Evaluating the marketing effect that COVID-19 has on broker channels in the South African insurance industry

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DECLARATION

I, Preeantha Nookiah declare that this research report entitled 'Evaluating the marketing effect that COVID-19 has on broker channels in the South African insurance industry' 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 31st March 2021

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ABSTRACT

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The World Health Organization announced COVID-19 (Coronavirus) as a pandemic early 2020 and this had an impact on people around the world. Governments closed their borders with strict regulations around movements to work, school, travel, and even gyms or any extracurricular activities. Economies around the world struggled with many people losing their jobs. Companies have struggled to move to a digital environment to keep business going.

Customers were forced to start purchasing online because of the movement restriction. The way people contacted family and friends were by calling, messaging or on social media platforms. In the South African insurance sector, COVID-19 has also affected the brokers community, due to restrictions brokers could not meet with their clients, other methods had to be used to contact and sign-up clients. Brokers have always played a vital role in the insurance industry in South Africa.

The aim of this study was to give an understanding of the marketing effects of COVID-19 on the broker channels in the insurance industry in South Africa, and to gain insights on a way forward for brokers on marketing and to provide trends or hints of what customers want post COVID-19. An online questionnaire was sent to participants in Johannesburg, South Africa. The data was cleaned, coded, and analysed using Pearson correlation, multiple regression, analysis of variance (ANOVA) and Cronbach alpha for a reliability test on SPSS.

The main findings identified were that customers who watch videos on insurance companies on social media were more inclined to read more about that company and would leave their details to be contacted. Customers also are chatting on telephone, email or on digital platforms during COVID-19 and want to continue with these communication methods after COVID-19. There is a strong positive relationship with customers feeling comfortable on online platform and there is a sense of comfort using

digital platforms provided they are on a secured part of a company's website. The limitation was the access to people during this period, consideration had to be given if people were not feeling well, as it was during the second wave of COVID-19. The study guided current behaviour at the time, but it was recommended that future studies provide insights and guide trends on future customer behaviour by increasing the sample size and investigate having a wider audience within South Africa.

Key words used: social media engagement, brokers, digital preference, customer comfort levels, communication.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF TABLES AND FIGURES IN THE APPENDICES

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DEFINITION OF KEY TERMS AND CONCEPTS

Long-term insurance refers to products such as life cover, severe illness, and disability

Brokers is an individual or firm that acts as an intermediary between an investor and a securities exchange

Respondents refers to participants of a questionnaire who have completed the questionnaire

Questionnaire is a list of questions to be completed by the participants of a research

Social media is a platform there is sharing of ideas, thoughts, and information through a virtual network

Communication is the way we transfer information from the sender to the receiver.

Digital is the exchange of information from a fibre optic or satellite transmission to individuals

Preference refers to a choice of preferring to do something over another

Comfort refers to ease or feeling of doing something

Online refers to being connected by a system to internet to shopping, gaming, social media.

Customer is a person who is interested in buying a product or service

1 INTRODUCTION TO THE RESEARCH

1.1 Background and context

This research is about "Evaluating the marketing effect that COVID-19 has on broker channels in the South African insurance industry". The financial services industry in South Africa has accredited insurers who sell insurance products and services to clients (Fsca.co.za. 2020). These insurance companies offer financial protection to clients to protect their families in an unforeseen circumstance which may result from death, disability, or severe illness. This gives the insured some peace of mind and knowing their loved ones are taken care off when they are not around. Insurers have more than one marketing channel and that is direct and broker channels. Customers can decide which channel they would want to use. The broker channel usually does face-to-face interaction (Teffu, 2019). The broker is aimed at creating and building relationships with clients, this relationship building allows brokers to keep clients on books for a longer period and has allowed brokers to explain complex products to clients with the intention of a sale. The insurer quotes a client and once the client accepts the quote a financial contract is drawn between the insurer and insured. Brokers accredited to sell on behalf of the insurer usually complete quotes for insurance (Kruger, 2010). The broker receives a commission from the insurer for bringing in the business. The broker channel has been around for a long time and has dominated the insurance industry, but technology accompanied by a pandemic can bring about a change in a customer's behaviour and how they want to deal with insurance companies (Kruger, 2010).

This research investigated the marketing behaviour of customers during COVID-19 and whether it has affected the broker channels within the insurance industry, the focus area of the research was in Gauteng, South Africa. The research looked at literature gathered previously on broker channels which would guide this research. The insurance sector has had an impact on the economy of the country and with COVID-19, many people's household income has decreased resulting in reduced business for broker channels. The lockdown restrictions have had a greater impact on limiting interaction and has a possible occurrence for the future. This research provided insights to broker channels

on how to communicate with clients going forward and how to create opportunities through technology and digital channels.

This research covers the research conceptualisation in Section 1.2, in which we briefly introduce this research in Section 1.1 generally with an overview of the environment. The research conceptualisation Section 1.2 provides for the research problem statement with the aims, objectives, and the purpose of this research as well as the research questions. The limitations, delimitations, and assumptions of the research study are in Section 1.3 while we discuss the significance of the research study in Section 1.4 and Section 1.5 a preface to the research report.

1.1.1 The effect of broker channels in the insurance industry in South Africa

The broker channel plays an important part in the South African insurance sector, brokers interact with clients to discuss a product or service on behalf of the insurance company, but a potential client may prefer different ways to interact with the insurance company. According to Teffu (2019), the research tells us that brokers create trust with their clients, and they build relationships with clients with a long-term relationship in view. The broker channel is the main channel on which this study would be focused on. The broker channel focuses on face-to-face interaction with a relationship element while Kamiru (2016), indicated that different customers have different preferences.

1.1.2 The historical effect of broker channels in the Long-term insurance industry in South Africa

Insurance in South Africa is one where there is a binding contract between the insured and insurer for an uncertain event in return for a payment. The insurance industry is governed by the Long-term Insurance Act (Kruger, 2010). There is a relationship between insurers and brokers, the broker is liable to source clients, build relationships, and offer the client the best product. Brokers must be authorised and approved to sell the insurer's products or services. Within the South African long-term industry, there is the Financial Services Board regulated by the Financial Services Board Act of 1990 (Fsca.co.za. 2020). This board supervises the long-term insurance industry and ensures that insurers are registered (Fsca.co.za. 2020). The broker channel has been a dominant channel, a broker would meet and go through your entire portfolio, doing a financial

needs analysis and they would indicate what other products you would need (Kruger, 2010).

1.1.3 An introduction to formative evaluation

Quantitative, qualitative, and mixed methods are available for evaluation (Kumar, 2019). While quantitative uses questionnaires, qualitative uses focus groups and interviews to, and the mixed method uses both quantitative and qualitative methods to gather research information. The formative evaluation used in this research evaluated respondents through self-administered questionnaires through the quantitative strategy approach outlined in Chapter 3 with a deductive approach.

1.2 Research conceptualisation

1.2.1 The research problem statement is "The impact of COVID-19 has influenced how customers want to communicate and interact with brokers for insurance purposes in South Africa. This has in turn influenced the marketing behaviour of customers by using online platforms.

The contingency theory is applicable for this research problem where there are situational factors in the environment which affect the dependent and independent variables. Brokers need to adapt need to adapt to what is happening in the environment (Fiedler, 2015). In management sciences, the contingency theory is applied to understand why certain things occur. The theory states that situational factors in the environment happens and this could affect certain other factors. As such, the effect that COVID-19 has had on broker channels in South Africa has been affected by the customers behaviour.

From December 2019, we saw the impact of COVID-19 on countries and their economies. With millions of jobs being lost, we saw companies cutting marketing costs to pay salaries of staff and staying financially stable. The COVID-19 pandemic has caused marketing to re-assess their strategy internally within companies (Warc.com. 2020).

Before "lockdown" there were lots of face-to-face interactions in the retail, financial, and in the workforce. Now we notice a shift of people to doing everything digitally. There is also a huge volume of interactions with people on social media platforms like Twitter, Facebook, Instagram, and Tik Tok (Raj et al., 2020). COVID-19 has accelerated businesses, individuals, and communities at least 5-10 years into the future (Donthu & Gustafsson, 2020). The new normal may be very different, as change still continuously happens daily. An example would be working from home; before COVID-19 one may have never thought that this would have been possible but now this may be a new norm for companies and employees.

As one sees marketing moving towards a more give back, empathy mode a focus towards well-being, family, health, staying informed (Donthu & Gustafsson, 2020). While lockdown has been relaxed in October 2020, there was a second wave in December 2020 which caused another lockdown to occur.

Broker channels play a major role in the insurance sector and the key driver to new business and revenue. Whilst a channel like brokers have face-to-face contact and create a relationship with their clients to direct marketing where everything is done on the phone and this creates a short seamless journey for the client (Raj et al., 2020). In a pandemic, we see changes to how we work, how we interact with people, and where we work. This has implications for broker channels, how does this channel adapt to change quickly and yet keep revenue coming in.

1.2.2 The purpose of the research

The purpose of the research is to evaluate the marketing effects of COVID-19 on broker channels in the South African insurance industry and the research objectives below breakdown the research purpose and provide insights.

This research aims to provide broker channels with information on how customer behaviour has changed during COVID-19.

The objective of this research is to,

1. To identify whether social media engagement has a positive effect for insurance companies.

2. To understand what preferred communication customers, want to use post COVID-19
3. To understand the digital preferences of customers
4. To identify customers comfort levels with online platforms

The research design used was a quantitative method with the use of descriptive statistics. A self-administered questionnaire was used to collect data. Collected data was cleaned, coded, and analysed to provide empirical results, and recommendations.

1.2.3 The research questions as well as where applicable accompanying research hypotheses or research propositions

Question 1: Does social media engagement allow for customers to engage with insurance companies?

Null hypothesis- Social media engagement has no effect on engagement with insurance companies
Alternative hypothesis – Social media engagement has a positive effect on with insurance companies
Proposition - Broker channels need to engage with their customers on social media platforms to be relevant

Question 2: What preferred customer communication methods can guide brokers in the future?

Null hypothesis – Customers prefer communicating face-to-face
Alternative hypothesis – Customers do not prefer communicating face-to-face
Proposition - Brokers need to adapt to online platforms

Question 3: What effect does digital preferences have on broker channels?

Null Hypothesis - Digital preferences of customers do not affect broker channels
Alternative hypothesis – Digital preferences of customers affect broker channels
Proposition - Identify through customers the impact of digital preferences

Question 4: Are customers comfortable with online platforms vs face-to-face interaction?

Null hypothesis- Customers are not comfortable with online platforms
Alternative hypothesis – Customers are comfortable with online platforms
Proposition- Factors include changes within the external environment

1.3 Limitations, delimitations, and assumptions of the research study

Limitations

The research started during the first wave of COVID-19 in South Africa and the data collection started in December 2020 at the start of the second wave of the virus. The questionnaire was conducted through a URL link which was sent to respondents by WhatsApp or email to be completed online. The sample size and profile of the sample was limited to the number of respondents who took part in the survey. Respondents have been working from home and have been on holiday and may needed a nudge to fill in surveys. The study would provide insights into Johannesburg with a 100-sample population. The culture and location of findings in this place may be different from other locations and cultures within South Africa and therefore may not yield the same results. Future research must investigate a sample size greater than 100 and must consider people from other cities and provinces within South Africa.

Assumptions

The assumption is that the respondents are from Johannesburg and are well acquainted with broker channels and have a life policy or have investigated the option to getting a life policy. These respondents were be adults above the age of 18 with access to smart devices and social media or online platforms. There are new waves of the pandemic and post-COVID-19 data may be different from what has been currently identified. The sample size of 100 and profile of the sample used in the research was be adequate to make assumptions.

Delimitations

The delimitations chosen for this research are related to the effect of COVID-19 on broker channels and aims to contribute to the research. The path chosen is to identify

the customer trends during COVID-19 and provide insights into what may occur post-COVID-19 when the new normal begins.

1.4 Significance of the research study

The COVID-19 pandemic in China had a negative impact on the insurance industry and this is due to household incomes being decreased while having a positive impact on digital marketing which can be an opportunity to create resilience (Wang et al., 2020). The research used 2018, 2019, 2020 data as a benchmark where there was lots of marketing activity showed 2018, 2019 having strong growth compared to 2020. The lockdown restrictions caused due to COVID-19 included restrictions on sales channels, in some areas where a strong digital presence resulted in the business being activated whilst where low digital presence in some areas resulted in a low revenue.

According to Eckardt (2002) research in Germany, the research indicated that the insurance product is complex and needed brokers to interpret product information to customers. The data gathered by German brokers either by interviews or questionnaires, the results indicated that brokers have a better success rate from consultation and customers indicated they were advised better.

Even though brokers have been regulated by advisory services and can choose products from which companies are good for the customer. Brokers have been the key contributor to the insurance business in the sector and they do provide good advice to customers. The face-to-face consultation creates a relationship with a customer and in turn, trust is gained. The recent research in China indicated that there was a digital presence during the first wave of COVID-19, and this was an opportunity for those who can quickly adapt to digital advertising would have a positive impact on business going forward (Wang et al., 2020)

1.5 Preface to the research report

Chapter 2 gives an overview of the research problem analysis, the literature review indicates that customer behaviour has changed during COVID-19, Leonard and Dietl (2020) suggests there was pressure for a "digital front door" shopping has changed away from the face-to-face interaction and towards a digital experience, there is a lack of digital enablement in the broker community, which has become more evident during

COVID-19 (Hay, 2020). The consequence is the need for adaptation to being flexible for the new normal (Wallace, 2020) and could include business models changing and adapting (Leonard & Dietl, 2020). The gap analysis shows there is a positive impact with digital advertising during COVID-19 which means everyone needs to adapt to be sustainable (Wang et al., 2020). The quantitative key variables of the customers are the key and listening to what a customer wants is important (Thomke & Von Hippel, 2002). Engagement the second variable is how the customer engages with social media and how marketing strategies plays a role (Van Doorn, J.et al., 2010). The third variable of digital indicated digital tools is the new normal and that "Robo advisers and Big data" would play a more important role by insurers (Greineder et al., 2020). The fourth variable is broker channels, broker's channels create relationships of trust there are currently operational pressures from digital (Babuna et al., 2020). The fifth variable communication is key which must have the innovation to ensure insurance is adapting for better ways to create opportunities. The last aspect of Chapter 2 also discusses the frameworks for interpreting findings, the guide for the framework is for strategic planning (Sandrock, 1996). The use of primary and secondary data can be used to conclude, primarily being the actual financial performance of the broker while secondary is questionnaires.

Chapter 3 discusses the research strategy, design, procedure, and methods used in the literature. The research strategy needs to identify customer preference to gain a competitive edge (Kumar, 2019). The research design is important to the way a researcher collects data and this could be through the cross-sectional, longitudinal, case study, comparative, and experimental (Kumar, 2019). The research procedures and methods guide how research data instruments are selected for the primary and secondary data approach with the target population and respondents are selected, the ethical considerations together with reliability and validity measures are applied and how raw data is gathered, cleaned, and analysed. This research study used the quantitative research strategy approach with a descriptive approach design, the data instrument was a have self-administered questionnaires that would be the focus of gathering the primary data. The target population selected was adults over the year of 18 in the Johannesburg area with access to smart devices and social media and online platforms. The confidentiality of respondents was always be adhered to, ethical standards and moral decisions were always maintained. The data was only used for academic purposes. The

validity and reliability measure have been applied and would ensure that information of participants is accurate, the external validity may change as this applies to the environment the research is conducted in and may not apply to other areas within South Africa and cultures.

Chapter 4 presents the results of the questionnaire conducted in December 2020. This involved cleaning the raw data, coding the data to be uploaded into SPSS. Once the data has been uploaded, correlations between the variables were conducted, multiple regression and reliability tests to measure the internal consistency on a set of variables to ensure the scale of reliability is maintained while Chapter 5 discusses the findings and provides insights and guidelines for our research questions and respectively, to interrogating our hypotheses while Chapter 6 summarises, concludes, and makes recommendations for future research.

2 LITERATURE REVIEW

Chapter 2 discusses the four objectives; to gain an understanding of the research problem, to identify the knowledge gap, and to develop a framework for interpreting the research findings. Specifically, in Section 2.1, we have detailed the research problem. In Section 2.2, we have reviewed the literature on studies that have attempted in similar studies or research. With information arising from Section 2.2, we would identify and detail the quantitative variables that are key to this research in Section 2.3 as well as a framework that was used to interpret the research findings in Section 2.4.

The research method used in this study

The theory of hypothesis testing was used in this study, this theory was developed by Ronald Fisher for the p-value and Egon Pearson for the theory of hypothesis testing (Biau et al., 2010). This theory allows researchers who are doing quantitative research to accept or reject hypotheses. "The p-value in the theory is the probability that the same effect or a more extreme compared one observed presuming the null hypothesis of no effect is true; it gives researchers a measure of the strength of evidence against the null hypothesis. The theory of hypothesis testing allows researchers to reject a null hypothesis in favor of an alternative hypothesis of some effect. Type I error (rejecting the null hypothesis when it is true) and Type II error (accepting the null hypothesis when it is false) levels. If the test statistic falls into that critical region, the null hypothesis is rejected in favor of the alternative hypothesis" (Biau et al., 2010). The study used hypothesis testing with p-values to understand if the hypothesis would be accepted or rejected.

The management theory used in this research is the contingency theory. The theory says that "there is no best way to manage, there is a dependency on the internal and external environment to maintain the needs of the organization". There are situational factors that affect relationships between the dependent and independent variables, which overall impacts the success of an organization. The leadership style needs to adapt to what is happening in the environment (Fiedler, 2015).

2.1 Research problem analysis

Symptoms, root causes, and consequences of broker channels in South Africa

Symptoms

Leonard and Dietl (2020) believed that there is a change in customer behaviour due to COVID-19 and with many customers "shopping" more to protect what they have; many people have identified that the current customer behaviour has changed. Wallace (2020) refers to the "buying process" that would need to change to align the process and customer needs and argues that the pandemic has caused this shift in customer behaviour while Niclola et al. (2020) has identified that due to the precautions taken by clients during COVID-19, behaviour has changed, and this was caused due to the loss of jobs in many sectors. Hay (2020) has identified that the trends have shifted from face-to-face interaction to a more digital experience for customers with many customers leveraging online platforms for frequently asked questions, communication, and telephonic calls for interaction for queries. Wang et al. (2020) has identified that in China these economic disruptions have resulted in downward trends in all sectors while Leonard and Dietl (2020) indicated that face-to-face interaction is drying up and there are huge amounts of pressure on having a "digital front door" as the reason for this is that customers are in a vulnerable position from the pandemic which has created fear and economic concerns. Hay (2020) talked of more customers contacting their brokers about their concerns. Leonard and Dietl (2020) has identified that business models are usually resilient in difficult times, but COVID-19 has changed, Wallace (2020) said that this pandemic has shifted everyone to at least 5 to 10 years into the future. COVID-19 has changed how we unlock the customer experience and now is proofing to be a catalyst for innovation, and this may be overdue in the industry (Hay, 2020).

Root cause

Leonard and Dietl (2020) discussed that customer behaviour has accelerated towards a digital transformation. While many authors have identified that robust systems are needed for this digital transformation, Hay (2020) saw this as an opportunity to innovate with the point of adjusting more and responding towards this shift. Wang et al. (2020) found that in China where there was no digital transformation, businesses were not effective enough to cancel the negative impact of the pandemic. Hay (2020) argued that

there is a lack of digital enablement in the broker community, and this has become more evident by the COVID-19 but Leonard and Dietl (2020) has the view that companies should provide simple resource tools that are accessible for support so that customers can communicate with them. Leonard and Dietl (2020) confirmed that it is expected for business models to be resilient, but this pandemic has identified a different view. The values concept as identified by Hay (2020) has brought more offerings to customers which must shift the business model more towards a change or update.
Whilst behaviour has changed as identified by Wallace (2020), some behaviours would remain permanent and maybe some would go back to what they were but there is always a need to identify the value proposition and drive this in the best interests of customers.

Consequences

Wallace (2020) argued that brokers should see this as an opportunity to support clients and explore new markets while Leonard and Dietl (2020) supported this by saying that there needs to be a review of digital capabilities. While leaders in the G20 are investigating the recovery from the crisis brought about by COVID-19, Nicola et al. (2020) contended that there should be a rapid recovery, which would lead to economic growth. Even though brokers may be discouraged Leonard and Dietl (2020) believed that the value relationship model should prove itself now to show the business model can still adapt and change. According to Hay (2020), there was a shift towards digitalization and creating a customer experience at the same time this makes the need even more prominent in the commercial lines.

Several authors, for example Wang et al. (2020) have discussed even though household demand has changed with customer's behaviours on the other hand Hay (2020) argues that the COVID-19 has changed customer relationships but the way we interact with customers, and how brokers interact may change as well soon. Wallace (2020) concluded by saying for businesses would move forward, there is a need for flexibility and adapting to the new normal, and this can be seen by many as expanding operational requests as identified by (Leonard & Dietl, 2020). This pandemic has created a platform where leaders and businesses are taking the "whatever it takes approach" to survive and keep abreast of the current environment (Nicola et al., 2020).

The basic outline of the results framework

The outcomes would create an understanding of the current marketing environment and define the new value proposition offered to the client. The impact should create a more marketing-focused digital environment where digital skills have been enhanced focusing on more improved value proposition for the client. The data or information source was from surveys conducted.

2.2 Research knowledge gap analysis

Methods, data, findings, and conclusions of studies and evaluations of marketing channels

The research study in China by Wang et al. (2020) during the COVID-19 has findings that the insurance industry has seen a negative impact with decreased monthly insurance premiums and the cause is limitations on marketing channels and a decrease in monthly household incomes. There is a positive impact on digital advertising, but social security has the negative impact. There is a need for urgent attention on containing COVID-19 so that it does not affect the insurance and other economic activities and digitalization is important to create resilience against health emergencies.

In Germany, Eckardt (2002) suggested that the insurance industry is complex and requires intermediaries for the information and search costs between both these components. In Germany, there are many marketing channels like direct, brokers, agents, banks, and financial service providers but the brokers and agents were the main contributors, but they were unregulated. This research was to test whether legal incentives allow insurance brokers to give high-quality information and advisory services than agents.

The research conducted by Bornbaum et al. (2015) on knowledge brokers and how they transfer knowledge transition to key stakeholders in the health environment. With the Canadian research foundation providing a report on theory and practices of knowledge brokering in the Canadian health system, they wanted to know how knowledge brokers work and whether they contributed effectively to the health-related setting.

The research conducted in China by Wang et al. (2020) used data from 29 provinces and selected years 2018, 2019, and 2020 to create a benchmark of the beginning of the year and during this time there was a lot of marketing activity, the robust test was used. China introduced strict social restrictions and control in January 2020, before the pandemic there was a growth rate of 4.97% and -2.07% during the pandemic. There was a high demand for healthcare, we saw the health industry grow strongly. Results included restrictions on insurance sales by the channels, banking restrictions, and telemarketing suspended. The loss of employment caused household incomes to decrease. The research used a qualitative method of analysis. The group analysis that was conducted indicated a more digital insurance industry and that brokers were unable to continue as normal during the outbreak. In some areas with a strong digital presence, they had found a way around the lockdown and channels not being available while areas of low digital activity had a negative impact on the insurance industry. These results show the short- term effect of COVID-19 on the insurance industry (Wang et al.,2020).

Research two was by Eckardt (2002) to test the hypothesis of whether the broker and agents delivered the same advisory services in terms of quality. A survey was conducted by 4687 German intermediaries and was gathered via the yellow pages, a response rate of 20% was attained with 423 agents and 437 brokers responding. Data was also collected from interviews on the type of services rendered, what was the intermediation process, and what were the market conditions. Questions were on a scale-based ratio, the indicators used were quantitative and qualitative input.

The results indicated that insurance brokers had a better success rate during consultations and closed contracts, many customers felt they were advised well. While insurance agents had different legal rules and had given better advice, but the competitive insurance brokers were lower than agents. The interviews that agents conducted were lower than brokers were and therefore the customer variables reject the null hypothesis.

Research three worked together with a research team that looked at eight electronic databases where health systems were searched to identify literature. Once data was compiled, the duplicates were removed. The following criteria were used on the knowledge brokers side and i.e., full-time, or part-time, was it an employee or contract

basis, strategies used face-to-face meetings or teleconferences. The results indicated that the knowledge brokers provided several tasks and worked to connect with stakeholders and collaborated meetings to engage in building stakeholder relationships. Some limitations were some activities performed were not captured, there were some challenges like changes in information or knowledge, skills, and policy/practice. The results provided insights into the knowledge brokers who had overlapped roles with the knowledge managers and agents.

The similarities in the three pieces of research, they each had a hypothesis which were tested. The research either had a qualitative or quantitative or mixture for the research strategy. The data was collected included surveys or interviews conducted or data gathered and stored in a database. The target audience were wide, the data process had a period for when the data was gathered. The processing of data included removing duplicates to provide the outcome. A deduction from the data was provided for analysis. The results that were presented were information gathered in the data and identified findings which were either rejected or accepted the hypotheses, the limitations included external factors.

The differences in the three pieces of research were the period in which the three types of research were conducted. The frameworks used were based on different countries. The data collected was only for a certain period. The data was based on information gathered in databases which could be old data. The collection process of the data had a cut-off period and any other responses afterward would not apply. The analysis for the research was based on different tests conducted. Each research had its own rules to be followed and excluded skills and knowledge.

2.3 Quantitative variables key to the research

Variable 1 – Customers

Gupta et al. (2004) believed that valuing customer is the key to a firm's success and that customers are the intangible asset that must be valued whilst Prahalad and Ramaswamy (2004) has a view that customers have moved to a more active informed role and Anderson and Narus (1998) also agreed that the customer value is critical. Thomke and Von Hippel (2002) confirmed that listening to what customers want are important.

Gupta and Lehmann (2003) explained that there is a strong link between the customer and the organization on the other hand Bitner (1992) identified that the customer's environment affects behaviour and sometimes when customers know exactly what they want, it's hard for them to communicate this (Thomke & Von Hippel, 2002). Prahalad and Ramaswamy (2004) established that organizations must involve customers in their design, processes, marketing, and sales of products and services. Anderson and Narus (1998) clarified that the customer data allows organizations to use customer value models to be developed on the market segment but Thomke and Von Hippel (2002) highlighted that there is no toolkit can be used for customers. Prahalad and Ramaswamy (2004) debated that customers can join an organization and be part of the co-creation value on the other hand customer innovation is highly valuable but may not be an easy process (Thomke & Von Hippel, 2002). The DART model was used by Prahalad and Ramaswamy (2004) to determine customer co-creation while Anderson and Narus (1998) uses data from customers who purchased at the organisation while Gupta et al. (2004) used data from Amazon and eBay for their research.

Variable 2 - Engagement

Sashi (2012) presented engagement as part of the customer cycle which includes "satisfaction, engagement, connection and retention" while Vivek et al. (2012) emphasized that engagement changes due to changes in technology but nowadays. Verhoef et al. (2010) clarified that engagement is directed by social media. Coulter et al. (2012) discussed how using customer data to identify customer's engagement activities and agreed that this would occur for a brand or organisation as well (Van Doorn et al., 2010). Engagement of customers make customers fans (Sashi, 2012) and this makes a customer loyal to a brand (Vivek et al., 2012) and leads to effective and efficient marketing strategies with a longer lifetime value of the customer (Kumar et al., 2010) while Verhoef et al. (2010) pointed out that research would guide customers with the different communities creating loyalty and commitment for the current customer base. The use of a customer engagement matrix used by Sashi (2012) to determine customer engagement while Vivek et al. (2012) used a different approach by contacting interviewees telephonically to gather information.

Variable 3 - Digital

Niraula and Kautish (2019) gave us an overview that digital technology is creating frameworks that increase income and gives an organisation the competitive advantage while Gellweiler and Krishnamurthi (2020) said digital innovators changes systems and the use of socio-cultural trends while Revathi (2020) acknowledged that the demand by customers is more inclined to digital platforms and applications, insurers are adapting to this so that customers can use. Insurers are using digital applications for business processes like underwriting (Faizova et al., 2020), digital tools are becoming the new normal nowadays. The insurance sector is evolving, insurers are challenged to re-look at processes, resources, and tool with new technology (Revathi, 2020). Maroga (2019) discusses that technology was always the risk of disintermediation while Greineder et al. (2020) debated that "Robo advisors and Big data" cause a threat for those who do not want to change. The use of customer data from driving and health care accompanied by data from customers on their risk profiles allows organisations to gather information on customers (Gellweiler & Krishnamurthi, 2020). The authors used data from questionnaires from insurers Niraula and Kautish (2019) while Gellweiler and Krishnamurthi (2020) used data of customers for e-commerce transactions, search engines, and social media platforms. Faizova et al. (2020) discussed that besides this information when customers apply for policies or request information, this adds to their profile.

Variable 4 - Broker channels

Bawa and Chattha (2016) discussed that the survival of insurers was based on services provided by the distributions channels but Kamiru (2016) explained that a distribution channel is critical so that customers can understand complex products, fears of the misconception that happens in the insurance industry in the meantime Teffu (2019) discussed the value proposition is for the broker channel is to create and build strong trustable relationships with clients. Babuna et al. (2020) discussed how the insurance industry in Ghana due to COVID-19 which had operational pressures on the industry and has an impact on sales from broker channels. Zahariev et al. (2020) agreed that the COVID-19 impact on business in Bulgaria has a huge economic impact on the insurance industry. Teffu (2019) indicated that there is a need for new strategies by the broker channels and says for years in South Africa the broker channel has been the main source of income in insurance industries. Dumm and Hoyt (2003) used data collected

from brokers in the insurance industry and Eckardt (2002) said this data is limited to clients being signed up for insurance with no commission information while Teffu (2019) used a few brokers as part of data collected. Babuna et al. (2020) used quantitative and qualitative to conduct an interview to be guided to the impact of the pandemic.

Variable 5 - Communication

Du Toit (2019) indicated that insurance is usually communicated through the telephone or online platforms and results in trust and satisfaction which influences clients while Ehiorobo (2020) discussed that communication through marketing information can achieve customer satisfaction. On the other hand, Ngunjiri and Ragui (2020) said that the insurance industry had a low innovation may be a concern as customers are price sensitive. Yiyou (2019) said that communication is important when discussing the insurance product. Du Toit (2019) debated that an unhappy client who have not been communicated properly would blame the insurance for their misfortune while Yiyou (2019) debated that traditional ways of communicating with broker channels must have the innovation to cater for the development of insurance so clients can receive better service.

2.4 Framework(s) for interpreting research findings Established frameworks that interpret the effectiveness of marketing channels

This section provides us with information on frameworks used in research previously and how the framework was used to draw conclusions and findings and gave us the limitations experienced.

Sandrock (1996) conducted a research that has been initiated due to the varying performance of the insurance industry while Dumm and Hoyt (2003) discussed innovation of technology can create trust. The growth in each distribution channel is critical Bawa and Chattha (2016) conducted a research to see performance across the different distribution channels. Kamiru (2016) conducted a research because insurance has been seen for the affluent market in Kenya and how insurance penetration can occur through Kenya while in Babuna et al. (2020) in a research in Ghana was

conducted to find out the impact of the pandemic on the insurance sector while Teffu (2019) looked at how technology has a role to play in the business model for insurance.

Sandrock (1996) discussed that the purpose of the framework was to guide strategic planning while Dumm and Hoyt (2003) researched the purpose for the breakdown of distribution channels on the other hand Gilson et al. (2005) was looking at trust and behaviour. The growth in each distribution channel is critical Bawa and Chattha (2016) while Kamiru (2016) said that purpose has to do with customer decisions in uncertain times environmentally. The frameworks applied gave a practical idea of how to deal with disruptions (Teffu, 2019).

Sandrock (1996) discussed primary and secondary data for the study, primarily from the financial performance of insurers while secondary refers to questionnaires sent to insurers. Dumm and Hoyt (2003) indicated that getting your hands-on insurance data can be difficult, but this information provides good insights. The growth in each distribution channel is critical Bawa and Chattha (2016) also have had a view of primary and secondary data, primary from current insurance policyholders provides information on premium and other information, while secondary information is collected from an insurer's annual reports. Babuna et al. (2020) is highly valuable from policies already in place with information on gender, income, premiums, address.

Sandrock (1996) gave an indication of the relationship between the financial performance of the industry and the critical success factors but Dumm and Hoyt (2003) viewed the internet on insurance channels and how insurers are experimenting as" one-size does not fit all". The growth in each distribution channel is critical Bawa and Chattha (2016) gave an indication that all distribution channels play an important and unique part in the insurance industry and Kamiru (2016) looked at in-sales and in-house agents have seen an improved penetration but to increase the market share of products through advertising and providing discounts to customers. However, Babuna et al. (2020) said that in a pandemic everything changes cause of the reduced economic activity and "lockdown" can make the market volatile. Amidst change and disruption, there is an opportunity that is presented (Teffu, 2019).

Sandrock (1996) talked about the limitations faced during the research was that the information was limited to the SA industry while Dumm and Hoyt (2003) discussed that insurance products can be complex to understand and that is why distribution channels co-exists. On the other hand, Kamiru (2016) was limited due to respondents having their identity revealed. According to Teffu (2019), the research limitations were that insurers were only based in Gauteng and participants from only eight insurance companies only.

2.5 Summary and conclusion

2.5.1 Summary of literature reviewed

This chapter provided literature on research analysis which discusses the symptoms which is the change in customer behaviour accompanied by new digital trends, the root cause is the digital transformation, and this could change in business models for brokers and consequences is the opportunity to review capabilities, adapt business models with a more digital focussed customer experience. The research gap analysis identified in the literature that COVID-19 has had a negative impact on the insurance industry in other countries resulting in a decrease in monthly household incomes. From the literature we know that customers add the biggest value, the digital transformation influences customers and broker channels and the economy of all countries.

2.5.2 Proposed research strategy, design, procedure, and methods arising from the literature reviewed

From the literature reviewed the proposed research strategy with a specific location in Gauteng with a quantitative approach with descriptive statistics approaches on the data collected. The data collected with be from surveys sent to respondents. The data would need to be clean, coded, and analysed and thereafter the results would be presented.

3 RESEARCH STRATEGY, DESIGN, PROCEDURE AND METHODS

In Chapter 1, we have posted four questions that this research report intended to answer—which are 'Does social media engagement allow for customers to engage with insurance companies?', 'What preferred customer communication methods can guide brokers in the future?', 'What effect does digital preferences have on broker channels?' and 'Are customers comfortable with online platforms?'. Chapter 2 discussed the literature review to understand the research problem, knowledge gaps and the framework for the research findings like this research. Chapter 3 identified and described the research strategy, design, procedure, and methods this study has used. The quantitative research strategy for the study would drive insights and would guide the way data was collected. The research design would identified what approach was used to analyse the data while the research procedure gives us a view of what data instrument was used and how the data was collected from the sample population, ethical considerations, stored, cleaned, coded for interpretation. The validity and reliability measures applied to the study with possible limitations from a technical and administrative view.

3.1 Research strategy

A research strategy has aims and objectives and a detailed plan of the research Joshi (2019) which involved testing of a theory of research Kumar (2019) and drove researchers to gather insights Teffu (2019) and to identify customer preferences Kamiru (2016). The advantages of a research strategy provided a competitive edge for Ng'ang' a (2020) while Teffu (2019) says it may create new opportunities A research strategy included a quantitative, qualitative, or mixed strategy method of collecting data for analysis. A qualitative strategy conducted by Joshi (2019) involved conducting interviews, focus groups with an unstructured approach the data has insights while Greener and Martelli (2020) suggested that value to the research with an inductive approach. A quantitative approach involved conducting surveys, questionnaires, interviews with closed questions Joshi (2019), with a structured approach for the research conducted by Ng'ang'a (2020) and a more deductive approach is suggested by (Greener and Martelli, 2020). A mixed approach has a combination of quantitative and qualitative approaches in the research.

This study used a quantitative approach. In the study, the aim was to provide broker channels with information on how customer behaviour has changed during COVID-19. Descriptive statistics through surveys were used for this study, the questions were closed-ended, and this reduced the need for missing data and or low completion rate. Due to the COVID-19 pandemic, this allows respondents to complete surveys or questionnaires in a safe environment, to understand the behaviour changes of customers for broker channels.

3.2 Research design

The research design is a way a researcher plans to answer questions in their research (Kumar, 2019). The design aimed to achieve the purpose of the research (Kumar, 2019), and the five generic research designs: cross-sectional, longitudinal, case study, comparative, and experimental. Fundamentally, a research design is a way that a researcher collects data. Kumar (2019) identified cross-sectional as taking a situation or problem with a view of looking at the picture, while longitudinal looks at the before and after the design of the research. Teffu (2019) used network analysis to identify disruptions within the network and monitor these changes while Kamiru (2016) used a descriptive approach and used the how, what, when, where to identify the effects of the channels which were be used in this study.

This approach allowed for the understanding of the current trends and what is expected in the future through questionnaires. The research design used was a quantitative method approach for this study with a descriptive research through a self-administered questionnaire.

The 5-point Likert scale has options ranging from 'strongly agree' to 'strongly disagree' that are recommended by the researcher which reduces the frustration level of patient respondents and increase response rate and response quality (Di Gangi & Wasko, (2016). The scale is easier to understand ideal for a larger study and would produce better distribution of data Di Gangi and Wasko (2016). On the hand the 7-point Likert scale offers 7 different answer options related to an agreement that would be distinct enough for the respondents with a moderate or neutral midpoint. This may give too many options to the respondent (Di Gangi & Wasko, (2016). In this study the researcher used the 5-point Likert scale.

The questionnaire used had closed-ended questions with 5-point Likert scale with the rates used was “disagree -agree”.

3.3 Research procedure and methods

This section discussed the procedure and the methods in this research to collect, collate, process, and analyse the empirical evidence. The data would be documented and the information, collection instruments, the target population and sampling of respondents, the ethical considerations during the research process, data and information collection process and storage, data and information processing, and analysis.

3.3.1 Research data and information collection instrument(s)

The research data collection instrument used for primary data can be structured or unstructured (Ng'ang' a, 2020). It described the way data can be collected Kumar (2019) for the study through surveys, interviews, questionnaires (Joshi, 2019). Based on the literature review, we chose to use questionnaires, Ng’ang’a, (2020) indicated this method of collecting data as this has reduced missed data and respondents have a high return. The research data collection instrument structure had unstructured, semi-structured, or a fully structured approach. The approach can have a structured or semi-structured approach with closed questions.

In the research conducted by Ng’ang’a (2020) there was a questionnaire where minimal errors were found and a high rate of completion of the questionnaire occurred while Kamiru (2016) used a descriptive approach of how, when, what, and where the situation has changed. This would give the study an opportunity to be guided on trends and customer behaviour in the new normal.

Based on the literature, the study used was a questionnaire with closed-ended questions to the sample population. A questionnaire has been used as the measuring instrument for this research and would have self-administered closed-ended questions administered via the Wits Qualtrics technology platform. The respondents accessed the questionnaire through a unique URL sent by the researcher as used in the research conducted by (Reitz, 2012). The questionnaire was voluntary with confidentially and anonymous, it can be ended by a respondent at any time. The questionnaire began with a cover letter with information of the researcher, the research topic and confidentially if the

questionnaire was completed and indicated the timeframe to complete the questionnaire. The first part of the survey provided the participant's demographic information of the survey with an ethical and confidentiality declaration by the researcher. The self-administered online questionnaire would allow the respondents to be anonymous with the option not to participate in the research. The survey included some demographic information, social media engagement, preferred communication, digital preference, and online comfort levels of the respondents. The survey had questions which the respondents would select an answer in a 5-point Likert scale (Di Gangi & Wasko, (2016).

Measurements used in the instrument

The measurements applied to this research were used in previous studies and the questions used the 5-point Likert scale with the rates used was "disagree -agree"
The research instrument used in this research had 5 sections A, B, C, D, E. Section A of the survey is made up of 8 questions used to collect demographic data from the target population. Section B is made up of 7 questions used to identify the social media engagement of the users (Reitz, 2012). Section C comprised of 8 questions on the preferred communication method by the users (Richter & Shilov, 2020). Section D had 7 questions on the digital preference of the users (Shanthi & Desti, 2015) now while Section E comprised of 5 questions relating to the customer comfort levels on online platforms (Shanthi & Desti, 2015).

The survey duration was between 5 to 7 minutes to complete. Section A of the questionnaire was nominal like age, income, gender, education level, race labelled as demographic information while Section B, C, D, E of the questionnaire were ordinal and comprised of question about Social Media engagement, Preferred Communication method, Digital Preference and Customer Comfort levels on online platforms. The survey questions can be found under Appendix 1.1.

3.3.2 Research target population and selection of respondents

Research target population

The target population was the sample size of individuals who have common characteristics (Ng'ang'a, 2020). The target population of the research would be customers and their view of brokers to discuss insurance. Ng'ang'a (2020) gave us an

understanding of what customers want to meet the expectation to focus on improved services with improved operational performance, the target population used as the population would guide the study.

The target population used in this research would be a group of people that the researcher would be used to send the questionnaire too and would be able to provide analysis, outcomes, and recommendations to the research. The questionnaire would be created on the Wits Qualtrics platform and would be distributed to a sample population in Johannesburg, South Africa. The target number of surveys to be completed for this research is 100 for trends, analysis, and recommendations to be conducted.

Sampling or selecting respondents from the target population

The sample size was part of the population that is suited for the research and would provide meaningful primary data for research (Teffu, 2019). Based on literature review Ng'ang'a (2020), employees can be used in the sampling strategy or can be based on data collected while Kumar (2019) also indicated that when selecting the sample, there should be no bias.

The sample population for this study would be adults over the age of 18, that live in Johannesburg, South Africa with access with a smart device, also they use online platforms to search for information and social media access to engage with insurance companies. For this study the researcher used convenience sampling, the researcher selected individuals which mean the sampling criteria (Bryman, 2012).

The respondents chosen would be sent the unique URL link by email or WhatsApp to complete the closed-ended questionnaire. The questionnaire would take 5 to 7 minutes to complete. The questionnaire would have questions on demographics of the respondents, their engagement on social media platforms, their preferred communication method people want to use, their digital perception after COVID-19 began and lastly their customer comfort with using online platforms. The questionnaire would be the method used to contact and reach people to complete. The questionnaire would be administered via online platforms like WhatsApp or email for the respondents to complete.

3.3.3 Ethical considerations when collecting research data

Ethics refers to the moral decisions made through standards and behaviour (Greener & Martelli, 2020). There needs to be disclosure and self-declaration on the study to provide more information to the respondents Bryman (2012) at the start of the questionnaire to make the respondents understand the reason for the research and what the respondents are supposed to do, and the research is purely for academic research.

The Wits Business School Academic Ethics committee has reviewed the ethics application for this study and has granted the ethical clearance certificate to continue with data collection. This ensures that respondents are not harmed in any way.

The study would not deceive the respondent's anonymity and confidentiality would always be maintained (Bryman, 2012) but allow respondents to share their preferred way to communicate during difficult times, their social media engagement, digital preferences, and comfort levels for online platforms. The respondents would not be harmed or stressed to be a part of the research and can opt to not complete the survey. The research would be used for academic purposes and the data would not be used for any other reasons and would have no identity being revealed. The data would be saved on the Wits Qualtrics technology platform if access is required by the ethics committee.

3.3.4 Research data and information collection process

In research conducted by Kumar (2019) the data collection that can be used in quantitative and qualitative methods of research, with the data storage of data critical as systems belong to different countries. Data collection can be conducted through observation, interviews (face-to-face, telephone, or internet-based), focus group discussion, or questionnaires (Joshi, 2019). The research has been conducted through questionnaires as this collection method would be convenient during a pandemic, easy to access, higher rate of completion from participants. Ng'ang'a (2020) used structured questionnaires for research which was ideal with minimal missing data and used company data to look at ways to be competitive. The data collected was an ideal way for primary data to be collected to gain insights.

The data collection used for this study use quantitative research like Joshi (2019) with structured questionnaires that can be created, coded, and prepared. Prior research also used similar structured questionnaires (Reitz, 2012). The respondents would not be forced to complete the survey. The aim was to have 100 completed questionnaires so that analysis, findings, and recommendations can be completed. The data collected for this research would be anonymous and confidential (Reitz, 2012). A follow up communication would be sent to all respondents in case they haven't completed the questionnaire. The data is stored on the Wits Qualtrics platform accessible to the Wits Business School if required where security and confidentiality is maintained for the research participants. The Wits Qualtrics is username and password protected. The respondent's details are not stored on the system when the questionnaire has been completed. The data for this research was collected at the beginning of the second wave of COVID-19 in South Africa from 16th December 2020 to 3 January 2021. This period was during the second wave of COVID-19.

3.3.5 Research data and information processing and analysis

Research data and information processing

Research data processing involved taking data collected and categorizing it using the measurement scale (Kumar, 2019). Data coding is listing the codes in excel and aligning theoretical constructs Teffu (2019) while data entry onto computer refers to the way the information is technically entered into the system Ng'ang' a (2020) and data cleaning is needed to make sense of the data inputs for a quantitative research strategy. The study would use surveys to collect data from respondents, these respondents would need access to emails to complete the surveys. The survey would be cleaned and coded with alignment to the research to produce results with recommendations and insights (Ng'ang'a, 2020).

Factor analysis is a statistical method used in research to describe variability among observed correlated variables with a lower number of unobserved variables called factors. Regression analysis is another statistical method used in research as a method of interpreting the results of the data. The reason is because regression showed the relationship a dependent variable with other independent variables used in the study (Achen, 1982). This research study will use regression for analysis.

Correlation is a statistical relationship to the way two variable linearly related. The Spearman theory shows the monotonic relationship between two variables, but Pearson shows the strength and direction of the linear relationship between the variables.in this studies the researcher has chosen the Pearson correlation (Bishara & Hittner, 2012). The researcher in this study used the Pearson corelation to show linear relationship between the variables.

Research data and information analysis

When raw data has been collected Ng'ang'a (2020) that information must be analysed first cleaned to provide consistency and in an understandable format Kamiru (2016), problem and trends identified (Teffu, 2019). The research data analysis used by Kamiru (2016) was Statistical Package for Social Sciences (SPSS) methods to do regressions analysis and many more that can be used to analyse the data.

The research instrument in this study used is a questionnaire with closed-ended questions to the sample size. This questionnaire would assist to collect data to understand behaviour from a sample population of respondents Reitz (2012), which would provide data to answer our research questions and hypotheses or propositions. The sample responding was kept confidential and stored on a secured laptop with a password.

In prior research, the analysis tool that was be used is SPSS which Ng'ang'a (2020) research used Statistical Package for Social Sciences (SPSS) to conduct an analysis of raw data. The benefit of this package is that it provides the researcher with the ability to conduct correlations, analysis of variance, regression models together with charts of the frequency distribution.

For this research, there was a pilot where the unique link to be sent to a few respondents to test the link and if there are any problems, feedback received from respondents on understanding of questions and if there are any other problems experienced (Kumar, 2019). The pilot allowed the respondents to complete the questionnaire and report on any errors, accessible to the link. When the pilot questionnaire was completed, changes and updates were made to the questionnaire. The

questionnaire was thereafter sent out to collect data for two weeks. Once the data was collected, the data has been cleaned and coded on an excel spreadsheet and imported into SPSS. The data would be analysed using SPSS analysis tool to conduct correlations, multiple regression, and reliability tests.

3.3.6 Description of the research respondents

The research respondents were users in the Johannesburg area in South Africa who are adults and over the age of 18 and engage on digital platforms Reitz (2012), they may or may not have a life insurance policy. The demographics on the questionnaire would provide a detailed description of the respondents, the questions under this section have asked for variables like gender, race, income bands, education level, age, access to own smart device and their number of years on social media platforms. The reason for this sample group is to find out how they view digital platforms now during COVID-19 and what methods they would prefer in the future when interacting with insurance companies.

3.4 Research strengthens—reliability and validity measures applied

The study conducted in this research would include a measurement validity which is the accuracy of information provided by the participants, internal validity related to the checks that was conducted to ensure the data is correct, external validity which is to generalise this information for other brokers, and ecological validity which is related to adapting this study to other businesses. The data used would be credible, dependable, transferable, and conformable for a quantitative research method.

The validity referred to the way the study uses procedures to find answers (Kumar, 2019) while reliability refers to the accuracy of the information without changing any details for vested interest (Kumar, 2019), the study must be transparent so that if another user conducts the study, the same output is produced (Greener & Martelli, 2020). The findings must be trustable and believable Teffu (2019) where the study gathered insights from brokers about opportunities and disruptions experienced.

Research validity included the four main types of validating in research—that would be, measurement validity, internal validity, external validity, and ecological validity for a quantitative research strategy or credibility, dependability, transferability, and conformability for a quantitative research strategy. Research reliability refers to the accuracy of the data instrument and includes the consistency of the same results if the instrument is used repeated times and in the same situation again. The research measurement validity represents the scores of the variable they are intended to. This represents a test of consistency and reliability where researchers are confident with these scores while internal validity represents that the study conducted is truthful and there is evidence to say that this study did happen and was observed. External validity refers to the way this study can be used in the external environment to generalise with people, culture, location, and timeline. Ecological validity is a specific type of external validity that indicates behaviour in a real-life environment.

This research questionnaire was created on the Wits Qualtrics platform, the platform recorded completed and incomplete questionnaires with record of each unique device that completed the questionnaire. The data was collected and collated during the second wave of COVID-19 via the tool. The results of the questionnaire may be slightly different if conducted again but the same results, the time at which the survey has been completed during the second wave of the pandemic. If the questionnaire had to be conducted in our parts of South Africa, the results may be different due to the culture, accessible to smart devices and data and education level. The reliability of the data instrument would provide consistent results if used again and is credible and dependable. The information gathered for the research can be trusted.

The reliability test measures the Cronbach alpha which if higher than 0.7 indicates an acceptable level of reliability (Maree, 2007). As shown in the table below social media engagement has an α 0.754, digital preference has a α 0.737 and online comfort levels has a α is 0.718 which has values over 0.70.

Below are the reliability results of the data collection.

Table 1: Reliability results of data collected

Construct	n	# Items	M	SD	α
Social media engagement	107	7	18.67	4.530	0.754
Preferred communication	107	6	21.14	3.438	0.684
Digital preference	107	6	23.20	3.609	0.737
Online comfort levels	107	3	12.80	2.405	0.718

Note: n=valid cases; # = number of.; M=mean of scale; SD=standard deviation of scale; α = Cronbach Alpha (on standardized items)

3.5 Research weaknesses—technical and administrative limitations

This study has focused on the insurance sector. The questionnaire was sent to respondents in Johannesburg, South Africa who have access to a smart device and use social media platforms and there was be voluntary participation as many participants may find this research unnecessary to be a part of. The technical limitations would be the survey link not accessible for participants. The researcher would need to familiarise themselves with the Wits Qualtrics platform which is an online Qualtrics technology to create the questionnaire for academic purposes Reitz (2012), this needed some time and practice. Second, the administrative issues encountered during the research could be the time that the questionnaire was conducted and the amount of time to complete the questionnaire could impact the number of respondents completing the questionnaire.

4 PRESENTATION OF RESEARCH RESULTS

Chapter 4 discussed the empirical research results for this study and would provide insights into the research questions and hypothesis. This guided our research to determine if there have been any marketing effects on the broker channels in the insurance industry in South Africa. A presentation of the descriptive statistics and the statistical hypothesis testing for this research was made. The descriptive statistics that were discussed in this chapter were from the data collected during our questionnaire sent to respondents to complete during the period 16 December 2020 to 3 January 2021. The data collected guided the discussion for Chapter 4, 5 and 6.

The demographic information of respondents

The descriptive statistics of the demographic information would be presented in this section. This section includes sub-groups who completed the questionnaire and are based on response received from the respondents. There were 111 individuals who completed the questionnaire.

Gender

The sample population had to select the gender category i.e. male, female or prefer not to say. From the feedback received from the respondent's majority of the respondents were female (59.5%), male (39.6%) and prefer not to say (0.9%). The mean is 1.61, median is 2, mode 2 and standard deviation .508.

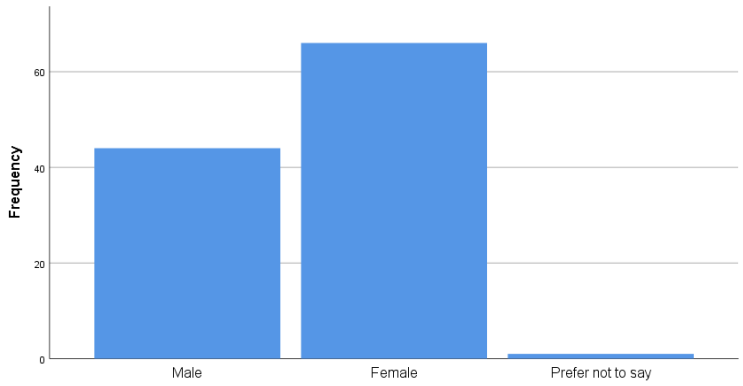

Figure 1: Gender

Educational level

The sample population were from Gauteng South Africa, the respondents were split into Grade 12/ Matric (13.5%), Diploma (18%), Undergraduate degree (15.3%), Postgraduate degree (50.5%) and the rest did not want to indicate their education level (2.7%). 50% of the respondents were postgraduate students. The mean is 3.11, median 4.00, mode 4 and standard deviation 1.155.

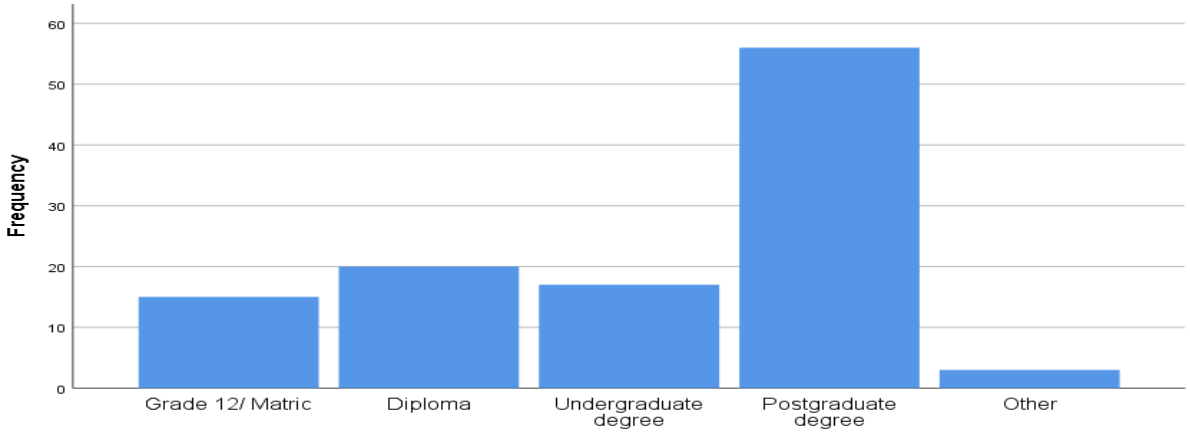

Figure 2: Educational level

Age

The respondents were 18 years and older and ranged between the ages 18 and 45+. As displayed in figure 3, 77.4 % of the respondents were middle aged between the ages 26 to 45 years. 12.6% of the respondents were between the ages 18-25 years and were young adults, and 9.9% of the respondents were 46+ and older. The mean 2.47, median 2, mode 3 and standard deviation .840.

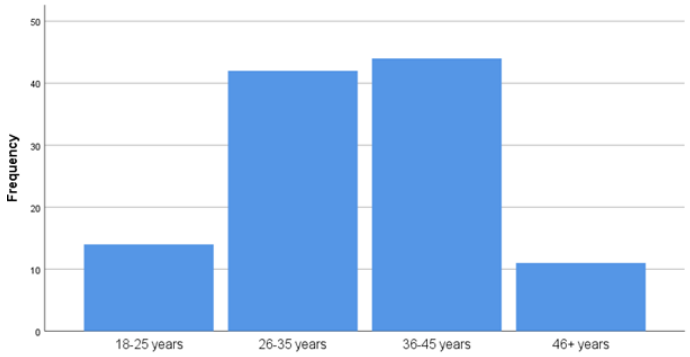

Figure 3:Age

Race

The sample population used in this study indicates there is diverse groups of individuals who participated in the questionnaire. As shown in figure 4 there were Indian/Asian (40.5%), Black (37.8%), White (10.8%), Coloured (8.1%) and 2.7% who did not want to indicate their ethic group for this questionnaire. The mean is 1.95, median 2.00, mode 1 and standard deviation is 1.043.

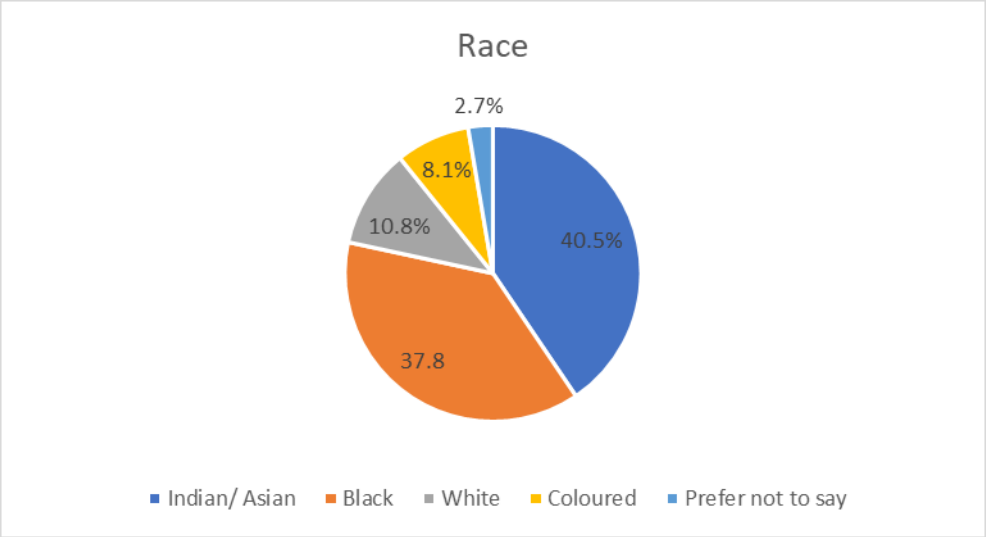

Figure 4: Race

Monthly income of respondents

The sample population who responded to the questionnaire in figure 5 were skewed to individuals who earn over R40 000 (54.1%), while 9.9% of respondents earned between R21 000 to R30 000, 14.4% of respondents earned between R11 000 to R20 000 and there were 20% of respondents who did not want to disclose their monthly income band. The mean is 3.76, median 4, mode 4 and standard deviation .993.

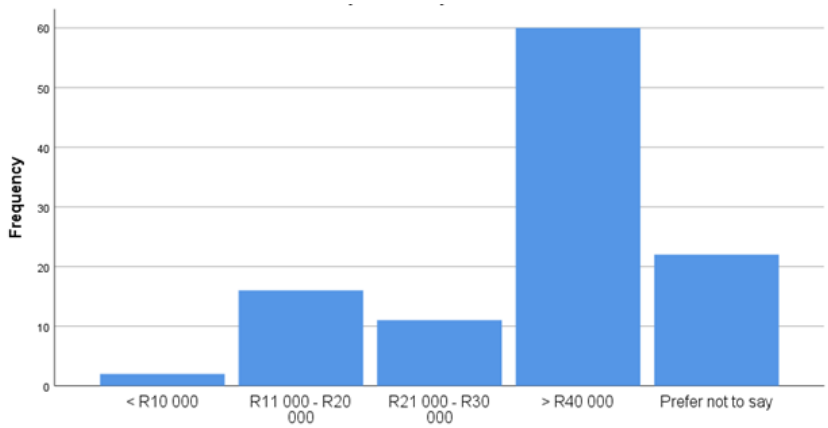

Figure 5: Monthly income of respondents

Access to a smartphone, laptop, or tablet

There were 99.1% of the respondents who have access to either a smartphone, laptop, or tablet. Only 0.9% had no access to these devices. The below figure 6 depicts the respondent's response to the question.

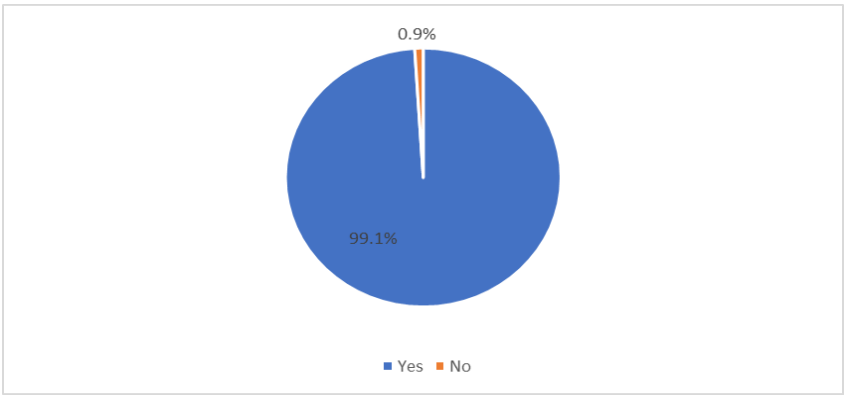

Figure 6: Access to a smartphone, laptop, or tablet

Use of social media

Figure 7 indicated respondents' response on use of social media, 96.4% of respondents have and use social media while 4% do not have use any social media platforms. These 3.6% of respondents who do not use social media platforms could not continue with the questionnaire as the questionnaire directed the respondents who responded to Section B, C, D, E.

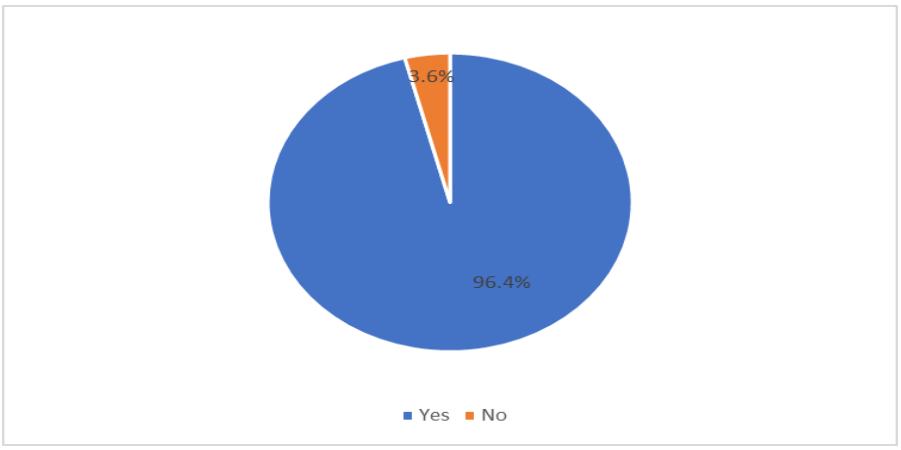

Figure 7: Use of social media

Number of years on social media

In figure 8, it depicted the number of years the respondents are on social media, almost 89.2% of the respondents have been using social media for more than 4 years, while 2.7% for 4 years, 1.8% for 3 years, 2.7% for 2 years and 3.6% where this question was not applicable to.

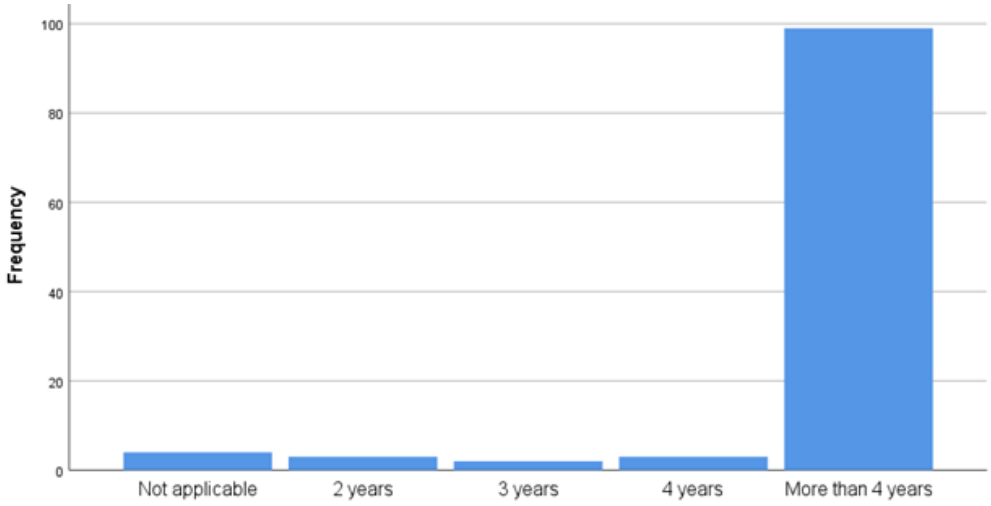

Figure 8: Number of years on social media

4.1 The social media customer engagement with insurance companies

This section provided the empirical results to determine customer engagement on social media for insurance companies with statistical results. We would discuss the descriptive statistics in Section 4.1.1.1, the statistical hypotheses testing for the relationship in Section 4.1.1.2.

4.1.1 Presentation of the empirical results

Descriptive statistics

The descriptive statistics used for social media engagement is the mean, median and standard deviation. There are 107 of the sample population and 4 respondents who do not use social media. Each respondent completed seven questions in this section. From the 107 respondents who feel positive and try new activities mean 3.31, median 3.00 and SD 0.84. The next question I feel comfortable and become who I really an had a mean 3.07, median 3.00 and SD 0.974 while the question on I engage with posts by companies that I "like" had a mean of 3.56, median 4.00 and SD 1.039, the bell curve has a slight right skewness (towards agree).

The question on I watch videos about insurance companies had a mean of 2.08, median 2.00 and SD 1.039 and the next question on I read special offers that Life insurance companies offer has a mean of 2.27, median 2.00 and SD 1.12. The question on the willingness for a client to leave their details if interested in a post has a mean of 1.98, median 2.00 and SD 1.037. On social media, I learn more about Life insurance companies have to offer has a mean 2.4, median 2.00 and SD 1.188. The last four questions have a more left skewness on the bell curves towards disagree. The detailed results of this section B in the research question (Appendix 1.1) can be found under Appendix 3.1, table 22.

Table 2: Social media engagement (mean, median and standard deviations)

Social media engagement	I feel positive and want to try new activities	I feel comfortable and become who I really am	I engage with posts by companies that I "like"	I watch videos about insurance companies	I read special offers that Life insurance companies offer	I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post	I learn more about Life insurance companies have to offer
Mean	3.31	3.07	3.56	2.08	2.27	1.98	2.4
Median	3.00	3.00	4.00	2.00	2.00	2.00	2.00
Std Dev	0.84	0.974	1.039	1.038	1.12	1.037	1.188

Statistical hypothesiss testing

Research question 1 - Does social media engagement allow for customers to engage with insurance companies?

The first research question would investigate whether social media engagement has an effect for insurance companies or has no effect. The Pearson correlation analysis and ANOVA the variance analysis and linear regression analysis was used to determine if there is a relationship between the different variables.

Table 3:Pearson correlations- Social media engagement

		I engage with posts by companies that I "like"	I watch videos about insurance companies	I read special offers that Life insurance companies offer	I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post	I learn more about Life insurance companies have to offer
I engage with posts by companies that I "like"	Pearson Correlation	1	.035	.006	-.130	-.031
	Sig. (2-tailed)		.724	.951	.181	.748
	N	107	107	107	107	107
I watch videos about insurance companies	Pearson Correlation	.035	1	.781**	.597**	.729**
	Sig. (2-tailed)	.724		.000	.000	.000
	N	107	107	107	107	107
I read special offers that Life insurance companies offer	Pearson Correlation	.006	.781**	1	.675**	.766**
	Sig. (2-tailed)	.951	.000		.000	.000
	N	107	107	107	107	107
I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post	Pearson Correlation	-.130	.597**	.675**	1	.626**
	Sig. (2-tailed)	.181	.000	.000		.000
	N	107	107	107	107	107
I learn more about Life insurance companies have to offer	Pearson Correlation	-.031	.729**	.766**	.626**	1
	Sig. (2-tailed)	.748	.000	.000	.000	
	N	107	107	107	107	107
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 4: Model Summary- Social media engagement

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814[a]	.662	.642	.622
a. Predictors: (Constant), I learn more about Life insurance companies have to offer, I engage with posts by companies that I "like", I feel positive and want to try new activities, I feel comfortable and become who I really am, I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post, I read special offers that Life insurance companies offer				

Table 5: ANOVA for Social media engagement

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75.606	6	12.601	32.614	.000[b]
	Residual	38.637	100	.386		
	Total	114.243	106			
a. Dependent Variable: I watch videos about insurance companies						
b. Predictors: (Constant), , I learn more about Life insurance companies have to offer, I engage with posts by companies that I "like", I feel positive and want to try new activities, I feel comfortable and become who I really am, I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post, I read special offers that Life insurance companies offer						

Hypotheses for research question 1

H1o Social media engagement has no effect on engagement with insurance companies
H1a Social media engagement has a positive effect on insurance companies

The Pearson correlation tells us the strength and relationship between two or more variables. There are five variables for social media engagement. There is a correlation between watching videos about insurance companies and reading special offers that Life insurance company's offer r=0.781", n=107, p=.000, leaving details so that the Life insurance company can contact me if interested in a post r=.597",n=107,p=.000 and learning more about Life insurance companies offer r=.729",n=107,p=.000, where p<.001(2tailed). There is a correlation between willing to leave details to have contacted me if interested in a post and reading special offers that Life insurance offer r=.675", n=107, p=.000. There is also a correlation between learning more about what Life insurance companies have to offer and reading special offers that Life insurance companies offer r=.766",n=107,p=.000 and willing to leave details on a Life insurance company to be contacted if interested in a post r=.626",n=107,p.000 where p<0.01 is significant. Engaging with posts by companies I "like" have no correlation with the other five social media variables.

In our multiple linear regression model summary, our R squared is 0.662 which means that our model explains 66% of the variance of the data corresponding to the other social media variables. The R squared value is 0.7 which means it is good model fit. The adjusted R squared value is 0.642. The ANOVA results is F (6,100) =32.614, p=0.000 as shown in table 4.

There is a positive relationship when clients watch videos on insurance companies with reading about the special offers from insurance companies, willingness to leave their details on the post to be contacted and learning more about what insurance companies have to offer. The hypotheses testing is guided by the results received from the questionnaire and supports the hypotheses test. We can move on to the next research question 2.

4.2 Customers preferred method of communication

This section provided the empirical results to determine what customers preferred method communication going forward with statistical results. We would discuss the descriptive statistics in Section 4.2.1.1, the statistical hypotheses testing for the relationship in Section 4.2.1.2.

4.2.1 Presentation of the empirical results

Descriptive statistics

There were 107 respondents of the sample population who continued to the next section. The mean, median and standard deviation was used to understand the descriptive statistics. There were eight questions completed by each respondent. The respondents who searched on the internet to get more information on a company has a mean 3.89, median 4.00 and SD 1.049 and a skewness towards the right of the bell's curve (toward agree). On a company's website, I interact with the chat has a mean 2.83, median 3.00 and SD 1.12. Comfort levels of asking the chat questions has a mean of 2.91, median 3.00 and SD 1.129. After reading information on a company's website, I call my broker to discuss has a mean of 3.12, median 3.00 and SD 1.155, the last three questions have a normal bell curve.

I prefer to be contacted by my broker has a mean of 3.5, median 4.00, SD 1.102. The comfort levels of talking over the phone or email has a mean 4, median 4.00 and SD 0.765. During COVID-19 the respondent's preference to chat over the phone, email or online platforms have a mean 4.36, median 4.00 and SD 0.729. The preference of respondents to continue chatting on the phone, email or online platforms after COVID-19 has a mean 4.12, median 4.00 and SD 0.64. The last 4 questions have a skewness towards the right of the bell curve (towards the agree to strongly agree selection). The detailed results of this section C in the research question (Appendix 1.1) can be found under Appendix 3.1, table 23.

Table 6: Preferred communication (mean, median and standard deviations)

Preferred Communication	When I want more information about insurance, I search on the internet to get more information	When I am on the company's website, I interact with the chatbot	I feel comfortable asking the chatbot questions	After I have read information on an Insurance companies' website, I call my broker to discuss	I prefer to be contacted only by my broker	I feel comfortable communicating on the telephone or email	I felt comfortable chatting via telephone/email or online platforms during COVID-19	I will continue chatting via telephone/email or online platforms after COVID-19
Mean	3.89	2.83	2.91	3.12	3.5	4	4.16	4.12
Median	4.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00
Std Dev	1.049	1.112	1.129	1.155	1.102	0.765	0.729	0.64

Statistical hypothesis testing

Research question 2 - What preferred customer communication methods can guide brokers in the future?

The second research question would investigate whether the preferred communication methods have changed for brokers. The Pearson correlation analysis and ANOVA the variance analysis and linear regression analysis was used to determine if there is a relationship between the different variables.

Table 7: Pearson correlations – Preferred communication

		When I am on the company's website, I interact with the chatbot	I feel comfortable asking the chatbot questions	After I have read information on an Insurance companies website, I call my broker to discuss	I prefer to be contacted only by my broker	I feel comfortable communicating on the telephone or email	I felt comfortable chatting via telephone/email or online platforms during COVID-19	I continue chatting via telephone/email or online platforms after COVID-19
When I am on the company's website, I interact with the chatbot	Pearson Correlation	1	.739**	.310**	-.022	.044	.057	-.024
	Sig. (2-tailed)		.000	.001	.818	.650	.563	.806
	N	107	107	107	107	107	107	107
I feel comfortable asking the chatbot questions	Pearson Correlation	.739**	1	.248*	-.045	.098	.259**	.133
	Sig. (2-tailed)	.000		.010	.644	.314	.007	.171
	N	107	107	107	107	107	107	107
After I have read information on a Insurance companies website, I call my broker to discuss	Pearson Correlation	.310**	.248*	1	.285**	.043	.100	.044
	Sig. (2-tailed)	.001	.010		.003	.662	.305	.655
	N	107	107	107	107	107	107	107
I prefer to be contacted only by my broker	Pearson Correlation	-.022	-.045	.285**	1	.112	-.007	-.034
	Sig. (2-tailed)	.818	.644	.003		.251	.945	.726
	N	107	107	107	107	107	107	107
I feel comfortable communicating on the telephone or email	Pearson Correlation	.044	.098	.043	.112	1	.559**	.559**
	Sig. (2-tailed)	.650	.314	.662	.251		.000	.000
	N	107	107	107	107	107	107	107
I felt comfortable chatting via telephone/email or online platforms during COVID-19	Pearson Correlation	.057	.259**	.100	-.007	.559**	1	.808**
	Sig. (2-tailed)	.563	.007	.305	.945	.000		.000
	N	107	107	107	107	107	107	107
I will continue chatting via telephone/email or online platforms after COVID-19	Pearson Correlation	-.024	.133	.044	-.034	.559**	.808**	1
	Sig. (2-tailed)	.806	.171	.655	.726	.000	.000	
	N	107	107	107	107	107	107	107
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Table 8: Model Summary - Preferred Communication

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.823[a]	.678	.658	.374
a. Predictors: (Constant), I felt comfortable chatting via telephone/email or online platforms during COVID-19, I prefer to be contacted only by my broker, When I am on the company's website, I interact with the chatbot, After I have read information on a Insurance companies website, I call my broker to discuss, I feel comfortable communicating on the telephone or email, Q18 I feel comfortable asking the chatbot questions				

Table 9:ANOVA for Preferred Communication

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.421	6	4.904	35.027	.000[b]
	Residual	13.999	100	.140		
	Total	43.421	106			
a. Dependent Variable: I will continue chatting via telephone/email or online platforms after COVID-19						
b. Predictors: (Constant), I felt comfortable chatting via telephone/email or online platforms during COVID-19, I prefer to be contacted only by my broker, When I am on the company's website, I interact with the chatbot, After I have read information on an Insurance companies website, I call my broker to discuss, I feel comfortable communicating on the telephone or email, I feel comfortable asking the chatbot questions						

Hypotheses for research question 2

H2o Customers prefer face-to-face communication
H2a Customers do not prefer communicating face-to-face

The Pearson correlation tells us the strength and relationship between two or more variables. There are seven variables for preferred communication. There is a correlation between when I am on the company's website, I interact with the chatbot and I feel comfortable asking the chatbot questions r=0.739", n=107, p=.000, also after I have read information on an Insurance companies website, I call my broker to discuss r=.310", n=107, p=.000 where p<.001(2tailed). There is a correlation between I feel comfortable asking the chatbot questions and I felt comfortable chatting via telephone/email or online platforms during COVID-19 r=.259", n=107, p=.000 where p<.001(2tailed). There is also a correlation between after I have read information on an Insurance companies website, I call my broker to discuss and I feel comfortable asking the chatbot questions r=.248', n=107,p=.010 where p< 0.05 (1tailed) and I prefer to be contacted only by my broker r=.285",n=107,p.003 where p<0.01 (2 tailed) is significant. There is positive correlation between I felt comfortable chatting via telephone/email or online platforms during COVID-19 and I feel

comfortable asking the chatbot questions r=.259",n=107,p=0.07, I feel comfortable communicating on the telephone or email r=.559",n=107,p=.000 and I will continue chatting via telephone/email or online platforms after COVID-19 r=.808",n=107,p=.000 where p<0.01 (2 tailed) is significant.

In our multiple linear regression model summary, our R squared is 0.678 which means that our model explains 68% of the variance of the data corresponding to the other social media variables. The R squared value is equal to 0.7 which means it is good model fit. The adjusted R squared value is 0.658 and is equal to 0.7. The ANOVA results is F (6,100) =35.027, p=0.000 as shown in table 8.

There is a positive relationship between the dependant variable chatting via telephone/email or online platforms after COVID-19 and the independent variables feeling comfortable chatting via telephone/email or online platforms during COVID-19, prefer to be contacted only by my broker, When I am on the company's website, I interact with the chatbot, After I have read information on an Insurance companies website, I call my broker to discuss, I feel comfortable communicating on the telephone or email and I feel comfortable asking the chatbot questions. The hypothesis testing is guided by the results received from the questionnaire and supports the hypothesis test. We would discuss next research question 3.

4.3 Customers digital preferences

This section provided the empirical results to determine what customers digital preference is going forward with statistical results. We would discuss the descriptive statistics in Section 4.3.1.1, the statistical hypotheses testing for the relationship in Section 4.3.1.2.

4.3.1 Presentation of the empirical results

Descriptive statistics

There are 107 respondents who completed this section of the questionnaire, which consisted of seven questions. The mean, median and standard deviation was used to interpret the descriptive statistics. COVID-19 changed my perception of digital platforms has a mean 3.63, median 4.00 and SD 1.103. Respondents purchase products

on digital platforms has a mean 3.95, median 4.00 and SD 0.915 while respondents who make purchases often has a mean of 3.87, median 4.00 and SD 0.962. Comfort levels of digital platforms has a mean of 4.13, median 4.00 and SD 0.766. I am careful with the information I provide on digital platforms has a mean 4.5, median 5.00 and standard deviation 0.65. The comfort levels on a secured section of a company's website have a mean 4.05, median 4.00 and SD 0.894. The first six questions have a skewness towards the right of the bells curve (more towards agree and strongly agree). Sharing personal information and getting advice from a chatbot on company's website that is secured has a mean 2.7, median 3.00 and SD 1.207. The detailed results of this section D in the research question (Appendix 1.1) can be found under Appendix 3.1, table 24.

Table 10: Digital preferences (mean, median and standard deviations)

Digital Preference	COVID-19 changed my perception of digital platforms	I currently purchase products on digital platforms	I make purchases often on digital platforms	I feel comfortable using digital platforms	I am careful with what information I provide on digital platforms	I am comfortable when I am on a secured section of a company's website	I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured
Mean	3.63	3.95	3.87	4.13	4.5	4.05	2.7
Median	4.00	4.00	4.00	4.00	5.00	4.00	3.00
Std Dev	1.103	0.915	0.962	0.766	0.65	0.894	1.207

Statistical hypothesis testing

Research question 3 - What effect does digital preferences have on broker channels?

The third research question would investigate the way digital preferences influence broker channels. The Pearson correlation analysis and ANOVA the variance analysis and linear regression analysis was used to determine if there is a relationship between the different variables.

Table 11: Pearson correlations- Digital preferences

		COVID-19 changed my perception of digital platforms	I currently purchase products on digital platforms	I make purchases often on digital platforms	I feel comfortable using digital platforms	I am careful with what information I provide on digital platforms	I am comfortable when I am on a secured section of a company's website	Q30 I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured
Q24 COVID-19 changed my perception of digital platforms	Pearson Correlation	1	-.036	-.126	.058	.011	-.011	-.113
	Sig. (2-tailed)		.712	.194	.550	.913	.912	.246
	N	107	107	107	107	107	107	107
Q25 I currently purchase products on digital platforms	Pearson Correlation	-.036	1	.786**	.641**	.293**	.291**	.269**
	Sig. (2-tailed)	.712		.000	.000	.002	.002	.005
	N	107	107	107	107	107	107	107
Q26 I make purchases often on digital platforms	Pearson Correlation	-.126	.786**	1	.676**	.301**	.336**	.226*
	Sig. (2-tailed)	.194	.000		.000	.002	.000	.019
	N	107	107	107	107	107	107	107
Q27 I feel comfortable using digital platforms	Pearson Correlation	.058	.641**	.676**	1	.229*	.280**	.155
	Sig. (2-tailed)	.550	.000	.000		.018	.003	.111
	N	107	107	107	107	107	107	107
Q28 I am careful with what information I provide on digital platforms	Pearson Correlation	.011	.293**	.301**	.229*	1	.382**	-.050
	Sig. (2-tailed)	.913	.002	.002	.018		.000	.610
	N	107	107	107	107	107	107	107
Q29 I am comfortable when I am on a secured section of a company's website	Pearson Correlation	-.011	.291**	.336**	.280**	.382**	1	.258**
	Sig. (2-tailed)	.912	.002	.000	.003	.000		.007
	N	107	107	107	107	107	107	107
Q30 I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured	Pearson Correlation	-.113	.269**	.226*	.155	-.050	.258**	1
	Sig. (2-tailed)	.246	.005	.019	.111	.610	.007	
	N	107	107	107	107	107	107	107

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 12: Model Summary- Digital preferences

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831[a]	.691	.673	.551

a. Predictors: (Constant), I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured, I am careful with what information I provide on digital platforms, COVID-19 changed my perception of digital platforms, I feel comfortable using digital platforms, I am comfortable when I am on a secured section of a company's website, I currently purchase products on digital platforms

Table 13: ANOVA for Digital preferences

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.851	6	11.308	37.300	.000[b]
	Residual	30.317	100	.303		
	Total	98.168	106			

a. Dependent Variable: I make purchases often on digital platforms

b. Predictors: (Constant), I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured, I am careful with what information I provide on digital platforms, COVID-19 changed my perception of digital platforms, I feel comfortable using digital platforms, am comfortable when I am on a secured section of a company's website, I currently purchase products on digital platforms

Hypotheses for research question 3

H3o Digital preferences of customers do not affect broker channels

H3a Digital preferences of customers affect broker channels

The Pearson correlation tells us the strength and relationship between two or more variables. There are seven variables for digital preferences. There is a positive correlation between I currently purchase products on digital platforms and I make purchases often on digital platforms r=0.786", n=107, p=.000, also I feel comfortable using digital platforms r=641",n=107,p=.000, I am careful with what information I provide on digital platforms r=.293",n=107,p=.002, I am comfortable when I am on a secured section of a company's website r=.291",n=107,p=.002 and I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured r=.269",n=107,p=.005 where p<.001(2tailed).

There is a correlation between I make purchases often on digital platforms and I feel comfortable using digital platforms r=0.676", n=107, p=.000, also I am careful with what information I provide on digital platforms r=.301",n=107,p=.002, I am comfortable when I am on a secured section of a company's website r=.336",n=107,p=.000, I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured r=.226",n=107,p=.019 where p<.001(2tailed). There is a correlation between I feel comfortable using digital platforms and I am careful with what information I provide on digital platforms r=.229", n=107, p=.018 and I am comfortable when I am on a secured section of a company's website r = .280", n=107, p=.003 where p<.001(2tailed). There is positive correlation between I am comfortable when I am on a secured section of a company's website and I am careful with what information I provide on digital platforms r=.382",n=107,p=0.00, I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured r=.258",n=107,p=.007 where p<0.01 (2 tailed) is significant.

In our multiple linear regression model summary, our R squared is 0.691 which means that our model explains 69% of the variance of the data corresponding to the other social media variables. The R squared value equal to 0.7 which means it is good model fit. The adjusted R squared value is 0.673 and equal to 0.7. The ANOVA results is F (6,100) =37.300, p=0.000 as shown in table 17.

There is a positive relationship between the dependant variable I make purchases often on digital platforms and I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured, I am careful with what information I provide on digital platforms, COVID-19 changed my perception of digital platforms, I feel comfortable using digital platforms, am comfortable when I am on a secured section of a company's website, I currently purchase products on digital platforms. The hypotheses testing is guided by the results received from the questionnaire and supports the hypotheses test. Next is research question 4.

4.4 Customers online comfort levels

This section provides the empirical results to determine what customers online comfort levels are with statistical results. The descriptive statistics in Section 4.4.1.1, the statistical hypotheses testing for the relationship in Section 4.4.1.2

4.4.1 Presentation of the empirical results

Descriptive statistics

The mean, median and standard deviation was used for the descriptive statistics. This section had five questions directed at the respondent's comfort levels of online platforms. Security is a risk on online platforms has a mean 4.49, median 5.00 and SD 0.678 while cyber awareness training over the last 6-12 months has a mean 3.56, median 4.00 and SD 1.422 the comfort levels of visiting a company's website if looking for more information has a mean 4.15, median 4.00 and SD 0.75. Respondents would continue to use online platforms after COVID-19 has a mean 4.39, median 4.00 and 0.579. Online platforms have an ease of purchasing has a mean of 4.26, median 4.00 and SD of 0.619 all questions for comfort levels on online platform had a skewness to rights of the bell curve towards agree and strongly agree. The detailed results of this section E in the research question can be found under Appendix 3.1, table 25.

Table 14: Online comfort levels (mean, median and standard deviations)

Comfort level	I am aware that security is a risk on online platforms	I have had cyber awareness training over the last 6 to 12 months	I feel comfortable visiting a company's website if I am looking for information	I will continue using online platforms post COVID-19	I feel online platforms provide an ease of purchasing when the environment is secure
Mean	4.49	3.56	4.15	4.39	4.26
Median	5.00	4.00	4.00	4.00	4.00
Std Dev	0.678	1.422	0.75	0.579	0.619

Statistical hypothesis testing

Research question 4 - Are customers comfortable with online platforms vs face-to-face interaction?

The fourth research question would investigate whether customers are comfortable with online platforms vs face-to-face interaction. The Pearson correlation analysis and ANOVA the variance analysis and linear regression analysis was used to determine if there is a relationship between the different variables.

Table 15: Pearson correlations -Online comfort levels

		I am aware that security is a risk on online platforms	I have had cyber awareness training over the last 6 to 12 months	I feel comfortable visiting a company's website if I am looking for information	I will continue using online platforms post COVID-19	I feel online platforms provide an ease of purchasing when the environment is secure
I am aware that security is a risk on online platforms	Pearson Correlation	1	.184	.208*	.399**	.323**
	Sig. (2-tailed)		.057	.031	.000	.001
	N	107	107	107	107	107
I have had cyber awareness training over the last 6 to 12 months	Pearson Correlation	.184	1	.071	.062	.014
	Sig. (2-tailed)	.057		.467	.523	.887
	N	107	107	107	107	107
I feel comfortable visiting a company's website if I am looking for information	Pearson Correlation	.208*	.071	1	.450**	.321**
	Sig. (2-tailed)	.031	.467		.000	.001
	N	107	107	107	107	107
I will continue using online platforms post COVID-19	Pearson Correlation	.399**	.062	.450**	1	.605**
	Sig. (2-tailed)	.000	.523	.000		.000
	N	107	107	107	107	107
I feel online platforms provide an ease of purchasing when the environment is secure	Pearson Correlation	.323**	.014	.321**	.605**	1
	Sig. (2-tailed)	.001	.887	.001	.000	
	N	107	107	107	107	107
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 16: Model Summary- Online comfort levels

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712[a]	.506	.487	.415

a. Predictors: (Constant), I will continue chatting via telephone/email or online platforms after COVID-19, I am aware that security is a risk on online platforms, I feel online platforms provide an ease of purchasing when the environment is secure, I feel comfortable visiting a company's website if I am looking for information

Table 17: ANOVA for Online comfort levels

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.979	4	4.495	26.145	.000[b]
	Residual	17.535	102	.172		
	Total	35.514	106			

a. Dependent Variable: I will continue using online platforms post COVID-19?

b. Predictors: (Constant), I will continue chatting via telephone/email or online platforms after COVID-19, I am aware that security is a risk on online platforms, I feel online platforms provide an ease of purchasing when the environment is secure, I feel comfortable visiting a company's website if I am looking for information

Hypotheses for research question 4

H4o Customers are not comfortable with online platforms

H4a Customers are comfortable with online platforms

The Pearson correlation tells us the strength and relationship between two or more variables. There are five variables for online comfort levels in the questionnaire. There is a positive correlation between I am aware that security is a risk on online platforms and I feel comfortable visiting a company's website if I am looking for information r=0.208', n=107, p=.031 (where p<0.05 (1 tailed)), also I will continue using online platforms post COVID-19 r=.399",n=107,p=.000 and I feel online platforms provide an ease of purchasing when the environment is secure r=.323",n=107,p=.001 where p<.001(2tailed). There is a positive relationship between I feel comfortable visiting a company's website if I am looking for information and I will continue using online platforms post COVID-19 r=0.450", n=107, p=.000, also the variable I feel online platforms provide an ease of purchasing when the environment is secure r=.321", n=107, p=.001 where p<.001(2tailed). There is a positive and strong correlation

between I will continue using online platforms post COVID-19 and I feel online platforms provide an ease of purchasing when the environment is secure r=.605", n=107, p=.000 where p<0.01 (2 tailed) is significant.

In our multiple linear regression model summary, our R squared is 0.506 which means that our model explains 51% of the variance of the data corresponding to the other online comfort levels. The R squared value > 0.5 which means it is moderate model fit. The adjusted R squared value is 0.487. The ANOVA results is F (4,102) =26,145, p=0.000 as shown in table 16.

There is a positive relationship between the dependant variable I will continue using online platforms post COVID-19 and I will continue chatting via telephone/email or online platforms after COVID-19, I am aware that security is a risk on online platforms, I feel online platforms provide an ease of purchasing when the environment is secure, I feel comfortable visiting a company's website if I am looking for information. The hypotheses testing is guided by the results received from the questionnaire and supports the hypotheses test.

Summary

This chapter presented the empirical research results from the questionaire distributed by the researcher and provided guidance around the research questions and hypothesis. There were 111 respondents who completed the questionaire. The demographic information presented results from the gender which had 66% skewness to female, with 50.5% of respondents having a postgraduate degree, majoirty of the respondents where between the ages 26 to 45 with 40.5 Indian, 37.8% Black respondents. The average monthly income of the respondent was greater than R40 000. 1% of respondents didn't have access to a laptop, tablet or smartphone and 1% respondents who don't use social media but the other 99% who have access to social media have been on social media more than 4 years.

The social media customer engagement with insurance companies

The research question is "Does social media engagement allow for customers to engage with insurance companies?"

When we analysed the results, there is a strong positive correlation between watching videos about insurance companies and reading special offers that Life insurance company's offer r=0.781", n=107, p=.000, leaving details so that the Life insurance company can contact me if interested in a post r=.597",n=107,p=.000 and learning more about Life insurance companies offer r=.729",n=107,p=.000, where p<.001(2tailed). The multiple linear regression has a R squared is 0.662 which is equal to 0.7 which is a good model fit and adjusted R squared value is 0.642. The ANOVA results is F (6,100) =32.614, p=0.000. The results show that there is a positive relationship with social media and engaging with insurance companies.

Customers preferred method of communication

The research question is "What preferred customer communication methods can guide brokers in the future?"

In our results presented in this chapter, there is positive correlation between I felt comfortable chatting via telephone/email or online platforms during COVID-19 and I feel comfortable asking the chatbot questions r=.259",n=107,p=0.07, I feel comfortable communicating on the telephone or email r=.559",n=107,p=.000 and I will continue chatting via telephone/email or online platforms after COVID-19 r=.808",n=107,p=.000 where p<0.01 (2 tailed) is significant. The multiple linear regression has a R squared of 0.678 which is equal to 0.7 which is a good model fit and adjusted R squared value is 0.658. The ANOVA results is F (6,100) =35.027, p=0.000. The analysis of the results indicates a positive and strong relationship for discussion to be done on telephone, email, or online platforms during and after COVID-19.

Customers digital preferences

The research question for this section is "What effect does digital preferences have on broker channels?"

Some questions had a strong positive correlation and this is between I make purchases often on digital platforms and I feel comfortable using digital platforms r=0.676", n=107, p=.000, also I am careful with what information I provide on digital platforms r=.301",n=107,p=.002, I am comfortable when I am on a secured section of a company's website r=.336",n=107,p=.000, I feel comfortable sharing personal

information when getting advice with a chatbot adviser on a company's website provided the online environment is secured r=.226",n=107,p=.019 where p<.001(2tailed). The multiple linear regression has a R squared is 0.691 and adjusted R squared value is 0.673 and still higher than 0.5. The ANOVA results is F (6,100) =37.300, p=0.000. The results from the questionnaire provide a positive digital preference of customers.

Customers online comfort levels

The research question is **"**Are customers comfortable with online platforms vs face-to-face interaction?"

There is a positive correlation between I am aware that security is a risk on online platforms and I feel comfortable visiting a company's website if I am looking for information r=0.208', n=107, p=.031 (where p<0.05 (1 tailed)), also I will continue using online platforms post COVID-19? r=.399",n=107,p=.000 and I feel online platforms provide an ease of purchasing when the environment is secure r=.323",n=107,p=.001 where p<.001(2tailed). The multiple linear regression has a R squared is 0.506 and adjusted R squared value is 0.487. The ANOVA results is F (4,102) =26,145, p=0.000. The results have a skewness towards online platforms.

Chapter 5 looked at the research findings of this study.

5 DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

This chapter discussed and interpreted the results of the research data collected. First, (Section 5.2) would discuss the demographic profile of the respondents and thereafter discuss each research question with each hypothesis in social media engagement (Section 5.3), preferred communication (Section 5.4), digital preference (Section 5.5) and online comfort levels (Section 5.6). Each of these sections contained possible explanations considering prior research conducted and provided any similarities or differences in the results presented. This chapter would end with a summary.

5.2 Demographic profile

The demographic section of the questionnaire provided the researcher with an understanding of the respondents completing the survey. Negrine and Newbold (1998) and described the demographic questions as the standard basic questions that is usually included as part of a questionnaire. The demographic questions included is gender, education level, age, race, monthly income, access to a smart device, is the respondent on social media and the timeframe that they are on social media. Gender had 3 options males, female and prefer not to say, the respondents were skewed toward females 59.5% like research conducted by (Reitz, 2012). The education level had 65.8% of respondents who had a degree which was different to the study conducted by Reitz (2012) where majority of respondents had no degree. Majority of the respondents were between the age of 26-45 years and defined as young to middle aged. The race question had a skewness towards Indians and Blacks while the monthly income of respondents was over R40000. 99% of the respondents had access to a smart device and 99% of respondents were active on social media for more than 4 years like prior research conducted by (Reitz, 2012).

5.3 Research question 1: Social media engagement for insurance companies

The research question examined the effect of social media on insurance companies and whether social media creates a positive effect for insurance companies during the pandemic in South Africa. In terms of the hypotheses, the first hypotheses social media

engagement had no effect on engagement with insurance companies and social media had a positive effect on customers behaviour for engagement with insurance companies. There was a positive relationship between watching videos about insurance companies on social media and showing interest thereafter by learning more, engaging more by reading special offer and the willingness to leave details so that you can be contacted. The data for this study used the analysis of variance (ANOVA), multiple regression and correlation to show the relationship.

5.3.1 Hypothesis 1

H1o Social media engagement has no effect on engagement with insurance companies
H1a Social media engagement has a positive effect on insurance companies

The first hypothesis in the study through Pearson correlation and multiple regression indicated evidence that what is displayed on social media does influence engagement. The second hypothesis indicated that there was a positive relationship once engagement occurs with videos by insurance companies on social media and if interest is formed this creates interest by learning more and reading special offer and leaving details to be contacted.

Similarly, in a study conducted by Reitz (2012) on online engagement on Facebook with companies that the respondents "like" shows positive ANOVA results of a variance of 0.62 for engagement, where variance is > 0.5 similarly with our social media engagement we had a variance of 0.662 which is slightly higher than previous studies. Reitz (2012) used factor loading in the research whilst the tis study adapted the Pearson correlation to understand the relationship between the variables for social media engagement. In the research conducted by (Reitz, 2012) there is a positive relationship when a respondent likes a post, there are positive engagements between company and respondents thereafter.

In context of the current external environment changes due to COVID-19, with majority of respondents having access to smart device and being on social media for more than 4 years. There is a positive relationship between social media engagement for insurance companies. Considering the current study, respondents are more visual on social media and this implies that insurance companies need to creative in the way they

express themselves making sure they convey value propositions through these visual messages.

Table 18: Social media engagement coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.187	.345		-.541	.590
I feel positive and want to try new activities	.053	.080	.043	.664	.508
I feel comfortable and become who I really am	.056	.075	.053	.751	.455
I engage with posts by companies that I "like"	.030	.063	.030	.471	.638
I read special offers that Life insurance companies offer	.448	.095	.480	4.690	.000
I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post	.094	.083	.093	1.128	.262
I learn more about Life insurance companies have to offer	.256	.083	.293	3.088	.003
a. Dependent Variable: I watch videos about insurance companies					

This analysis was conducted to determine if various variables of social media influence behaviour once customer watch videos of insurance companies. It was hypothesized in the research question that social media has a positive effect on insurance companies and would positively predict the watching of videos of insurance companies. To test this hypothesis, multiple regression was used. Results predict .662 variance in watching videos of insurance companies can be accounted for by six variables, F (6,100) =12.601, p<001.

Looking at the predicators, the results show that reading special offers of life insurance companies (β=.480, t=4.690,p=.000), willing to leave details so that the insurance company can contact you (β=.093,t=1.128,p=.262), and learning more about Life insurance companies have to offer (β=..293,t=3.088,p=.003),

This suggested that customers who watch videos on insurance companies engaged in reading special offers of Life insurance companies, are willing to leave their details to be contacted and want to learn more on what Life insurance companies have to offer.

In conclusion the research findings for the research question one combined with academic prior studies provide evidence that social media allows for engagement with insurance companies and shows the positive relationship once a more visual engagement occurs through videos watched of insurance companies therefore the null hypothesis was rejected.

5.4 Research question 2: Preferred communication

The second research question examines the effects of preferred communication in future and the view of using telephone, email or online platforms going forward. There were eight questions in the questionnaire that related to communication. The study data used the Pearson correlation and multiple regression to understand the relationship between the variables that supported the hypotheses for research question 2. There was a positive relationship with client's preference to a more online communication going forward compared to face-to-face.

5.4.1 Hypothesis 2

H2o Customers prefer face-to-face communication
H2a Customers do not prefer communicating face-to-face

The second hypothesis supported the study data whereby respondents prefer communication by telephone, email, and online platforms during and post- COVID-19. The ANOVA results is F (6,100) =35.027, p=0.000, a greater preference for online communication. Furthermore, the study confirmed a positive correlation between I felt comfortable chatting via telephone/email or online platforms during COVID-19 and I feel comfortable asking the chatbot questions r=.259",n=107,p=0.07, I feel comfortable communicating on the telephone or email r=.559",n=107,p=.000 and I will continue chatting via telephone/email or online platforms after COVID-19 r=.808",n=107,p=.000 where $p<0.01$ (2 tailed) is significant.

Other studies during COVID-19 by Alawamleh et al. (2020) confirmed that online classes between students and teachers did not work and that there was no individual attention given compared to face-to-face interaction in the classroom. There was lack of motivation, lower communication levels online and a feeling of isolation. This study opposed online communication.

In our study there is a positive relationship between chatting online or by telephone and email with your broker or a chatbot on the company's website. There seemed be to be a more one-on-one interaction as there are only not more than two people communicating which makes it different from the online classroom teaching.

Table 19: Preferred communication coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.151	.267		4.316	.000
When I am on the company's website, I interact with the chatbot	-.025	.051	-.043	-.480	.632
I feel comfortable asking the chatbot questions	-.024	.051	-.043	-.479	.633
After I have read information on an Insurance companies' website, I call my broker to discuss	.001	.035	.002	.032	.975
I prefer to be contacted only by my broker	-.030	.035	-.051	-.844	.401
I feel comfortable communicating on the telephone or email	.137	.058	.163	2.343	.021
I felt comfortable chatting via telephone/email or online platforms during COVID-19	.641	.064	.730	9.988	.000
a. Dependent Variable: Q23 I will continue chatting via telephone/email or online platforms after COVID-19					

This analysis was conducted to indicate if the preferred communication variables influence customer behaviour post COVID-19. For the research question it was hypnotized that on whether customers prefer face-to-face or online communication going forward. to test this hypothesis, multiple regression was used to conduct the analysis. Results came back with a .678 variance in chatting on telephone/email or online platforms after COVID-19 can be accounted for by six variables, $F(6,100) = 35.027$ $p<001$.

When we analysed the six predictors, the results provided insights on how chatting via telephone/ email or online platforms during COVID-19 (β=.641, t=9.988, p=.000) and feeling comfortable communicating on the telephone or email (β=.137, t=2.343, p=.0.21).

This provided insights into the research question and guided us that customers who feel comfortable with chatting on telephone or email during COVID-19, will want to continue to talk on the telephone/ email or online platforms after COVID-19.

The findings in this research indicated that there was a skewness more toward to doing communication online rather than meeting face-to-face. Therefore, the null hypothesis was rejected.

5.5 Research question 3: Digital preferences of customers

The third research question examines the digital preferences customers have and how COVID-19 has changed their perception of online platforms in the South African context. There were six questions in the questionnaire that related to digital preference. The current study used the variance study (ANOVA), correlation and multiple regression to show the relationship between the variables.

5.5.1 Hypothesis 3

H3o Digital preferences of customers do not affect broker channels
H3a Digital preferences of customers affect broker channels

From our study, there was a positive relationship between I make purchases often on digital platforms and I feel comfortable using digital platforms r=0.676", n=107, p=.000, also I am careful with what information I provide on digital platforms r=.301",n=107,p=.002, I am comfortable when I am on a secured section of a company's website r=.336",n=107,p=.000, I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured r=.226",n=107,p=.019 where

p<.001(2tailed). The ANOVA results is F (6,100) =37.300, p=0.000 showing a positive preference by customer to do purchase online.

In the studies conducted by Richter & Shilov (2020) it discusses how COVID-19 has a great impact of customers purchasing behaviour to a more digital preference and this could be due to strict restrictions by government. But the study also asked the question if digital preference after COVID-19 and the research provided insights there would be a more digital manifestation inf future after COVID-19.

Table 20: Digital preferences-coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	-.197	.476		-.414	.680
	COVID-19 changed my perception of digital platforms	-.108	.049	-.123	-2.192	.031
	I currently purchase products on digital platforms	.587	.080	.558	7.302	.000
	I feel comfortable using digital platforms	.371	.092	.295	4.014	.000
	I am careful with what information I provide on digital platforms	.063	.093	.043	.680	.498
	I am comfortable when I am on a secured section of a company's website	.079	.069	.073	1.147	.254
	I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured	-.001	.048	-.001	-.013	.990
a. Dependent Variable: Q26 I make purchases often on digital platforms						

This analysis was conducted for digital preferences variables and how customers view digital platforms. For the research question it was hypnotized that digital preferences experienced by customers and whether it has changed customer behaviour to a more digital platform. The hypothesis that digital preferences do not affect brokers and digital

preferences had changed the way broker channels interacted going forward with customers used multiple regression was used to conduct the analysis. Results came back with a .691 variance in I make purchases often on digital platforms can be accounted for by six variables, F (6,100) =37.300 p<001.

When we analysed the six predictors, the results provided insights on I currently purchase products on digital platforms (β=.558, t=7.302, p=.000) and feeling comfortable using digital platforms (β=.295, t=7.302, p=.0.00 while COVID-19 changed my perception of digital platforms (β=-.123, t=-2.192, p=.031).

The results provided insight into the research question and guided us that COVID-19 has changed perception of customers on digital platforms, and we find customers are purchasing products and feel comfortable on digital platforms. This indicated that customers are more comfortable doing online purchases now. The current study data implies a more digital preference of customers, which rejects the null hypothesis and accepts the research hypothesis.

5.6 Research question 4: Online comfort levels of customers

The fourth research question examined the online comfort levels of customers on digital platforms in the South African context. There were five questions in the questionnaire that related to digital preference. The current study used the variance study (ANOVA), correlation and multiple regression to show the relationship between the variables. The variables would provide insights into whether customers are comfortable on online platforms during and after COVID-19.

5.6.1 Hypothesis 4

H4o Customers are not comfortable with online platforms
H4a Customers are comfortable with online platforms

The current study provided a positive relationship between I feel comfortable visiting a company's website if I am looking for information and I will continue using online platforms post COVID-19 r=0.450", n=107, p=.000, also the variable I feel online platforms provide an ease of purchasing when the environment is secure r=.321",

n=107,p=.001 where p<.001(2tailed). In prior studies in March 2020, (Richter & Shilov) discusses that COVID-19 that digital platforms have increased with customer comfort levels and there is a decreased in store purchasing and indicating that COVID-19 has created a digital manifestation.

The regression model indicated a R squared is 0.506 which means that our model explains 51% of the variance of the data corresponding to the other online comfort levels. The R squared value is > 0.5 which means it is good model fit. The adjusted R squared value is 0.487. The ANOVA results is F (4,102) =26,145, p=0.000. in our studies by Reitz, A. R. (2012) the purchasing intent on Facebook on companies that the customer liked and was loyal too, had a variance of 0.78 which means the study had a higher variance than our study. This study speaks to Facebook as in 2012, Facebook was the dominant social media platform.

Table 21: Online comfort levels-coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.511	.400		1.278	.204
	Q31 I am aware that security is a risk on online platforms	.165	.063	.193	2.603	.011
	Q33 I feel comfortable visiting a company's website if I am looking for information	.152	.060	.197	2.523	.013
	Q35 I feel online platforms provide an ease of purchasing when the environment is secure	.420	.072	.449	5.873	.000
	Q23 I will continue chatting via telephone/email or online platforms after COVID-19	.175	.067	.194	2.600	.011
a. Dependent Variable: Q34 I will continue using online platforms post COVID-19?						

This analysis was conducted to understand customers comfort levels on digital platforms. For the research question it was hypnotized on whether customers are comfortable or not comfortable on digital platforms. To test this hypothesis, multiple regression was used to conduct the analysis. Results came back with a .506 variance in I will continue using online platforms post COVID-19 can be accounted for by four variables, F (4,102) =26.145 p<001.

When we analysed the four predictors, the results provided insights on awareness that online platforms have a risk (β=.193, t=2,603, p=.0011) and feeling comfortable visiting a company's website if I am looking for information (β=.197, t=2,523, p=.013 while feel online platforms provide an ease of purchasing when the environment is secure (β=.449, t=5.873, p=.000) with continuing to chat via telephone/email or online platforms after COVID-19 (β=.194, t=2.600, p=.011).

The results provided insight into the research question and guided us that customers are now comfortable when using digital platforms while knowing that this is risky platform. Customers are happy to visit company's website to get more information and feel especially when they on a secured part of that company's website. This indicated that the comfort levels of customers on digital platforms are better than before COVID-19.

In the current study, there is movement towards a more digital inclined environment where customers have a comfort on online platforms but have an ease of purchasing on secured environment, there is a sense of security risk that plays a part in customer comfort levels.

Summary on discussion of results

Research question 1: Does social media engagement allow for customers to engage with insurance companies?
Null hypothesis- Social media engagement has no effect on engagement with insurance companies
Alternative hypothesis – Social media engagement has a positive effect on insurance companies

The study provided a strong positive relationship when engagement visual through videos watched of insurance companies, customers want to learn more about the insurance companies and are willing to leave their details to be contacted therefore the null hypothesis would be rejected.

Research question 2:

What preferred customer communication methods can guide brokers in the future?

Null hypothesis – Customers prefer communicating face-to-face

Alternative hypothesis - Customers do not prefer communicating face-to-face

This study data provided insights into the research question and guided us that customers who feel comfortable with chatting on telephone or email during COVID-19, want to continue to talk on the telephone/ email or online platforms after COVID-19. The findings in this research indicated that there is a skewness more towards communicating online rather than meeting face-to-face if there is a one-on-one interaction Therefore, the null hypothesis would be rejected.

Research question 3:

What effect does digital preferences have on broker channels?

Null Hypothesis - Digital preferences of customers do not affect broker channels

Alternative hypothesis – Digital preferences of customers affect broker channels

The study results provided guidance for our research question that COVID-19 has changed perception of customers on digital platforms, and we find customers are purchasing products and feel comfortable on digital platforms. This indicated that customers are more comfortable doing purchases now. The current study data implies a more digital preference of customers, which rejects the null hypothesis and accepts the alternative hypothesis.

Research question 4:

Are customers comfortable with online platforms vs face-to-face interaction?

Null hypothesis- Customers are not comfortable with online platforms

Alternative hypothesis – Customers are comfortable with online platforms

The study has provided insights that COVID-19 has made a shift in customers minds towards a more digital environment where customers have a comfort on online platforms to purchase even though they are aware of the risks on online platforms. Customers are confident on secured companies' site and are comfortable to purchase on-line. The null hypothesis would be rejected.

6 SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

6.1 Summary

This chapter would provide a summary of this study. The findings would be summarised in Section 6.1 and thereafter the conclusions would be drawn from other studies. The conclusion is discussed in Section 6.2 and the limitations presented in Section 6.3 and in Section 6.4 the recommendations are presented, discussed, and outlined.

The research statement for this study was to identify how the marketing behaviour of customer's influence how they want to interact with broker channels for insurance in South Africa going forward. There are four research objectives are discussed,

The objective of this research is to,

1. To identify whether social media engagement has a positive effect for insurance companies.
2. To understand what preferred communication customers, want to use post COVID-19.
3. To understand the digital preferences of customers
4. To identify customers comfort levels with online platforms

The research strategy was to gain insights through customer behaviour using the quantitative research method. The design of the research was to send out a questionnaire to adults older than 18 years in Johannesburg South Africa area to understand their social media engagement, preferred communication method, digital preference, and online comfort levels. Before the questionnaire was compiled and sent out, there was ethics approval needed from the Wits Business School Ethics Committee. The questionnaire that was sent to respondents were divided into five section i.e., demographics details of the respondents, social media engagement, preferred communication, digital preference, and online comfort levels of customers which assisted and guided in answering the research questions.

The link of the questionnaire was sent to participants via WhatsApp or email and the survey was opened for 2 weeks for participants to complete.

Once the data was collected, the raw data was cleaned, coded, and uploaded into SPSS for analysis. Multiple regression, the analysis of variance and Pearson correlation were used to analyse the variables.

The results from the social media engagement variables indicated a strong relationship once customers engaged with videos by insurance companies on social media, there was interest and this interest by customers creates a wanting to learn more about the company and then could read on the special offers that the company has to offer, and these customers ended up leaving their details to be contacted. There was a positive ANOVA results of a variance on social media engagement of 0.662 which is slightly higher than previous studies by (Reitz, 2012). There is a strong confident relationship on social media for engagement with insurance companies. Customers are more visual on social media; videos create more engagement with the product or service which means insurance companies need to be creative.

In our preferred communication section, we can view a positive relationship between chatting online or by telephone and email with your broker or a chatbot on the company's website. The interaction between a customer and broker is more of a conversation on phone or email which is different from the study conducted by (Alawamleh et al., 2020) which was a classroom set up where interaction may be limited. The ANOVA results is .678 variance in chatting on telephone/email or online platforms after COVID-19 can be accounted for by six variables, $F(6,100) = 35.027$ $p<001$. The results from the questionnaire provided trends that hint to us that customers who feel comfortable with chatting on telephone or email during COVID-19, wanted to continue to talk on the telephone/ email or online platforms after COVID-19.

In the digital preference, there was a strong relationship between purchasing products on digital platforms and feeling comfortable using digital platforms. The data from our questionnaires indicated that COVID-19 has changed perception of customers on digital platforms, customers are purchasing products and feel comfortable on digital platforms. The current study data implies a more digital preference of customers now.

This study was conducted during the second wave of COVID-19 in South Africa and may change post COVID-19.

The online comfort levels of the respondents guided our study that customers are now comfortable when using digital platforms even knowing that it is risky. Customers are comfortable to visit a company's website to get more information and feel especially when they on a secured part of that company's website. This indicated that the comfort levels of customers on digital platforms are better now days. We saw a similar trend in the study conducted by Reitz (2012) where customers are loyal and showed intent once they become interested. Thus, the research is consistent with past and present studies and indicate an online customer environment.

6.2 Conclusions

The aim of the project was to understand and gather data to answer four research questions in this study has four research questions with each research question having a null and alternative hypothesis,

Question 1: Does social media engagement allow for customers to engage with insurance companies?
H1o Social media engagement has no effect on engagement with insurance companies
H1a Social media engagement has a positive effect on insurance companies
In conclusion the research findings for research question one combined with academic prior studies provide evidence that social media allows for engagement with insurance companies and showed the positive relationship once a more visual engagement occurs through videos watched of insurance companies therefore the null hypothesis was rejected.

Question 2: What preferred customer communication methods can guide brokers in the future?
H2o Customers prefer face-to-face communication
H2a Customers do not prefer communicating face-to-face
The research question guided us that customers who feel comfortable with chatting on telephone or email during COVID-19, wanted to continue to talk on the telephone/ email or online platforms after COVID-19. The findings in this research indicated that

there was a skewness more toward to doing communication online rather than meeting face-to-face. Therefore, the null hypothesis would be rejected.

Question 3: What effect does digital preferences have on broker channels?
H3o Digital preferences of customers do not affect broker channels
H3a Digital preferences of customers affect broker channels
The results provided insight into the research question and guides us that COVID-19 has changed perception of customers on digital platforms, and we find customers are purchasing products and feel comfortable on digital platforms. This indicated that customers are more comfortable doing purchases online nowadays. The current study data implies a more digital preference of customers, which rejects the null hypotheses and accepts the research hypotheses.

Question 4: Are customers comfortable with online platforms vs face-to-face interaction?
H4o Customers are not comfortable with online platforms
H4a Customers are comfortable with online platforms
The results provided insight into the research question and has indicated to us that customers are now comfortable when using digital platforms while knowing that this is risky. Customers are happy to visit company's website to get more information and feel especially when they on a secured part of that company's website. This indicated that the comfort levels of customers on digital platforms are better than before COVID-19.

The results from the four sections in this study indicated there is a skewness towards a more digital inclined environment where customers have a comfort on online platforms but have an ease of purchasing on secured environment. The results from this study can guide future studies after COVID-19 to see if customer behaviour post COVID-19.

6.3 Limitations

During this study, finding literature about a pandemic was difficult to find, there was little to no research available when completing this research. I used research articles that were recently published and in 2020 and other prior research which discussed the variables and sections used in the study. The questionnaire for this research was sent during the second wave of COVID-19 in South Africa in December 2020 to January

2021. The questionnaire needed to be distributed via a link to participants on WhatsApp or email. Respondents did not respond well to email as it was the holiday period and therefore also made follow-up on completing the questionnaire difficult. COVID-19 also played a role in participants completing the survey, due to being sick or losing a loved one found some participants could not take part of this research. Conducting a similar questionnaire post COVID-19 may provide different results in South Africa as a customer's behaviour is continuously evolving but this study provides guidance and hints of a possible change in customer behaviour towards digital.

6.4 Recommendations

The research gap was the lack of academic research in a pandemic environment to guide brokers on customers and their behaviour. Prior research on social media engagement by Reitz (2012) do not apply directly to a pandemic. Current research by Richter and Shilov (2020) does guide us during the pandemic on customer behaviour but does not indicate the future behaviour.

The study guided us from a theoretical point of view the understanding of current customer behaviour by looking at the social media engagement, communication preference, digital preference, and a customer online comfort level. The outcome of this study would guide brokers on customers behaviours and preferences post COVID-19 in South Africa. The results from the questionnaire identified a change in customer behaviour towards online platforms away from face-to-face. Richter & Shilov (2020) discusses a customer who prefers doing purchasing digitally rather than in store. Brokers should consider customers behaviour during and after COVID-19 pandemic as the results show us a perception of customer behaviour. From a practical view this study provides information on what brokers should focus on, engage on, in what format (visual or content). Each section of this research provides insights and trends about customers on the online digital platform.

This research had a sample of just over 100 as an audience size, future research needs to focus on larger sample size with a view of a wider audience in other provinces within South Africa to gain more insights.

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APPENDICES

Appendix 1.1: Data collection instrument(s)

Section A: Demographic information

Q1 What is your gender?

- ○ Male
- ○ Female
- ○ Prefer not to say

Q2 What is your education level?

- ○ Grade12 / Matric
- ○ Diploma
- ○ Undergraduate degree
- ○ Postgraduate degree
- ○ Other

Q3 What is your age?

- ○ 18-25 years
- ○ 26-35 years
- ○ 36 -45 years
- ○ 46+ years

Q4 What is your race?

- ○ Indian/ Asian
- ○ Black
- ○ White
- ○ Coloured
- ○ Prefer not to say

Q5 What is your monthly income band?

- ○ < R10 000
- ○ R11 000 to R20 000
- ○ R21 000 - R 30 000
- ○ > R 40 000
- ○ Prefer not to say

Q6 Do you have a smartphone, laptop or tablet?

- ○ Yes
- ○ No

Q7 Do you use social media platforms?

- ○ Yes
- ○ No

Q8 How long have you been using social media platforms?

- ○ Not applicable
- ○ 1 year
- ○ 2 years
- ○ 3 years
- ○ 4 years
- ○ More than 4 years

Section B: Social Media Customer Engagement

The below statements would guide us about your engagement on social media with Insurance companies. Please indicate your answer be selecting the appropriate option **1**= Strongly disagree, **2**= Disagree, **3**=Neither agree nor disagree, **4**= Agree, **5**= Strongly Agree.

Q9 When I am on social media platforms, I feel positive and want to try new activities

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q10 When I am on social media platforms, I feel comfortable and become who I really am

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q11 When I am on social media platforms, I engage with posts by companies that I "like"

- Strongly disagree (1)
- Disagree (2)
- Neither agree nor disagree (3)
- Agree (4)
- Strongly agree (5)

Q12 When I am on social media, I watch videos about insurance companies

- Strongly disagree (1)
- Disagree (2)
- Neither agree nor disagree (3)
- Agree (4)
- Strongly agree (5)

Q13 When I am on social media platforms, I read special offers that Life insurance companies offer

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q14 When I am on social media platforms, I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q15 When I am on social media platforms, I learn more about Life insurance companies have to offer

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Section C: Preferred Communication Interaction

The below statements would guide us about your Preferred method of Communication. Please indicate your answer be selecting the appropriate option 1= Strongly disagree, 2= Disagree, 3=Neither agree nor disagree, 4= Agree, 5= Strongly Agree

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Q16 When I want more information about insurance, I search on the internet to get more information

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q17 When I am on the company's website, I interact with the chatbot

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q18 I feel comfortable asking the chatbot questions

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q19 After I have read information on a Insurance companies website, I call my broker to discuss

- Strongly disagree (1)
- Disagree (2)
- Neither agree nor disagree (3)
- Agree (4)
- Strongly agree (5)

Q20 I prefer to be contacted only by my broker

- Strongly disagree (1)
- Disagree (2)
- Neither agree nor disagree (3)
- Agree (4)
- Strongly agree (5)

Q21 I feel comfortable communicating on the telephone or email

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q22 I felt comfortable chatting via telephone/email or online platforms during COVID-19

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q23 I will continue chatting via telephone/email or online platforms after COVID-19

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Section D: Digital preference

The below statements would guide us about your Digital preference. Please indicate your answer be selecting the appropriate option 1= Strongly disagree, 2= Disagree, 3=Neither agree nor disagree, 4= Agree, 5= Strongly Agree

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Q24 COVID-19 changed my perception of digital platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q25 I currently purchase products on digital platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q26 I make purchases often on digital platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q27 I feel comfortable using digital platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q28 I am careful with what information I provide on digital platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q29 I am comfortable when I am on a secured section of a company's website

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q30 I feel comfortable sharing personal information when getting advice with a chatbot adviser on a company's website provided the online environment is secured

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Section E: Customer comfort

The below statements would guide us on your Online Comfort level. Please indicate your answer be selecting the appropriate option 1= Strongly disagree, 2= Disagree, 3=Neither agree nor disagree, 4= Agree, 5= Strongly Agree

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Q31 I am aware that security is a risk on online platforms

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (4)
- ○ Agree (4)
- ○ Strongly agree (5)

Q32 I have had cyber awareness training over the last 6 to 12 months

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q33 I feel comfortable visiting a company's website if I am looking for information

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q34 I will continue using online platforms post COVID-19?

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Q35 I feel online platforms provide an ease of purchasing when the environment is secure

- ○ Strongly disagree (1)
- ○ Disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Agree (4)
- ○ Strongly agree (5)

Appendix 2.1: One-page bio of the researcher including declaration of interest in the research and funders, if any

Researchers' details

Name	Preeantha
Surname	Nookiah
Date of Birth	19801010
Gender	Female
Nationality	South African
Home Language	English
Qualifications	Wits Business School – MBA (current)
	Wits Business School – PDBA (2018)
	Faculty Training Institute (FTI) – Diploma in Business Analysis (2013)
	Bachelor of Commerce – University of Natal (1999-2001)
Current Employer	Discovery (2008 to current)
Current Position	Head of Leads Management
Responsibilities	Strategic planning and organising
	Work closely with technical marketing teams for product launches
	Involved in marketing campaigns with radio stations and 3rd parties
	Ensure that all campaigns run smoothly with ROI
	Investigate new lead generation opportunities externally
	Pilot and create solutions for new lead opportunities
	Grow the Discovery business year on year across all products houses

Appendix 2.2: Ethic documentation

Participant Information Sheet

Wit's address/logo (optional)

Dear participants

My name is **Preeantha Nookiah,** and I am a master's student in Business Administration at the University of the Witwatersrand in Johannesburg. As part of my studies, I must undertake a research project, and I am investigating the marketing effects of COVID-19 on broker channels in the South African insurance industry. The aim of this research study is to find out information on how customer behavior has changed during COVID-19.

As part of this project, I would like to invite you to take part in answering a questionnaire. This activity would involve confidentiality and anonymity of all participants are maintained as the survey does not ask for any identifiable information like names or personal details, this survey would take you around 5 to 7 minutes to complete.

Participation in this survey is entirely voluntary, hence choosing to proceed to and completion of the survey would be considered as consent to participate.

The survey may be accessed this link (https://wits.eu.qualtrics.com/jfe/form/SV_eJ9YyGQGpVxMk85).

Yours sincerely,

Preeantha Nookiah

Wits Business School

University of Witwatersrand

Researcher:

Preeantha Nookiah, 1763994@students.wits.ac.za.

Supervisor:

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Appendix 3.1: Dully filled in data collection instrument(s)

Descriptive statistics – Social media engagement

Table 22: Detailed descriptive statistics for social media engagement

Social media engagement	I feel positive and want to try new activities	, I feel comfortable and become who I really am	I engage with posts by companies that I "like"	I watch videos about insurance companies	I read special offers that Life insurance companies offer	I am willing to leave my details so that a Life insurance company can contact me if I am interested in a post	I learn more about Life insurance companies have to offer
Strongly disagree (1)	2	5	3	33	27	38	26
Disagree (2)	16	27	20	49	50	50	43
Neither agree nor disagree (3)	40	36	13	11	6	5	12
Agree (4)	45	34	56	11	22	11	21
Strongly agree (5)	4	5	15	3	2	3	5
Total	107	107	107	107	107	107	107
Missing	4	4	4	4	4	4	4
Total	111	111	111	111	111	111	111
Mean	3.31	3.07	3.56	2.08	2.27	1.98	2.4
Median	3.00	3.00	4.00	2.00	2.00	2.00	2.00
Std Dev	0.84	0.974	1.039	1.038	1.12	1.037	1.188

Descriptive statistics- Preferred communication

Table 23: Detailed descriptive statistics for preferred communication

Preferred Communication	When I want more information about insurance, I search on the internet to get more information	When I am on the company's website, I interact with the chatbot	I feel comfortable asking the chatbot questions	After I have read information on a Insurance companies website, I call my broker to discuss	I prefer to be contacted only by my broker	I feel comfortable communicating on the telephone or email	I felt comfortable chatting via telephone/email or online platforms during COVID-19	I will continue chatting via telephone/email or online platforms after COVID-19
Strongly disagree (1)	5	13	13	11	2	1	2	0
Disagree (2)	8	33	30	23	24	6	1	2
Neither agree nor disagree (3)	11	24	22	24	20	7	6	10
Agree (4)	53	33	38	40	40	71	67	68
Strongly agree (5)	30	4	4	9	21	22	31	27
Total	107	107	107	107	107	107	107	107
Missing	4	4	4	4	4	4	4	4
Total	111	111	111	111	111	111	111	111
Mean	3.89	2.83	2.91	3.12	3.5	4	4.16	4.12
Median	4.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00
Std Dev	1.049	1.112	1.129	1.155	1.102	0.765	0.729	0.64

Descriptive statistics – Digital preferences

Table 24:Detailed descriptive statistics for digital preferences

Digital Preference	COVID-19 changed my perception of digital platforms	I currently purchase products on digital platforms	I make purchases often on digital platforms	I feel comfortable using digital platforms	I am careful with what information I provide on digital platforms	I am comfortable when I am on a secured section of a companies website	I feel comfortable sharing personal information when getting advice with a chatbot adviser on a companies website provided the online environment is secured
Strongly disagree (1)	3	1	1	1	1	3	20
Disagree (2)	18	10	13	4		5	31
Neither agree nor disagree (3)	20	11	12	7	3	7	24
Agree (4)	41	56	54	63	44	61	25
Strongly agree (5)	25	29	27	32	59	31	7
Total	107	107	107	107	107	107	107
Missing	4	4	4	4	4	4	4
Total	111	111	111	111	111	111	111
Mean	3.63	3.95	3.87	4.13	4.5	4.05	2.7
Median	4.00	4.00	4.00	4.00	5.00	4.00	3.00
Std Dev	1.103	0.915	0.962	0.766	0.65	0.894	1.207

Descriptive statistics- Online comfort levels

Table 25:Detailed descriptive statistics for online comfort levels

Comfort level	I am aware that security is a risk on online platforms	I have had cyber awareness training over the last 6 to 12 months	I feel comfortable visiting a company's website if I am looking for information	I will continue using online platforms post COVID-19?	I feel online platforms provide an ease of purchasing when the environment is secure
Strongly disagree (1)	0	15	1	0	0
Disagree (2)	2	15	2	0	1
Neither agree nor disagree (3)	5	6	11	5	7
Agree (4)	39	37	59	55	62
Strongly agree (5)	61	34	34	47	37
Total	107	107	107	107	107
Missing	4	4	4	4	4
Total	111	111	111	111	111
Mean	4.49	3.56	4.15	4.39	4.26
Median	5.00	4.00	4.00	4.00	4.00
Std Dev	0.678	1.422	0.75	0.579	0.619

Reliability results of main data collection

1. Social media engagement

Table 26: Reliability Statistics - Social media engagement

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.738	.724	7

Table 27:Item-Total Statistics - Social media engagement

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q9	15.36	18.724	.150	.189	.762
Q10	15.61	16.807	.347	.320	.730
Q11	15.11	18.817	.070	.163	.788
Q12	16.59	13.829	.727	.662	.640
Q13	16.40	13.337	.732	.735	.633
Q14	16.69	15.329	.507	.514	.694
Q15	16.27	13.313	.669	.657	.648

2. Preferred communication

Table 28: Reliability Statistics-Preferred communication

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.655	.684	6

Table 29: Item-Total Statistics-Preferred communication

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q17	18.31	7.800	.448	.589	.588
Q18	18.23	7.256	.541	.599	.545
Q19	18.02	8.735	.256	.104	.673
Q21	17.14	9.744	.312	.352	.636
Q22	16.98	9.226	.466	.697	.594
Q23	17.02	9.886	.379	.675	.623

3. Digital preference

Table 30: Reliability Statistics - Digital Preferences

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.754	6

Table 31: Item-Total Statistics - Digital preferences

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q25	19.24	8.488	.694	.654	.633
Q26	19.33	8.241	.699	.676	.628
Q27	19.07	9.647	.587	.493	.674
Q28	18.70	11.287	.302	.225	.740
Q29	19.15	9.789	.436	.256	.710
Q30	20.50	9.686	.251	.153	.789

3. Online comfort levels

Table 32: Reliability Statistics- Online comfort levels

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.701	.718	3

Table 33: Item-Total Statistics -Online comfort levels

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q33	8.65	1.153	.428	.207	.753
Q34	8.41	1.244	.639	.440	.480
Q35	8.54	1.288	.521	.369	.607