As one participant pointed out:

Participant 7: *"I think InsurTech does provide you with new distribution channels".*

This wave of technology-driven transformation profoundly impacts a company's internal operations, making it more agile and efficient. This efficiency is often achieved through economies of scale, ultimately resulting in cost savings, a benefit that is passed on to customers. As one participant emphasised:

Participant 9: "*InsurTech makes your company more efficient. So, it's cheaper to process business because it's a game of scale".*

This efficiency-driven approach contributes to a win-win scenario, where customers benefit from streamlined processes, cost-effective solutions, and an overall improved experience:

Participant 10: "*Obviously, if companies benefit from employing technology that makes things a bit more efficient and less expensive, if we consider the total costs of a value chain, that makes it better for customers as well. So, things that contribute to a win-win type of situation".*

InsurTech's ability to enhance internal and external processes positions it as a powerful catalyst for positive change, benefiting insurers, clients, and the industry. This comprehensive exploration of InsurTech has revealed a dynamic and transformative force that is reshaping the insurance industry.

In conclusion, the analysis, grounded in the insights gathered from interviews, has highlighted key aspects of InsurTech's definition, driving factors, evolution, and impact on sustainability and competitiveness and enhancing internal and external processes. Figure 5.2 serves as a visual depiction that encapsulates the central theme, *InsurTech and its Driving Forces*, within the context of the broader research study.

This visual representation is designed to offer a clear and organised overview of the fundamental theme and its interconnected subthemes, which collectively explore the role and importance of InsurTech in the insurance industry. The evolution of InsurTech fosters competitiveness and sustainability and enhances internal and external processes through the adoption of InsurTech solutions.

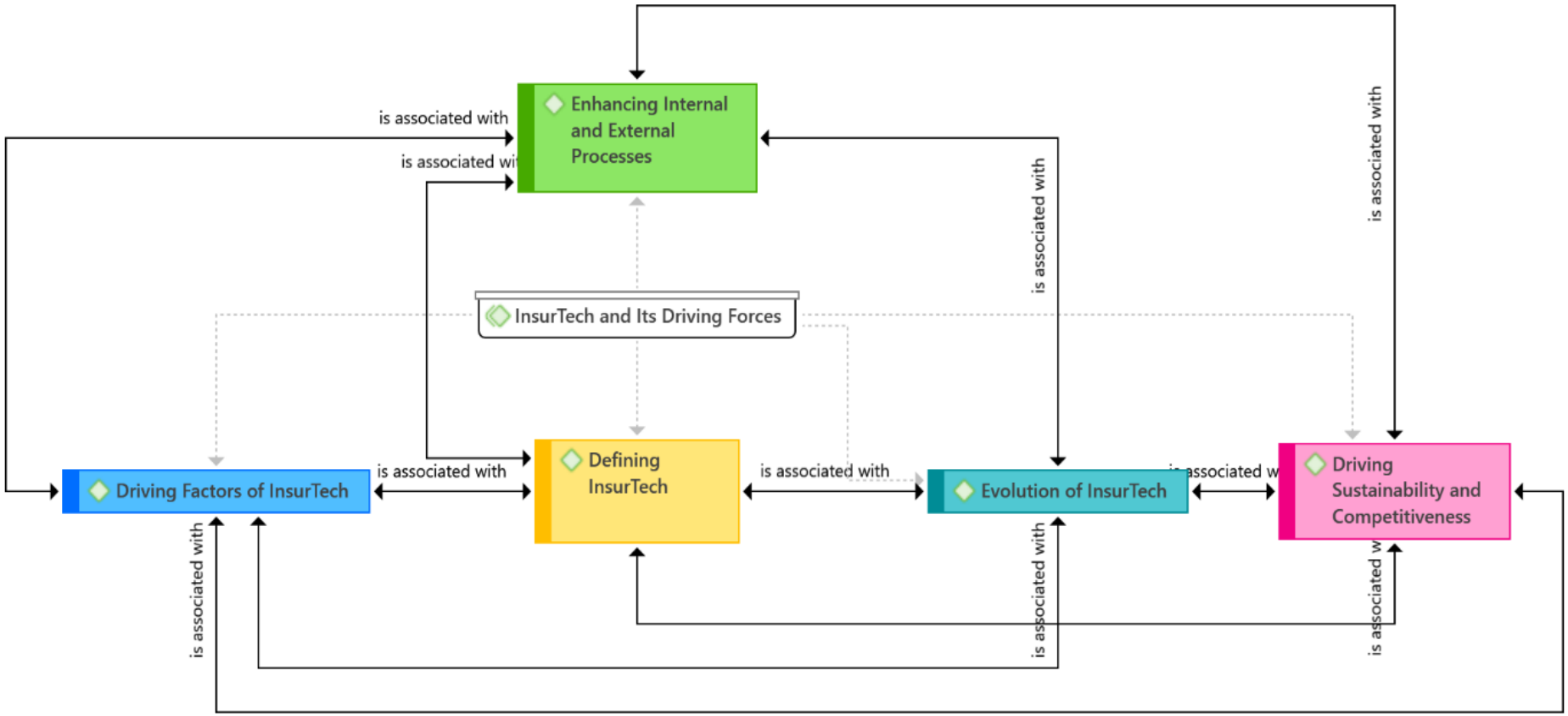

Figure 5.2: What are the drivers of InsurTech in the insurance industry

5.4 Does InsurTech drive innovation in the insurance value chain

This section presents the findings focusing on Research Question 2: *Does InsurTech drive innovation in the insurance value chain?*

The research context, objectives, and specific research questions are outlined in this section. The researcher conducted 12 interviews with representatives from traditional insurance companies. The goal was to investigate the impact of InsurTech on the insurance industry's value chain, identify current challenges, and explore opportunities and threats presented by InsurTech. To comprehensively analyse the findings, the research has systematically categorised them into primary themes and corresponding subthemes, as illustrated in Table 5.3. For a detailed reference, Appendix F contains a comprehensive list of all the codes utilised during the thematic analysis.

Table 5.3: Does InsurTech drive innovation in the Insurance Value Chain

Research Question 2	Subthemes	Key Themes
Does InsurTech drive innovation in the insurance value chain	Data Aggregation and AI-Driven Automation	Technological Innovation and Disruption
	Client Onboarding Autonomy Through Self-Service	
	Efficient Customer Onboarding	Enhanced Customer Experience and Engagement
	Streamlined Sales Processes	Operational Efficiency and Cost Reduction
	Personalisation and Risk Mitigation	Risk Management and Underwriting
	Consumer Behaviour and Ethical Concerns	Regulatory and Ethical Considerations

5.4.1 Technological Innovations and Disruptions

InsurTech is driving technological innovation and disruption within the insurance value chain, particularly in terms of disintermediation. Traditional insurance brokers are being challenged, as InsurTech allows direct interaction between insurers and the insured. One participant highlighted this trend, stating:

Participant 1: *"Like I said previously, it's in terms of the value chain. Then, that whole issue of the elimination of insurance brokers from the whole, from the traditional insurance model. I think that's just a huge thing that we hear about in terms of insurer techs. So, it's more like you now deal directly".*

Another participant noted the challenges this poses, saying:

Participant 6: "*Tech starts nullifying the role of advisors. Those are the challenges we're facing because now we have to deal with that narrative".*

The integration of technology in the insurance value chain also enables a deeper understanding of clients. As one participant pointed out:

Participant 9: *"You want to understand the client intimately so that you can actually underwrite him and hyper-personalise the product".*

Furthermore, the facilitation of technology in the insurance industry has transformed the way consumers interact with insurance companies.

Participant 10: *"So, I think there's been, if we go back almost a decade... consumers are a bit more tech-savvy... that facilitation comes through technology".*

InsurTech has brought significant opportunities and challenges, particularly regarding the role of intermediaries within the insurance ecosystem. While it has caused major disruptions, it is important to recognise that InsurTech can create new avenues for intermediaries and advisors to offer more customer-centric services. One noteworthy aspect is the empowerment of advisors. This is manifested in the simplification of complex backends. InsurTech streamlines complex processes, enabling advisors to navigate digital complexities seamlessly. This results in a more efficient and agile advisory process.

Participant 8: "*At the end of the day, it is about that single pane of glass that advisors can look at to see their customers and interact with them. It takes all the data from those backends, with their inherent complexities, and presents it in a front end accessible to the advisors through a single portal".*

This transformation streamlines operations and empowers advisors to focus on what matters most by delivering exceptional customer service and tailored insurance solutions. It represents a shift towards a more efficient and customer-centric approach, ultimately benefiting intermediaries and policyholders.

5.4.2 Enhanced Customer Experience and Engagement

InsurTech is transforming the insurance landscape by offering tailor-made solutions and assessing customer behaviour. The emphasis on self-service tools and digital channels has become crucial in delivering a seamless, efficient, and speedy customer experience. This customer-centric approach enhances the overall experience for policyholders. As one interviewee noted:

Participant 1: *"We assess your behaviour, and then we rate you based on how you behave".*

InsurTech is aligning insurance products with individual customer needs.

Participant 7: "*If the client can define their need and get a premium and then accept there and then without having to speak to somebody, that becomes quite important for clients".*

It is, however, worth noting that while InsurTech has made insurance more accessible and fashionable, accessibility does not necessarily equate to a deep understanding of insurance products, as highlighted by this quotation:

Participant 11: *"Direct... made the product offering easily accessible... fashionable... [but] accessible does not necessarily equate to understanding what that is".*

5.4.3 Operational Efficiency and Cost Reduction

Efficiency gains through technology are a trademark of InsurTech. Automation and streamlined processes have reduced the time required for various insurance operations. It simplifies processes for both insurers and policyholders, reducing operational costs. As a participant pointed out:

Participant 2:" *It improves efficiency instead of underwriters going through streams and streams of documents on their laptops".*

InsurTech streamlines decision-making and provides customers with real-time information, improving their overall experience.

Participant 8: *"In our dev sec pipelines, we can deploy things in under a day, whereas previously, you used to spend 3, 4, or 5 days trying to deploy something".*

Furthermore, the integration of technologies like robotics and data analytics is helping to remove manual tasks and improve resource allocation.

Participant 8: *"We've obviously got robotics on top of that, which we've deployed in certain areas which can get rid of the mundane human tasks that somebody has to do repetitively".*

5.4.4 Risk Management and Underwriting

InsurTech is reshaping risk management and underwriting processes. InsurTech has enabled incumbent insurers to assess risks more accurately and efficiently through advanced data analysis. The availability of real-time data and AI-driven decision-making processes has reshaped underwriting practices. It enables rapid data extraction from various sources, facilitating quicker underwriting decisions. InsurTech has significantly impacted risk management practices. While data-driven insights improved risk assessment, concerns about new risks, such as fraud, emerged. This efficiency benefits both insurers and customers. As one interviewee stated,

Participant 4: "*Processes that used to take a day or two can now be done in minutes or hours".*

Participant 8: *"On the data-lake side, the ability to take a lot of our data, put it into these big storage blobs and then have the ability to analyse it, interrogate it, ask it questions, and give us answers is going to add massive value".*

Participant 12: *"With InsurTech, you identify, you place, you already do things... the turnaround time is quicker... InsurTech is going to take away the intermediaries".*

5.5 Regulatory and Ethical Considerations

Integrating technology in the insurance industry necessitates careful consideration of regulatory and ethical implications, ensuring the responsible and secure use of data and technology to benefit insurers and policyholders. As incumbent insurers leverage technology and data, they are compelled to navigate the complexities of compliance and ethical data use. This includes ensuring data security and maintaining transparency. As one participant noted:

Participant 3: "*How timely is it, how much is it, and then what controls are you having in place to make sure that your own environment is safe, and their environment is safe to be able to plug into yours?"*

Participants emphasised the complexity of integrating technology in compliance-driven environments, stating:

Participant 8: *"It's always going to be complex. It's not like you're going to rip it out one day and replace it, so you've got to overlay a thin skin that kind of brings it together and makes it easy for the advisors".*

In summary, the insights gathered from the interviews provide a compelling narrative of the transformative impact of InsurTech on the insurance industry. The themes extracted from these discussions offer a comprehensive view of how technology reshapes the landscape. Figure 5.3 serves as a graphically illustrates the impact of InsurTech on the traditional insurance value chain. This visual

illustration aims to provide a comprehensive overview of how InsurTech disrupts and reshapes various components of the insurance industry's value chain, highlighting key transformational areas influenced by technological advancements and innovation.

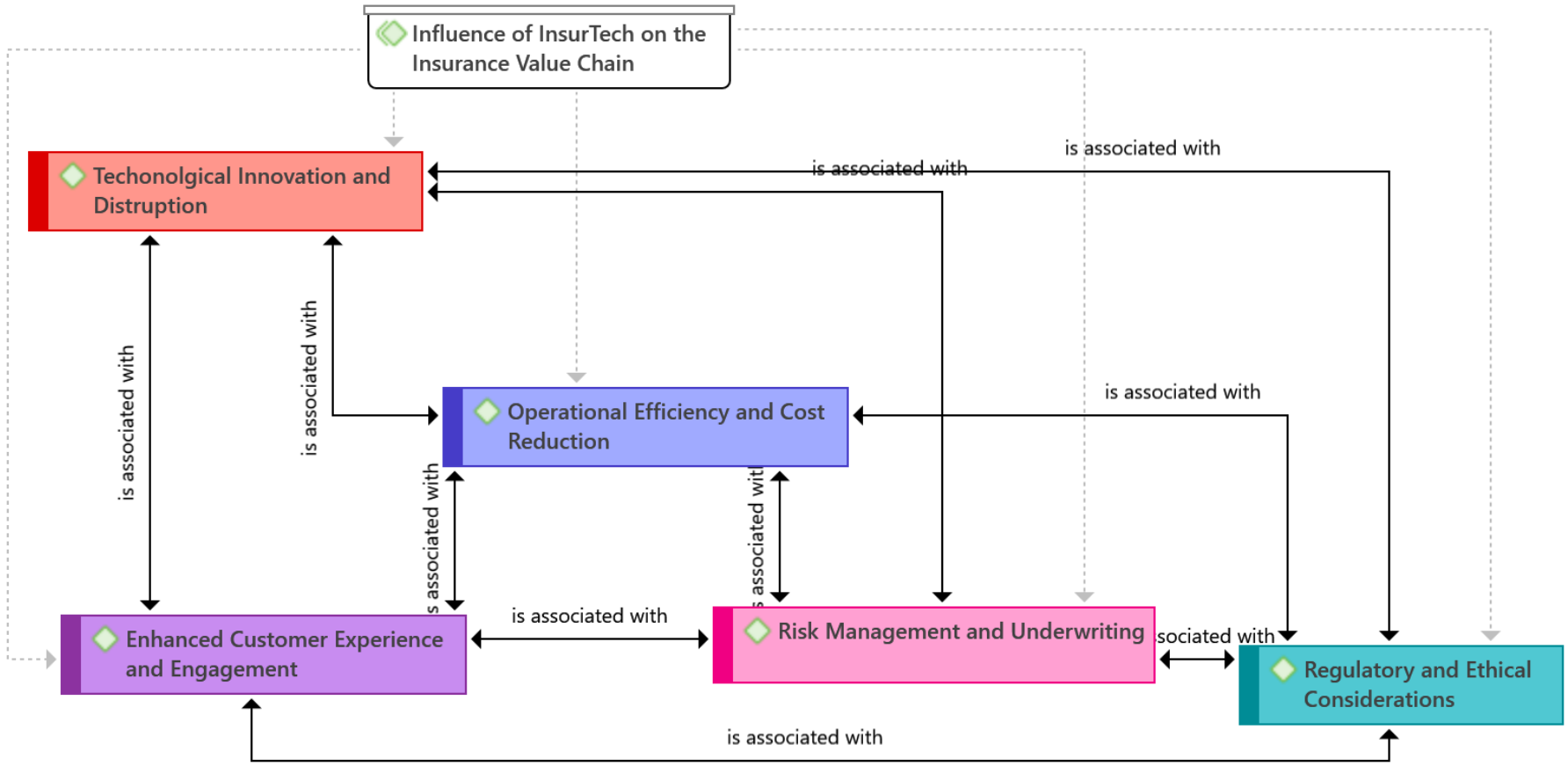

Figure 5.3: Does InsurTech drive innovation in the insurance value chain

5.6 What are the Gaps and Opportunities that InsurTech has on the Incumbent Insurance Value chain

This section presents the findings on Research Question 3: *What are the Gaps and Opportunities that InsurTech has on the Incumbent Insurance Value Chain?*

The research context, objectives, and specific research questions are outlined in this section. The researcher conducted 12 interviews with representatives from both traditional insurance companies. The research question aimed to identify the gaps between the existing insurance value chain and the value chain needed to factor in the emergence of InsurTech. Further, the question sought to establish whether insurers need to be agile and innovate their current value chains in response to the emergence of InsurTech. To facilitate a comprehensive analysis of the findings, the research has systematically categorised them into themes and corresponding subthemes, as illustrated in Table 5.4. For a detailed reference, Appendix F contains a comprehensive list of all the codes utilised during the thematic analysis.

Table 5.4: What are the Gaps and Opportunities that InsurTech has on the Incumbent Insurance Value Chain

Research Question 3	Sub-themes	Theme
What are the Gaps and Opportunities that InsurTech has on the Incumbent Insurance Value Chain	Efficiency and Automation	Advantages and disadvantages of InsurTech
	Customer Experience and Trust	
	Competition and Market Dynamics	
	Regulatory Challenges	
	Legacy Systems and Integration	
	Costs and Investments	
	Emerging Trends	

5.6.1 Efficiency and Automation

Participants acknowledged the considerable advantages of InsurTech in enhancing efficiency and automation. They emphasised the swift onboarding processes and personalised underwriting capabilities. These elements promised quicker and more tailored services to customers.

Participant 1: *"The fact that I think I've spoken about then the turnaround times, how quick the onboarding process is... there's a lot of rewards and things that get sold to customers".*

It is, however, worth noting that concerns arose regarding the unintended consequences of constant monitoring, potentially affecting customer behaviour negatively.

The advantages for traditional insurers in adopting InsurTech are evident in the efficient and cost-effective claim processing, thanks to technologies like APIs. Nevertheless, participants also acknowledged potential disadvantages, such as the challenge of replacing the human element in customer service, where empathy is expected.

Participant 4: *"The advantage for traditional insurers is that InsurTech brings the latest technology. For example, processing a claim can now be done more efficiently and cost-effectively using technology like APIs… Removing the human element may affect the customer experience as people expect empathy that machines cannot provide".*

5.6.2 Customer Experience and Trust

Participants highlighted the significance of trust and transparency in customer relationships. While having policies and quotes in one place was advantageous, concerns about customer understanding and access to support were also raised. Furthermore, participants highlighted the significance of trust and transparency in customer relationships. While having policies and quotes in one place was advantageous, concerns about customer understanding and access to support were also raised.

InsurTech emerged as a catalyst for enhancing customer experiences through personalisation and incentives. Participants recognised the potential for InsurTech to create bespoke insurance solutions tailored to individual needs.

Participant 1: *"The cover you have is really bespoke... but what I've found is that there could be unintended consequences whereby... it could impact your behaviour negatively".*

InsurTech significantly impacted risk management practices. While data-driven insights improved risk assessment, concerns about new risks, such as fraud, emerged.

5.6.2.1 Disadvantages

While InsurTech contributes to better client experiences, the participants stressed the importance of human interaction in providing empathy that machines cannot replicate. Building trust with clients, brokers, and partners when introducing new technologies was considered time-consuming. Participants noted that some individuals remained sceptical about relying solely on technology. Furthermore, participants expressed concerns about the loss of the human touch in customer interactions and the need for effective explanations in case of issues. Building trust with clients, brokers, and partners when introducing new technologies was considered time-consuming. Participants noted that some individuals remained sceptical about relying solely on technology.

Participant 2: *"The downside of that is if the customer doesn't understand that... there's no one to explain that there's no basic call centre or a person that you can pick up the phone to say, 'This is my problem, etc.".*

Participant 4: "*It creates better experiences for the clients...People expect someone to show empathy, and that machines cannot do".*

Participant 7: "*It takes time to build that trust. It takes a lot of engagement and selling that technology to them".*

Participant 11: *"This speaks to people...just don't trust technology in itself".*

5.6.3 Competition and Market Dynamics

5.6.3.1 Advantages

InsurTech's influence on competition and market dynamics was notable. Traditional insurers needed to adapt to new technologies to remain competitive. InsurTech was seen as a leveller, allowing players to compete more freely.

Participant 6*: "InsurTech gives the players a more even playing field... you can compete anywhere freely".*

5.6.3.2 Disadvantages

However, the rapid adoption of technology came at the cost of job losses, which posed a downside for the industry. Additionally, while InsurTech can empower companies with valuable data and data-driven decision-making capabilities, the insurance market's saturation, including banks and retailers, made entry challenging for new startups.

Participant 2: "*The advantages are it's streamlined, it's quick, it's cost-effective... That's a plus for the insurance company. It's a negative for the industry because of job losses*".

Participant 8: *"The market is quite saturated. So, specifically in South Africa, the insurance market has got a number of players in it. A new startup is probably entering the market. It's quite saturated".*

5.6.4 Regulatory Challenges

5.6.4.1 Advantages

The regulatory landscape emerged as a critical theme. Participants highlighted the need for regulations to adapt to InsurTech advancements. They also noted the potential for smart technology adoption to simplify compliance processes.

Participant 1*:"... there's also than the other arm that we need to consider of other regulations that could be impacted by what we do".*

5.6.5 Legacy Systems and Integration

The integration of InsurTech with legacy systems was a point of discussion. While participants recognised the advantages of technology adoption, they also expressed concerns about losing the human element in customer interactions.

5.6.5.1 Disadvantages

The use of AI, automation, and machine learning in InsurTech led to the perception that the human element was being lost. Integrating InsurTech into legacy systems was considered a costly and complex challenge, particularly for traditional insurance companies.

Participant 2: "*So, the use of artificial intelligence, automation... That human element has been lost now with InsurTech because everything is using artificial intelligence, automation, machine learning..."*

Participant 7: "*So, I think Insurtech is great, but integration often is a challenge. So, I think if you've got a lot of legacy systems, that integration becomes quite costly and complex*".

5.6.6 Costs and Investments

5.6.6.1 Advantages

InsurTech was seen as a cost-effective solution for insurers, promising efficient processes. However, concerns about job losses and reduced margins due to technology adoption were raised.

Participant 2: *"Another plus for insurers is the margins become less... The negative on that is InsurTech has the propensity for people to load lots of fictitious claims, and I think fraud is an element, is a downside".*

5.6.6.2 Disadvantages

While there are initial investments, participants recognised that InsurTech can yield long-term benefits, including cost savings and improved return on investment.

Participant 7: *"One can create a lot of efficiencies, which can lead to cost savings over time".*

Participants acknowledged that the hype around new technologies could lead to investments in areas that may not yield immediate commercial payback.

Participant 8: *"If you move too early, and blockchain is a great example, you'll spend lots of money on blockchain, and it's a bit of a rabbit hole. Returns are not there in the short term".*

5.7 Emerging Trends

Participants recognised the insurance industry's shift towards digitalisation and the growing influence of InsurTech. However, they voiced apprehensions about

the capacity to effectively embrace new technologies, particularly within the intricate landscape of corporate insurance.

One participant highlighted the distinctions between personal and corporate insurance and between short-term and long-term strategies:

Participant 1: "*I think there are just two distinct factors in that, maybe in personal lines or in corporate, and also then maybe the short term and then the long-term... what then are those differences?".*

Additionally, another participant emphasised the potential benefits of adopting emerging technology, emphasising how it can unlock new opportunities and enable global participation:

Participant 6: *"It opens up lots and lots of other doors... allows us to be a global player".*

In conclusion, the adoption of InsurTech within the traditional insurance value chain presents a myriad of advantages and disadvantages. While promising enhanced efficiency, personalised customer experiences, and competitive advantages, it also raises concerns about job losses, regulatory challenges, and the loss of the human touch. The industry must tread carefully, leveraging the benefits of technology while addressing its challenges to remain competitive and uphold customer trust in a rapidly evolving landscape. Figure 5.4 provides a schematic network map illustrating the interplay between the advantages and disadvantages of adopting InsurTech within the traditional insurance value chain.

This visual representation effectively conveys the relationships between individual themes and their connection to the overarching theme

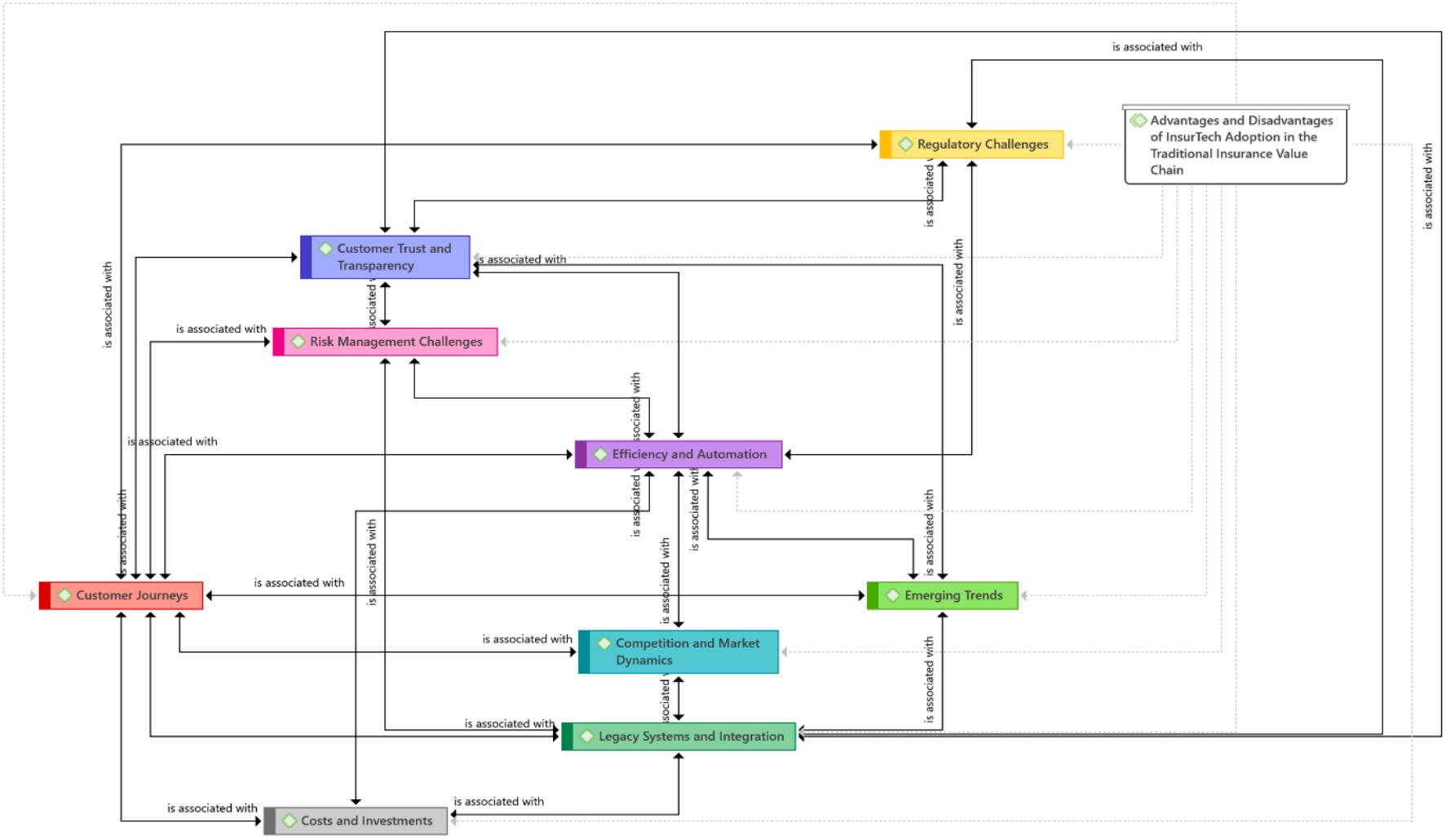

Figure 5.4: What are the Gaps and Opportunities that InsurTech has on the Incumbent Insurance Value chain

5.8 Chapter Summary

The first research question aimed to understand the role and importance of InsurTechs in the insurance industry. The range of technologies InsurTechs uses is constantly expanding and evolving, changing how insurance is delivered. The analysis shows that this can be highlighted through key aspects of the Insurtech definition, drivers, development and impact on sustainability and competitiveness, and improvements in internal and external processes.

The second research question addressed current challenges in the traditional insurance value chain. Additionally, this study aims to determine whether InsurTechs are impacting the value chain of existing insurance companies and highlight the opportunities and risks that InsurTechs pose to the insurance industry and its value chain. The findings show that the key impacts were on innovation and disruption, improved customer experience and engagement, operational efficiency and cost reduction, risk management and underwriting, and regulatory and ethical considerations.

The third research question focused on the advantages and disadvantages of insurtech adoption in the traditional insurance value chain. The main advantages and disadvantages were efficiency and automation, customer experience, competition and market dynamics, regulatory challenges, legacy systems and integration, cost and investment, risk management, customer trust and transparency, and emerging trends.

Chapter 6 Discussion of Findings

6.1 Introduction

This chapter details the discussion of the findings of the thematic analysis of the data collected in the 12 semi-structured interviews described in Chapter 5. This chapter discusses the findings related to each research question that addresses the adoption of InsurTech on the incumbent insurance industry value chain. The findings are discussed in Chapter 3 and then interpreted based on the literature review presented in Chapter 2. In this discussion, we compare the research findings with existing literature based on the academic concepts of value chain, value chain innovation, and InsurTech in the financial services industry discussed in Chapter 1. The chapter ends with a summary of the findings discussed. This is the basis for developing a model of how different research questions interact to determine the impact of insurtech on existing insurance company business models, presented in Chapter 7.

6.2 Discussion of Research Question 1: What are the drivers of InsurTech in the insurance industry?

The research question was focused on gaining nuances on the key drivers of InsurTech in the insurance industry by unpacking the role and importance of InsurTechs in the insurance industry. InsurTechs are transforming the insurance industry by leveraging technology to meet business and customer needs and solutions based on the availability of new data sources, interconnectivity between parties, and access to new opportunities based on risk hedging. It has played a fundamental role in promotion and transformation (Sosa & Montes, 2022).

6.2.1 Role of InsurTech (Defining, driving force and evolutionary trajectory)

Lanfranchi and Grassi (2021) suggests that digitalisation is changing the financial and insurance ecosystem, where technology-driven innovation is fundamentally changing the insurance industry landscape and how insurance products/services are rendered, where new capabilities such as telematics, AI, machine learning, and automation continue to transform the insurance value chain and create new and improved omnichannel experiences for customers (Irlbeck et al., 2022).

Lanfranchi and Grassi (2021) further suggests that InsurTech is a phenomenon in which traditional and non-traditional market participants use technology to provide insurance services. Five research participants agree with Lanfranchi and Grassi (2021) that InsurTech is the convergence of technology and insurance, fundamentally changing the industry landscape. It serves as an expression of the ongoing digital revolution, which focuses on the digitalisation of insurance processes. Research participants further agree with the literature that InsurTech continues its evolutionary journey as the insurance industry adapts to the digital age. This has expanded beyond its original definition to include everything from improving the customer experience to data-driven underwriting. The evolution of insurtech reflects the broader changes occurring within the industry in response to changing customer expectations and dynamic market forces.

These research participants further highlighted that the main driver for InsurTech is customer experience, where customers are seeking efficient service from their insurance. The use of InsurTech will enable incumbent insurers to meet those customer needs. These needs vary from the onboarding to the claims process. The views mentioned by the research participant are aligned with the literature where Eckert et al. (2022) suggested that digitalisation influences and changes customer behaviour, expectations and requirements. The insurance market has taken notice of the InsurTech phenomenon, which is said to be beneficial to customers due to the flexibility and simplicity of the innovation process. Therefore, managing customer satisfaction has become increasingly important and difficult for existing insurance companies.

Chang (2023); Merello et al. (2022) suggests that the use of InsurTech by incumbent insurers will increase the efficiency of operations, which translate into a reduction in operating and transaction cost. Eight research participants agree with Merello et al. (2022) and Chang (2023), as it was mentioned that increased use of InsurTech by incumbent insurers will foster more efficient internal processes, reducing operating costs.

6.2.2 Importance – Driving Sustainability and Competitiveness

Irlbeck et al. (2022) suggests that technology-driven innovation is fundamentally changing the insurance industry, where the emergence of InsurTech is transforming nearly every aspect of the insurance value chain and creating new and improved omnichannel experiences for customers. While Ching et al. (2020) agree with Irlbeck et al. (2022), they further stated that consumers are increasingly adopting technology solutions such as chatbots, improved communication technologies, and omnichannel that enable new business, increase efficiency across the value chain, reduce costs, and increase consumer access. Three research participants agree with the literature that InsurTechs are leaders in leveraging technology to create significant value for customers while ensuring the long-term sustainability of insurers in an increasingly competitive environment. Technological advances and continued customer demand for increased convenience have primarily driven this paradigm shift. One participant elaborated that the transformative power of InsurTechs becomes even clearer when you consider their dual role in internalising processes within insurers while enhancing external customer-facing capabilities through the smart use of technology.

6.2.3 Importance – Enhancing Internal and External Processes

Chang (2023) argues that to avoid disruption by insurtech companies and gain competitive advantage, incumbent insurers are investing in technology through insurtech-focused external or internal investments to improve operational efficiency. It is further argued by Chang (2023) that there is a need to increase

productivity and reduce operating costs. From the perspective of internal investments in technology, digitisation, automation, and BDA, linked technology applications can be used to increase organisational efficiency and synergy.

Three research participants concur with the literature by emphasising that Insurtech has opened up a new era of possibilities, offering innovative distribution channels that expand the horizons of insurers. This wave of technology-driven transformation is impacting companies' internal operations, making them more agile and efficient. This efficiency is often achieved through economies of scale, ultimately leading to cost savings passed on to customers. One research participant emphasised that InsurTech makes business more efficient. This efficiency-focused approach contributes to a win-win scenario where customers benefit from optimised processes, cost-effective solutions, and an improved overall experience. InsurTechs' ability to improve internal and external processes is a powerful catalyst for positive change that benefits insurers, customers, and the industry. This comprehensive study of insurtech reveals the dynamic and transformative forces reshaping the insurance industry.

6.3 Research Question 2: How does InsurTech influence the insurance value chain?

Ricciotti (2020) suggests that two types of competitive advantage can be achieved through the value chain: cost advantage and differentiation. Throughout Porter's work, it is clear that information technology (IT) plays a paramount role, as it provides an opportunity to create a competitive advantage, generate new business, and transform the way companies operate. In order to survive, it is essential to adapt to changes in technological developments. Marsh & Stock, (2006) and Porter (1985) defines a value chain as a system of subsystems with inputs, transformation processes, and outputs that provide value, where an organisation's key assets and operations or processes enable the organisation to achieve a competitive advantage.

6.3.1 Enhanced Customer Experience and Engagement

Reinartz et al. (2019) suggests that from a customer perspective, automation creates value in two ways: Autonomous communication and marketing. This includes providing real-time communication, the use of chatbots, and setting reminders. Secondly, automating the routine process for customers includes auto-renewal of contracts. In addition Faizova et al. (2020) suggest that InsurTech allows insurers to gain insight into changing consumer behaviour. This allows for improved underwriting for specific risks and the creation of new services and risk protection product development based on the individual needs of customers This ultimately leads to a better customer experience. Blockchain smart contracts, AI, self-driving transportation, and cybersecurity protect consumer identities and enable new coverage for risks.

Three research participants concur with Faizova et al. (2020) that InsurTechs are changing the insurance landscape by providing customised solutions and assessing customer behaviour. In addition, the research participants agree with Reinartz et al. (2019) that InsurTech fosters seamless, efficient and fast customer experience with self-service tools and digital channels. This customer-centric approach improves the overall policyholder experience.

6.3.2 Operational Efficiency and Cost Reduction

Ma & Ren (2023) suggests that insurance is inherently data and intelligence-intensive. New technologies based on big data and AI are expected to improve insurance products and increase efficiency. Chang (2023) further states that to avoid disruption by InsurTech startups and achieve competitive advantage, incumbent insurers invest in technology through insurtech-focused external or internal investments and improve their operations. It explains the need to increase efficiency and reduce operating costs.

Three research participants agree with Ma and Ren (2023) and Chang (2023) by pointing out that improving efficiency through technology is a hallmark of InsurTech, and investing in automation and process optimisation has reduced the time spent on various insurance tasks. This simplifies processes and reduces

operational costs for both insurers and policyholders. One participant pointed out that this increases efficiency as insurance companies no longer have to review countless documents. Furthermore, the integration of technologies like robotics and data analytics is helping to remove manual tasks and improve resource allocation. One research participant stated that robotics are deployed in certain areas, which can get rid of the mundane human tasks that somebody has to do repetitively. Considering the views of the participants and literature, it is evident that the emergence substantially impacts process efficiency and productivity, resulting in a noticeable cost saving.

6.3.3 Risk Management and Underwriting

According to Cappiello (2020) value chain innovations enable more accurate calculations in underwriting to identify insurable risks. In this regard, IoT/big data analytics technologies open the door to new possibilities for risk and damage assessment and management. Technology development impacts financial, i.e. insurance operations, by minimising the human factor at the transaction level and improving consumer satisfaction, risk management, and fraud detection through machine learning and AI (Gomber et al., 2018). Three research participants concur with the literature by Cappiello (2020) and Gomber et al. (2018) that Insurtechs are redesigning risk management and underwriting processes. Insurtech has enabled incumbent insurers to assess risk more accurately and efficiently through advanced data analytics. The availability of real-time data and AI-driven decision-making processes has transformed insurance underwriting. Enables rapid data extraction from a variety of sources, facilitating faster underwriting decisions. Insurtechs are having a significant impact on risk management practices. While data-driven insights have improved risk assessments, they have also raised concerns about new risks, such as fraud. Both insurers and customers benefit from this efficiency.

6.4 Research Question 3: What are the advantages and disadvantages that InsurTech has on the traditional insurance value chain?

Eling and Lehmann (2018) suggests that there is an increased reliance on virtual communication, where InsurTech is impacting the way insurers interact with existing and potential policyholders. Insurers find themselves needing to adapt by creating aggregator platforms where customers can request and compare quotes without physically engaging with an insurer or intermediary. One research participants concur that the emergence of InsurTechs has resulted in the declined use of intermediaries or insurance brokers. The development of InsurTech promises a more customer-centric approach for insurers by enabling direct communication with the insured by "cutting out the middleman", in this case, the intermediaries. Additionally, the emergence of InsurTech is expected to improve underwriting and risk as it is expected to enable the delivery of customised products tailored to customer behaviour and needs. However, two participants indicated that a full dis-intermediatory strategy would not necessarily enhance the competitive advantage of incumbent insurers. The participants elaborated that brokers need to be part of the digitalisation journey. With the emergence of Insurtech, the role of brokers will evolve to more of a data specialist that is aimed at understanding the customer rather than just selling a product. Once onboarded, the customer will be directed to a self-service platform where they can submit claims and maintain their personal records on the platform. Considering what literature and research participants presented regarding the advantage of InsurTechs on having a direct link with customers and less reliance on intermediaries, the intermediaries cannot be fully removed from the insurance value chain. The key consideration is the role of these intermediaries as the insurance landscape and the needs of customers continue to evolve.

Contrary to the literature, which suggests that the emergence of InsurTech will provide access to the uninsured market Bohnert et al. (2019). One participant argued that the biggest issue or challenge with the increased use of InsurTech solutions by insurers is that previously excluded populations may continue to be excluded in terms of access and service offerings. Internet connectivity is essential when using many technologies, and therefore, being able to purchase

a mobile phone is one thing, but access to data and the Internet is a constraint. Considering what the participant indicated and referring to the South African context, the current economic landscape and inadequate infrastructure of developing countries, customers and potential customers may continue to be excluded when it comes to accessing insurance-related apps. Customers tend to be more conservative in their mobile data usage, whereas, on average, customers consume their mobile data on social media rather than on an insurance app. Furthermore, adequate telecommunication infrastructure in remote and rural areas is a limiting factor, where the quality of the network coverage restricts customers from engaging in InsurTech solutions, such as self-service apps.

Faizova et al. (2020) suggests that the introduction of digital technologies accelerates decision-making in all business processes of insurance companies and allows the development of new personal insurance products that meet the needs of modern customers. Another advantage of using InsurTech is that it takes into account real data to create a more accurate and individualised assessment of the risks assumed by insurers, therefore allowing for better fraud detection and risk management. (Cappiello, 2020). The research participants agree with Faizova et al. (2020) and Cappielo (2020) that the increased emergence of InsurTechs fosters efficiencies where processes that previously took a day or two can now be completed in minutes or hours.

Roger (1983) suggests that knowledge plays a pivotal role in insurers making decisions on the adoption of InsurTech. Understanding InsurTech and its key drivers will enable insurers to make sound decisions regarding the InsurTech solution to adopt. It is, however, worth noting that literature considers knowledge from the perspective of the insurer and not the insured. Two participants noted that InsurTech would create accessibility to insurance products and services; however, it does not dispel knowledge and trust issues. Customers might have increased access to insurance, but they might not understand the service offering, and InsurTech does not address the problem of knowledge. One research participant noted that while InsurTech has made insurance more accessible and fashionable, accessibility does not necessarily equate to a deeper understanding of insurance products. Literature, in this instance, does not take into account the knowledge from a customer's perspective. It rather focuses on

the knowledge that insurers require regarding making a decision on the adoption of InsurTech solutions.

Literature suggests that existing insurance industry regulations do not support digital technologies (SAIA, 2019). Globally, consumer rights and data protection are important trends influencing policy and regulation in the insurance sector. Technology innovations directly impact the growing privacy and security challenges for insurance companies and other IoT technology users (Zhou et al., 2019). Policyholders may not be aware that their data is being transferred through their insurance company or service provider's network or storage device. This invisible data collection poses new digital trust and privacy challenges for the insurance industry (Moodley, 2019). Using InsurTech for data collection allows insurance companies to provide services to their policyholders that they cannot otherwise provide. At the same time, insurance companies must prevent the potential loss of this data as it may compromise security or endanger policyholder privacy (Moodley, 2019). In a connected world, it is important to quantify how data generated is used to benefit policyholders directly and which data generation exposes policyholders to unnecessary risks. It is often difficult (Zhou et al., 2019). From a regulatory perspective, research participants concur with (Moodley, 2019; Zhou et al., 2019) that integrating technology into the insurance industry requires careful consideration of regulatory and ethical implications to ensure that data and technology are used responsibly and safely for the benefit of insurers and policyholders. As incumbent insurers leverage technology and data, they are being forced to navigate the complexities of compliance and ethical data use. This includes ensuring data security and maintaining transparency and compliance with regulations. Literature, however, suggests that the insurance industry is highly regulated, therefore creating a barrier to entry for Insurtech startups.

6.5 Chapter Summary

This chapter presented a discussion of the findings of this study as they related to the research questions outlined in Chapter Three. It was shown that InsurTech influences incumbent insurers' competitive advantage and the insurance

industry's value chain. It was shown that value chain innovation with respect to InsurTech may be a sustainable solution for existing insurers such that they remain relevant and prevent being undermined by external developments in the market like InsurTech. Value chain innovations that should be considered would improve aspects of customer centricity and introduce a competitive advantage and operational efficiencies into the existing insurance value chain. The study also showed gaps between the existing insurance value chain and the state needed to respond to InsurTech: the efficiency of internal processes, customer value proposition and risk management. The findings suggest that building capabilities related to data analytics, underwriting, and general customer service may enable incumbent insurers to address the identified gaps.

Chapter 7 Conclusion and Recommendations

7.1 Introduction

This chapter presents the conclusion of this study through a summary of the findings and their implications on theory and business. Limitations of the study are also discussed, and recommendations for future research are provided.

7.2 Summary of the Research Findings

The study has successfully addressed the research question posed in Chapter One, which is to examine how InsurTechs influence the insurance industry and the competitive advantage of incumbent insurers. The key findings are outlined in the research questions proposed in Chapter Three. Firstly, what are the drivers of InsurTech in the insurance industry? Secondly, does InsurTech drive innovation in the insurance value chain? Moreover, lastly, what are the gaps and opportunities that InsurTech has on the traditional insurance value chain?

7.3 What are the drivers of InsurTech in the insurance industry?

The objective of this research was to understand the InsurTech phenomenon by determining the key drivers of InsurTech in the insurance industry. The first noteworthy finding of this research shows that digitalisation is transforming the financial and insurance ecosystem, with technology-driven innovations fundamentally changing the insurance industry landscape and the way insurance products/services are delivered (Lanfranchi & Grassi, 2021). The study further discovered that this wave of technology-driven transformation is having a major impact on the incumbent's internal operations, therefore becoming more agile and efficient. InsurTechs' ability to improve internal and external processes fosters a

positive change that benefits insurers, customers, and the industry (Chang, 2023).

The study also discovered that one of the main drivers of InsurTech is customer experience. Customers expect seamless and hassle-free service from their insurers, and InsurTech can enable incumbent insurers to meet the needs of these customers. InsurTech enables flexibility and simplicity from onboarding to claims processes and creating value through improved omnichannel experience (Eckert et al., 2022).

Another driver of InsurTech is the need for operational efficiencies that will drive reduced operational costs (Chang, 2023; Merello et al., 2022). This efficiency is often achieved through economies of scale, ultimately leading to cost savings passed on to customers.

The findings of this study further highlighted how InsurTech is opening up a new era of opportunities and providing innovative distribution channels that expand the horizons of insurers. This wave of technology-driven transformation is impacting companies' internal operations, making them more agile and efficient. InsurTechs' ability to improve internal and external processes is a powerful catalyst for positive change that benefits insurers, customers, and the industry.

7.4 Does InsurTech drive innovation in the insurance value chain?

The research questions aimed to examine how InsurTechs are impacting the insurance industry and the value chain of incumbent insurance companies. Insights from this study provide a deeper understanding of insurtech and its impact on the value chain and identify the capabilities that incumbents must develop and maintain to respond to the emergence of insurtech.

The findings of this study showed that InsurTechs are changing the insurance landscape by driving improvements and improvements in the underwriting process through advanced data collection and analysis. Established insurance companies are now able to more accurately assess risk and offer insurance

products and services specifically tailored to customer needs and behaviours (Cappiello, 2020; Faizova et al., 2020; Gomber et al., 2018; Reinartz et al., 2019). This improves the overall experience and satisfaction of your customers. Another finding of this study is that established insurers are looking to make InsurTech-focused external or internal investments to avoid disruption from the emergence of InsurTech startups and gain a competitive advantage. They revealed the need to invest in technology and improve operations. These investments also simplify processes and reduce operating costs due to the manual nature of the insurance business.

7.5 What are the gaps and opportunities that InsurTech has on the traditional insurance value chain?

The objective of the research question was to determine the challenges in the traditional insurance value chain and further uncover the opportunities and/or threats that InsurTech have on the insurance industry and its value chain.

The findings of this study indicate an increased reliance on virtual communication, and the need for seamless customer support is reducing the use of intermediaries and insurance brokers. Insurers are adopting a more customer-oriented approach by dealing directly with customers to enable efficient service (Eling & Lehmann, 2018). Furthermore, although InsurTechs promise access to the uninsured market, as suggested by Bohnert et al. (2019). However, it must be noted that potential access to untapped markets does not guarantee access to untapped markets for incumbents, as potential customers are knowledgeable about insurance and its products.

Another finding of this study is that technological advances have raised privacy and security issues in the insurance industry (Zhou et al., 2019). Policyholders may not be aware that their information is being transmitted through their insurance company or service provider's network or storage device. This invisible and inherent data collection poses new digital trust and privacy challenges for the insurance industry (Moodley, 2019). By collecting data using InsurTech, insurance companies can provide services to their policyholders that they cannot

otherwise provide. On the other side of the coin, insurance companies need to prevent the potential loss of data as it could compromise security or endanger the privacy of policyholders (Moodley, 2019). In a connected world, it is important to quantify how data generated is used for the direct benefit of policyholders and which data generation exposes policyholders to unnecessary risks, and this is often difficult to achieve (Zhou et al., 2019).

From a regulatory perspective, the findings of this study highlighted the need for regulatory and ethical consideration when integrating technology into the insurance industry to ensure that data and technology are used responsibly and safely by insurers (Moodley, 2019; Zhou et al., 2019). As incumbent insurers leverage technology and data, they are forced to address compliance and ethical data use complexities. This includes ensuring data security, maintaining transparency, and complying with legal regulations.

7.6 Contribution to Theory

An important contribution has been made by looking at the insurance value chain and understanding that each activity contributes to the overall competitive advantage. Subsequent to that, determine digitalisation's role in the insurance industry. The application of Porter's Value Chain and the DOI enabled the research of how InsurTech innovations can be adopted in the insurance value chain to enhance customer experience and improve efficiencies while achieving a sustainable competitive advantage. A further contribution is the addition to knowledge in understanding technological advancements and digitalisation. The study fosters a better understanding of these various technological developments and whether those developments are disruptive or innovative in nature.

7.7 Implication for Business

The data collected, and insights from the three research questions show that while incumbent insurers are aware of InsurTech, they also understand the positive impact of InsurTech on the existing insurance value chain and value

chain innovation. I showed that. This study demonstrated a practical way for established insurers to conceptualise the impact of insurtech (and other emerging technologies) on their traditional value chain and their ability to drive innovation in the value chain. In addition to the above framework, this study provides many insights for business practitioners.

- The study found that incumbent insurers are aware of insurance technology developments and the ability to apply them to the existing insurance value chain. Therefore, incumbent insurers must continuously look for effective ways to invest in these technologies to unlock new opportunities to create and capture value for both their customers and the incumbent.
- The study found that InsurTechs have the ability to drive innovation in the value chain. Incumbent insurers will need to build the capabilities needed to facilitate effective InsurTech.
- The study identified competitive advantage, customer-centric approach, and operational efficiency as benefits of business model innovation driven by the industry's InsurTech movement. This study showed that developing internal capabilities is critical to keeping up with the emergence of InsurTech.
- This study reveals the need for incumbents to ensure the security and privacy of customer information and adherence to regulation in the wake of InsurTech.

7.8 Research Limitations

The qualitative nature of this study means that it is likely to be subjective in nature and, therefore, at risk of being influenced by multiple biases (Saunders & Lewis, 2012). The following aspects were identified as limitations of this study.

- The sample was limited to middle to senior managers. The opinions of individuals at lower levels of the organisation could have contributed to the study by understanding the research problem from their perspective.
- A small sample size limits the generalisability of findings to other situations.
- The researcher did not have formal training in qualitative data collection and interview techniques, which may have influenced the interpretation of the findings and the conclusions drawn from the data.

- The sample was limited to South African established insurers and companies where insurance business is conducted via a cell within a cell captive. Based on this, geographic targeting may have influenced participants' responses.
- Researchers work and operate in the insurance industry. This may have introduced bias in the interpretation of the interview data collected.

7.9 Suggestions for Future Research

Recommended areas for future research are listed below;

- Research on how insurtech and full automation will impact your intermediary business.
- Research on the impact of regulation on the effective implementation of InsurTech.

7.10 Study Conclusion

This study provided new insights into the impact of InsurTech on the traditional insurance value chain. To add empirical insights to the literature on FinTech, value chains, and value chain innovation, extensive insights were gained through exploratory and qualitative interviews with 12 insurance professionals from local and multinational insurance companies. The study found that increasing technology developments and insurers' need to make insurance business processes more customer-centric and efficient are accelerating the growth of InsurTech adoption in the insurance industry. InsurTechs have the ability to drive innovation in the value chain through customer centricity, operational efficiency, and creating competitive advantage. The current gaps relate to intermediary businesses, operating models, internal capabilities, and customer value propositions in the existing insurance value chain. The rise of InsurTech requires incumbent companies to develop internal capabilities and invest in new technologies and partnerships.

References

Arifin, S.R.M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars, 1*(2), 30–33. https://doi.org/10.31436/ijcs.v1i2.82

Bagus, U., de Girancourt, F. J., Mahmood, R., & Manji, Q. (2020, December 16). *Africa's insurance market is set for takeoff.* Mckinsey & Company. https://www.mckinsey.com/featured-insights/middle-east-and-africa/africas-insurance-market-is-set-for-takeoff#/

Benchmark International. (2023, July 13). *Global Fintech Industry Report.* https://blog.benchmarkcorporate.com/global-fintech-industry-report

Bichard, J., & Mukhodhyay, A. (2022). *Insurance reimagined: Spotlight on trust, convergence and transformation*. PricewaterhouseCoopers. https://www.pwc.com/gx/en/industries/financial-services/publications/financial-services-in-2025/insurance-in-2025.html

Bohnert, A., Fritzsche, A., & Gregor, S. (2019). Digital agendas in the insurance industry: the importance of comprehensive approaches. *Geneva Papers on Risk and Insurance-Issues and Practice, 44*(1), 1–19. https://doi.org/10.1057/s41288-018-0109-0

Bollaert, H., Lopez-de-Silanes, F., & Schwienbacher, A. (2021). Fintech and access to finance. *Journal of Corporate Finance, 68*, 101941. https://doi.org/10.3102/0013189X034006003

Boote, D. N., & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher, 34*(5), 3–15. https://doi.org/10.3102/0013189X034006003

Bos, J. (2020). *Research ethics for students in the social sciences.* Springer Nature. https://library.oapen.org/bitstream/handle/20.500.12657/42569/1/2020_Book_ResearchEthicsForStudentsInThe.pdf

Cao, S., Lyu, H., & Xu, X. (2020). InsurTech development: Evidence from Chinese media reports. *Technological Forecasting and Social Change, 161*, 120277. https://doi.org/10.1016/j.techfore.2020.120277

Cappiello, A. (2020). The Technological Disruption of Insurance Industry: A Review. *International Journal of Business and Social Science, 11(*1), 1–11. https://doi.org/10.30845/ijbss.v11n1p1

Catlin, T., & Lorenz, J. T. (2017). *Digital disruption in Insurance: Cutting through the noise.* Mckinsey & Company. https://www.mckinsey.com/industries/financial-services/our-insights/time-for-insurance-companies-to-face-digital-reality

Chang, V. Y. (2023). Do InsurTech startups disrupt the insurance industry? *Finance Research Letters, 57*, 104220. https://doi.org/10.1016/j.frl.2023.104220

Chang, V. Y. L. (2023, February 11). Technology investments and firm performance under the wave of InsurTech. *The Geneva Papers on Risk and Insurance – Issues and Practice,* 1–36. https://doi.org/10.1057/s41288-023-00286-w

Chatzara, V. (2020). *FinTech, InsurTech, and the regulators. Insurtech: A Legal and Regulatory View.* Springer. https://doi.org/10.1007/978-3-030-27386-6_1

Chen, M. A., Wu, Q., & Yang, B. (2019). How valuable is Fintech innovation? *The Review of Financial Studies, 32*(5), 2062–2106. https://doi.org/10.1093/rfs/hhy130

Ching, K. H., Teoh, A. P., & Amran, A. (2020). A Conceptual Model of Technology Factors to InsurTech Adoption by Value Chain Activities. *IEEE Conference on e-Learning, e-Management and e-Services* (pp. 88–92). https://doi.org/10.1109/IC3e50159.2020.9288465

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(7), 1043–1078. https://doi.org/10.1111/joms.12349

Clarke, V., Braun, V., & Hayfield, N. (2015). Thematic analysis. In Smith, J. A. (ed.). *Qualitative Psychology: A Practical Guide to Research Methods,* pp. 222–248. (3rd ed.). Sage.

Eckert, C., Neunsinger, C., & Osterrieder, K. (2022). Managing customer satisfaction: digital applications for insurance companies. *The Geneva Papers on Risk and Insurance – Issues and Practice,* (47), 569–602. https://doi.org/10.1057/s41288-021-00257-z

Eling, M., & Lehmann, M. (2018). The impact of digitalisation on the insurance value chain and the insurability of risks. *The Geneva Papers on Risk and Insurance – Issues and Practice, 43*(3), 359–396. https://doi.org/10.1057/s41288-017-0073-0

Ellingrud, K., Kimura, A., Quinn, B., & Ralph, J. (2022, March 4). *Financial Services – Five steps to improve innovation in the insurance industry.* McKinsey & Company. https://www.mckinsey.com/industries/financial-services/our-insights/five-steps-to-improve-innovation-in-the-insurance-industry

England, J. (2023, January 12). *Top 10 Insurtech Investment Funders of 2023.* Insurtech Digital. https://insurtechdigital.com/top10/top-10-insurtech-investment-funders-of-2023

Faizova, A., Kalayda, S., Malova, I., & Solopenko, E. (2020). The Impact of Digitalization Risks on the Business Processes of an Insurance Company. *III International Scientific and Practical Conference Digital Economy and Finances* (pp. 1–4). Atlantis Press. http://doi10.2991/aebmr.k.200423.001

Fucsh, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report, 20*, 1408–1416. https://scholarworks.waldenu.edu/facpubs/455/

Gatherer, G. (2021, May 17). *Insurance & Actuarial Services.* Bizcommunity. https://www.bizcommunity.com/Article/196/363/215871.html

Gebauer, H., Fleisch, E., Lamprecht, C., & Wortmann, F. (2020). Growth paths for overcoming the digitalisation paradox. *Business Horizons, 63*(3), 313–323. https://doi.org/10.1016/j.bushor.2020.01.005

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. https://doi.org/10.1080/07421222.2018.1440766

Gore, N. (2021, March 3). *Insurtech Premiums To Exceed $556bn Globally in 2025.* The Fintech Times. https://thefintechtimes.com/insurtech-premiums-to-exceed-556bn-globally-in-2025/

Gray, J., & Schlemmer, L. (2020, May 29). *The impact of COVID-19 on digitalisation in the insurance sector in sub-Saharan Africa.* Cenfri. https://cenfri.org/articles/the-impact-of-covid-19-on-digitisation-in-the-insurance-sector-in-sub-saharan-africa/

Hickman, E., Kharouf, H., & Sekhon, H. (2020). An omnichannel approach to retailing: demystifying and identifying the factors influencing an omnichannel experience. *The International Review of Retail, Distribution and Consumer Research, 30*(3), 266–288. https://doi.org/10.1080/09593969.2019.1694562

International Association of Insurance Supervisors (IAIS). (2018, November). *Issues Paper on Increasing Digitalisation in Insurance and its Potential Impact on Consumer Outcomes.* https://www.iaisweb.org/uploads/2022/01/181112-Issues-Paper-on-Increasing-Digitalisation-in-Insurance-and-its-Potential-Impact-on-Consumer-Outcomes.pdf

International Monetary Fund (IMF). (2022, June 17). *Country Report: South Africa Financial Sector Assessment Program Technical Note on Insurance Sector.* https://www.imf.org/en/Publications/CR/Issues/2022/06/16/South-Africa-Financial-Sector-Assessment-Program-Technical-Note-on-Insurance-Sector-519728

International Monetary Fund (IMF). (2022, June 17). South Africa Country Report. https://www.imf.org/en/Publications/CR/Issues/2022/06/16/South-Africa-

Financial-Sector-Assessment-Program-Technical-Note-on-Insurance-Sector-519728

Irlbeck, C., McElhaney, D., Smolarova, K., & Dienstag, G. T. (2022, May). *How insurers can accelerate the next wave of growth.* McKinsey & Company. https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/insurance%20blog/how%20insurtechs%20can%20accelerate%20the%20next%20wave%20of%20growth/mckinsey_how-insurtechs-can-accelerate-the-next-wave-of-growth.pdf

Kaffash, S., Azizi, R., Huang, Y., & Zhu, J. (2020). A survey of data envelopment analysis applications in the insurance industry 1993-2018. *European Journal of Operational Research, 284*(3), 801–813. https://doi.org/10.1016/j.ejor.2019.07.034

Kimani, D., Adams, K., Attah-Boakye, R., Ullah, S., Frecknall-Hughes, J., & Kim, J. (2020). Blockchain, business and the fourth industrial revolution: Whence, whither, wherefore and how? *Technological Forecasting and Social Change, 161,* 120254. https://doi.org/10.1016/j.techfore.2020.120254

Kumar, D., & Rajeev, P. V. (2016). Value chain: a conceptual framework. *International Journal of Engineering and Management Sciences, 7*(1), 74–77. https://www.researchgate.net/profile/Dilip-Kumar-12/publication/325110680_Value_Chain_A_Conceptual_Framework/links/5bcd9e71299bf17a1c662b07/Value-Chain-A-Conceptual-Framework.pdf

Kwangsawad, A., & Jattamart, A. (2022). Overcoming customer innovation resistance to the sustainable adoption of chatbot services: A community-enterprise perspective in Thailand. *Journal of Innovation and Knowledge, 7*(3), 100211. https://doi.org/10.1016/j.jik.2022.100211

Lagna, A., & Ravishankar, M. N. (2022). Making the world a better place with fintech research. *Information Systems Journal, 32*(1), 32–61. https://doi.org/10.1111/isj.12333

Lanfranchi, D., & Grassi, L. (2021). Examining insurance companies' use of technology for innovation. *Eurasian Business Review, 11*, 565–585. https://doi.org/10.1007/s40821-021-00189-7

Lanfranchi, D., & Grassi, L. (2021). Translating technological innovation into efficiency: the case of US public P&C insurance companies. *Eurasian Business Review, 11*, 565–585. https://doi.org/10.1007/s40821-021-00189-7

Li, B., & Xu, Z. (2021). Insights into financial technology (FinTech): a bibliometric and visual study. *Financial Innovation, 7*, 1–28. https://doi.org/10.1186/s40854-021-00285-7

Linkov, I., Carluccio, S., Pritchard, O., Bhreasali, A. N.,Galaitsi, S., Sarkis, J., & Keisler, J. M. (2020). The case for value chain resilience. *Management Research Review, 43*(12). https://doi.org/10.1108/MRR-08-2019-0353

Ma, Y. L., & Ren, Y. (2023). InsurTech—Promise, threat or hype? Insights from stock market reaction to InsurTech innovation. *Pacific-Basin Finance Journal, 80*, 102059. https://doi.org/10.1016/j.pacfin.2023.102059

Mahlangu, T. (2019, June 27). The South African insurance industry has the potential to develop products to insure the uninsured. The Insurance Institute of South Africa. https://www.iisa.co.za/blog/the-south-african-insurance-industry-has-the-potential-to-develop-products-to-insure-the-uninsured

MarketLine. (2017). *Global insurance networks.* Market Line Industry Profile. https://store.marketline.com/report/global-insurance

Marsh, S. J., & Stock, G. N. (2006). Creating dynamic capability: The role of inter temporal integration, knowledge retention, and interpretation. *Journal of Product Innovation Management, 23*(5), 422–426. https://doi.org/10.1111/j.1540-5885.2006.00214.x

McKinsey & Company. (2018, October 29). *Unlocking Success in Digital Transformations.* https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/unlocking-success-in-digital-transformations

Merello, P., Barbera. A., & De la Poza, E. (2022). Is the sustainability profile of FinTech companies a driver of their value? *Technological Forecasting and Social Change, 174*, 121290. https://doi.org/10.1016/j.techfore.2021.121290

Milian, E. Z., Spinola, M. M., & Carvalho, M. M. (2019). Fintechs: A literature review and research agenda. *Electronic Commerce Research and Applications, 34,* 100833. https://doi.org/10.1016/j.elerap.2019.100833

Moodley, A. J. (2019). Digital Transformation in South Africa's Short-term Insurance Sector: Traditional Insurers' Responses to the Internet of Things (IoT) and Insurtech. *The African Journal of Information and Communication, 24*, 1–16. http://dx.doi.org/10.23962/10539/28657

Moore, G., A. (2014). *Crossing the Chasm: Marketing and Selling Disruptive Product to Mainstream Customers* (3rd ed.). HarperCollins.

Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis, 81*, 102103. https://doi.org/10.1016/j.irfa.2022.102103

Nagji, B., & Tuff, G. (2012). Managing your innovation portfolio. *Harvard Business Review, May 2012*, 66–74. https://mycourses.aalto.fi/pluginfile.php/1272825/course/section/169413/Managing%20Your%20Innovation%20Portfolio.pdf

Naimi-Sadigh, A., Asgari, T., & Rabiei, M. (2021). Digital transformation in the value chain disruption of banking services. *Journal of the Knowledge Economy*, 1-31. https://doi.org/10.1007/s13132-021-00759-0

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1609406917733847. https://doi.org/10.1177/1609406917733847

Pashkov, P., & Pelykh, V. (2020). Digital Transformation of Financial Services on the basis of trust. *50th International Scientific Conference on Economic and Social Development* (pp. 375–383). Chelyabinsk. https://www.researchgate.net/profile/Venelin-Terziev/publication/339390267_Factors_influencing_education_system/links/5e4ee01c299bf1cdb93915e0/Factors-influencing-education-system.pdf#page=384

Porter, M. E. (1985). Technology and competitive advantage. *Journal of Business Strategy, 5*(3), 60–78. https://doi.org/10.1108/eb039075

Porter, M. E. (2011). *The competitive advantage of nations: creating and sustaining superior performance.* Simon and Schuster.

Porter's. (1985). *What Is Value Chain?* E-Commerce. https://www.dspmuranchi.ac.in/pdf/Blog/What%20is%20the%20First%20Mover%20Advantage.pdf

PricewaterhouseCoopers (PwC). (2020). *Insurance 2020: The digital prize – taking customer connection to a new level.* https://www.pwc.com/gx/en/industries/financial-services/publications/digital-non-life.html

PricewaterhouseCoopers (PwC). (n.d.). *Insurance Industry.* https://www.pwc.co.za/en/industries/insurance.html

Puschmann, T. (2017). Fintech. *Business & Information Systems Engineering, 59*, 69–76. https://doi.org/10.1007/s12599-017-0464-6

Raun, S. (2020, April). Research on strategic cost management of enterprises based on Porter's value chain model. *Journal of Physics: Conference Series, 1533*(2), 022056. http://doi.org/ 10.1088/1742-6596/1533/2/022056

Reinartz, W., Wiegand, N., & Imschloss, M. (2019). The impact of digital transformation on the retailing value chain. *International Journal of Research in Marketing, 36*(3), 350–366. https://doi.org/10.1016/j.ijresmar.2018.12.002

Reis, J., Amorim, M., Melao, N., Cohen, Y., & Rodrigues, M. (2020). Digitalisation: A literature review and research agenda. *Proceedings on 25th International Joint Conference on Industrial Engineering and Operations Management-IJCIEOM: The Next Generation of Production and Service Systems* (pp. 443–456). Springer International Publishing. https://doi.org/10.1007/978-3-030-43616-2_47

Ricciotti, F. (2020). From value chain to value network: a systematic literature review. *Management Review Quarterly, 70*(2), 91–212. https://doi.org/10.1007/s11301-019-00164-7

Rogers, E. (1983). *Diffusion of Innovations* (3rd ed.) The Free Press.

Rogers, E. M. (2010). *Diffusion of innovation.* Simon and Schuster.

Roper, S., Du, J., & Love, J. H. (2008). Modelling the innovation value chain. *Research Policy, 37*(6-7), 961–977. https://doi.org/10.1016/j.respol.2008.04.005

Saunders, M., & Lewis, P. (2017). *Doing research in business and management: An essential guide to planning your project second edition.* Pearson.

Shamsuddin, J. N., Gan, C., & Anh, D. L. T. (2023). Bibliometric Analysis of InsurTech. *Journal of Advanced Research in Applied Sciences and Engineering Technology, 30*(2), 103–132. https://doi.org/10.37934/araset.30.2.103132

Slavova, M. (2021). *Transforming South African industry: IOT in the mining, automotive and insurance sector.* Gordon Institute of Business Science. https://repository.up.ac.za/bitstream/handle/2263/82703/Slovava_Transforming.pdf?sequence=1

Sosa, I., & Montes, O. (2022). Understanding the InsurTech dynamics in the transformation of the insurance sector. *Risk Management and Insurance Review, 25*(1), 35–68. https://doi.org/10.1111/rmir.12203

South African Reserve Bank. (n.d.). *Insurance Act.* https://www.resbank.co.za/en/home/publications/prudential-authority/legislation/insurance-act

Stoeckli, E., Dremel, C., & Uebernickel, F. (2018). Exploring characteristics and transformational capabilities of InsurTech innovations to understand insurance value creation in a digital world. *Electronic Markets, 28*, 287–305. https://doi.org/10.1007/s12525-018-0304-7

Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and trends of financial technology (Fintech): A systematic literature review. *Information, 11*(12), 590. https://doi.org/10.3390/info11120590

Timm, S. (2019, November 1). *Here are seven SA Insurtechs that insurance companies are working with.* Ventureburn. https://ventureburn.com/2019/11/seven-sa-insurtech-insurance-companies-are-working-with/

Urbinati, A., Chiaroni, D., Chiesa, V., & Frattini, F. (2020). The role of digital technologies in open innovation processes: an exploratory multiple case study analysis. *R&D Management, 50*(1), 136–160. https://doi.org/10.1111/radm.12313

Wang, H. (2019). Research on Insurance Value Chain in the Environment of Mobile Internet. In *2019 2nd International Conference on Education, Economics and Social Science*, 357, 86–89. Atlantis Press. http;//doi.org 10.2991/iceess-19.2019.23

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: strengths, weaknesses, and recommendations. *Chest, 158*(1), S65–S71. https://doi.org/10.1016/j.chest.2020.03.012

Warren, A., & Dixon, G. (2023). *2023 Africa Insurance Outlook Balancing uncertainty with optimism.* Deloitte. https://www.deloitte.com/content/dam/assets-zone1/za/en/docs/industries/financial-services/2023/2023-africa-insurance-outlook-update-final.pdf

Woiceshyn, J., & Daellenbach, U. (2018). Evaluating inductive vs deductive research in management studies: Implications for authors, editors, and reviewers. *Qualitative Research in Organizations and Management: An International Journal, 13*(2), 183–195. https://doi.org/10.1108/QROM-06-2017-1538

Xu, X., & Zweifel, P. (2020). A framework for the evaluation of InsurTech. *Risk Management and Insurance Review, 23*(4), 305–329. https://doi.org/10.1111/rmir.12161

Xu, Y., Yuan, L., Lee, H., Baire, S., Nakonieczny, J., & Zhao, X. (2023). Fintech development and firm technological innovation efficiency: empirical findings in China. *IEEE Transactions on Engineering Management.* http://doi.org/10.1109/TEM.2023.3239499

Yan, T. C., Schutle, P., & Cheun, D. L. K. (2018). InsurTech and FinTech: banking and insurance enablement. *Handbook of Blockchain, Digital Finance, and Inclusion* (Vol. 1). https://doi.org/10.1016/B978-0-12-810441-5.00011-7

Zhao, J., Li, X., Yu, C. H., Chen, S., & Lee, C. C. (2022). Riding the FinTech innovation wave: FinTech, patents and bank performance. *Journal of International Money and Finance, 122*, 102552. https://doi.org/10.1016/j.jimonfin.2021.102552

Zhou, W., Jia, Y., Peng, A., Zhang, Y., & Liu, P. (2019). The effect of IoT new features on security and privacy: New threats, existing solutions, and challenges yet to be solved. *IEEE Internet of Things Journal, 6*(2), 1606–1616. http://doi.org/ 10.1109/JIOT.2018.2847733

List of Appendices

Appendix A: Invitation to Participate in the Study

Dear Participant

I am conducting a study on the adoption of InsurTech in the traditional insurance value chain. The interview is purely voluntary. Given that the consent form is not a legally binding agreement, you may withdraw at any time without any form of prejudice. The information gathered will be solely used to collect nuances on the research topic. The interviews will be conducted via a suitable virtual online meeting platform, where the meeting will be recorded. The recordings will be used solely by the researcher to gather information needed to understand better the adoption of InsurTech in the traditional insurance value chain.

The research partially fulfils the partially fulfils in Business Administration (MBA) degree of the Gordon Institute of Business Science, University of Pretoria.

Should you have any concerns or questions, please do not hesitate to contact me or my supervisor at the contact details below.

Researcher: Ms. Lethabo Ramoroto
Email Address:
27190979@mygibs.co.za
Signature:
Date:

Research Supervisor: Mr Jabu Maphalala
Email address:
jabumaphalala@me.com
Signature:
Date:

Participant:
Signature:
Date:

Appendix B: Informed Consent Letter

Dear participant

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research to understand the adoption of InsurTech on the traditional insurance industry value chain.

Our interview is expected to last about 45 minutes to 1 hour (maximum) and will help us understand the InsurTech phenomenon.

Your participation is voluntary, and you will not be paid for participating. Furthermore, you can withdraw at any time without penalty. The relevant data will be destroyed should you choose to withdraw from the research study.

The interview will be recorded with your permission to ensure no information is missed. All information will be kept confidential, and all data will be reported **without identifiers**. The research findings will be reported in such a way that it will not be possible for people to know that you were part of the study. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Lethabo Ramoroto Research supervisor: Jabu Maphalala

Email: 27190979@mygibs.co.za Email: maphalalaj@gibs.co.za

Phone: 078 324 5664

Signature of participant: _____

Date: _____

Signature of researcher: _____

Date: _____

Appendix C: Interview Guide

Name:

Organisation:

Job title:

Date of Interview:

Duration: 45 minutes - 1 hour (maximum)

My name is Lethabo Ramoroto. I am an MBA student at the Gordon Institute of Business Science at the University of Pretoria.

Thank you for taking the time to partake in my study. Your participation and contribution to this study are highly appreciated. Before we commence with the interview, can I ask that you complete the consent form?

The information gathered will be solely used to gather nuances on the research topic. The interview will be conducted virtually via Zoom or MS Teams platforms, where the meeting will be recorded. The recordings will be used solely by the researcher to gather information needed to understand better Insurtech's influence on the incumbent insurance value chain.

Interview Questions

Get to know the participant's role and experience	Question 1: What is your current role? Question 2: Kindly elaborate on your insurance industry experience.
Research question 1: What is the role and importance of InsurTech in the insurance industry?	Question 3: What is your understanding of Insurtech and its key drivers?
Research question 2: How does InsurTech influence the insurance value chain?	Question 4: How has the emergence of Insurtech influenced the insurance

	value chain, direct and off-platform channels? Question 5: What are the overall challenges you have seen with the increased emergence of Insurtechs? Question 6: What capabilities do insurers need to develop in order to respond to InsurTech?
Research question 3: What are the advantages and disadvantages that InsurTech has on the traditional insurance value chain?	Question 7: What are some of the advantages and disadvantages realised with the adoption of Insurtech both from a company and industry level? Question 8: Based on your observation, how has your organisation and the at-large industry optimised on the advantages? Question 9: Based on your observation, how have your organisation and the at-large industry mitigated the disadvantages?

Notes

Appendix D: Consistency Matrix

Table D1: Consistency Matrix of the Study

Title: The Adoption of InsurTech in the Traditional Insurance Industry Value Chain			
Research Questions	**Literature Review**	**Data Collection Tool**	**Analysis**
Research Question 1: What is the role and importance of InsurTech in the insurance industry?	Shamsuddin et al. (2023) Lanfranchi and Grassi (2021) Gomber et al. (2018) Catlin and Lorenz (2017)	What is InsurTechs' role in the insurance industry? What is the importance of InsurTech?	Thematic Analysis
Research Question 2: How does InsurTech influence the insurance value chain?	Shamsuddin et al. (2023) Xu and Zweifel (2020) Linkov et al. (2020) Eling and Lehmann (2018) Catlin and Lorenz (2017)	What impact does InsurTech have on the incumbent insurance value chain? What are the drivers of Insurtech?	Thematic Analysis
Research Question 3: What are the advantages and disadvantages that Insurtech has on the traditional insurance value chain?	Linkov et al. (2020) Eling and Lehmann (2018)	What are the advantages and disadvantages of InsurTech on the incumbent insurance value chain?	Thematic Analysis

Appendix E: Ethics Approval

Gordon Institute of Business Science
University of Pretoria

Dear Lethabo Ramoroto,

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

You are, therefore, allowed to continue collecting your data.

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

Ethical Clearance Form

Kind Regards

Appendix F: List of Codes

Table F1: List of Codes Used for the Analysis of the Drivers of Insurtech

1. Cost Reductions	2. Settling Claims	3. Digital lifestyle
4. Aggregation Services	5. Customer Experience	6. Social media
7. Acquiring Customers	8. Customer Service	9. Business strategy
10. Convenience	11. Dual Role and Function	12. Advisors
13. Efficiency	14. Effectiveness	15. Human reliance
16. Traditional Insurance Brokers	17. Sustainability	18. Opportunities
19. Simplification	20. Data Modeling	21. Narrative
22. Digital Innovation	23. Product Innovation	24. Real-time processing
25. Technological Advancement	26. Technology Dependence	27. Customer-centric
28. Value Add	29. 20 Customer service	30. Financial Services
31. Integration	32. Product development	33. Product innovation
34. Cyber security	35. Regulatory compliance	36. Distribution channels
37. Partnerships	38. Cost reduction	39. Omnichannel experience
40. Customer experience enhancement	41. Multichannel communication	42. Data utilisation
43. Technology: AI utilisation	44. Cloud capabilities	45. Plug into big corporates
46. Blockchain	47. Hype cycle	48. Win-win situation
49. Profitability	50. The total cost of the value chain	51. Insurance technology
52. Customer-centric approach	53. Big data	54. Hyper personalisation

Table F2: List of Codes Used for the Analysis of the Influence of Insurtech

1. Disintermediation	2. Customer-centric	3. Insurance technology (InsurTech)
4. Tailor-made	5. Partnerships	6. Business management
7. Information	8. Technology integration	9. Safe
10. Relationship building	11. Cost	12. Engagement
13. Controls	14. Statutory perspective	15. Value adding activities
16. Feedback	17. Cost reduction	18. Data extraction
19. Client engagement	20. Advertising	21. Process improvement
22. Technology	23. Human touch	24. Direct model
25. Assessing behaviour	26. Intermediated channels	27. Personalisation
28. Commercial	29. Consumer behaviour	30. Niche
31. Corporate	32. Advertising	33. Media
34. Shifting role of advisors	35. Opportunities for advisors	36. Multichannel communication
37. Seamless customer interactions	38. Reduction of manual tasks for employees	39. Integration of robotics to streamline processes
40. Shortening and optimising value chains	41. Simplifying complex backends	42. Providing a single portal for data access
43. Lead generation and follow-up for advisors	44. Connectivity challenges for advisors	

Behaviour Impact	Personalisation	Incentives
Monitoring	Regulations	Risk management
Change	Human element	Customer service
. Instant gratification	. Job losses	. Fraud
. Artificial intelligence	. Automation	. Machine learning
. Simplicity	. Catch up	. Accessibility
. Regulatory compliance	. Stability	. Data management
. Traditional	. Negative impact on business	. Dependency on system
. Data requirements	. Improved customer experience	. Empathy
. Efficiency	. Concerns about the human experience	. Agility
. Advertising	. Human interaction	. Monopoly
. Integration	. Emerging technology	. Costly
. Risk	. Reliability	. Convenience
. Customer perception	. Job security	. Reliability
. Global reach	. Technology advancement	. Efficiency
. Considerations	. Technological change	. Cloud computing
. Highly qualified AI professionals	. Flexibility	. Support concern
. Accessibility	. Security concern	. Skill shortage
. Important	. New skill sets	. Value in certain use cases
. Covered	. Development concern	. Timid
. Alienate	. Marketing	. Email
. Lack of trust	. Comfort	. Browse
. Customer base	. Positioning	. Wording
. Disadvantage	. Key	. Complexity
. Job transformation	. Technological disadvantage	. Product design
. Industry perspective	. Inclusivity	. Literacy
. Technology disruption	. Work	

Table F3: List of Codes Used for the Analysis of the Influence of Insurtech on the Insurance Value Chain