

**The impact of digital ecosystems on customer  
loyalty in South African life insurance companies:  
A customer's perspective.**

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**Thesis presented in partial fulfilment for the degree of Master of  
Business Administration to the Faculty of Commerce, Law, and  
Management, University of the Witwatersrand**

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## DECLARATION

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I Georginah M Muthama declare that this research report entitled ‘The impact of digital ecosystems on customer loyalty in South African Insurance Companies: A customer’s perspective’ is my own unaided work. I have acknowledged, attributed, and referenced all ideas sourced elsewhere. I am hereby submitting it in partial fulfilment of the requirements of the degree of Master of Business Administration at the University of the Witwatersrand, Johannesburg. I have not submitted this report before for any other degree or examination to any other institution.

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Signed at Johannesburg on April 2021

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## ABSTRACT

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**Thesis title:** ‘The impact of digital ecosystems on customer loyalty in a South African Insurance Company’

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The concept of life insurance has been in existence for thousands of years, with a business model that has remained relatively the same. Persistency or customer retention in South African life insurance companies is an ongoing concern. Advancement in technology has provided new opportunities to life insurance companies, such as online sales, improvement in service offering, and the increase in brand awareness. The literature indicates that digital ecosystems offer a new value proposition for life insurance companies to create loyal customers.

This study was motivated by the high number of policy cancellations, unmet premiums and lapsed policies experienced across the insurance industry in South Africa. The study proposed that customer loyalty can be increased with the implementation of digital ecosystems, specifically in terms of the value propositions related to ease of doing business, loyalty programs and digital platforms. The purpose of this study was to determine whether the value proposition provided by digital ecosystems can create loyal customers.

A quantitative research approach was used in this study. Data was collected using surveys whereby the respondents gave their responses on a structured-self-completion questionnaire that were distributed via email and WhatsApp. A random sample of  $n=57$  was achieved. The Cronbach’s Alpha test showed there was good internal consistency reliability for the independent variables, but the dependent variable has poor internal consistency. Exploratory Factor Analysis (EFA) was conducted and the factor loadings higher than 0.40 indicate that the constructs were valid. Multiple regression was applied to test the four research hypotheses. The results indicate that there is a statistically significant relationship between digital ecosystems and customer loyalty. Regarding individual value proposition items of digital ecosystems, ease of doing business does not have a significant relationship with customer loyalty, nor does digital platforms. Loyalty

programs has a significant relationship with customer loyalty. The final conclusion of this research is thus that digital ecosystems do provide a value proposition which can increase customer loyalty. When a digital ecosystem consists of different value propositions, in this case, ease of doing business, loyalty programs and digital platforms, loyal customers can be created.

**Keywords: Digital Ecosystems, Customer Loyalty, Value Propositions, South African Life Insurance.**

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# 1 INTRODUCTION TO THE RESEARCH

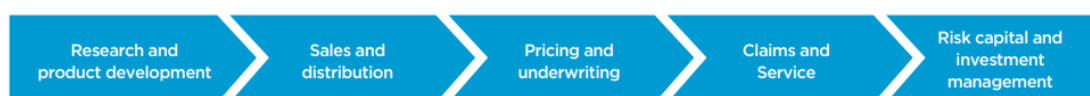
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This research reviews the relevance of digital ecosystems as a value proposition to increase customer loyalty in South African Life Insurance companies from a customer's perspective. Firstly, a brief introduction of the terms and concepts that were used in conceptualising this research is presented, with a more specific and detailed discussion on the research context. The research conceptualisation section provides the research problem statement, the purpose of this research, and the research questions. The delimitations and assumptions of the research study are outlined, followed by the significance of the research study, and lastly, a preface to the research report is given.

## 1.1 Context of and background to the study

In the African continent, the penetration of insurance remains low, with countries such as Nigeria (0.30%), Kenya (2.83%), and South Africa being the highest, only at 16.99% (PWC, 2016). The financial services industry is a cornerstone of the South African economy, contributing 20% of the South African GDP (KPMG, 2020). The life insurance industry alone contributes R469 billion to the economy (ASISA, 2018).

The life insurance business model has remained the same for the last 50 years, making it one of the few industries that have lagged behind in evolution (InnovativeInstituteInc, 2017). The insurance value chain illustrated in Figure 1.1 provides a view of the current insurance business model.



**Figure 1.1: The Insurance Value Chain**

Source: Deloitte (2018)

According to Thomas (2017), the research and development departments have presented similar insurance products over the years, with little innovation and few distribution channels such as direct sales or insurance brokers. Yet there have been observations of an increase in the use of digital technology by customers across all industries – technology and social trends being among the top five trends, are expected to change the general insurance industry (Thomas, 2017). Catlin, Lorenz, Nandan, Shirish, and Waschto (2018)

as well as Beirne, Brooker, Gupta, Singh and Wong (2012) have also shared a similar notion, that customer expectations are moving more towards digital technology, which will inevitably change the way insurance companies conduct their businesses.

The concept of digital ecosystems does not only apply to the manufacturing or technologies industries, but also to the insurance industry. According to Catlin et al. (2018) digital ecosystems are platforms which offer an interconnected set of services that allow different customers to access different needs in one place seamlessly. The concepts of customer relationship management and automation processes based on software and technological capabilities have previously been identified as a major requirement for the future of the insurance industry (Rashidi, 2012). Digital technologies are in extensive use globally, providing opportunities for companies to use digital ecosystems and change their business model. The insurance companies that will take the plunge of working with digital ecosystems, will benefit the entire insurance value chain by yielding worldwide revenues of up to 30% by 2025 (Rashidi, 2012).

Global trends show that some insurers are going beyond selling life insurance, to integrating other service offerings such as health, education, and finance into their product offerings. These companies are implementing the ecosystems by either bringing together a variety of services to provide a seamless journey, or by participating in ecosystems which have been created by other insurers. According to Catlin, Deetjen, Lorenz, Nandan and Sharma (2020) 18 of 20 insurers have invested in start-ups with multiple ecosystems.

According to a study by KPMG (2018) 52% of enterprises in the African continent have a digital strategy, and the biggest barrier to this transformation is the resistance to change. Out of 54 countries in Africa, only seven (including South Africa) have started deploying digital innovation to align with their customer engagement, distribution, and payment channels. This has led to cheaper infrastructure, which allows for more affordable products and simpler ecosystems.

There is ongoing pressure on persistency (retention of customers) in South African life insurance which are attributed to various factors (KPMG, 2020). Declining persistency in life insurance causes pressure on revenue and profitability (Verma, van Deel & Nadimpalli, 2013). To increase persistency insurers must focus their efforts in retaining

customers (Mostert, Meyer & Rensburg, 2009). In South Africa, Discovery has set a high standard for the rest of the life insurance companies by creating a wellness ecosystem with its vitality platform. Discovery offers a wide range of products that allow the company to scale much faster into other markets (Catlin et al., 2020).

## **1.2 Research conceptualisation**

### **1.2.1 The research problem statement**

A major challenge for South African life insurance companies are high withdrawals, unpaid premiums, and lapsation of policies – persistency issues. Declining persistency levels puts pressure on the sustainability of the company through decreased revenue and potentially lower profitability. For South African insurers persistency or customer retention, is an ongoing concern and have to contend with various factors that influence customer retention such as the economic circumstances, the product design, the demographics of the policyholder, and the methods of payment as well as the customer's experience of the insurer.

Although South Africa's tough economic conditions contributes to persistency challenges because customers are not able to pay their premiums, according to KPMG (2019) the failure by the insurance companies to show customer value proposition through the deployment of digital ecosystems, plays a greater role.

Studies by Raconteur (2018)(Raconteur, 2018) and (Accenture, 2017) discuss customer withdrawals, unmet premiums, lapsations, digital ecosystems and customer loyalty from the insurance company's perspective. However, none of these studies explore the impact digital ecosystem value propositions would have on customer's loyalty. This study provides insights to South African life insurance companies on whether investing in digital ecosystems could potentially increase customer loyalty, which would ultimately lead to building sustainable insurance companies in a competitive market.

## **1.2.2 The research purpose statement**

The purpose of this study was to investigate whether digital ecosystems' value propositions – in the form of digital platforms, ease of doing business and loyalty programs – can create loyal customers.

## **1.2.3 The research questions and hypotheses**

This research study set out to answer the question: “Will digital ecosystems in life insurance companies create a value proposition which can create loyal customers?” To answer the research question, the study tested four research hypotheses.

Research hypothesis 1:

**H1<sub>0</sub>:** There is no statistical relationship between digital ecosystem value propositions and loyalty.

**H1<sub>A</sub>:** There is a statistical relationship between digital ecosystem value propositions and loyalty

Research hypothesis 2:

**H2<sub>0</sub>:** There is no statistical relationship between digital ecosystem value proposition Ease of Doing Business on loyalty.

**H2<sub>A</sub>:** There is a statistical relationship between digital ecosystem value proposition Ease of Doing Business on loyalty.

Research hypothesis 3:

**H3<sub>0</sub>:** There is no statistical relationship between digital ecosystem value proposition Loyalty programs on loyalty.

**H3<sub>A</sub>:** There is a statistical relationship between digital ecosystem value proposition Loyalty programs on loyalty.

Research hypothesis 4:

**H4<sub>0</sub>:** There is no statistical relationship between digital ecosystem value proposition Digital platforms on loyalty.

**H4<sub>A</sub>:** There is a statistical relationship between digital ecosystem value proposition Digital platforms on loyalty.

### **1.3 Delimitations and assumptions of the research study**

Specialisation in life insurance companies and a lack of technological systems diminish the opportunity for a customer to experience a seamless journey from the point of sale to the claims stage and a connectedness to other services within the same ecosystems. Customers are looking for more; some are not willing to wait for payment on the death of the policyholder before they can see the value. They want to know that they are generating value from the premiums they are paying; they want to see it now and are likely to withdraw if they do not see the value. There are more distribution alternatives available for customers to purchase insurance. Some of these include banks, retail houses, and property houses and sports clubs.

The scope of this research is limited to the value chain of the long-term insurance industry in South Africa, comprising of life insurance-related products. The study is limited to customer perceptions on the impact that digital ecosystems will have on their loyalty to a South African life insurance company. The perceptions of the life insurance companies were not considered.

### **1.4 Significance of the research study**

This study addresses the issue of high withdrawals, unpaid premiums and the lapsation of policies within South African life insurance companies, due to the limited deployment of digital ecosystems to create value for the customer, which subsequently increases customer loyalty.

The study interrogated current literature on technological innovation, the concept of digital ecosystems and whether digital ecosystems would help with retention strategies and acquiring of new clients. Importantly, the study also looked at the reasons why customers cancel or lapse policies. A theoretical framework was adopted, and its key attributes were used to develop a conceptual framework to guide the study.

The survey helped to determine customers' perspective on the role of digital ecosystems in building sustainable businesses for incumbent insurance companies. It also established if digital ecosystems significantly reduced policy withdrawals and increased customer loyalty.

Based on the above discussion, this research becomes of utmost importance to the industry in a bid to safeguard its position in the market, which can be demonstrated by its contribution of R469 billion to the South African economy (ASISA, 2018).

## **1.5 Preface to the research report**

The research report has six chapters. The introductory chapter provides the context and background to the study. It conceptualises the problem and purpose statement, discusses the research question and the accompanying research hypothesis. The chapter concludes with the discussion of delimitations and the significance of the study. The second chapter is the literature review, which analyses the research problem. A review of past studies is undertaken, analysing the knowledge gap. The theoretical framework and the conceptual framework are discussed. The third chapter discusses the research strategy, design, procedures, reliability, and validity measures, as well as the study limitations. The fourth and the fifth chapter presents and discusses the results and address the research question based on the research hypotheses. The last chapter summarises, concludes the research, and provides the limitations and recommendations.

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## 2 LITERATURE REVIEW

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This chapter has three objectives: to understand the research problem, to identify the knowledge gap, and to develop a framework for interpreting the research findings. In the first subsection, the research problem is described in the context of customer loyalty, retention, and digital ecosystems. The second subsection identified the knowledge gap identified through extensive literature reviews. The last subsection discusses the theoretical and conceptual framework of this research.

### 2.1 Research problem analysis

The financial services industry is a cornerstone of the South African economy, contributing 20% to the South African GDP (KPMG, 2020). The life insurance industry contributes R469 billion to the economy (ASISA, 2018). Of concern is an ongoing trend of pressure on persistency (retention of customers) due to various factors – the five largest insurers all showing negative variances in persistency figures (KPMG, 2020).

In the life insurance industry, declining persistency levels causes increased pressure on revenue and potentially the reduction of profitability (Verma et al., 2013). It is critical that insurers retain their customers because it has a direct impact on customer lifetime value and is a more profitable option for ensuring business sustainability than acquisition (Gee, Coates & Nicholson, 2008). At the heart of customer persistency lies customer retention efforts – how companies focus their resources on keeping existing customers (Mostert et al., 2009).

In essence, customer retention is about the continuity of the relationship between the customer and the company (Odunlami, 2015). A company must therefore aim to maintain long-term relationships with its customers (Nwankwo & Ajemunigbohun, 2013). The nature of customer relationships and creating business value is embedded in the concept of customer loyalty (Bengtsson & Brostrom, 2018)

### 2.1.1 Why will a customer cancel or lapse a policy?

Addressing persistency can be a challenging exercise because there are several factors influencing persistency. There are three reasons why a customer would cancel or lapse their policy with an insurance company as identified by Viswanathan & Singh (2018). These include misrepresentation, mismanagement of customer funds and inducement by insurance agents to cancel and replace policies so they can get more commission. Insureon (2019) shared a slightly different view, stating that 43% of customers cancel because they want value for their money, 43% cancel because they want to find convenience when dealing with the insurance company, 40% cancel because they want a company that responds quickly, and 40% cancel because they want a policy which aligns with their budget and needs. According to Raconteur (2018), based on results of surveys conducted globally there are various reasons why customers cancel their life insurance policies as outlined in Table 2.1.

| Reason                                          | Percentage of respondents |
|-------------------------------------------------|---------------------------|
| Cost / terms                                    | 50%                       |
| Policy benefits / coverage                      | 47%                       |
| Recommended by broker / friend                  | 38%                       |
| Frequency / relevance of communication          | 28%                       |
| Level of service received                       | 28%                       |
| Policy did not align with my life circumstances | 26%                       |
| Research I conducted                            | 25%                       |
| Experienced family/personal milestones          | 24%                       |
| Brand reputation                                | 24%                       |
| Did not like the way it was handled             | 22%                       |

**Table 2.1: The Top Reasons for Closing/Replacing a Policy**

Adapted from Raconteur (2018).

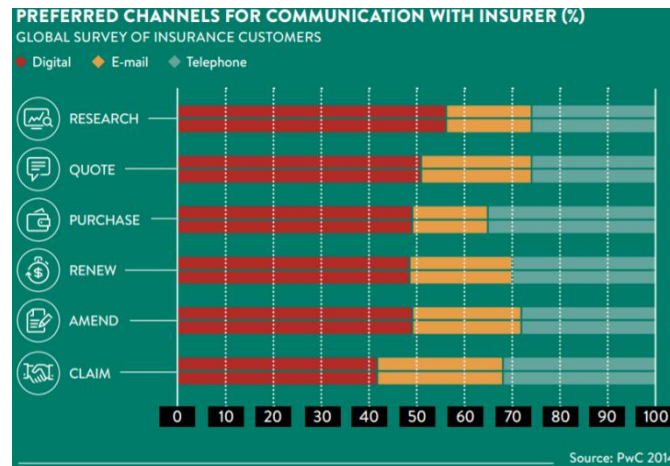
According to Rajagopalan (2008) policy lapses will fluctuate due to factors that are internal and controllable by the company as well as factors that are external and not controllable by the company. The Information Technology and Consulting Company Wipro (2013) highlight 4 reasons for policy lapsation – product related, process related, agent related and consumer related. In the Sri Lanka life insurance industry, Wijenayuka, Perera and Sanjeeva (2015) found that lapsation of policies is a big problem and 50% of life insurance

policies lapse due to policyholders struggling to pay the premiums due to financial problems. Sandhu and Bice (2014) describe the drivers of lapses in the insurance industry are structural, cyclical and organisation-specific factors. Uguiso (2006) divides causes of why customer decide to cancel their policies into structural, institutional, and client-based causes. The customer psychographic and demographic profiles relate to client-based causes, whereas structural causes are related to a fragmented industry, market development levels, and the overall economic situation. Institutional causes include the image of the company, the design of the product, the level of service provided as well as the emotional value and connection the company offers the customer.

Kurlekar and Patel (2010) identify the following factors as influencers of persistency: the insurance product design, the economic environment, renewal and premium collection practices, the quality of the initial sale and the customer's experience with the insurer. Customer service, quality; price, functionality, customer needs changed; and convenience were found to influence customers' decision to cancel or lapse (Thompson, 2005). These results make it clear that there is myriad of reasons that influence customer retention.

### **2.1.2 Customers want more**

Digitisation has changed how customers engage with organisations, subsequently changing customer behaviour and their expectations (Kulkarni, 2017). Increase in social media activity has made it possible for organisations to personalise engagement with their customers. All information has become readily available, accurate and reliable, making it easier for the customer to make decisions. The mobile device has made it quick and easy for a customer to make payments or maintain their accounts. Also, Raconteur (2018) illustrates in Figure 2.1 the change in customer behaviour which shows that customers are more inclined to engage online.



**Figure 2.1: Insurance customers' six most preferred channels of communication**  
Adapted from Raconteur (2018).

### 2.1.3 What are customers looking for in an insurer?

According to Naujoks et al. (2018) (Naujoks, Darnell, Schwedel, Singh, & Brettel, 2018), insurance customers have simple needs which include a good selection of policies, transparent policy information, ease of doing business, easy claims process, and value for money (which mostly refers to additional benefits). (Writer, 2019) agreed with the above, adding that customers want an insurance company that can provide them with reasonable fees, personalised services, regular feedback, and speedy response times. A summary of the top five customer needs were: highly trained and efficient staff, speed when doing business, delivered promises, increased value for money, and lastly, doing it right the first time (Raconteur, 2018).

### 2.1.4 Will digital ecosystems help with retention efforts?

According to Russo (2019), Chief Information Officers in organisations are challenged to rethink the way they do things and the strategies they implement. They must compete with new players in the market, new technologies such as Artificial Intelligence, and change in customer expectations. These challenges have caused the beginning of new business models in the traditional insurance industry (Even, 2019). Raconteur (2018)(Raconteur, 2018) highlights detailed ways in which insurance companies can help improve customer experience, thereby improving retention efforts. From most to least mentioned in the survey, the factors for improving customer experience are accessibility, tailor to customer needs, content explanation, variety of insurance services and products,

more online access, and loyalty points. The points discussed indicate that it is time for insurance companies to listen to what the customer wants and to provide the expected experience.

Stringfellow (2017) recommends that customers must be treated like people and be shown appreciation, which can be in the form of a loyalty program. Moreover, there needs to be a focus on the entire experience and to work towards building relationships with customers. This implies that companies need to find new and unique ways to create partnerships with customers. Customer expectations are moving from physical to digital technology and the use of digital technology by customers across all industries means that business models will have to change (Beirne et al., 2012; Catlin et al., 2018; Thomas, 2017). Accenture (2017a) has stated that the adoption of these systems will make the value chains more customer centric.

### **2.1.5 Defining Customer Retention and Loyalty**

Customer retention may be defined in different ways in different studies, but in essence it is the continuity of the relationship between company and customer (Odunlami, 2015). Gengeshwari et al. (2013) position customer retention as customer loyalty attitudes and behaviour. Attitudinal facets of loyalty include perceptions of the corporate image or reputation, trust and commitment towards the company and attitudes about customer centricity (Andreassen & Lindestad, 1998; Rao & D'Souza, 2005; Swaen, 2003).

Oliver (1999, p.34) define loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing”. Ganesh, Arnold and Reynolds (2000) describe loyalty as a product of repeat purchase, self-stated retention, prices sensitivity, resistance to counter persuasion and recommendation to other products. The above definitions imply that a customer decides to re-patronise a particular brand regardless of the numerous options to buy from the various brands offering the same product or service. Szüts & Tóth (2008, p.357) define loyalty as “a customer’s faithful adherence to an institution (or merchant) despite the occasional error or indifferent service...having entered into a business relationship with the financial institution, the customer maintains and continues the relationship”. In these definitions the concept of continuation is evident. Although it needs to be acknowledged that from a theoretical point of view loyalty includes both an attitudinal and behavioural component, for the purpose of this

study, loyalty means a behavioural intention to remain with the insurer, that is, to not cancel the policy.

### **2.1.6 Digital Ecosystems as a value proposition**

Digital ecosystems are a variety of products, services, companies, industries and people combined on a digital platform (Accenture, 2017). An example is the banking apps, which allow a customer to do their banking, buy electricity, airtime, manage their wills and provide for quick money transfer services. The mentioned are a combination of different service providers with different products coming together with the intention of improving the customer experience. These ecosystems can be described as networks of businesses and customers who support each other through combined resources, capabilities and alliances to increase economic value Avramakis et.al (2019)

Digital ecosystems is a new business model through which network systems can connect different industries (Accenture, 2017). This view is similarly shared by Avramakis et al. (2019) who stated that the networks enable a connection between customers and businesses - thereby driving higher economic value that may not have been achieved using traditional business models. They go further to state that this will disrupt the insurance value chain because of the change in risk markets. The drivers for this change is attributed to openly built digital platforms which allow for ease in data sharing (Avramakis et al., 2019). The benefits of increased technology are articulated further to include low costs, cheaper computation, increased internet connectivity, high speed of the Internet of Things (IoT), generation of big data and the quick analysis thereof (Accenture, 2017b).

Digital connectivity has implications across the insurance value chain: it changes how insurance companies interact with customers, enable customers to get information online and directly compare prices and products of different companies, customers can purchase products online without any personal interaction, and it offers customers assistance and support during claim stage. Moreover, digitalization of insurance has the potential to increase the value provided to customers by offering better products at lower prices (Eling & Lehman, 2017). Thus, digital connectivity infused into the value chain can strengthen a company's competitive position by creating efficiencies and increase profits (Beers, 2019; Subramaniam, 2020).

A change is noted in customer behaviour due to the increase in digitisation, which has accelerated massive data, mobile interactions and created platforms networks Catlin et.al (2018). Digital transformation in insurance companies has also been enhanced by companies such as Rein, who have made digital connections that allow customers to demand more available (Conner, 2019). Better connections have led to customers being able to demand better customer experiences (Accenture, 2017b).

According to Accenture (2017a) some insurers such as Discovery, Aetna, and John Hancock, are already successfully using ecosystems in the form of loyalty programmes. In South Africa loyalty programmes are now the norm among the larger insurers such as Old Mutual, Liberty, Discovery, and Momentum Metropolitan (KPMG, 2020). The value of loyalty programmes is that it makes these companies lifestyle partners as suggested by Jones (2010). Thus, instead of merely providing a product and service, these companies build customer relationships and increase customer touch points whilst supporting their customers' lifestyle needs and expectations. Shi, Prentice and He (2014) state that one way of improving customer loyalty is by using loyalty programmes whilst Vinod (2011) say that successful loyalty programmes assist in converting satisfied customers into loyal customers.

Having a digital platform is a must in today's business world. For the customer journey, quality online channels are critical as it has a significant impact on customer perceptions – digital platforms have the ability to not only increase brand recognition, but also to improve customer satisfaction (Deloitte, 2014). The increase in online and mobile technology usage by customers cause them to become increasingly demanding of simplicity, speed, and transparency (Acharya & Hebbar, 2018). Accordingly, digital platforms provide companies the opportunities to build long-term relationships through creating value in the form of anticipating and addressing customer needs (Acharya & Hebbar, 2018).

Alam and Khohkar (2006) in their study to determine if the Swedish banks' digital platform, specifically the internet, assists in creating customer loyalty found that the internet facilitated the provision of quality service to customers, the internet made it easier and convenient for customers to do their banking, and the internet is either substituting or complementing face-to-face interactions.

Digital platforms must make it easy for customers to use the company's offerings and to get things done; they must provide efficiency and convenience (Deloitte, 2014; Deloitte, 2016). TripAdvisor, a global travel platform has created a successful ecosystem which provides customers with information and convenience – on one platform customers are able to find accommodation, dining, and entertainment; they can compare prices, make bookings and other reservations (Grigg, 2017).

### **2.1.7 Easy of doing business and Customer Loyalty**

The ease of doing business may be defined as the extent to which customers are enhanced or constrained by an organisation (Hunsaker, 2020). According to KPMG (2015), one of the most important attributes of customer experience is the ease of doing business. This can be translated as the ability to get in contact with the company, ease of getting complaints resolved and having products and services which are easy to understand. It is important for organisations to respond positively to customers' demands in order to remain competitive. The quality of service provided by companies either increases or decreases customer loyalty (Inc. 2009). The best way to build customer loyalty is by servicing their needs and provide quick solutions to their problems (Atchison, 2020).

### **2.1.8 Digital Platforms and Customer Loyalty**

Digital platforms may be defined as a business model which integrates both suppliers and consumers in order to connect and create value (Catlin et al., 2018). According to Innovation Institute Inc. (2017) the early years of the rise of technology the insurance industry saw digital platforms as a way to reduce operational costs, however overtime insurers have identified opportunities linked to service and convenience which help improve customer experience. There is an assumption that digitalization will change the value creation in the insurance industry, as the digital platforms enables new ways to interact with customers, create new business processes and products (Catlin *et al.*, 2015). This view is further amplified by results from research conducted by Amin (2015) which show that connectivity engagements through digital platforms impacts customer satisfaction, which in turn leads to enhanced customer loyalty.

### **2.1.9 Loyalty Programs and Customer Loyalty**

Loyalty programs may be defined as structured advertising efforts that reward, they are aimed at encouraging loyal buying behaviour (Sharp, B. and Sharp A., 1997). Companies offer loyalty programs to customers mostly through redeemable points that can be converted into free services or upgrades. According to Altinkemer & Ozcelik (2009) loyalty programs are lucrative because it is more cost effective to retain existing customers than to attract new customers. Roking (2005) states that the use of loyalty programs is a powerful tool for advertising and encourages customer loyalty. Successful loyalty programs can help convert satisfied customers to loyal customers improving a company's performance over time (Vinod, 2011). These findings illustrates that loyalty programs benefits both the companies and customers.

## **2.2 Research knowledge gap analysis**

To identify the knowledge gap, four articles providing the justification for the undertaking of this research were analysed. The key findings in the research were as follows:

Eling & Lehmann (2017) discussed that technology will impact the insurance industry in the fields of data acquisition and analysis, which includes artificial intelligence, data storage such as blockchain, communication which includes apps, chatbots, and social media. The results further show that the impact of these technologies will change how insurers and customers interact, it will change all business processes and decision making, and it will also change the existing products to allow for new product offering.

Bengtsson & Brostrom (2018) found that proactive retention required for insurance companies to take intentional steps to ensure existing customers stayed in business. Janks (2017) was able to provide a model useful to insurance companies in assessing their value propositions to ensure they stayed relevant to customer needs. According to Gribble (2017), the study was able to identify factors that influence innovation.

The studies had the following limitations: Eling & Lehmann (2017) restricted the study to business and economics literature within the risk and insurance industry. Bengtsson & Brostrom (2018) limited the study to property and casualty related products within the Swedish context. Janks (2017)) and Gribble (2017) conducted the study from a South

African context, the first study was limited to how insurance companies should respond to customers needs with the latter study data from a single organisation.

The identified knowledge gap was that none of the studies focused on the customer's perspective of digital ecosystems on retention and customer loyalty efforts. Digital ecosystems are interconnected network systems which enable for a seamless customer journey, these connections between different customers and businesses drive higher economic value which cannot be created with the current insurance business model (Avramakis et al., 2019). This study thus focused on the customer's perspective regarding the suggested value proposition of digital ecosystems in determining whether it will create loyal customers.

## 2.3 Theoretical framework

Porter's value chain model was used for the theoretical framework of this study. The value chain model as illustrated in Figure 2.2 represents a company's value-adding activities based on the pricing strategy and cost structure. The value chain of a company encompasses the full range of activities and services needed to produce products and service clients. The goal of activities is to provide customer value that exceeds the costs of the activities thereby resulting in profit margin (Wahito, 2011). The model suggests that it is crucial for any company in a competitive environment to analyse and understand its capabilities for generating value and to address the needs of the customers (Dilip & Rajeev, 2016; Porter, 2004).



Figure 2.2: Porter's Value Chain Model

Source: EMBA Pro (2019, p. 1)

The value chain consists of primary activities which are core business functions and support activities which are auxiliary functions (Wahito, 2011). Primary activities include inbound logistics, operations, out-bound logistics, marketing and sales, as well as service delivery. As illustrated in Figure 2.2 in the life insurance industry inbound logistics can refer to customer access, data collection, incoming material storage and service. Operations relate to branches and call centre operations, as well as insurance product development. Outbound logistics refer to order processing, report preparations and distribution, whereas marketing and sales refer to channel selection, promotions, advertising, websites, and the sales force, as well as creating relationships with customers. Service refers to customer support, complaints resolutions, post sales maintenance and the software alignment of product front-and back-end (EMBA, 2019; Upadhyaya, 2016).

The Porter's value chain model is a useful tool for analysing and defining core competencies as well as the activities through which it can pursue competitive advantage (Ambuko, 2013). Effective implementation and management of both primary and support activities assist companies in offering products and services that satisfy customer needs. The value chain model thus provides a framework within which digital ecosystems as a value proposition to create customer loyalty can be analysed and understood. This study proposes that digital ecosystems can provide value to customers through the operation and marketing activities in the value chain. These activities include loyalty programs and the use of digital platforms to interface with customers which promotes ease of doing business. Strategic decisions need to be taken within the supporting activities for the deployment of integrated services across primary activities which provides an ease of doing business for customers as it enables them to access different services on one platform. When value is created for customers by digital ecosystems loyalty is also promoted.

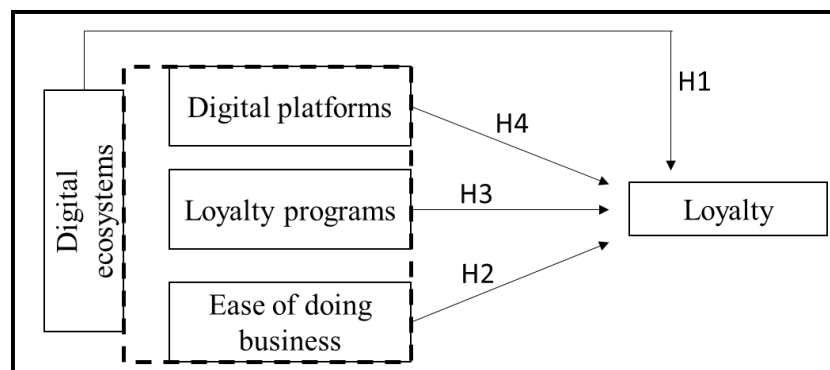
According to (Beers, 2019) the strengths of Porter's insurance value chain analysis framework includes its ability to ensure that the value created is higher than the cost in the value chain activities. These costs include marketing, product development, sales, underwriting, contract administration and customer service, claim management, asset and risk management. A company can gain competitive advantage and increase profits

through the efficiencies gained through this model. The main disadvantage of the framework is the possibility of losing sight of the company's strategy due to too much focus on all the various activities ((Beers, 2019).

One critique of Porter's value chain model is that it is a general model (Eling & Lehmann, 2018). The main criticism for Porter's value chain model is that it is more suited for a manufacturing firm (Kaplan, 2020). However, Ambuko (2013) used the Porter value chain model in her study of Sudan insurance industry and found that that the generic value chain largely applies in service firms.

## 2.4 Conceptual Framework

The conceptual framework for the study used key variables from Porter's value chain model such as operations, service, marketing, and sales. These variables assisted in framing the study and addressing the research hypotheses. Operations and marketing activities of digital ecosystems that include promotions, loyalty programs, use of digital platforms to interface with clients promotes ease of doing business and promotes customer loyalty. The conceptual model is illustrated in Figure 2.3.



**Figure 2.3: Conceptual model**

Source: Own design

The conceptual framework assisted in addressing the following hypotheses of the study:

- Digital ecosystems (H1) refer to the total value proposition as a combination of digital platforms, loyalty programs and ease of doing business and its relationship with customer loyalty.
- Ease of doing business (H2) refers the aspects of accessibility, speed, quality of service, and convenience and its relationship with customer loyalty.

- Loyalty programs (H3) refer to aspects of monetary value provided by a loyalty program, importance of loyalty program, the administration of the loyalty program and convenience of such a program and its relationship with customer loyalty.
- Digital platforms refer to the customers' preference for online communication, perceived value derived from online, convenience and meeting customer needs and its relationship with customer loyalty.

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## **3 RESEARCH STRATEGY, DESIGN, PROCEDURE AND METHODS**

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This chapter identifies and describes the research approach, design as well as procedure and methods employed in this research to collect, process, and analyse empirical evidence of the customers' perspective on the impact of digital ecosystems on customer loyalty in South African insurance companies. The chapter also describes the reliability and validity measures applied in the research to make it credible, as well as the technical and administrative limitations of the chosen methods.

### **3.1 Research strategy**

A research strategy, also known as a research approach or paradigm, is the general protocol a researcher decides to use when conducting research (Bryman, 2012). The selected approach is aligned with the purpose of the study and the methods the researcher uses when collecting and analysing the data (Mador, 2008). There are three main types of research strategies: qualitative, quantitative, and mixed strategies (Bryman, 2012). This study used a quantitative research approach. Quantitative research approach involves larger samples and asks the questions 'how long', 'how many' or 'the degree to which' – it look to quantify data and generalise findings (MacDonald & Headlam, 2008; Wiid & Diggines, 2009; Wotela, 2017).

This research used a quantitative approach to interrogate and test the four (4) research hypotheses as stated in section 1.2.3. A quantitative approach enabled the researcher to determine the relationship between the variables (Wotela, 2017) or to investigate relationships between theory and measurements as proposed (Bryman, 2012)) and (Walliman, 2015).

### **3.2 Research design**

A research design is the framework for collecting and analysing data in research (Bryman, 2012). According to Bryman (2012) there are five general research designs: cross-sectional, longitudinal, case study, comparative and experimental. This study used the cross-sectional research design, also known as a survey design (Bryman, 2012).

The main feature of a cross-sectional design is that the research is conducted at a single point in time which means data on the variables are collected more or less simultaneously (Bryman, 2012). Moreover, Bryman (2012) says that cross-sectional designs are used when quantitative or quantifiable data is needed to investigate multiple variables and their association.

According to Saunders, Lewis and Thornhill. (2009) a survey design is the process of data collection by administering a questionnaire which is standardised to a large sample of respondents. Given that this study aims to determine the relationship between variables, the cross-sectional design was a relevant choice. There is also the practical implication of being more cost-effective than other types of designs which was considered (Bryman, 2012).

### **3.3 Research procedure and methods**

#### **3.3.1 Research data and information collection instrument(s)**

According to (Babbie, 2013) data collection instruments are designed to produce information that is required in processing the research. There are three types of questionnaires that are used to collect data which include, unstructured, semi-structured, and fully structured. In survey research, structured interviews or self-completion questionnaires can be used (Bryman, 2012). The data in this study was collected by means of a structured self-completion questionnaire (Appendix C) which was administered via the WhatsApp platform. The reason for selecting this data collection method and instrument was that it allowed for the collection of various data from different people in a short period of time as has been supported by (Sekaran & Bougie, 2016).

A structured questionnaire was used in this study to provide respondents with a standard stimulus in order to conduct statistical analysis to test the hypotheses (Colorado State University, 2009). The questionnaire consisted of 4 sections. The first section, Section 1, is the demographic questions. Sections 2, 3 and 4 relate to the value propositions being measured, namely, digital platform, ease of doing business and loyalty programs. The questions in these sections were structured based on a 5-point verbal Likert-type scale – 1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree and Strongly 5: Agree. This produced ordinal level data.

### **3.3.2 Research target population and selection of respondents**

#### **3.3.2.1 Research target population**

According to (Wotela, 2017) the target population specifies the characteristics of large groups of people or organisations from which one can source information for a study. The target population of this research was nine million life insurance policyholders in South Africa (9'194'207) (ASISA, 2021). The target population limited to individuals who already have an insurance policy with any life insurance company in South Africa or individuals who intend to take out a life policy with a life insurance company.

#### **3.3.2.2 Sampling or selecting respondents from the target population**

The process of reducing the population to a number (the sample) which is practically feasible and theoretically acceptable is known as sampling (MacDonald & Headlam, 2008; (Sekaran & Bougie, 2016). The two types of sampling strategies are: non-probability and probability sampling (Saunders et al., 2009). Probability random sampling was used in this study. Each policy holder was allocated a code that was randomly picked using a random number generated by a calculator.

One hundred life insurance policy holders were picked randomly from the target population of nine million and questionnaires were distributed to the random sample. The respondents were selected based on four criteria: 1) they had to have a monthly household income of between R1, 001 and above, 2) a grade 12 as the minimum education level, 3) already have an insurance policy with any life insurance company in South Africa or individuals who intend to take out a life policy with a life insurance company and 4) be 18 years and above.

A total of  $n=69$  responses were received, 12 of which were incomplete, therefore making the final sample size  $n=57$ . According to (Sekaran & Bougie, 2016) in a quantitative study, the minimum sample size to deliver robust results which can withstand scrutiny is  $n=30$ .

### **3.3.3 Ethical considerations when collecting research data**

The study has been approved by the Department of Law and Commerce at the University of Witwatersrand, Johannesburg – Panel Committee. Their main purpose is to safeguard

the rights and dignity of all human participants who agree to respond to research projects and ensure the integrity of the research itself.

This study followed the principles of ensuring informed consent is obtained, ensuring confidentiality and anonymity as well as ensuring no harm comes to participants. The respondents were informed, in the form of a participant information sheet, of all relevant information needed by them to make an informed decision about participating in the research or not (Appendix A)

“Informed consent requires you to prepare for all research participants some documentation which shows them what you are doing and why, what their role in the research is, it will also set out how the participant can withdraw their consent at any time, and you will not proceed with their data/ interview” (Greener & Martelli, 2012, p.69). A consent form (Appendix B) was included at the start of the survey. If a respondent selected ‘continue’ it was meant as giving their expressed consent to participate in the research and their data to be used.

Researchers are required to inform respondents “what will happen to the data you collect from them and what they are agreeing to do. It will also usually set out how you will keep and dispose of the data and how the required confidentiality will be ensured” (Greener & Martelli, 2012, p.69). Although it is possible to identify individuals who respondents in this survey because they were known to the researcher, at no point was personal information included in the data. Data is stored securely on a personal laptop to which no-one has access except the researcher. Respondents were ensured that their data will not be used for any purposes other than this research.

Trochim (2006, p.1) says “ethical standards also require that researchers not put participants in a situation where they might be at risk of harm as a result of their participation. Harm can be defined as both physical and psychological”.

It is the researcher’s opinion that all possible precautions in the form of gaining express consent, as well as ensuring confidentiality and anonymity any risk to the respondents were minimised. The nature of the study is also such that in itself there is no risk to the respondent for simply completing the questionnaire.

### **3.3.4 Research data and information processing and analysis**

#### **3.3.4.1 Research data and information processing**

Processing research data refers to the coding, entry and editing of data into a database ((Sekaran & Bougie, 2016). The responses received from respondents via the WhatsApp platform were automatically captured into a spreadsheet format. This spreadsheet was quality checked and cleaned to eliminate any incomplete questionnaires from the analysis. A total of n=12 questionnaires were excluded from the analysis. The cleaned data of n=57 respondents was imported into SPSS for analysis purposes.

#### **3.3.4.2 Research data and information analysis**

To test the research hypotheses, inferential statistics in the form of multiple regression and analysis of variance (ANOVA) was conducted. Regression measures the type of relationship between a dependent variable and independent variables enabling the prediction or effect of one variable upon another variable (Raza et al., 2019). In this study, the dependent variable is loyalty, and the independent variables are digital ecosystems as a combination of the three value propositions and each of the individual value propositions – ease of doing business, digital platforms, and loyalty programs.

Non-parametric statistics do not rely on assumptions about the shape of the underlying population distribution (Hoskin, 2019). The process of critical examination of data to study the phenomenon of interest and to determine relationships or patterns among variables constitutes data analysis in quantitative research (Centellas, 2016; Shukla, 2014). Statistical analyses serve to summarise large amounts of data in understandable and meaningful forms, to make exact descriptions, to facilitate making reliable inferences, to facilitate the identification of causal factors, and it facilitates making estimations and generalisations (Centellas, 2016; Shukla, 2014).

Statistical analysis in quantitative research consists of descriptive statistics - used to describe the data and inferential statistics – to test hypotheses (Centellas, 2016; Greener & Martelli, 2018). Descriptive statistics include measures of central tendency – the median, mode and mean, as well as measures of dispersion – variance, standard deviation,

and coefficient of variation. Most often, frequency distributions, in the form of percentages, are used to indicate how data is distributed over various categories and might show relative importance and relative relationships of data and variables (Shukla, 2014). In this research, the demographic questions were analysed using frequency counts and percentages to determine the proportion of each characteristic in the sample.

### **3.3.5 Description of the research respondents**

Eleven percent (11%) of the respondents were between 18 – 25 years old, 14% of the respondent were between 26 – 32 years, 44% of the respondents were between 33 – 39 years, 25% of the respondents were between 40 – 47 years, 4% of the respondents were between 47 – 53 years, and lastly, 4% of the respondents were above 53 years old. In terms of gender of respondents, 64% were female, and 36% were male.

Related to the monthly household income question, the majority (74%) of the sample had a monthly household income of more than R30'000, 20% a household income of between R12'000 and R30'000, and 6% a household income of between R1'000 and R7'000. Most of the respondents in this study has tertiary education – 58% holds a postgraduate degree, 21% have Bachelors' degrees, 17% has a certificate or diploma whereas 4% completed Grade 12.

Most of the respondents indicated that they had a life insurance product or were more likely to consider taking up one (85%), compared to 15% who did not have any life insurance product. Forty-five (45%) of the respondents indicated that they would buy an insurance product online whereas 55% would not.

In terms of preferred communication channel, sixty-one percent (61%) of respondents prefer communicating to their insurer through email, 13% prefer communication through social media, 15% through telephonic conversations, 8% prefer to communication face-to-face and 3% said 'other'.

### **3.4 Research strengths—reliability and validity measures applied**

#### **3.4.1 Reliability**

According to (Mador, 2008) reliability refers to the level of random error associated with the measurement, which shows consistent results when research methods are repeated. Reliability also shows the stability of a measure (Bryman, 2012). Research reliability measures how much free of error the data collection instrument is, across all the items and time. In this study, the research reliability was tested using Cronbach's Alpha to determine the internal consistency of the scale items. The alpha coefficient ranges between 0 and 1 – the closer the alpha score is to 1.0, the greater the internal consistency (Gliem & Gliem, 2003). Ease of doing business and loyalty programs show good internal consistency – ( $\alpha = 0.858$ ) and ( $\alpha = 0.853$ ) respectively. Digital platforms ( $\alpha = 0.725$ ) had an acceptable reliability level while Loyalty ( $\alpha = 0.680$ ) had a relatively poor internal consistency.

#### **3.4.2 Validity**

Ecological validity refers to whether social research findings are applicable to the everyday, natural environment in which people live their lives – do measurements capture opinions, behaviour, attitudes, and conditions as people would express them in their natural settings (Bryman, 2012). This study could potentially have low ecological validity considering Bryman (2012) states that ecological validity may be limited due to the unnaturalness of completing a questionnaire such as respondents did in this study.

Internal validity means that the design of the research is error-free and is evaluated based on the rigor with which the study was conducted. The researcher is of the opinion that this study was conducted with the necessary rigor under the guidance of an experienced supervisor and the design of the research was thus 'peer-reviewed'. Researchers must also consider and be able to explain alternative explanations for any causal relationships which, when identified and relevant, will be discussed during the results discussion chapter (Bryman, 2012; Colorado State University, 2009; Neuman, 2014).

Measurement validity or construct validity relates to the idea that the measurement of a concept really does reflect what it is supposed to – whether it measures what it is designed to measure (Bryman, 2012). In this study, to test the validity of constructs for the

independent variables, the Exploratory Factor Analysis (EFA) was conducted to assess whether the constructs with multiple items were valid. Factor loadings higher than 0.40 is meaningful for indicating construct validity (Wiid & Diggines, 2009). Some items (questions) were excluded from the categories before conducting the multiple regression because they had low construct validity. Table 3.1 illustrates the factor loadings for each of the remaining items which were found to have good construct validity.

|                                                    | Pattern Matrix <sup>a</sup>                                                               |        |      |      |
|----------------------------------------------------|-------------------------------------------------------------------------------------------|--------|------|------|
|                                                    |                                                                                           | Factor |      |      |
|                                                    |                                                                                           | 1      | 2    | 3    |
| Ease of Doing Business                             | Q9 3 Speed of service is important to me                                                  | .930   |      |      |
|                                                    | Q9 4 Ease of accessibility is important to me                                             | .906   |      |      |
|                                                    | Q9 2 A company that puts the customer first is important to me                            | .753   |      |      |
|                                                    | Q9 5 Service delivery is important to me                                                  | .674   |      |      |
| Loyalty programs                                   | Q10 7 Loyalty programs run by a Life Insurance company would provide monetary value to me |        | .853 |      |
|                                                    | Q10 3 Loyalty programs are important to me                                                |        | .832 |      |
|                                                    | Q10 6 Loyalty programs run by a Life Insurance company would provide convenience to me    |        | .795 |      |
|                                                    | Q10 4 It is important to me that Loyalty programs are administered on a digital platform  |        | .601 |      |
| Digital platforms                                  | Q7 4 I get value from a Life Insurance Company that has an online presence?               |        |      | .882 |
|                                                    | Q7 3 I prefer for my Life Insurance Company to have an online presence                    |        |      | .613 |
|                                                    | Q7 7 The digital platform run by my Life Insurance addresses my needs                     |        |      | .565 |
|                                                    | Q7 6 The digital platform run by my Life Insurance provides me with convenience           |        |      | .464 |
| Extraction Method: Principal Axis Factoring.       |                                                                                           |        |      |      |
| Rotation Method: Promax with Kaiser Normalization. |                                                                                           |        |      |      |
| a. Rotation converged in 4 iterations.             |                                                                                           |        |      |      |

**Table 3.1: Construct validity of independent variables**

To test the validity of construct for the dependent variable – loyalty– which consisted of two items, EFA was also conducted. Table 3.2 illustrates high factor loadings which means the constructs are valid.

|                                                                                                         | Factor |
|---------------------------------------------------------------------------------------------------------|--------|
|                                                                                                         | 1      |
| Q10 2 I would cancel my life insurance product because my life insurer does not have a loyalty program  | .719   |
| Q10 1 I would cancel my life insurance product because my life insurer does not have a digital platform | .719   |
| Extraction Method: Principal Axis Factoring.                                                            |        |
| a. 1 factors extracted. 8 iterations required.                                                          |        |

**Table 3.2: Construct validity of dependent variable**

### **3.5 Research weaknesses—technical and administrative limitations**

Although this study was based on customer perspectives, the results were statistical and therefore, they did not provide elaborate detail of the customer's perception of the impact of digital ecosystems on the customer's loyalty. The study collected data using online questionnaires. The answers were pre-determined and may not have reflected the respondent's true opinions, as they may have selected the closest answers.

The study focused on the ease of doing business, digital platforms, and loyalty programs within the digital ecosystems to determine if this would impact on customer loyalty. However, there may be other factors not related to those mentioned that may yield different results.

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## 4 PRESENTATION OF RESEARCH RESULTS

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The purpose of this chapter is to present the results based on the n=57 responses received from the survey questionnaire administered online. Four research hypotheses were stated for this research and tested with multiple regression analysis, the results of which will be discussed individually.

### 4.1 Results pertaining to hypothesis 1 (H1)

**H1<sub>0</sub>:** There is no statistical relationship between digital ecosystem value propositions and loyalty.

**H1<sub>A</sub>:** There is a statistical relationship between digital ecosystem value propositions and loyalty.

With loyalty as the dependent variable, and digital ecosystem value propositions – ease of doing business, loyalty programs, and digital platforms as the independent variables – the regression analysis shows the value propositions explain 29.8% of loyalty (Table 4.1).

| Model                                                                                  | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|----------------------------------------------------------------------------------------|-------------------|----------|-------------------|----------------------------|---------------|
| 1                                                                                      | .546 <sup>a</sup> | .298     | .258              | .99995                     | 1.644         |
| a. Predictors: (Constant), Digital platforms, Loyalty programs, Ease of Doing Business |                   |          |                   |                            |               |
| b. Dependent Variable: Loyalty                                                         |                   |          |                   |                            |               |

**Table 4.1: Model Summary**

The ANOVA results (Table 4.2) show the three independent variables – digital platforms, loyalty programs, and ease of doing business – were significant in predicting loyalty.

| Model                                                                                  |            | Sum of Squares | df | Mean Square | F     | Sig.              |
|----------------------------------------------------------------------------------------|------------|----------------|----|-------------|-------|-------------------|
| 1                                                                                      | Regression | 22.479         | 3  | 7.493       | 7.494 | .000 <sup>b</sup> |
|                                                                                        | Residual   | 52.995         | 53 | 1.000       |       |                   |
|                                                                                        | Total      | 75.474         | 56 |             |       |                   |
| a. Dependent Variable: Loyalty                                                         |            |                |    |             |       |                   |
| b. Predictors: (Constant), Digital platforms, Loyalty programs, Ease of Doing Business |            |                |    |             |       |                   |

**Table 4.2: ANOVA – independent variables**

The p-value for F (3, 53) was 7.493 with a p-value of 0.000. This means that the grouping of the three independent variables as the digital ecosystem value proposition construct were significant in predicting loyalty. Considering a p-value of 0.000 the alternative

hypothesis (**H1<sub>A</sub>**) – there is a statistical relationship between digital ecosystem value propositions and loyalty is accepted and the null hypothesis (**H1<sub>0</sub>**) – is rejected.

## 4.2 Results pertaining to hypothesis 1 (H1), 2(H2) and 3(H3)

The contribution of each independent variable towards creating loyalty is summarised in the coefficients shown in Table 4.3. The discussion on each of the remaining hypotheses (H2, H3 and H4) will refer back to the below table.

| Coefficients                   |                        |                             |            |                           |       |      |                         |       |
|--------------------------------|------------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| Model                          |                        | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Collinearity Statistics |       |
|                                |                        | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| 1                              | (Constant)             | 1.771                       | .534       |                           | 3.319 | .002 |                         |       |
|                                | Ease of Doing Business | -.262                       | .338       | -.095                     | -.774 | .443 | .878                    | 1.140 |
|                                | Loyalty program        | .746                        | .161       | .549                      | 4.647 | .000 | .949                    | 1.054 |
|                                | Digital platforms      | .103                        | .215       | .058                      | .478  | .635 | .899                    | 1.113 |
| a. Dependent Variable: Loyalty |                        |                             |            |                           |       |      |                         |       |

**Table 4.3: Coefficients – independent variables**

**H2<sub>0</sub>**: There is no statistical relationship between digital ecosystem value proposition Ease of Doing Business on loyalty, and **H2<sub>A</sub>**: There is a statistical relationship between digital ecosystem value proposition Ease of Doing Business on loyalty.

The results shown in Table 4.3 indicate that there was no significant relationship between Ease of Doing Business ( $B = -0.262$ ,  $\beta = -0.095$ ,  $t\text{-value} = -0.774$ ,  $p\text{-value} = 0.443$ ) and loyalty. The relationship was not significant because the  $p\text{-value}$  was greater than 0.05. This implies that the null hypothesis was accepted (**H2<sub>0</sub>**) – there is no significant relationship between digital ecosystem value propositions Ease of Doing Business and loyalty.

**H3<sub>0</sub>**: There is no statistical relationship between digital ecosystem value proposition Loyalty programs on loyalty, and **H3<sub>A</sub>**: There is a statistical relationship between digital ecosystem value proposition Loyalty programs on loyalty.

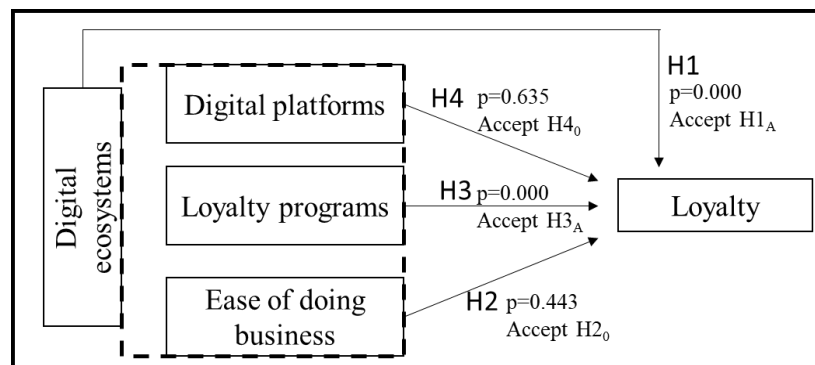
The results shown in Table 4.3 indicate that there was a positive and significant relationship between Loyalty programs ( $B = 0.746$ ,  $\beta = 0.549$ ,  $t\text{-value} = 4.647$ ,  $p\text{-value} = 0.000$ ) and loyalty. The relationship was positive because the coefficient for Loyalty programs (0.746) was greater than zero. The relationship was significant because the  $p$ -value was less than greater than 0.05. This implies that the null hypothesis (**H3<sub>0</sub>**) was rejected in favour of the alternative hypothesis (**H3<sub>A</sub>**) – there is a statistical relationship between digital ecosystem value proposition Loyalty programs on loyalty.

**H4<sub>0</sub>**: There is no statistical relationship between digital ecosystem value proposition Digital platforms on loyalty, and **H4<sub>A</sub>**: There is a statistical relationship between digital ecosystem value proposition Digital platforms on loyalty.

The results shown in Table 4.3 indicate that there was no significant relationship between Digital Ecosystems ( $B = 0.103$ ,  $\beta = 0.058$ ,  $t\text{-value} = 0.478$ ,  $p\text{-value} = 0.635$ ) and loyalty. The relationship was not significant because the  $p$ -value was greater than 0.05. This implies that the null hypothesis (**H4<sub>0</sub>**) was accepted – there is no statistical relationship between digital ecosystem value proposition Digital platforms on loyalty.

### 4.3 Conceptual model summary

By using the conceptual model introduced in the literature review, the results from the statistical analysis can be illustrated and summarised as follows.



**Figure 4.1: Results based on the conceptual model**

As a value proposition consisting of digital platforms, loyalty programs and ease of doing business, digital ecosystem has a significant relationship with loyalty. In terms of the individual value propositions, ease of doing business does not have a statistical

relationship with loyalty and neither does digital platforms. Of the three independent variables, loyalty programs are the only variable that has a significant relationship with loyalty.

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## 5 DISCUSSION OF RESEARCH FINDINGS

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Previous chapters discussed the context of this study, the theoretical and conceptual model as well as detailed the testing of the hypotheses and results thereof. Loyalty, as the dependent variable, was conceptualised as a customer's intention to not cancel a policy. Digital ecosystem as an independent variable was conceptualised as a composite variable consisting of value propositions – loyalty programs, ease of doing business and digital platforms which are also independent variables. By applying multiple regression, the hypotheses were tested to determine whether there were statistical relationships between the dependent variable and independent variables. This chapter discusses the main findings of the study based on a combination of the literature review and each of the tested hypotheses.

### 5.1 Hypothesis 1

Insurance companies that want to retain customers need to proactively and intentionally take steps to ensure customers stay ((Bengtsson & Brostrom, 2018). This research revealed that digital ecosystems is a new way of creating value for customers and in doing so, increasing customer loyalty. The first hypothesis tested in this research relates to whether there is a significant relationship between digital ecosystems and loyalty. The multiple regression results revealed that there is a significant relationship between digital ecosystems and loyalty. This result provides supporting evidence for KPMG's (2019) statement that although poor economic conditions contribute to retention challenges in the South African insurance industry, insurance companies which fail to deploy digital ecosystems play a greater role.

### 5.2 Hypothesis 2

The second hypothesis tested in this research relates to ease of doing business, as part of the digital ecosystems' value proposition, and its relationship with loyalty. Ease of doing business was conceptualised as accessibility, speed, and convenience. The results reveal that there is no significant relationship between ease of doing business and loyalty. This result seems to contradict Darnell et al. (2018), Writer (2019) and Raconteur (2018) who advocate that insurance customers have simple needs such as ease and speed of doing business, easy claims process, regular feedback, speedy response times, and personalised services as well as value for money (or additional benefits). This implies that although these researchers identified these needs as important to customers, none of them applied

regression statistics to test whether these needs actually have an impact on customer satisfaction or customer loyalty.

### **5.3 Hypothesis 3**

In South Africa loyalty programmes are now the norm among the larger insurers such as Old Mutual, Liberty, Discovery, and Momentum Metropolitan (KPMG, 2020). It was revealed that loyalty programs, as part of the digital ecosystems' value proposition, can contribute to increase customer loyalty. Thus, the third hypothesis tested relates to whether there is a statistical relationship between loyalty programs and loyalty. The results reveal that there is a statistical relationship between loyalty programs and loyalty. This result supports Shi et al. (2014) and Vinod (2011) propositions that loyalty programs can be successfully used to increase customer loyalty. It is interesting to note though that although the large insurance companies in South Africa have loyalty programs in place, there are still customer loyalty challenges (KPMG, 2020).

### **5.4 Hypothesis 4**

Customer expectations are moving from physical to digital technology and the use of digital technology by customers across all industries means that business models will have to change (Catlin et al., 2018; Gupta & Wong, 2012; Thomas, 2017). In this research digital technology was conceptualised as digital platforms, specifically focusing on to customers' preference for online communication, perceived value derived from online, convenience and meeting customer needs and its relationship with customer loyalty. The fourth and last hypothesis tested with multiple regression investigated whether there is a significant relationship between digital platforms and loyalty. The results reveal that there is no statistical relationship between digital platforms and loyalty. This result contradicts the findings by Alam and Khohkar (2006) who found that digital platforms, specifically the internet, assists in creating customer loyalty. Due to the increasing use of digital platforms by companies, digital platforms and digital communication have become hygiene factors for customers – it is simply something that is expected and will only impact on loyalty if it is no longer there.

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## 6 SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

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### 6.1 Summary

The South African insurance industry is critical contributor to the economy and therefore it is imperative that customer loyalty increases. There are various reasons why customer cancel or lapse their policies – some of these reasons can be controlled by companies, others not. The current literature on the topic proposes that the insurance business model needs to change, especially due to the increased expectations of customers for companies to become digitised. In fact, companies need to be more proactive in addressing customer needs. This study revealed that digital ecosystems can provide a value proposition across the entire insurance value chain which will provide value to customers and thus increase their loyalty to the company.

This study applied a quantitative methodology and a cross-sectional survey design in proffering answers to the research question “will digital ecosystems in life insurance companies create a value proposition which can create loyal customers?” A structured questionnaire was used to question life insurance customers on the value propositions identified for digital ecosystems – ease of doing business, loyalty programs and digital ecosystems. The multiple regression testing that was done on the four research hypotheses revealed interesting results – some of which contradict other researchers’ findings and some of which support it.

In summary, the hypothesis testing revealed significant relationships between the composite independent variable of digital ecosystems and loyalty, as well as one of the value proposition independent variables, loyalty programs and loyalty. No significant relationships were identified for the value proposition independent variables of ease of doing business and digital platforms with loyalty.

## **6.2 Conclusions**

This study provides insights to South African life insurance companies on whether investing in digital ecosystems could potentially increase customer loyalty, which would ultimately lead to building sustainable insurance companies in a competitive market.

In conclusion, this study revealed that digital ecosystems do provide a value proposition which can increase customer loyalty. In addition, the study highlighted that customer loyalty improves when a digital ecosystem consists of different value propositions that include ease of doing business, loyalty programs and leverages on digital platforms, loyal customers can be created. This highlights the complexity of digital ecosystems and strategic thinking needed for design and implementation thereof in insurance companies.

Furthermore, this study highlighted the complexity involved in customers keeping insurance policies. This study also revealed that there is a myriad of reasons that contribute to customers' decisions to cancel or lapse their policies. Therefore, digital ecosystems alone will not create loyalty, but they rather illuminate how a company succeeds in utilising embedded benefits provided by ecosystems within the larger company retention and acquisition strategy.

## **6.3 Limitations**

The first limitation of this research is that it did not investigate specific parts of the value chain, but rather the customers' experience across the value chain. In other words, in a general and overall sense. Therefore, this research specifically cannot claim to contribute to understanding the impact of digital ecosystems from a customers' perspective on specific parts of the value chain.

In this research, loyalty was conceptualised as a behavioural intention to not cancel a policy. The limitation in this is that the various proven attitudinal loyalty attributes are excluded and thus provide one view of loyalty. If attitudinal loyalty aspects were included, the results might have been different.

## **6.4 Recommendations**

Possibility for future research can be identified by considering the limitations above. It can be recommended that a representative sample of the life insurance industry can be used to compare results across different companies, and therefore different digital ecosystems.

It can further be recommended that a study be conducted in which both attitudinal and behavioural components of loyalty are used to test whether digital ecosystems influence loyalty. By understanding digital ecosystems' relationships with attitudinal and behavioural loyalty insurance companies will be provided with more detailed insights to assist them in better understanding and managing customer loyalty – both strategically and tactically.

Some literature on the topic of digitalization of insurance and loyalty measurements indicate that demographics of people play a role in their adoption of technology, communication method preferences and the extent of their loyalty and how to influence it. It is therefore proposed that a study with a sufficiently large representative sample be conducted where demographic variables are included in the hypothesis testing to determine whether there are differences amongst people of different demographic groups such as the difference between Generation X and Generation Z.

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## Appendix A: Participant Information Sheet

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Dear Sir / Madam,

My name is Georginah M. Muthama, and I am a Masters student in Business Administration at the University of the Witwatersrand in Johannesburg. I am conducting research into the impact of digital ecosystems on customer loyalty in South African Life Insurance Companies from a customer's perspective. The objective of this research is to explore and analyse the value propositions Life Insurance Companies can offer to attract new customers and to retain existing customers.

I am looking to interview individuals who have a life insurance product and those who may not have a life insurance product but intend to take one in the future. As a participant of this study, you do not need to be from the insurance industry.

I would, therefore, like to invite you to take part in answering a questionnaire which is expected to take about 15 minutes to complete. You will be presented with statements and asked to rate them on a 5-point Likert scale. In some of the questions, you will also be presented with a comment box titled option (specify), this will allow you the opportunity to include any other information you think that answers the question and may not have been included in the options.

There are no immediate benefits to your participation in the research. Please note that your participation is voluntary and can withdraw at any time without penalty. Please be informed that your participation is anonymous and that your responses will be dealt with in strict confidentiality.

If you have any questions during or afterwards about this research, feel free to contact my Supervisor or me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you have

any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email [hrec-medical.researchoffice@wits.ac.za](mailto:hrec-medical.researchoffice@wits.ac.za)

Yours sincerely,  
Georginah M. Muthama

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## Appendix B: Consent Form

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**Name of Institution:** University of the Witwatersrand in Johannesburg

**Title of project:** “The impact of digital ecosystems on customer loyalty in South African Life Insurance Companies from a customer’s perspective”.

**Name of researcher:** Georginah M. Muthama

**Name of Supervisor:** Michael T Nyamajiwa

The following information is provided to inform you about the research project and your participation. My name is Georginah M. Muthama, and I am a Master’s student in Business Administration at the University of the Witwatersrand in Johannesburg. I am conducting research into the impact of digital ecosystems on customer loyalty in South African Life Insurance Companies from a customer’s perspective. The objective of this research is to explore and analyse the value propositions Life Insurance Companies can offer to attract new customers and to retain existing customers.

I am looking to interview individuals who have a life insurance product and those who may not have a life insurance product but intend to take one in the future. As a participant of this study, you do not need to be from the insurance industry.

I would, therefore, like to invite you to take part in answering a questionnaire which is expected to take about 5 minutes to complete. You will be presented with statements and asked to rate them on a 5-point Likert scale. In some of the questions, you will also be presented with a comment box, this will allow you the opportunity to include any other information you think that answers the question and may not have been included in the options.

There are no immediate benefits to your participation in the research. Please note that your participation is voluntary and can withdraw at any time without penalty. Please be informed that your participation is anonymous and that your responses will be dealt with in strict confidentiality.

If you have any questions during or afterwards about this research, feel free to contact my Supervisor or me on the details listed below. This study will be written up as a research

report which will be available online through the university library website. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408,

Email hrec- [medical.researchoffice@wits.ac.za](mailto:medical.researchoffice@wits.ac.za)

By agreeing to participate you are indicating that you have read this informed consent document and the material contained in it. That you understand each part of the document, and freely and voluntarily choose to participate in this study.



Yes, I have read the informed consent

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## Appendix C: Data collection instrument

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### Section 1

Q1. What is your age?

|             |             |             |             |             |                    |
|-------------|-------------|-------------|-------------|-------------|--------------------|
| 18-25 years | 26-32 years | 33-39 years | 40-47 years | 47-53 years | 53 years and above |
|-------------|-------------|-------------|-------------|-------------|--------------------|

Q2. What is your gender?

|      |        |
|------|--------|
| Male | Female |
|------|--------|

Q3. What is the income category of your household's gross monthly income before deductions?

|                     |
|---------------------|
| R 1,001 – R 3,000   |
| R 3,001 – R 7,000   |
| R 7,001 – R 12,000  |
| R 12,001 – R 20,000 |
| R 20,001 – R 30,000 |
| R 30,001 and above  |

Q4. What is your highest school qualification?

|                  |          |             |         |                      |              |
|------------------|----------|-------------|---------|----------------------|--------------|
| Below<br>Grade 7 | Grade 12 | Certificate | Diploma | Bachelor's<br>degree | Postgraduate |
|------------------|----------|-------------|---------|----------------------|--------------|

Q5. Do you have a Life Insurance product or are you likely to consider taking up a Life Insurance product?

|     |    |
|-----|----|
| Yes | No |
|-----|----|

Q6. I would buy insurance online

|     |    |
|-----|----|
| Yes | No |
|-----|----|

**Q7. Section 2: The following questions rate your digital online experience.**

**Please respond to the most likely response. *Select from the list of possible answers: Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree or Strongly disagree.***

7.1 I am more inclined to conduct my day-to-day interactions online

7.2. It is important to me for a business to conduct day to day transactions on an online platform

7.3 I prefer for my Life Insurance Company to have an online presence

7.4 I get value from a Life Insurance Company that has an online presence

7.5 Digital platforms help improve customer experience

7.6 The digital platform run by my Life Insurance provides me with convenience

7.7 The digital platform run by my Life Insurance addresses my needs

Q8. My preferred channel of communication is

|              |       |              |            |               |
|--------------|-------|--------------|------------|---------------|
| Social Media | Email | Face to Face | Telephonic | Other Specify |
|--------------|-------|--------------|------------|---------------|

**Q9. Section 3: The following questions rate what is important to you e.g. human connection, speed of service, accessibility, and service delivery. *Select from the list of possible answers: Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree or Strongly disagree.***

- 9.1 I prefer speaking to a person than using online services
- 9.2 A company that puts the customer first is important to me
- 9.3 Speed of service is important to me
- 9.4 Ease of accessibility is important to me
- 9.5 Service delivery is important to me

**Q10. Section 4: The following questions rate your customer loyalty with a Life Insurance Company. Please respond to the following statements. *Select from the list of possible answers: Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree or Strongly disagree***

- 10.1 I would cancel my life insurance product because my life insurer does not have a digital platform
- 10.2 I would cancel my life insurance product because my life insurer does not have a loyalty program
- 10.3 Loyalty programs are important to me
- 10.4 It is important to me that Loyalty programs are administered on a digital platform
- 10.5 It is important to me that my life Insurer offers me different services on one digital platform
- 10.6 Loyalty programs run by a Life Insurance company would provide convenience to me
- 10.7 Loyalty programs run by a Life Insurance company would provide monetary value to me

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## Appendix 2.1: Researcher's bio and declaration of interest

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|                                                                                   |                                                                    |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|
|  | Georginah M Muthama                                                |
|                                                                                   | Customer Service Manager at a South African Life Insurance Company |

Georginah Muthama holds a post graduate diploma in Business Administration. Her professional experience includes five years as a Client Services Manager at a South African Life Insurance Company. Her knowledge and skills which include relationship building, communication, complex problem solver, management, strong interpersonal skills, and leadership have contributed to her success in this position.

She has a passion for learning and development which helps to ensure that she keeps herself up to date in a continuously changing business environment. This passion helps her contribute positively to her organisation and the industry at large.

Having worked in the Insurance Industry for over twenty years, Georginah is committed to researching and providing the industry with key information that will help as the Industry transitions its business model to mitigate high withdrawals, unpaid premiums, improve customer experience and offer value propositions that will attract new customers and retain existing customers.

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