

**A CONSUMER PURCHASE DECISION MODEL
FOR THE SOUTH AFRICAN PERSONAL MOTOR VEHICLE
INSURANCE INDUSTRY**

by

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DECLARATION


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A consumer purchase decision model for the South African personal motor vehicle insurance industry.

I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



SIGNATURE

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24/01/2022

DATE

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ABSTRACT

The low penetration rate of motor vehicle insurance in South Africa places enormous pressure on the short-term insurance industry. An analysis of individuals in the market and their purchasing habits will allow short-term insurers to understand their consumers and purchasing behaviour. This study aimed to develop a model that would determine the purchase decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance in South Africa. It is important for short-term insurance companies need to gain an understanding of purchase behaviour in terms of personal motor vehicle insurance in South Africa, as it will allow them to satisfy consumers' needs and influence individuals' purchase decisions. Several decision-making models were evaluated to aid in the development of the conceptual consumer purchase decision for personal motor vehicle insurance model that illustrates the influences and steps in the purchase decision process. Quantitative data was collected through an online questionnaire. The study followed a three-phase model-building strategy of: (1) Exploratory Factor Analysis, (2) Confirmatory Factor Analysis and (3) logistic regression model building to test and refine the model until an acceptable model could be established. The study found that the purchase decision for personal motor vehicle insurance consumers and potential consumers consists of the following influences and steps: company's marketing efforts (include people, process and price of the policy), sociocultural environment factors (included items such as positive non-commercial sources and negative reference person or group), communication sources (paid-for social media efforts, buzz agent and customised messages); psychological attributes (items such as perception about a certain insurance company and personality), demographic variables (household income, highest level of education and age), and decision-making process steps (pre-purchase search requesting quotations and evaluating alternative prices, quality/standards and brands). The demographic profile of respondents was used to develop a description of the average personal motor vehicle driver and personal motor vehicle insurance consumer. This study provides an acceptable model explaining the purchase decision process of individuals in the personal motor vehicle insurance market in South Africa.

KEY WORDS:

Purchase behaviour; purchase decision process; external decision-making influences; short-term insurance company's marketing efforts; sociocultural environment; communication sources; psychological attributes; consumer decision-making process; personal motor vehicle insurance market, South Africa.

OPSOMMING

Die lae penetrasiekoers van motorvoertuigversekering in Suid-Afrika plaas enorme druk op die korttermynversekeringsbedryf. 'n Ontleding van individue in die mark en hul koopgewoontes sal korttermynversekeraars in staat stel om hul verbruikers se koopgedrag te verstaan. Die doel van hierdie studie is om 'n model te ontwikkel wat die koopbesluitnemingsproses van verbruikers (versekerdes) en potensiële verbruikers (nieversekerdes) rakende persoonlike motorvoertuigversekering in Suid-Afrika bepaal. Dit is belangrik dat korttermynversekeringsmaatskappye koopgedrag rakende persoonlike motorvoertuigversekering in Suid-Afrika verstaan, aangesien dit hulle in staat sal stel om in verbruikers se behoeftes te voorsien en individue se koopbesluite te beïnvloed. Verskillende besluitnemingsmodelle is geëvalueer om te help met die ontwikkeling van 'n konsepmodel vir persoonlike motorvoertuigversekering wat die invloede en stappe in die koopbesluitproses illustreer. Kwantitatiewe data is deur middel van 'n aanlyn vraelys ingesamel. Die studie het 'n driefasige modelboustrategie gevolg, bestaande uit: (1) verkennende faktoranalise, (2) bevestigende faktoranalise en (3) logistiekeregressie-modelbou om die model te toets en te verfyn totdat 'n aanvaarbare model daargestel kan word. Die studie het bevind dat die koopbesluit vir verbruikers en potensiële verbruikers van persoonlike motorvoertuigversekering uit die volgende invloede en stappe bestaan: maatskappy se bemarkingspogings (insluitend mense, proses en prys van die polis), sosiaal-kulturele omgewingsfaktore (insluitend items soos positiewe niekommersiële bronne en negatiewe verwysingspersoon of -groep), kommunikasiebronne (betaalde pogings op sosiale media, gons-agent- en doelgemaakte boodskappe); sielkundige kenmerke (items soos persepsie oor 'n bepaalde versekeringsmaatskappy en persoonlikheid), demografiese veranderlikes (huishoudelike inkomste, hoogste opvoedingsvlak en ouderdom), en stappe in die besluitnemingsproses (vooraankoopsoektog wat kwotasies aanvra en alternatiewe pryse evalueer, gehalte/standaarde en handelsmerke). Die demografiese profiel van respondente is gebruik om 'n beskrywing van die gemiddelde persoonlike motorvoertuigbestuurder en verbruiker van persoonlike motorvoertuigversekering te ontwikkel. Hierdie studie verskaf 'n aanvaarbare model wat die koopbesluitproses van individue in die persoonlike motorvoertuigversekeringsmark in Suid-Afrika verduidelik.

SLEUTELWOORDE:

Koopgedrag; koopbesluitproses; eksterne besluitnemingsinvloede; korttermyn-versekeringsmaatskappy se bemarkingspogings; sosiaal-kulturele omgewing; kommunikasiebronne; sielkundige kenmerke; verbruikersbesluitnemingsproses; persoonlike motorvoertuigversekeringsmark; Suid-Afrika.

ISIFINQO

Izinga lokungena eliphansi lomshwalense wezimoto eNingizimu Afrika libeka ingcindezi enkulu embonini yomshwalense wesikhashana. Ukuhlaziywa kwabantu emakethe kanye nemikhuba yabo yokuthenga kuzovumela abadayisi bomshwalensi besikhathi esifushane ukuthi baqonde abathengi babo kanye nokuziphatha kokuthenga. Lolu cwaningo luhlose ukuthuthukisa imodeli ezonquma inqubo yesimo sokuthenga sabathengi (abanomshwalense) kanye nabathengi abangahle babe nawo (abangewona) mayelana nomshwalense wemoto yomuntu siqu eNingizimu Afrika. Kubalulekile ukuthi izinkampani zomshwalense wesikhathi esifushane zithole ukuqonda mayelana nezindlela zokuziphatha uma umuntu ethengwa umshwalense wemoto eNingizimu Afrika, njengoba izohambisana nokuthi yanelise izidingo zabathengi futhi ibe nomthelela ezinqumweni zokuthenga komuntu. Amamodeli wokuthatha izinqumo amaningana ahlolwa ukuze asize ekuthuthukisweni kwesinqumo somqondo sokuthenga umthengi semodeli yomshwalense wemoto yomuntu siqu ebonisa imithelela nezinyathelo zenqubo yesinqumo sokuthenga. Idatha yobuningi iqoqwe ngohlu lwemibuzo oluku-inthanethi. Ucwangingo lulandele isu lokwakha imodeli lezigaba ezintathu: (1) Ukuhlaziywa Kwezinto Ezihlodayo, (2) Ukuhlaziywa Kwezinto Ezinqinisekayo kanye (3) nokwakhiwa kwemodeli yokuhlehla kwempahla ukuze kuhlolwe futhi ihloliswe yini imodeli kuze kusungulwe imodeli eyamukelekayo. Ucwangingo luthole ukuthi isinqumo somuntu sokuthengwa komshwalense kanye nabathengi abangase babe ngabathengi siqukethe imithelela nezinyathelo ezilandelayo: imizamo yokumaketha yenkampani (ihlanganisa abantu, inqubo kanye nentengo yenqubomgomo), izici zemvelo yezenhlalo kwamasiko (okufakwe izinto ezifana nezinto ezinhle ezingezona eziqondile) imithombo yezentengiselwano kanye nomuntu noma iqembu eliyisithenjwa), imithombo yokuxhumana (ekhokhelwe imizamo yenkundla yezokuxhumana, ibhazi ejenti kanye nemilayezo engokwezifiso); izici zengqondo (izinto ezinjengombono ngenkampani ethile yomshwalensi kanye nobuntu), ukuhlukahluka kwabantu (imali engenayo yasekhaya, izinga eliphezulu lemfundo nobudala), kanye nezinyathelo zenqubo yokuthatha izinqumo (ukusesha ngaphambi kokuthenga ucela amakhotheshini nokuhlola ezinye izintengo, ikhwalithi/ amazinga kanye nemikhiqizo). Iphrofayili yezibalo zabantu abaphendulayo yasetshenziswa ukuthuthukisa incazelo yomshayeli

wemoto yomuntu ophakathi nendawo kanye nomuntu ongumthengi womshwalense wemoto. Lolu cwaningo luhlinzeka ngemodeli eyamukelekayo echaza inqubo eyisinqumo sokuthengwa kwabantu ngabanye abasemakethe yomshwalense wezimoto eNingizimu Afrika.

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ABBREVIATIONS AND ACRONYMS

AA	Automobile Association
AI	Artificial Intelligence
AVE	Average variance extracted
CEO	Chief executive officer
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN	Normed Chi-Squared/df
CPDFPMVI	Consumer purchase decision for personal motor vehicle insurance
CR	Composite Reliability
ECU	Electric control unit
EFA	Exploratory Factor Analysis
FIA	Financial Intermediaries Association of Southern Africa
FPI	Financial Planning Institute of South Africa
FSB	Financial Services Board
FSCA	Financial Sector Conduct Authority
GDP	Gross domestic product
GFI	Goodness-of-fit
IFRS	International Financial Reporting Standards
ILASA	Institute of Loss Adjusters of Southern Africa
INSETA	Insurance Sector Education and Training Authority
IoT	Internet of Things
IRMSA	Institute of Risk Management South Africa
IT	Integrated technology
KMO	Kaiser-Meyer-Olkin
LDV	Light delivery vehicle

MLE	Maximum Likelihood Estimation
MSV	Maximum Shared Variance
NT	National Treasury
NPV	Negative predictive value
OEM	Original equipment manufacturer
PPV	Positive predictive value
RMSEA	Root Mean Square Error of Approximation
RTMC	Road Traffic Management Corporation
SAIA	South African Insurance Association
SAICB	South African Insurance Crime Bureau
Sasria	South African Special Risks Insurance Association
SAUMA	South African Underwriting Managers Association
SEM	Structural equational modelling
SEU	Subjective expected utility
SQRT	Square root
TLI	Tucker Lewis Index
US	United States of America

CHAPTER 1:

BACKGROUND AND PROBLEM STATEMENT

1.1 INTRODUCTION

The purpose of this chapter is to provide an overview of and a background to the study. The short background discussion and the discussion of the contribution of this research will explain why this study was conducted. This chapter also includes a brief review of the relevant literature, presents the research problem and the objectives of the study, and discusses the research design and methodology that were used to attain the research objectives. In conclusion, the layout of the chapters is presented as a framework for the study.

1.2 BACKGROUND TO THE STUDY

During 2018 and 2019, the global insurance industry witnessed moderate growth of 4.9% (Binder, Klais & Mußhoff, 2021). However, due to the COVID-19 pandemic, the gross domestic product (GDP) weakened in many countries (OECD, 2020:26), and the low interest rates globally had a large impact on many industries, especially the life insurance industry. Due to the low interest rates, the significant burden on the capital, liquidity and investment strategies have forced the life insurance industry to take difficult decisions to balance operational excellence and profitability (Santenac *et al.*, 2021:26). Furthermore, insurance companies will have to increase premium rates due to the negative impact of the COVID-19 pandemic on the premiums. In the personal insurance line specifically, it has been predicted that consumers suffering economic difficulties caused by the rising unemployment and decreasing disposable income will shift to purchasing only mandatory insurance products or reducing the coverage of their existing policies (Binder *et al.*, 2021).

In terms of motor vehicle insurance, the restrictions implemented in countries globally due to the COVID-19 pandemic caused a drop in mileage on motorways and freeways, which decreased the risk of consumers becoming involved in accidents (Goldby, 2020:9). Therefore, the strict lockdown measures implemented globally helped maintain a satisfactory performance for the global motor vehicle insurance industry due to a decline in claims (S&P Global, 2021).

The global insurance industry has a big role to play in the growth of African and South African insurance companies (KPMG, 2015a:69). The two key contributing factors to the successful growth of the African insurance market is understanding the changing consumer demographics and utilising technology. The use of technology such as telematics devices, online insurance platforms that allow consumers to manage insurance profiles automatically, online self-inspection offerings for vehicles, and new features on mobile applications can create value to the market (KPMG, 2015:84; 2017:80).

The change in consumer demographics reveals a growing affluent middle class, an increase in the working population, a rise in education and financial literacy levels, which are all beneficial to the insurance market (PwC, 2018:44). Due to this change in consumer demographics, insurance companies have had to adapt their customer engagement models (KPMG, 2017:46).

According to Danckwerts, Naran and Swana (2020:3-4), the COVID-19 pandemic has impacted the South African insurance industry in various ways, such as:

- Employees had to work from home, which increased the associated IT costs, and impacted the distribution channels.
- Insurance companies reduced premiums and flexibility in premium payment dates was offered to consumers.
- The technological shortcomings were again highlighted as insurance companies had to explore the necessary digital capabilities, enhancements and transformations to operate with minimal disruption.
- The country's downgrade to BB+ status and low interest rate forced insurance companies to relook their financial and strategic planning.

Life insurance is particularly dominant within the South African insurance industry as a large portion of all premiums written are for life insurance products (KPMG, 2015:71; KPMG, 2019:79). The two different insurance sectors in the South African insurance industry are long-term insurance and short-term insurance (PwC, 2015). Motor vehicle insurance makes up the biggest part of the short-term insurance industry, as written motor net premiums typically account for 43% of all the premiums written by short-term insurance companies in the industry (Danckwerts *et al.*, 2020:44). The short-term

insurance market environment in South Africa is dominated by the four largest underwriters, namely, Santam, Hollard, Mutual & Federal (re-branded to Old Mutual) and Guardrisk. These four companies underwrite 66% of the total gross written premiums in the South African insurance market (Danckwerts *et al.*, 2020:98).

The three types of motor vehicle insurance products offered by short-term insurers are: comprehensive insurance, third-party, fire and theft insurance, and third party only cover (Zingwevu & Sibindi, 2014:658). Motor vehicle insurance applies to cars, motor vehicles, station wagons, 4x4 vehicles, 4x2 vehicles, commercial vehicles, light delivery vehicles (LDVs), caravans, motorised caravans, trailers, and motorcycles (Santam, 2014; Van der Walt, 2016).

From 1942 to 1997, it was compulsory for motorists to have motor vehicle insurance, which mainly covered damage to the motor and bodily injury or death (Zingwevu & Sibindi, 2014:658). The Road Accident Fund (RAF) that was established in 1997, started operations on 1 May 1997 (Road Accident Fund, 2021). The RAF replaced compulsory motor vehicle insurance. However, the RAF covers the bodily injury or death of third parties only (Zingwevu & Sibindi, 2014:658). The financial challenges that the RAF has had for decades are continuing to put a strain on their ability to compensate and offer rehabilitation to road accident victims and their families (Road Accident Fund, 2016:15).

Insurance companies in South Africa have called on the government to reintroduce compulsory third-party motor vehicle insurance, as it can reduce costs for motorists and short-term insurance companies (Bonorchis, 2014; Geldenhuys, 2020a). Zingwevu and Sibindi (2014:668) demonstrated the urgent need to reintroduce third-party motor vehicle insurance in South Africa by highlighting the excessive cost of accidents, the relatively low percentage of insured vehicles on South African roads, and how this has increased the price of motor vehicle insurance.

One of the reasons South African motorists do not have insurance is the poor economic conditions in South Africa. Various authors have supported this assertion by mentioning that affordability is one of the main reasons motorists in South Africa do not purchase motor vehicle insurance (Auto & General Insurance, 2015; Mokhothu, 2020). Consumers are under severe financial pressure due to the high unemployment rate and rising costs of living (such as the increase in petrol prices), and they thus

cannot afford motor vehicle insurance (KPMG, 2016:95; Van Rensburg, 2018). However, in South Africa, another reason can be that motorists feel they do not have to pay for motor vehicle insurance, as they feel that the RAF will assist with personal injuries and the rehabilitation of road accident victims and families. Furthermore, South African motorists do not have motor vehicle insurance because they feel it is not worth it as they are driving motor vehicles that are too old (North, 2021).

According to Chitiga-Mabugu *et al.* (2021:92), the COVID-19 pandemic and the rising unemployment rate in the country have severely impacted consumers' disposable income. As a result, consumers buy what they need and not what they want (Phillip, 2020). This also applies to the United States of America (US), where expensive insurance premiums are the main reason why motorists do not purchase motor vehicle insurance (Vohra, 2019).

As mentioned above, it is also not compulsory to have motor vehicle insurance/cover, as it is no longer a regulatory requirement. However, in other countries, liability insurance is a requirement for all motor vehicles. For example, Dutch law specifies that all motor vehicles should have liability insurance that covers the damage caused to other drivers and their cars (Zavadil, 2014:868; Van der Kolk, 2021).

Since many insurance companies offer similar motor vehicle insurance products (Segovia-Gonzalez, Guerrero & Herranz, 2009:278), consumers and potential consumers have to carefully decide which specific products to buy from which companies. Motor vehicle insurance can be seen as a grudge purchase (this refers to products or services that consumers buy because they have to, although they would rather spend their money on something else) (McDonnell & Bartlett, 2009:69; Pearson, 2016a:2), since the motorist that has insurance pays the premiums each month to have peace of mind. Should the motor vehicle be involved in an accident, the insurance company will pay for damage to the motor vehicle (Loader, Gould & Thumala, 2015:862).

Not only is this buying decision difficult to make due to all the available insurance products offered by different companies, there are also certain factors that can influence the individuals' decisions. For example, the insurance companies' marketing efforts and the individual's sociocultural environment are external factors that can

influence the individual's purchase decision (Schiffman & Wisenblit, 2015:340, 2019:375; Acevedo, 2018:8).

Individuals' purchase decisions are driven by their needs, and they assess and select actions that will fulfil their needs. Consumer decision-making, also known as the purchase decision-making process, is a cognitive process involving the mental activities that determine what actions the individuals will undertake to eliminate a tension state caused by a need (Parumasur & Roberts-Lombard, 2014:263; De Mooij, 2019:26). Furthermore, the consumer decision-making process can be explained as an outline of how individuals make decisions. Not all the individuals who follow these decision-making process steps become consumers, as they might abandon the whole idea at any step (Lappeman *et al.*, 2021:154). However, all the individuals involved in the purchasing process form part of the market. Understanding the purchase behaviour within a market is thus a difficult but vitally important task for any short-term insurance business.

Although everyone's needs, demands, and preferences are unique, many similar behaviour patterns are evident, indicating that some individuals follow more or less the same process when it comes to making buying decisions. This process is known as the consumer decision-making process (Ragunathan, 2016:182). However, the decision-making periods differ, as some individuals make their decisions quickly and easily, while others take longer and consider certain factors in more detail before making the final decision. The speed and ease of a decision to purchase or not to purchase depend mainly on the type of service, the buying situation and the purchase involvement (Jooste, 2014:66; Techasurin, Nuangjamnong & Dowpiset, 2020:2).

In terms of the purchasing of motor vehicle insurance, there are broadly two ways in which individuals can purchase insurance: the traditional third-party method via an agent or broker, and the direct transformative methods where the insurance companies are contacted directly via telephone, email, or the companies' websites (Stokes, 2012a; Kaesler *et al.*, 2020).

Consumer decision-making also differs according to the type of purchase decision. The type of purchase decision can be classified according to the degree of buyer involvement and the degree of differences among services (Lamb, Hair & McDaniel, 2018:403). Individuals that review or consider purchasing motor vehicle insurance will

engage in dissonance-reducing behaviour, as the primary cause of dissonance is the fact that individuals must make a decision between numerous similar alternatives (Belch & Belch, 2015:125). During this type of behaviour, individuals are highly involved in the purchase, but they are of the opinion that there are only minor differences between the insurance products offered by the service brands or short-term insurance companies (Jooste, 2014:66; Techasurin *et al.*, 2020:2). In other words, individuals that want to purchase motor vehicle insurance will typically shop around to see what is currently available in the market, but they will purchase without thinking about the decision for too long.

Within the short-term insurance market, the purchase decision by the individuals in the industry can either be to purchase motor vehicle insurance (and be insured) or not to purchase motor vehicle insurance (and be non-insured). In South Africa, only 30% to 35% of consumers purchase motor vehicle insurance (Buys, 2015:23; Bubear, 2016; Geldenhuys, 2020a; South African Insurance Association, 2021). This low market penetration makes it challenging for insurance companies to keep the premiums low and affordable for current motor vehicle insurers (Fichardt, 2015). The increase in consumer living costs forces consumers to shop around for the most affordable premiums (Innovation Group, 2021). Especially at the present moment, during the COVID-19 pandemic, consumers are moving to value-based purchasing, where consumers look at the premium cost versus the benefit in much more detail than before (Moodley, 2021).

The current study aimed to determine the purchase decision process of the insureds and non-insureds as related to personal motor vehicle insurance by testing a conceptual model of the consumer purchase decision for personal motor vehicle insurance (abbreviated as CPDFPMVI). Personal motor vehicle insurance was chosen for the study because consumers have a choice in the decision whether to purchase or not to purchase motor vehicle insurance, and whether the motor vehicle is used for personal or business purposes. It is also important to point out that this study only determined the purchase decision process of personal motor vehicle insurance and did not investigate other types of insurance for vehicles such as buses, trucks, or motorcycles. Despite the researcher in the current study's best efforts, no similar studies could be found where unique consumer purchase decision models with regard

to individuals in the personal motor vehicle insurance industry of South Africa and internationally had been developed.

1.3 LITERATURE REVIEW

Consumer behaviour can be defined as the process and activities that individuals participate in when searching for, selecting, purchasing, using, evaluating and disposing of products or services to satisfy their needs and desires (Belch & Belch, 2015:110; De Mooij, 2019:23-24). A market/audience can be described as a large number of individuals who have a need for a specific product/service, have the money to purchase the product/service, are willing to spend the money on it, and are legally able to buy the product (Erasmus, Strydom & Rudansky-Kloppers, 2019:459). Considering this description, the personal motor vehicle insurance market will include individuals who have personal motor vehicle insurance (insureds) and individuals who do not have personal motor vehicle insurance (non-insureds). However, an individual can form part of the market but not be a consumer of a product or service (Lappeman *et al.*, 2021:5).

In order to adapt their marketing strategies to meet the needs of consumers, a business has to know and understand why individuals in the market behave the way they do when deciding to purchase or not to purchase products or services (Erasmus *et al.*, 2019:453). Short-term insurance companies are businesses that offer an insurance service with an obligation to exchange consumer's risk (loss through damage or theft of vehicle) for the financial responsibility provided by the short-term insurers (Ragunathan, 2016:182). Therefore, it is important for short-term insurance companies to understand how and why individuals act when they make decisions to buy or not to buy motor vehicle insurance, as this can assist them in adapting their current marketing strategies to meet the needs and desires of individuals in their market.

Various authors have discussed the consumer decision-making processes (Kotler & Keller, 2012:166; Belch & Belch, 2015:111; Lamb *et al.*, 2017:90; Acevedo, 2018; Erasmus *et al.*, 2019:454). All the above-mentioned scholars have presented similar consumer decision-making processes that consist of five steps, namely, need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behaviour. This process is called the consumer decision-making

process, and most individuals in a market that have a need for a certain product or service will typically follow these steps.

The purchase decision step of the process, where the individual makes the purchase or not, will determine if the individual becomes a consumer or not (Lamb *et al.*, 2018:112). Potential consumers refer to the individuals who follow the steps in the purchase decision process but do not make the purchase, whereas consumers are the individuals who decide to purchase. The current study focused on the thought processes that lead individuals from identifying a need, generating options, and choosing to purchase or not to purchase personal motor vehicle insurance until the purchase decision step. This study thus focused only on the first four steps, until the purchase decision step, as this study aimed to develop a model that explains the purchase decision process of consumers and potential consumers in the personal motor vehicle insurance industry.

A wide range of external and internal factors influence individuals' purchase decisions (Acevedo, 2018:19). External factors relate to the external stimuli such as the company's marketing efforts, sociocultural environment factors and communication sources (Stankevich, 2017:10). The company's marketing efforts comprise of the product/service itself (the policies offered at short-term insurance companies), its price, its promotion, and where it is sold (Lantos, 2011:9; Stankevich, 2017:10). The sociocultural environment factors that influence the need to purchase are family, reference groups (friends and neighbours), other informal and non-commercial sources, social class, and culture and subcultural memberships (Adams & Lawrence, 2019). The cumulative impact of every company's marketing efforts, the influence of family, friends and neighbours and the existing code of behaviour in society are all external inputs that are likely to affect what the consumers buy and how they use what is bought (Erasmus *et al.*, 2019:454). The communication sources indicate the mechanisms that deliver the marketing mix and sociocultural influences to the individuals (Schiffman & Wisenblit, 2015:340).

Internal factors that influence the individuals' purchase decision refer to the personal and interpersonal aspects that are processed in the individual's mind, and which influence the purchase behaviour (Acevedo, 2018:19; Cunningham, 2018). The psychological factors that are inherent to each individual are motivation, perception, learning, personality and attitudes (Schiffman *et al.*, 2012:14; Schiffman & Wisenblit,

2015:340), and these factors affect how the external inputs influence the individual's recognition of a need (Lamb *et al.*, 2018:95). As such, need recognition is the first step in the decision-making process.

The decision-making steps demonstrate how individuals make decisions while purchasing a product/service (Schiffman & Wisenblit, 2015:341; Solomon *et al.*, 2019). As stated, an individual's need recognition is triggered when a person is exposed to either internal or external stimuli (Lamb *et al.*, 2018:95). The above-mentioned internal and external factors act as a stimulus in triggering the need recognition. The pre-purchase search is where the individual searches for information that supports a specific purchase decision (Hoyer *et al.*, 2016:189). During the 'evaluation of alternatives' step, the individual evaluates the information gathered (McIntee, 2014:67). This relates to how individuals process the information obtained in the pre-purchase search to choose between the alternative brands (Kotler & Armstrong, 2018:177). The individual's purchase decision (to purchase or not to purchase) is the result, and therefore, the final step of the actual consumer decision-making process (Milner & Rosenstreich, 2013:115; Schiffman & Wisenblit, 2015:341; Solomon *et al.*, 2019).

A unique consumer purchase decision model for personal motor vehicle insurance can assist short-term insurance companies in South Africa in gaining an understanding of the purchase behaviour of their market (insureds and non-insureds). The literature review for the current study was used as a framework, together with other consumer decision-making models, to develop a detailed conceptual model, which explains the individuals' purchase decision process within the personal motor vehicle insurance market. However, as stated before, and discussed in the next section, no evidence could be found that such a model had previously been developed for the consumer purchase decision process in the personal motor vehicle insurance industry.

1.4 INSURANCE INDUSTRY RESEARCH AND CONTRIBUTION OF THIS RESEARCH

Research has been conducted on various topics in the non-life insurance industry, as discussed in this section.

The risk aspects of the non-life insurance sectors in the international insurance market have been extensively researched (Bae, Kim & Kulperger, 2009; Segovia-Gonzalez *et al.*, 2009; Onafalujo, Abass & Dansu, 2011; Diers, Eling & Marek, 2012; Kanno, 2016; Baione, Biancalana & De Angelis, 2020; Eling & Jung, 2020; Upreti, Adams & Jia, 2021).

Research has been conducted on consumer behaviour in the international insurance market (Kaže, 2010; Souiden & Jabeur, 2015; Salleh *et al.*, 2018).

An international study investigated the impact of financial factors on purchase decision-making within the insurance market, and this study revealed that the Romanian motor vehicle insurance market is the most price sensitive one (Naghi, 2015). An international study on how price presentation influences consumer choices with regard to life insurance products, found that neither price bundling nor price optics had a statistically significant effect on consumers' evaluation, or on the consumers' purchase intention of the product (Huber, Gatzert & Schmeiser, 2015).

As part of an international research study, the consumer buying behaviour and satisfaction regarding motor vehicle insurance policies within the Indian general insurance market were studied (Das & Rao, 2017). A more recent study conducted research on how advertising affects consumers' decision-making in the US auto/motor vehicle insurance market (Tsai & Honka, 2019). In addition, a study conducted by Weedige *et al.* (2019) aimed to investigate the direct and indirect effect of consumers' insurance literacy on the purchasing decisions related to life insurance.

Within the broader African insurance market, the health insurance sector has been extensively researched (De Allegri *et al.*, 2006; Lagomarsino *et al.*, 2012; Spaan *et al.*, 2012; Alatinga & Williams, 2016; Fenny, Yates & Thompson, 2018; Mathew & Mash, 2019; Nicol *et al.*, 2021). A study conducted on the entire insurance market in Nigeria revealed that the top three barriers to having insurance are a lack of understanding, affordability and ignorance regarding where to buy insurance (EFInA, 2012:52). Other research within the Nigerian insurance market focused on the impact of inflation on life insurance (Epetimehin & Fatoki, 2011) and the socio-economic indicators that affect life insurance businesses (Mojekwu & Ibekwe, 2015). A study in Ethiopia (Demissie, 2014), assessed customer satisfaction with motor vehicle insurance

services, while a study in Ghana (Agyei *et al.*, 2020), investigated the influence of trust on customer engagement in Ghana's insurance market.

Locally, research has been done on customer loyalty in the long-term South African insurance market. The influence of two-way communication and conflict handling on intentional customer loyalty via Customer Relationship Management (CRM) was investigated (Du Plessis & Roberts-Lombard, 2013). A study by Mackay, Mostert and Petzer (2015) that investigated the interrelationship between service quality, relational benefits, customer satisfaction and behavioural intentions in the South African short-term insurance market found that consumers' level of satisfaction has a positive effect on their behaviour intentions, including loyalty, word-of-mouth, and future loyalty.

Another South African study investigated the variables that influence unethical decision-making and behaviour in organisations in the life insurance sector of South Africa (Viviers, Van Greunen & Venter, 2012). The purchase influences within the South African motor vehicle insurance market were described (Mankum, 2019), and the antecedents of consumer behaviour within the South African life insurance market was explored (Kruger, 2018).

However, no evidence could be found of studies conducted solely on the purchase decision process, specifically, the purchase decision process within the international or South African personal motor vehicle insurance market. Furthermore, no existing consumer decision-making models in other insurance sectors could be applied in the South African personal motor vehicle insurance industry, as this industry is a unique field with different consumer risks than other type of insurance products. Therefore, this study aimed to determine the purchase decision process of insureds and non-insureds with regard to personal motor vehicle insurance.

Organisations should have a clear understanding of individuals in their market and their purchasing habits (Strydom, 2014:275; Erasmus *et al.*, 2019:132). Therefore, short-term insurers should understand the individuals in their market and their purchasing behaviour. Parumasur and Roberts-Lombard (2014:262) and Lamb *et al.* (2018:92) state that this understanding is vital for organisations to serve and influence their market. It thus seems that short-term insurance companies can benefit from having a clear understanding of their consumers and potential consumers, and their

purchase behaviour, as they can satisfy these individuals' needs and may be able to influence their consumers.

Consumers who decide to purchase products or services make decisions regarding the acquisition, consumption, and disposition of the various services offered by the different organisations (Mpinganjira *et al.*, 2013:246; Cunningham, 2018). This can thus also be applied to the personal motor vehicle insurance market, since the consumer who decides to buy personal motor vehicle insurance will make decisions regarding the acquisition, consumption and disposition of the various services offered by the different short-term insurance companies. Therefore, it will be beneficial for short-term insurance companies in South Africa to understand the purchase decision process of both the insureds and non-insureds. They also need to comprehend why some motorists do not buy personal motor vehicle insurance. Therefore, to meet this need, the current study developed a model to illustrate the consumer purchase decision process of insured and non-insured within the personal motor vehicle insurance industry of South Africa.

1.5 THE RESEARCH PROBLEM

Motor vehicle accidents occur every day on South African roads. According to Hogg, (2015), the estimated economic cost of road accidents in South Africa at the time was 309 billion rand per annum. During 2019, road accidents cost the South African government over 176 billion rand (Mlambo, 2020). Even though the costs have decreased over the years, this is still a very large sum of money that is being paid due accidents per year.

Crime statistics revealed that car/motor vehicle hijacking increased over the 2016-2017 year by 14.5% in comparison to the previous year. The total number of car/motor vehicle hijackings reported during this period was 16 717 compared to 14 602 for the previous period (Africa Check, 2017). Recent crime statistics indicated that during the 2019-2020 year, a total of 18 162 motor vehicles were hijacked, which was an increase from the 16 026 the year before (Africa Check, 2021). Furthermore, statistics have revealed that 53 809 motor vehicles were stolen in South Africa during 2016, taking the total number of vehicles stolen since 2004 to 831 540 vehicles (Crime Stats SA, 2015). The number of motor vehicle theft incidents in South Africa from April 2016 to March 2017 was 47 586 (Statistics South Africa, 2017a:9). During the 2019-2020 year,

46 921 motor vehicles/motorcycles were stolen, which shows a slight decrease (Africa Check, 2021).

A November 2013 hailstorm in Johannesburg resulted in claims of more than 2 billion rand. This event had a negative influence on insurance companies' earnings for that year (IOL, 2014). During 2017, claims for weather-related damage affected short-term insurance companies, as claim volumes increased in mostly Johannesburg (Gauteng) and KwaZulu-Natal, due to storm and flooding events that occurred in these two provinces (Knoesen, 2017).

The civil unrest that is on the rise in South Africa has an effect on consumers' motor vehicle insurance policies, but this does not directly impact the short-term insurers (Coetzee, 2021). Insurance companies are not obligated to pay out claims for damage or loss incurred during a strike, civil unrest or protest, as these types of claims are covered by an additional South African Special Risks Insurance Association (Sasria) cover. Sasria is a state-owned entity that offers cover for loss and damage to insured property (such as motor vehicles, houses and business property and inventory) due to civil unrest, including rioting, strike action, and public disorder (Saria SOC Ltd, n.d.). Sasria is the only insurer that provides cover for damage caused during these types of incidents, and it is usually added to the short-term insurance policy for motor vehicle insurance, however, it is still optional (Coetzee, 2021). Therefore, there is a cost increase for the consumer (taken that additional cover should be added to their policy), but at least the consumers will be covered in events like looting and striking.

The repair and replacements costs of motor vehicle accidents, hijacking and stolen motor vehicles remain exceptionally high due to the radically more expensive original equipment manufacturer parts which owners are obligated to use while the vehicles are under warranty (Santam, 2015; Stokes, 2021a). Due to the weakening in the rand during 2015, the import costs for vehicle parts are higher, and therefore the repair and replacement costs are higher for short-term insurance companies (Vazeer, 2016b). It will also be difficult to replace a motor vehicle with the short-term insurer's pay-out value, taking into consideration that new motor vehicle prices also hiked during the 2020 year, despite the stronger rand (Droppa, 2021).

The excessively high attrition rate (also known as churn rate) in the South African short-term insurance market means that short-term insurers have to consistently

compete on price by decreasing their premiums (Coutts *et al.*, 2019:11; Innovation Group, 2021). The churn rate is known as a metric for measuring customer retention. It applies to companies that offer services to their customers through an ongoing contractual relationship. More specifically, customer churn measures how many customers a company have lost over a certain time period (Kraus, 2016; Frankenfield, 2021).

Previous research points out that the policy price is the primary reason for switching to another motor vehicle insurance provider (Sanders & Tyson, 2014; Livingston, 2020). According to Bolhaar, Lindeboom and Van der Klaauw (2015:57) individuals' willingness to switch from one insurance company to another generates enough competition to withhold insurers from increasing premiums. Then again, the costs are increasing for short-term insurers and it can be challenging for them not to increase premiums.

According to eNaTIS (2021), the live vehicle population (registered vehicles) driving on South African roads for August 2021 was 12 882 765. The live vehicle population refers to the number of vehicles that are registered and vehicles that have a renewed vehicle license (Letshwiti, Stanway & Mokonyama, 2003:2). Only 30 to 35% of these vehicles (including motor cars, minibuses, buses, midibuses, motorcycles, quadrucycles, tricycles, light delivery vehicles (LDVs), trucks, and other self-propelled vehicles) on South African roads are insured (Buys, 2015; Peyper, 2021; South African Insurance Association, 2021). This indicates an extremely low level of vehicle insurance penetration, as only a small portion of the vehicle population on South Africa's roads is in fact insured.

This low market penetration level creates a general problem for insurers to recover costs from third parties responsible for accidents where clients are involved. The chances are high that these third parties do not have vehicle insurance or cannot afford to pay for the damage (Santam, 2015). The current financial distress of consumers during the COVID-19 pandemic can also impact the penetration rate when consumers decide to cancel their current motor vehicle insurance policies (Peyper, 2021).

Given the background above, there is a definite need for this research because of the dearth of research in the motor vehicle insurance industry, and the low percentage of consumers who possess motor vehicle insurance in South Africa. There is a dire need

for short-term insurance companies to better understand the factors that play a role in the individual purchase decisions of their insurance products to better persuade consumers to purchase their products.

Therefore, the current study aimed to answer the following main research question:

Which factors influence the individuals' purchase decisions in the South African personal motor vehicle insurance industry?

It is therefore imperative to conduct research to determine the purchase decision processes of both the motor vehicle insureds and the non-insureds to understand the behaviour behind motorists' reasoning for not purchasing personal motor vehicle insurance. The research objectives are presented in the next section.

1.6 OBJECTIVES OF THE STUDY

The purpose of this study was to determine the purchase decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance, by developing a unique model that will assign a probability to each of the possible choices based on the context of the decision.

The primary objective of this study was to develop a model which would illustrate the consumer purchasing decision process in the South African personal motor vehicle insurance industry. The purchasing behaviour of insureds and non-insureds would be determined by testing a conceptual model of the consumer purchase decision for personal motor vehicle insurance (CPDFPMVI). A tested purchase decision model specifically in terms of personal motor vehicle insurance can assist short-term insurance companies in understanding the purchase behaviour of their consumers (insureds) and potential consumers (non-insureds). In order to achieve the primary objective of this study, several secondary objectives were developed. The primary and secondary objectives of this study are listed below.

1.6.1 Primary research objective

To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry.

1.6.2 Secondary research objectives

The following secondary research objectives were formulated for the current study:

- To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.
- To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.
- To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.
- To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

1.7 RESEARCH DESIGN AND METHODOLOGY

The research design refers to the blueprint of how the research objectives will be fulfilled (Cooper & Schindler, 2014:82; Zikmund *et al.*, 2017:21). This section provides a discussion of how the primary research for the current study was conducted, and an explanation of how data was processed and analysed.

1.7.1 Primary research

Primary research is typically conducted to obtain specific data that will allow the study to achieve the set research objectives. The research paradigm for the current study is the *post-positivism view*, as the researcher identified and assessed the causes that influence outcomes by testing a conceptual model. This paradigm is mostly found

when quantitative research is conducted (Creswell, 2014:10; Collis & Hussey, 2021:40).

Furthermore, the research was *descriptive in nature*, as the research aimed to determine the characteristics and understanding of the purchasing decision process, which results in some individuals deciding to purchase and others not to purchase personal motor vehicle insurance (Babin *et al.*, 2015:127; Babbie, 2016:91; Saunders, Lewis & Thornhill, 2019:801). Therefore, the research design followed during the primary research step in the current study was *quantitative* in nature.

With a *quantitative design* the research questions/objectives are generally deductive and certain variables need to be investigated (Leavy, 2017:72). According to Cooper and Schindler (2014:146), quantitative research attempts the precise measurement of something, and in business research specifically, quantitative methodologies usually measure consumer behaviour, knowledge, opinions or attitudes. Quantitative methodologies have become the research approach commonly used for studying consumer behaviour (Hackett, 2019).

Thus, for the purpose of the current study, the insureds and non-insureds' purchase decision behaviour was assessed by means of a quantitative research approach. The rest of this section discusses the target population, sampling method, data collection and data processing and analysis of this research design.

1.7.2 Target population

The target population, also known as the units of analysis, refers to the 'what' or 'who' being studied (Babbie, 2016:97). According to Babin *et al.* (2015:170), the important question to be asked when considering the target population is: Who is the relevant population?

Therefore, for the current study, the target population were individuals who are vehicle owners and/or drivers (motorists) in South Africa. This was the target population, as this population consisted of the individuals that would have the choice whether to purchase or not to purchase personal motor vehicle insurance.

1.7.3 Means of accessing potential respondents

After identifying the target population, the researcher searched for an available sample frame by contacting the Road Traffic Management Corporation (RTMC). This

government entity is responsible for coordinating and facilitating motor vehicle registrations in South Africa. The RTMC, therefore, has a database of all the registered motor vehicle owners in South Africa. However, unfortunately, they could not provide the researcher with access to a complete database of current contact details and email addresses of registered motor vehicle owners. Therefore, the researcher had to find other means of obtaining the contact details of these potential respondents.

The Automobile Association (AA) of South Africa has a database with up-to-date email addresses of motorists in South Africa, and this database was a means of accessing potential respondents for this study. In addition, the Facebook Market Insight tool was used to distribute the survey to individuals who were likely to drive motor vehicles in South Africa. Thus, Facebook was also used as a means of accessing potential respondents for this study.

1.7.4 Sampling methods

Availability sampling, also recognised as convenience or haphazard sampling, is used when the researcher wants to study the characteristics of individuals passing the sampling point at a specific time, or if other sampling methods are not feasible (Babbie, 2021:192). One of the main reasons researchers consider convenience sampling is that this method is always feasible when resources are low and when there is no sampling frame available (Silvia, 2020:60). This type of sampling involves selecting haphazard individuals that are easily available to invite them to participate in a study.

Convenience sampling is a non-probability sampling method widely used when online questionnaires are distributed via email or social media platforms like Facebook (Saunders *et al.*, 2019:324). Convenience sampling was not the researcher's first choice for the current study, but it was deemed feasible as no sampling frame was available, and the target sample included motorists in South Africa. This study targeted individuals who drive motor vehicles and are personally responsible for purchasing personal motor vehicle insurance cover in South Africa.

Snowball sampling is another non-probability sampling method that can be utilised to identify potential respondents. This type of sampling technique is used when a researcher asks current respondents to identify one or more individuals who meet the specific criteria and who are willing to participate in the study (Johnson & Christensen, 2017). Snowball sampling was thus used as a complementary method for the current

study by posting the online survey on Facebook and convincing Facebook users to recruit their friends to complete the survey.

1.7.5 Sample size

The sample size refers to the number of respondents included in a study. It is important to point out that no set rule exists on the ideal size of a sample, as it is dependent on the design and nature of the study. Numerous aspects were considered when determining the sample size of the present quantitative study (see Section 5.8.3). A response rate of less than 1% was achieved (678 responses), which is low. Nonetheless, it is not uncommon to have a low response rate when using the web-based/online survey method, and previous research has indicated that online surveys have a lower response rate than paper-based questionnaires (Nulty, 2008:303; Ebert *et al.*, 2018).

The survey completeness of online surveys is higher than that for paper-based questionnaires (Ebert *et al.*, 2018). This was, in fact, a finding in this study as well, where both online and paper-based questionnaires were used. Respondents fully completed the online questionnaires, while there were many incomplete paper-based questionnaires that could not be used. Guinalíu and Díaz De Rada (2020) found that using mixed modes to collect data can increase the survey's response rate. By using an online questionnaire and paper-based questionnaires, the response rate can be improved. Therefore, the researcher decided to use the paper-based questionnaire method as well, due to the low response rate of the online survey. The data collection method used in the current study is discussed below.

1.7.6 Data collection

Data was collected by means of a survey, and, more specifically, an online survey using a self-administered questionnaire. According to Wagner, Kawulich and Garner (2012:100), survey research is typically used to obtain data from large groups of respondents. Online surveys specifically allow a researcher to send questionnaires to a large group of individuals via the Internet.

In the case of the current study, the online survey was distributed via email to the AA database and accessible on Facebook, and paper-based questionnaire were also distributed. The self-administered survey (data-collection instrument) was pre-tested

to determine the weaknesses in the design and instrument. A pilot test was conducted where the researcher distributed the questionnaire on Facebook for seven days. The weaknesses that became apparent were corrected, and after that, the primary data collection phase started. Ethical considerations were taken into account before the data was collected.

1.7.7 Ethical considerations

Ethics in business research involves the moral principles and values that influence how a researcher conducts his/her research activities (Ghauri, Grønhaug & Strange, 2020:23). Ethical principles and standards should be adhered to during each step in the research process (Babin *et al.*, 2015:41). The research process was directed by the ethical standards set by the University of South Africa. An ethical clearance certificate was obtained before the data collection process commenced (see Appendix B for the Ethical Clearance Certificate).

A participant information sheet was provided to each respondent, and this letter explained the purpose of the study and all the information that the respondents needed to be aware of before taking part in the study. Informed consent forms were provided to all the respondents as a matter of disclosing the procedures of the research design. Respondents signed the informed consent form on the online questionnaire by ticking an electronic checkbox (Saunders *et al.*, 2019:260). Furthermore, the researcher collected data without harming the respondents, and respondents' anonymity and confidentiality were maintained (Babbie, 2016:63-65; Zikmund *et al.*, 2017:165).

1.7.8 Data processing and analysis

The data processing and analysis of the questionnaires included the following: All the questions in the questionnaire were coded. Data were exported in an Excel spreadsheet format from the LimeSurvey program. After that, the data were edited to ensure any possible errors made during the exporting process were corrected. The statistical package IBM SPSS (Version 27) was used for the descriptive data analysis. Thereafter, the descriptive statistical analysis was performed to enable data cleaning, and the data were summarised by means of figures and tables.

The next step was to conduct the model fit analysis (inferential statistical analysis). The process underlying the model fit strategy consisted of three phases: the

Exploratory Factor Analysis (EFA) phase, Confirmatory Factor Analysis (CFA) phase, and the logistic regression phase. The following statistical packages were used for the different phases: EFA and logistic regression model-building strategy used IBM SPSS (Version 27), and Amos was employed in the CFA. Firstly, EFA was used to explore and estimate the factor structure of the conceptual model. Secondly, the EFA results were used to perform a CFA, which tested how well a pre-specified measurement theory composed of measured variables and factors fit the reality as captured data. Thirdly, the CFA model fit findings were used in the logistic regression to describe the relationship between an outcome variable and a set of independent variables. These outcomes concluded that the logistic regression model demonstrated sufficient external validity for complete acceptance of the result, as was found with the overall model fit analysis of the final CPDFPMVI model.

1.7.9 Research validity and reliability

The researcher ensured validity and reliability during the research process of this study. Validity refers to the extent to which a test measures exactly what the researcher wishes to measure (Bell, Bryman & Harley, 2019:174). Reliability comprises of the accuracy and precision of a measurement procedure. Thus, if the study should be replicated, the same findings would be obtained (Cooper & Schindler, 2014:257; Bryman, 2016:157).

Firstly, pilot tests were conducted to ensure the validity of the self-administered questionnaire (Dikko, 2016:521). There are different types of validity, namely, content validity, criterion validity and construct validity (Cooper & Schindler, 2014:257-259; Zikmund *et al.*, 2017:276-277). The *content validity* was ensured, as experts in the field validated the questionnaire (Bell *et al.*, 2019:174). Regarding *criterion validity*, the self-administered questionnaire was judged in terms of relevance, freedom from bias, reliability and availability (Cooper & Schindler, 2014:258; Bell *et al.*, 2019:174). *Construct validity* was tested through confirmatory and exploratory factor analysis (Zikmund *et al.*, 2017:277).

Furthermore, internal consistency was assessed to ensure reliability in this study. The Cronbach's alpha coefficient was used to ensure internal consistency, as this assessed the degree to which the instrument items, where applicable, are homogenous and whether it reflects the same underlying construct (Cooper &

Schindler, 2014:260; Zikmund *et al.*, 2017:274). However, reliability in terms of the model-building strategy is slightly more complex, and this is discussed in Chapter 7.

1.8 LAYOUT OF THE CHAPTERS

The layout of the chapters is illustrated in Figure 1.1, and a short description of the content in each one of these chapters is provided.

**CHAPTER 1
BACKGROUND AND PROBLEM STATEMENT**

**CHAPTER 2
SOUTH AFRICAN MOTOR INSURANCE INDUSTRY**

**CHAPTER 3
CONSUMER PURCHASE DECISION-MAKING PROCESS**

**CHAPTER 4:
A CONSUMER PURCHASE DECISION FOR PERSONAL MOTOR VEHICLE INSURANCE
CONCEPTUAL MODEL**

**CHAPTER 5
RESEARCH METHODOLOGY**

**CHAPTER 6
DISCRIPTIVE FINDINGS OF RESEARCH**

**CHAPTER 7
MODEL FIT ANALYSIS**

**CHAPTER 8
CONCLUSIONS AND RECOMMENDATIONS**

Figure 1.1: Layout of the thesis

Chapter 1: Background and problem statement

Chapter 1 introduced the fundamental components of this study, with all the required background information. A short literature review was given, as well as a motivation for this study. The research problem was presented, and this led to the research question. Thereafter, the research objectives were provided. An overview of the research design and methodology and the layout of the chapters were provided.

Chapter 2: South African motor vehicle insurance industry

Chapter 2 consists of a literature review of the South African insurance industry and all the components of the market. The motor vehicle insurance industry and the importance thereof in South Africa are included. The nature of the motor vehicle insurance product/service and the different products on offer are discussed. The distinct differences between direct short-term insurance companies and traditional short-term insurance companies are examined. Finally, the business environment of the short-term insurance companies is described.

Chapter 3: Consumer purchase decision-making process

Chapter 3 presents a literature review of the types of customers, the three roles of customers, and their mental and physical activities. Consumer satisfaction and consumer retention, and the nature of consumer behaviour are discussed. Levels of consumer decision-making and the four ways of consumer decision-making are included in this chapter. The different decision-making models are reviewed and discussed.

Chapter 4: A consumer purchase decision for personal motor vehicle insurance conceptual model

In Chapter 4, the CPDFPMVI conceptual model is presented and discussed. This conceptual model was used in the research methodology to develop a questionnaire to test the model.

Chapter 5: Research methodology

Chapter 5 presents a detailed explanation of the methodology used in the study. This chapter includes the research design that was followed while conducting the research study. More topics included in this chapter are the research population, sampling

methods used, sampling size, the data collection process and the methods utilised to process and analyse the data.

Chapter 6: Descriptive findings of research

Chapter 6 presents the descriptive data analysis in detail and the online survey results are provided. This chapter contains the descriptive analysis where data are described and interpreted.

Chapter 7: Model fit analysis

This chapter systematically explains the process followed to develop the final CPDFPMVI model. A unique model-building strategy was utilised to achieve the final CPDFPMVI model. The process underlying the model fit strategy consists of three phases, and these are discussed: the EFA phase, CFA phase, and the logistic regression phase. The decision behind each statistical method in this model-building strategy is explained in this chapter. Finally, the final CPDFPMVI model is presented.

Chapter 8: Conclusion and recommendations

Chapter 8 outlines the conclusions and recommendations of this study. This chapter presents a discussion of the research objectives, the research outcomes and also reports on the conclusions and recommendations in relation to the objectives of this study. Future research suggestions are made, and recommendations for short-term insurance companies are presented. The research limitations of the study are addressed and the final research conclusion is presented.

CHAPTER 2: SOUTH AFRICAN MOTOR VEHICLE INSURANCE INDUSTRY

2.1 INTRODUCTION

The global insurance industry has a rich and ancient history, and the countries in the global insurance industry have some important similarities, which include deregulation, the rise of competition, generally rapid growth in insurance sales, and the emergence of new distribution channels. Nonetheless, there are a number of important differences among insurance markets across the world, such as inflation rates and regulatory changes, in each country (Niranjan & Rohita Kumar, 2014; OECD, 2020:7).

The first South African insurance company, the Zuid Afrikaansche Brand en Lewensversekering Maatschappij, was established in 1835 in Cape Town. The main components in the South African insurance industry are long-term insurance and short-term insurance. The short-term insurance industry in South Africa is governed by the Financial Sector Conduct Authority (FSCA) and the Short-Term Insurance Act is used as the regulatory framework (Dinnie, Bracher & Patricks, 2013; Krige & Laskov, 2018).

This chapter presents a discussion of the associations that support the short-term insurance industry, and the different types of short-term insurance services available in the country are explained. This chapter also presents a summary of developments in the country's short-term insurance industry. Short-term insurance companies are organisations that operate in a rapidly changing business environment (Liakopoulos, 2016:2). Therefore, this chapter makes a distinction between direct short-term insurance companies and traditional short-term insurance companies.

South Africa is the only country in Africa that has an established, well-developed, mature and comprehensive short-term insurance market (Maharaj, 2016; Bagus *et al.*, 2020). Motor vehicle insurance is a type of short-term insurance, and this is the type of insurance that is sold the most in the short-term insurance market of South Africa (KPMG, 2016:97; Danckwerts *et al.*, 2020:44). The importance of motor vehicle

insurance in South Africa, the nature of this type of insurance and the different types of motor vehicle insurance are discussed in this chapter. The components of the business environment, namely, the micro, market and macro-environments within the short-term insurance industry, as well as the variables or factors that influence the short-term insurance companies are comprehensively explained. Practical examples of how these factors influenced the short-term insurance companies in the past and how future risks can be mitigated are provided.

2.2 GLOBAL INSURANCE HISTORY

Insurance has an ancient history. The first form of short-term insurance, called marine insurance was recorded by the Babylonian and Chinese traders, 3000 years BC (Thompson, 2021). Merchants limited their losses by dividing their items between different ships that travelled across treacherous bodies of land and water (Jenkins, 2015). Approximately 1750 BC, the Babylonians developed a system, where merchants sailing the Mediterranean received loans to fund their shipment. When a loan was received to fund a shipment, a payment of an additional sum was made to the lender in exchange for the lender's guarantee that the loan would be cancelled should the shipment be lost at sea (Thompson, 2021).

Around 750 BC the inhabitants of Rhodes (Greece) invented the "general average" concept. Merchants whose goods were shipped together, paid a premium into a fund that was proportionally divided. That fund was used to reimburse any merchant whose goods were intentionally sacrificed for the safety of the vessel and remaining property (Hinkelman, 2008:294).

Thereafter, the Greeks and Romans formed the first types of health and life insurance with their caring societies that originated around 600 BC. These societies offered care for families of deceased citizens as well as payment for funeral rituals. These societies existed in numerous areas in the world for centuries (Thompson, 2021).

In the Achaemenid Empire/First Persian Empire region, from 550 to 330 BC, the monarchs of Ancient Persia were the first to insure their subjects and they registered the insuring process in governmental notary offices (Harrington, 2011). During the 12th century (1101-1200), a type of state insurance was initiated in Anatolia (Turkey). This state insurance reimbursed traders from the state treasury for their losses (Thompson,

2021). During the mid-1300s, separate insurance contracts that were not tied to loans and other contracts were introduced in Genoa (Italy). In 1343, the earliest known marine insurance contract was drawn up in Genoa (Hinkelman, 2008:294). This was one of the first short-term insurance contracts.

The first printed work on insurance was written by Pedro de Santarém, and this book was published in 1552 (Zeiler, 2012). Up to the late 17th century, many areas still had friendly societies that gathered money to pay for medical expenses and funerals (Thompson, 2021). Some forms of insurance developed in London early in the 17th century. The will of the English colonist, Robert Hayman mentioned two "policies of insurance" taken out with the diocesan Chancellor of London, Arthur Duck. Worth £100 each, one was related to the safe arrival of Hayman's ship in Guyana, and the other was with regard to his life. The will of Hayman was signed and sealed on 17 November 1628, but not proved until 1633 (Rahman, 2011).

Modern short-term insurance can be traced back to the Great Fire of London that took place on 2 September 1666. This fire was the reason why the first insurance company emerged (Klein, 2001a). The fire was so severe that it destroyed 373 acres of the city (only a fifth of the city was not destroyed), which contained over 13 200 houses, 84 churches and 44 company buildings (Robinson, 2011). In 1667, Dr Nicholas Barbon formed the first actual insurance company that was known as the "The Insurance Office". The houses and buildings that were insured by The Insurance Office were protected by fire-fighting teams that were formed to put out fires in the houses and buildings that were insured (Klein, 2001b).

At the end of the 17th century, London's importance in the world of trade expanded, and this also amplified the need for cargo/marine insurance (Zeiler, 2012). In 1688, Lloyd's of London was founded at Edward Lloyd's coffee house near the Royal Exchange at the London docks on the River Thames. Lloyd's became the popular meeting place for insurance companies, merchants, ship owners, ship captains and other individuals who wanted to insure cargoes, ships and those who were willing to underwrite maritime ventures (Hinkelman, 2008:294). In support of these ventures, in 1693 astronomer Edmond Halley published a paper that provided a link between life insurance premiums and average life spans (Krieger, 2011:63).

The first insurance company in the US was based in Charles Town, South Carolina. It opened in 1732 to underwrite fire insurance (Zeiler, 2012). In the 1750s Benjamin Franklin started a company that collected contributions to stop disastrous fires from destroying buildings (Thompson, 2021). In 1752, Franklin established his company, Philadelphia Contributionship, for the Insurance of Houses from Loss by Fire. This company warned against fire hazards, and they did not insure wooden houses as this was seen as a big risk (Rahman, 2011). In 1787, the first fire insurance company called Mutual Insurance Company was founded in New York. This company was renamed in 1846 as the Knickerbocker Fire (Geisst, 2006:214).

Slave insurance was one of the original forms of industrial/business risk management. The male and female slaves became such valuable assets to planters/farmers that owners took out life insurance policies for these slaves. During the 1840s, the number of slaves insured in the South of America was the same as the whites with life insurance in the North (Ralph & Rankin, 2021).

Throughout the 1880s in Germany, Chancellor Otto von Bismarck introduced old age pensions, accident insurance, medical care and unemployment insurance. This formed the basis of the modern European Welfare State (Langley, 2014). In 1897, the Workers Compensation Act in Britain required employers to insure their employees against industrial/work-related accidents (Williamson, 1990:95). Furthermore, in 1905, the Liberal Party and Sir Henry Campbell-Bannerman, leader of the party at that time, introduced social insurance in Britain (Wooster, 2014). In 1944, social insurance became the foundation of the modern British Welfare State (Field, 2011).

The domestic insurance industry in China was nationalised during 1949 under the People's Insurance Company of China (Fortis, 2001:2). Medical cover as we know it today was introduced in the US during the 1950s (Health24, 2011). In 1992, the third non-life directive and third life directive were passed in the European Union, which created a single market for insurance services in Europe. With the establishment of this so-called single passport, insurance companies were allowed to offer insurance anywhere in the European Union if the required permission was granted from the regulating authority (European Commission, 1990; Campbell, Goldberg & Rai, 2003:126).

This short history of the global insurance industry shows the progress and developments within the industry that started as long ago as 3000 years BC. The next section provides a brief history of the South African insurance industry.

2.3 HISTORY OF THE SOUTH AFRICAN INSURANCE INDUSTRY

The South African insurance industry emerged in 1806 when a number of British insurance companies opened businesses in the Cape Colony (today known as Cape Town), where representatives were temporarily dispatched to Cape Town to offer insurance services to the local residents (Borscheid & Haueter, 2012:326).

On 6 August 1806, the first two insurance agents in South Africa, Alexander Macdonald and John Houghton, were given power of attorney by the Phoenix Assurance Company of London. They sold fire insurance, which during that time, was the most widely held insurance contract in the Colony (Pearson & Yoneyama, 2015:149). Marine insurance also played an important role as there were 170 ships occupying the Cape port annually and there were risks involved. The integration of Phoenix Assurance Company of London was confirmed as they translated the application forms for their insurance policies into Dutch, which showed that they tried to satisfy the needs of their community.

In 1826, the United Empire and Continental Life Assurance Association, and the Alliance British and Foreign Fire and Life Insurance Company established two branch offices in South Africa (Oxford Business Group, 2021). The Royal Insurance Company was the first British insurance organisation to dispatch a full-time British Home Office representative to the Cape Colony in 1845 (Borscheid & Haueter, 2012:326). These early insurance companies primarily offered fire, marine, life, and to a limited extent, accident insurance (Pearson & Yoneyama, 2015:149).

On 14 March 1831, the South African Fire and Life Assurance Company opened its doors (Vivian & Todd, 2011; Oxford Business Group, 2021). In December 1835, the first South African insurance company was established in the Cape Colony and it was called the Zuid Afrikaansche Brand en Lewensversekering Maatschappij. A decade later (1845), the Mutual Life Assurance Society of the Cape of Good Hope was founded, and it modelled its business structure on the Scottish Equitable Mutual Life Assurance Society, which was later called Old Mutual.

General growth in the sector continued until 1861, as there were more than 20 insurance companies operating in the Cape (Borscheid & Haueter, 2012:326). In 1894 the Cape Town Fire Tariff Committee was formed, and similarly, the Johannesburg Fire Tariff Committee in 1898. Different insurance tariffs were quoted and the purpose of these committees was to administer the insurance companies across set standards (Borscheid & Haueter, 2012:327-328). The South African insurance industry further developed as the international/global insurance industry expanded (Oxford Business Group, 2021).

The fire insurance stock companies (later called the Council of Fire Insurance Companies that was established in 1907) managed to form associations in Cape Town, Durban, Port Elizabeth and Bloemfontein. Until 1930, the English companies dominated the fire insurance market, as they benefited largely from their British experience in offering residential, industrial and mining fire insurance (Pearson & Yoneyama, 2015:150). By the end of the 19th century, the Cape Colony had more than 50 foreign insurance companies providing coverage to the surrounding communities (Oxford Business Group, 2021).

Marine insurance's introduction in South Africa was a British initiative. Equitable Marine, established in 1843, was the first local marine insurance company. Thereafter, in 1874, the second marine insurance company, Colonial Assurance Company, opened its doors. By 1898, there were eight marine insurance companies, however, the life and fire insurance markets had a bigger economic influence on the insurance industry (Borscheid & Haueter, 2012:328).

At the turn of the 19th century, the three local life insurance companies, the South African Mutual Life Assurance Company, the Southern Life Association (established 1891) and the Industrial Life Assurance Company of South Africa (established 1894) dominated the South African life insurance industry. The African Life Assurance Society (known as the first Transvaal office) was the only insurance company founded outside the Cape, and this company was founded in Johannesburg, in 1904. African Life had branches in the Union of South Africa, Khartoum, Aswan, Syria, Cairo and Alexandria (Borscheid & Haueter, 2012:328).

Soon after the introduction of automobiles/motor vehicles in South Africa, accident insurance gradually developed. By 1917, accident insurance had a relatively low

market penetration, as life and fire insurance were still more dominant. The total accident insurance premium income during that year was £79 833, in relation to the £2 million for the life insurance, and the £700 000 for fire insurance (Borscheid & Haueter, 2012:328).

Motor vehicle accident insurance was introduced in the early 1930s and the Motor Vehicle Insurance Act of 1942 came into effect in 1946. This act stipulated that third-party motor vehicle insurance for all drivers and owners are compulsory. The 1976 Soweto youth uprising emphasised the risks associated with riots, as insurance companies were unwilling to cover the damages caused by political riots. To this end, Sasria (South African Special Risk Insurance Association) was formed in 1979, as the South African Government agreed to be the reinsurer, and this enabled Sasria to provide riot cover (Still & Stokes, 2016:48-49).

In the mid-1980s, health insurance was introduced in South Africa, and by 1989 there were almost 50 000 policies in place. This industry developed rapidly, and in 1991 there were at least 13 South African insurance companies that offered medical insurance (Health24, 2011). The dread and disease insurance, also known as critical illness insurance, was conceptualised by South African heart surgeon, Dr Marius Barnard in the early 1980s, as he had seen at first-hand the financial stresses patients experienced living with heart disease and other serious illnesses (Reynolds & Faye, 2015:1).

In 1990, the FSB (Financial Services Board) was established with the enactment of the Financial Services Board Act (International Monetary Fund, 2010:5). The FSB is an independent institution that supervises and oversees the South African non-banking financial services industry. This institution is fully funded by fees and levies gained from the industry (Financial Services Board, 2017:4).

After the year 2000, there was an increase in the use of the Internet and there were significant regulatory changes to the insurance industry (Still & Stokes, 2016:49). The global insurance crises of 2008 to 2009 had an effect on both long-term and short-term insurance companies in South Africa. Insurance companies faced challenges, which included, lower investment yield, higher expenses and increases in failed policies, as consumers struggled to cope with the increased food prices and the unemployment rate (Jeffreys, 2012:88).

In 2010 the industry began to recover and the claims profile of insurance companies started to appear normal again. The net premiums of short-term insurance companies increased from 3.78 billion dollars in 2010 to 4.27 billion dollars in 2011. The long-term insurance industry showed a higher rate of growth in net premiums from 53.2 million dollars in 2010 to 117.9 million dollars in 2011 (Jeffreys, 2012:89).

Until 2016, short-term insurance companies had to operate in difficult circumstances, where dissatisfying economic growth, sideways trending markets, high unemployment and downward trending commodity prices had an effect on insurance companies' way of doing business. Insurance companies in South Africa had to adapt to the 'disruptors' by making use of new technology in order to gain market share (Still & Stokes, 2016:49). From 1 April 2018, the FSB was replaced by the FSCA, which acted as the new sheriff for the South African financial services sector (Krige & Laskov, 2018).

As indicated above, the history of insurance in South Africa was mainly derived from the British colony, as the first insurance agents in South Africa were British. The South African insurance industry consists of two components, which are discussed in the next section.

2.4 COMPONENTS OF THE SOUTH AFRICAN INSURANCE INDUSTRY

The insurance industry of South Africa is composed of different insurance businesses in the long-term and short-term sectors (PwC, 2015).

The long-term insurance sector in South Africa is regulated by the Long-Term Insurance Act and is governed by the FSCA (Britton & Van der Vyver, 2021). The long-term insurance companies' International Financial Reporting Standards (IFRS) in terms of earnings and key ratios showed substantial improvements during 2015 (Johnson *et al.*, 2016:4). In 2019, the high number of complaints that were recorded regarding the high premium rates, low claim ratios and high expense ratios, indicated a potential disruption in the long-term insurance industry (Danckwerts *et al.*, 2020:63). This was the presumption before the COVID-19 pandemic began.

Long and short-term insurance are discussed in detail below.

2.4.1 Long-term insurance

According to the FSB, long-term insurance covers various events, such as death, retirement and disability (Financial Services Board n.d.:1). Long-term insurance services include life insurance, funeral insurance, dread and disease/critical illness insurance, disability insurance, retirement annuities and health insurance (Financial Services Board, n.d.:1; Duwalcoe Financial Consultants, 2021).

The different kinds of life cover available in South Africa are life insurance, term/fixed insurance, and endowment policies (Financial Services Board, n.d.), as discussed below:

- *Life insurance* is also known as life assurance. This is a way for the consumer to protect his/her loved ones/dependents financially if the individual should die during the duration of the policy. Life insurance cannot be seen as an investment or savings service, as the individual identifies a total amount, and premiums are paid monthly or annually accordingly (Legal & General, 2021).
- *Term/fixed insurance* is the same as life cover but for a set period of time. This service works well if an individual has such a policy in place until the bond of his/her house is paid off (Financial Services Board, n.d.).
- An *endowment policy* is practically a life insurance, as it still allows cover for the life insured, although if this policy matures and the consumer is still alive, the total amount insured will be paid out to the consumer (Sinha, 2019; Haldane, 2020).
- Funerals can be costly, nevertheless by purchasing *funeral insurance* the policy will pay out a cash amount to cover the expenses of the consumer's funeral. There are two types of funeral insurance. The first type is the stand-alone policy that is sold by life insurance companies, their intermediaries and funeral businesses. The other type of funeral insurance can be included in a life insurance policy (Kearney, 2016; Ardé, 2018).
- *Dread and disease insurance*, also referred to as critical illness insurance, is a more expensive cover than disability insurance. However, a dread and disease policy will pay out a lump sum on the diagnosis of a severe illness (Lamprecht, 2016).

- *Disability insurance* is a type of insurance that protects an individual from loss of income in the event that he/she will not be able to work anymore due to illness, injury or accident. This insurance policy will allow individuals to receive a percentage of their income even though they cannot work anymore (Heathfield, 2020). There are two types of disability cover provided in South Africa, namely, capital disability cover and income protector disability cover.
 - *Capital disability cover* is when the capital/lump sum for disability cover is included in a life insurance policy.
 - The *income protector disability cover* is an effective risk cover option and one form of this cover provides a monthly income with annual increases. Should the consumer be permanently or temporarily disabled, it can replace the consumer's full salary until he/she recovers or dies, or if the policy matures, whichever comes first (Financial Services Board, n.d.).
- A *retirement annuity* is a term used for the accumulation of retirement funds. The individual saves into a retirement annuity while working (Fisher-French, 2010; Kagan, 2021a). Individuals pay a specific amount of money to a financial institution and the company then invests this money. After the individual retires, the company pays out a regular income (Epperson, 2014). There are three types of retirement annuities, namely, conventional or fixed-interest annuities, the living annuity and composite annuities.
 - A *conventional or fixed-interest annuity* can be explained as the annuity where an individual pays in a sum of money and when the policy matures, the consumer will be paid out a fixed income every month, for the rest of his/her life.
 - A *living annuity* is when the consumer carries the mortality risk and not the insurance company. In other words, the income of the consumer depends on the growth of the investment.
 - Lastly, a *composite annuity* is a combination of conventional and living annuities. This type of annuity provides the individual with a flexible income from the living annuity part and a guaranteed income from the conventional annuity part (Financial Services Board, n.d.).

- *Health insurance* differs from medical aids as health insurance is regulated by the Long-Term Insurance Act, while medical aids are regulated by the Medical Schemes Act. The health insurance service is designed to ensure that individuals receive a fixed amount/lump sum when they need funds for medical purposes. The amount received will not differ, irrespective of the type of treatment required or which healthcare providers the individual chooses to use (Independent Financial Consultants, 2021).

2.4.2 Short-term insurance

The short-term insurance sector in South Africa is regulated by the Short-Term Insurance Act, and is governed by the FSCA (Dinnie *et al.*, 2013; Krige & Laskov, 2018). The associations and professional standard bodies that serve the short-term insurance industry of South Africa, include: the Financial Intermediaries Association of Southern Africa (FIA), The Financial Planning Institute of South Africa (FPI), the Insurance Sector Education and Training Authority (INSETA), The Insurance Institute of South Africa (IISA), The Institute of Loss Adjusters of Southern Africa (ILASA), The Institute of Risk Management South Africa (IRMSA), The South Africa Insurance Association (SAIA), The South African Insurance Crime Bureau (SAICB), and the South African Underwriting Managers Association (SAUMA). Short-term insurance companies' membership of these associations and professional standard bodies is voluntary and they operate on a non-profit basis. These representative bodies also commonly have an executive team funded by membership fees, fundraising, conference fees and sponsorships (Still & Stokes, 2016:331-339).

This industry comprises the following lines of business: personal, commercial and corporate business lines (Still & Stokes, 2016:166). These business lines are characterised according to who the short-term insurance policyholder is. Firstly, the personal business line involves a short-term insurance policyholder who is a natural person (Government Gazette, 1998:12). In other words, the personal business line includes all short-term insurance services that are sold to individuals. Secondly, in Section 1 of the Short-term Insurance Act (Act No. 53 of 1998) the commercial business line is defined as "...short-term insurance business in respect of which the policyholder is a legal person." A legal person is a term used for a business that has legal rights and responsibilities according to the law (Cambridge Dictionary, 2021).

Commercial insurance is thus when a business takes out insurance and the policyholder is the business. However, Still & Stokes (2016:166) are of the opinion that most insurance companies view commercial insurance as insurance that is offered to small, medium and large businesses from any business sector. Thus, any business that purchases cover from a short-term insurance company will take out commercial insurance. Lastly, the corporate line is where large businesses are the policyholders and these businesses are insured to cover them against certain operational and liability risks (Still & Stokes, 2016:166).

The personal business line is the largest sector within the short-term insurance industry. In 2014, 48.2% (R 49 944 billion) of all short-term insurance premiums resorted under the personal business line (Financial Services Board, 2014:3). Buthelezi (2020) reports that the personal business line grew in line with inflation during 2019. As the personal business line within the short-term insurance industry is the largest, this study will focus only on the personal business line. The developments within the South African short-term insurance industry are pointed out next.

2.4.2.1 Development of the short-term insurance industry in South Africa

According to Laing (1988:33), the South African short-term insurance industry emerged in the years from 1950 to 1958. The two distinct areas that should be considered are the direct insurance market and the appearance of a professional reinsurance market. During the early 1950s and mid-1970s, the direct insurance industry experienced a radical transformation as the scale of operations in this market increased. The change occurred in the nature of how direct insurance companies operated. Both of these developments within the direct insurance market influenced the emergence of the reinsurance market.

On the one hand, direct insurance companies involve insurance companies that offer/sell insurance services directly to their consumers. These companies do not make use of traditional intermediaries, such as brokers or agents, to sell their insurance services to consumers (Shinn, 2021). Reinsurance companies, on the other hand, take all or a portion of the risks covered under a policy that was issued by an insurance company, and the insurance company pays the reinsurance company a premium. Therefore, reinsurance can be seen as a form of an insurance for insurance companies (The Economic Times, 2021).

South Africa is the only country in Africa that has an established, well-developed, mature and comprehensive short-term insurance market (Maharaj, 2016; Bagus *et al.*, 2020). The high level of consumer confidence in local insurance providers and the high market competition are two reasons why the South African short-term insurance sector has such a high penetration rate (Insight Survey, 2016). Furthermore, the South African short-term insurance industry can contribute significantly towards the economic transformation of this country, as this industry provides business opportunities within different industries. The building, motor vehicle, plumbing, and panel beating industries are examples of industries impacted by the short-term insurance industry (Pearson, 2016b).

The global insurance crises of 2008 to 2009 had a ruinous effect on the short-term insurance companies in South Africa due to lower investment yield, higher expenses and increases in failed policies. Short-term insurance companies had to face many challenges, including the increase in food prices and the high unemployment rate (Jeffreys, 2012:88).

In 2010, the industry began to recover as normal claim profiles of insurance companies resurfaced. The net premiums of short-term insurance companies increased from 3.78 billion dollars in 2010 to 4.27 billion dollars in 2011 (Jeffreys, 2012:89). According to Faurie (2014), the insurance industry changed rapidly due to rapid changes in technology and regulation. Consequently, insurance companies had to be flexible and had to modify their business models to continue being profitable. The short-term insurance companies who implemented new technology, such as telematics and alternative distribution channels, quickly adapted to the change. These short-term insurance companies were referred to as the 'disruptors' in the short-term insurance industry.

Until 2016, short-term insurance companies had to operate in difficult circumstances where unsatisfactory economic growth, sideways trending markets, high unemployment and downward trending commodity prices had an effect on insurance companies' way of doing business (Still & Stokes, 2016:49). Short-term insurance companies continue to adapt to the 'disruptors' by upgrading the use of technology in order to gain market share (Still & Stokes, 2016:49; Van Wyk, 2016). Before the COVID-19 pandemic hit the country in 2020, the short-term insurance industry was on

a strong growth path. However, the COVID-19 pandemic negatively impacted the short-term insurance industry (Geldenhuys, 2020b).

As previously stated, the direct insurance companies are the 'disruptors' within the short-term insurance industry (Chapman, 2016:10). The differences between direct short-term insurance companies and traditional short-term insurance companies are explained below.

2.4.2.2 Differences between direct short-term insurance companies and traditional short-term insurance companies

Over the past few years, drastic changes have taken place in the short-term insurance industry (Moodley, 2019:2). The changes include the changing weather conditions, the escalation in the use of social media, and other technological advances. Short-term insurance companies and traditional intermediaries, such as brokers, have to keep up with this continually evolving environment to ensure that the consumers' needs are fulfilled adequately (Roberts, 2016a; Wassink, 2021).

Insurance companies' business models focus on selling insurance services directly to the consumers or through traditional intermediaries (Trussell & Reader, 2015:2; Kaesler *et al.*, 2020). These two components are the distinguishing factors between direct short-term insurance companies and traditional short-term insurance companies.

The current study included only direct short-term insurance companies, as these type of short-term insurance companies have more information about their consumers because they control the access to the consumers (Schaerer, Wanner & Grinyer, 2011:4; Ernest-Jones, 2019). The differences between these two types of companies are discussed below.

Direct short-term insurance companies

Direct short-term insurance companies can be explained as insurance companies that do not use brokers or agents to sell services, and services are sold directly to the consumers (Shinn, 2021). Technological advances, such as applications, telematics and other online platforms can be used as intermediaries to sell the insurance services directly to the consumers (Van Wyk, 2016; Moodley, Forbes & Olivier, 2020).

More and more consumers within the short-term insurance market are becoming comfortable with technology and they tend to be active on social media forums. In addition, young individuals in the market are more likely to make use of these direct channels (INSETA, 2014:22-25). There is also an increase in the number of new entrants in the short-term insurance market with new services in terms of motor vehicle insurance (PwC, 2014:30; Moodley, 2019:9). The more technology develops, the more short-term insurance companies will be forced to shift to the direct type of insurance offerings. Direct insurance companies have more or less the same costs as the traditional insurance companies, because instead of paying commission to brokers, direct insurance companies have marketing costs, as well as costs for ongoing services, such as a call centre and website improvements (Fisher-French, 2016).

Traditional short-term insurance companies

A traditional short-term insurance company sells policies via the traditional distribution channels, such as brokers and agents (Insurance Europe, 2014:39; Deloitte, 2020:14). These traditional insurance companies make use of a large broker network to sell the insurance policies for them (Hesse, 2015a). The brokers or agents have direct control over the consumer access, therefore, traditional short-term insurance companies struggle to obtain all the personal information about their consumers from the traditional intermediaries (Schaerer *et al.*, 2011; Ernest-Jones, 2019).

There are still a lot of consumers who wish to build a relationship with a broker who understands their needs, with whom they have regular meetings and from whom they receive sound advice (Roberts, 2016a; KPMG, 2017:40). For example, the non-life insurance consumers in Germany prefer to get insurance advice from agents (Suter *et al.*, 2017:45).

There are still a large number of consumers who underestimate the benefits of using an insurance broker (Roberts, 2016a). Some of these benefits include the detailed advice and guidance brokers offer to consumers, the brokers' understanding of the industry, as well as the risk factors pointed out by the brokers that may affect the consumer's insurance requirements in the future (Naik, 2020). As indicated above, the costs associated with these two business models are approximately the same.

A movement that is becoming more perceptible within the short-term insurance industry of South Africa, is that the traditional short-term insurance companies are

starting to explore the technological advances and are starting to implement some of the direct channels (Van Eeden, 2017). The traditional short-term insurance companies that have included some of the new technological direct channels can therefore not be classified as direct insurance companies, as these companies receive the highest sales from the traditional distribution channels. Direct short-term insurance companies have detailed information about their consumers as they sell services directly and all the information about the consumers is on their systems (Schaerer *et al.*, 2011; Ernest-Jones, 2019). This is an immense advantage that a direct short-term insurance company has over a traditional short-term insurance company.

It is important to distinguish between the types of short-term insurance companies that offer personal motor vehicle insurance. Previous research points out that non-life insurance consumers in Luxembourg, Spain, Italy and France mostly purchase non-life insurance products through brokers/agents (Suter *et al.*, 2017:153).

In terms of Africa, a study conducted on Nigerian motor vehicle drivers revealed that consumers equally prefer methods to purchase directly from the insurance company and to purchase from brokers (Sodiq, 2020:89). Furthermore, a study conducted within the Ethiopian motor insurance industry revealed that the use of brokers to sell motor vehicle insurance is the primary sales method (Regassa, 2018:48). No information could be found regarding used sales/purchasing methods within the South African motor vehicle insurance industry. The different types of personal short-term insurance offerings in the South African short-term insurance industry are discussed below.

2.4.2.3 Types of short-term insurance

The various types of personal short-term insurance available in South Africa include motor vehicle insurance, household contents insurance, homeowners insurance, personal liability insurance, personal all risk insurance, personal accident insurance and travel insurance (Financial Services Board, n.d.:2; Still & Stokes, 2016:184-192).

Motor vehicle insurance can cover a consumer's motor vehicle against damage, theft and fire (Financial Services Board, n.d.:2), depending on the type of motor vehicle insurance purchased. There are three types of motor vehicle insurance: comprehensive motor vehicle insurance, third-party, fire and theft insurance, and third-party only insurance (Doyle, 2021; iWYZE, 2021a). This study will focus on motor

vehicle insurance and later in this chapter (Sections 2.6.2 and 2.6.3), this type of insurance will be explained in detail.

There is a difference between household contents insurance and homeowners insurance. *Household contents insurance* covers all the content/possessions in the consumer's home against theft, loss, damage and other risks, such as fire or flooding. Examples of house contents that can be insured are furniture and appliances. Fixed items like carpets and taps are not covered by home contents insurance (Gray-Parker, 2015; Isaac, 2017). In contrast, *homeowners insurance* is also known as building insurance and it protects the consumer's home against damage to the building, roof and fittings of the home. Cover is normally provided for the building and outbuildings, fixtures and fittings, water damages, geysers, sewerage, gas, electricity and telephone connections, walls, gates, fences and garages or carports. In general, cover is provided for damage or loss caused by events, such as fire, lightning, explosion, malicious damage, storm, wind, hail, snow or flood, earthquake and earth tremors, bursting, leaking or overflowing and impact (South African Insurance Association, n.d.). This type of policy is usually mandatory if the homeowner has a home loan (Gray-Parker, 2015; Isaac, 2017).

Personal liability insurance can be explained as the type of insurance that provides cover when another party is taking legal action against the consumer, in his/her personal capacity for financial loss or physical injury or death (Kagan, 2021b). In other words, personal liability insurance covers any form of liability to the policyholder. This type of insurance is normally included in the household contents insurance policy or homeowners' insurance policy. A settlement regarding this type of insurance will include compensation for medical costs (present and future), restoring or replacing damaged property, pain and suffering of the injured party, loss of income and legal costs, as well as expenses (Hesse, 2014; Moon, 2021).

Personal all risk insurance covers all the personal items that policyholders own; nonetheless, the location and utilisation of personal items are important aspects of this type of insurance (Araujo & Cheng, 2020). This type of insurance is normally included in a household contents policy. While the household contents policy only covers items that are stored and kept in the house, the all risk section will specify specific items that will be covered when they are moved or transported outside of the house. Examples

of personal items that are insured under the personal all risk section are mobile phones, bicycles, golf clubs, and so forth (Still & Stokes, 2016:192).

Personal accident insurance is another type of personal short-term insurance that can be a standalone policy, or this cover can be included in personal business line policies and travel policies. This insurance provides cover for accidental death or permanent disability caused by bodily injury within a specific time of the accident. Cover can be provided for the consumer and for the consumer's family (Still & Stokes, 2016:195).

Travel insurance typically covers medical expenses and costs associated with lost luggage when travelling to countries other than South Africa (Financial Services Board, n.d.; Squaremouth, 2021). According to Hesse (2016), travel insurance policies differ, but the three main categories of risk which most travellers expect to be adequately covered for are medical treatment and associated costs, loss or theft of baggage and personal effects, and travel cancellation costs.

As previously mentioned, motor vehicle insurance has the highest penetration rate in the South African short-term insurance industry. The focus of the current study is on the personal motor vehicle insurance sector, specifically. Therefore, the history and development of the global motor vehicle insurance industry is discussed next, before a discussion of the South African motor vehicle insurance industry will be presented.

2.5 HISTORY AND DEVELOPMENT OF THE GLOBAL MOTOR VEHICLE INSURANCE INDUSTRY

The world's first modern automobile/vehicle was designed and built in Germany by Karl Benz in 1885 (Bellis, 2018) and on 3 July 1886, he drove this first automobile in Mannheim, Germany (Deffree, 2019). The first gasoline-powered vehicle crash in the world was recorded in Ohio, America in 1891. This accident was minor and the driver of the vehicle, James W. Lambert, endured minor injuries (Mastinu & Ploechl, 2014:1584). Five years later, on 17 August 1896, a more serious accident occurred near London's Crystal Palace in the United Kingdom (UK), when Bridget Driscoll was knocked down and killed in a vehicle accident (McFarlane, 2010; Brown, 2017).

As vehicles became more popular in the different countries, vehicle accidents increased globally. The US legal system decided to place the financial burden of an accident on the individual at fault. This is how motor vehicle insurance was introduced.

The first motor vehicle insurance policy was sold by Travelers Insurance Company to Gilbert L. Loomis in 1897. This motor vehicle insurance policy was written in the same way as a horse and carriage policy. This policy covered Gilbert L. Loomis' risks involved in killing or injuring someone in an accident and damages of the other party's property (Ilumba, 2015; Smith, 2021).

In 1907, the first motor vehicle insurance company was established in Providence, US, by A.T. Vigneron. This small insurance company was called Automobile Mutual Insurance Company of America, and it offered automotive, fire and theft insurance (Amica, 2021). In 1922, George J. Mecherle founded State Farm Mutual Automobile Insurance Company and this company offered auto insurance for farmers in the state of Illinois, US (Simms, 2004; Encyclopedia.com, 2018). Until this point, motor vehicle insurance was not mandatory in any country.

Massachusetts in the US was the first state that passed a law to make motor vehicle insurance mandatory in 1927. Afterwards, New York and North Carolina also mandated laws, and during the 1950s-1970s many states followed suit (Kane, 2015; Healey, 2021). In the mid-1990s the internet exploded, and in 1995, Progressive, the first motor vehicle insurance group, launched the website, auto-insurance.com, and two years later the name changed to progressive.com (Progressive, 2021). From the year 2000, the technology changed rapidly and insurance companies all over the world that offered motor vehicle insurance had to adapt to the changes to provide a variety of innovative services to gain market share (Hillebrand, 2014).

In 2010, Google announced that they were developing and testing a system for a self-driving motor vehicle in the hope of reducing the number of motor vehicle accidents that occur each year by half. The system can detect people and several potential hazards from a distance. By 2015, Google motors showed that they had travelled more than one million miles without causing an accident, but these motor vehicles had been involved in 13 collisions that were not caused by these Google motor vehicles. The first accident caused by one of the motor vehicles Google was testing occurred in 2016. At that time it was predicted that the self-driving motor vehicle will be launched commercially in 2020 (Nguyen, 2019). However, experts believe that the full adoption of these autonomous motor vehicles will not happen before 2030 (Gibbs, 2016).

Even though this new self-driving motor vehicle will only affect the motor vehicle insurance industry in the future, insurers need to include it in their service offering and redefine the insurance needed for such motor vehicles (Ferenzy *et al.*, 2016:16). A company called Adrian Flux in the UK introduced the first personal driverless motor vehicle insurance policy in 2016. This policy was specially designed for consumers who drive motor vehicles that have driverless features, such as self-parking, or for consumers who are thinking of buying a motor vehicle with autopilot features (Kollewe, 2016). Telematics and new digital platforms are also examples of technological improvements that impacted the global motor vehicle insurance industry during 2016. During that year, digital disruptors within the industry took a narrow focus by offering on-demand services with a personal touch and rapidly innovating services, such as telematics and applications, to meet the consumers' specific need (Ferenzy *et al.*, 2016:3).

The developments within the global motor vehicle insurance industry have an influence on the South African motor vehicle insurance industry. The early days of the South African motor vehicle insurance industry, the legislation and importance of this industry are discussed in the next section. The motor vehicle insurance services and the various motor vehicle insurance services available in the South African personal motor vehicle insurance industry are also reviewed below.

2.6 THE SOUTH AFRICAN MOTOR VEHICLE INSURANCE INDUSTRY

Motor vehicles became more available in South Africa after 1896, when the first motor vehicle, a Benz Velo, arrived in the country (Wheels24, 2016a). The first recorded road accident in South Africa occurred on 1 October 1903 in Maitland, Cape Town. Between 1903 and 2003, an estimated number of 393 977 people were killed in accidents in South Africa (Arrive Alive, 2021a).

During the 1930s, there was a rising concern as the number of motor vehicle accidents increased and the inability of negligent drivers to pay for the damages became a problem (Wills, 1986:134). This led to the introduction of the Motor Vehicle Insurance Act (Act No. 29 of 1942), which made motor vehicle insurance in South Africa compulsory. This legislation stipulated that all motor vehicles in the country should be insured and the insurance covered the expenses of the third-party's motor vehicle

damage caused in an accident (Whittaker, 2007:29). In other words, third-party insurance as we know it today was compulsory.

In the 1960s, it was evident that a number of insurance companies had insufficient income to operate and were as a result liquidated. The Compulsory Motor Vehicle Insurance Act (Act No 56 of 1972) was introduced and fell under the legislation of the Motor Vehicle Accident Fund. This fund was created to act as a reinsurer to carry the liabilities of insurance companies that sold this compulsory motor vehicle insurance. The Motor Vehicle Accident Act (Act No. 84 of 1986) replaced the act of 1972, and this act ensured that the Vehicle Accidents Fund was financed by a levy on motor vehicle fuel sold in the country (Stokes, 2010).

In 1989, the Multilateral Motor Vehicle Accidents Fund Act (Act No. 93 of 1989) was introduced, but was replaced with the Road Accident Fund Act (Act No. 56 of 1996), which commenced on 1 May 1997 (Road Accident Fund, 2021). The Road Accident Fund (RAF) covers bodily injury or death of third parties only, and does not cover any expenses due to damages of the motor vehicle. This fund receives a certain percentage of each one litre of petrol sold (Zingwevu & Sibindi, 2014:658). Thus, motor vehicle insurance is no longer compulsory in South Africa and only 30 to 35% of all the motor vehicles driving on South African roads have a type of motor vehicle insurance (Buys, 2015:23; Bubear, 2016; Geldenhuys, 2020a; South African Insurance Association, 2021).

There are over 11 million registered vehicles (excluding caravans and trailers), and the majority (60-65%) of these vehicles are not insured (Automobile Association of South Africa, 2020). However, it is essential to note that these statistics include the following vehicle classes: minibuses, buses, bus trains, midibuses, motorcycles, quadrucycles, tricycles, LDVs, panel vans, other light load vehicles, and trucks. This study only focused on motor vehicles, which includes the vehicle class 'Motor cars and station wagons'.

Since 2014, the motor vehicle insurance industry has been highly competitive and the increasing numbers of 'disruptors' with new service concepts has boosted the consumers' expectations, which has also made it a diverse market in which to compete (PwC, 2014:29). The importance of the motor vehicle insurance industry in South Africa is discussed below.

2.6.1 The importance of the South African motor vehicle insurance industry

The motor vehicle insurance industry plays a significant role in the economic wellbeing of South Africa (Moig, 2015), as motor vehicle insurance is the most sold insurance in the South African short-term insurance industry. A total of 43.9% of the total premiums written in 2015 within the short-term insurance industry, was for motor vehicle insurance (KPMG, 2016:97). The short-term insurance industry contributed 3% towards the GDP in 2015, and the financial services sector is the largest contributor to the country's GDP (Omarjee, 2016).

The FSCA is a public entity, which is mandated by the South African government to oversee and enforce compliance with the specific laws that regulate financial institutions. This entity also promotes financial education, as well as awareness about financial services, institutions and services (Financial Sector Conduct Authority, 2021). The short-term insurance companies are regulated by the FSCA, according to the Short-Term Insurance Act, and in terms of this act, all short-term insurance companies should be registered with the FSCA. The Ombudsman for short-term insurance plays a mediating role in dispute resolution between insurance companies and policyholders/consumers (Stokes, 2021b). Thus, if a motor vehicle insurance policyholder/consumer should have a complaint, it can be directed to the Ombudsman for short-term insurance.

The purpose of short-term insurance is to put the consumer in the exact same position the individual occupied before the loss, dependent on the terms and conditions stipulated in the policy contract (Vivian & Mushai, 2020:64). Similarly, since motor vehicle insurance is a type of short-term insurance, the aim of motor vehicle insurance is thus to place the consumer in the same position, concerning the motor vehicle occupied before the loss, reliant on the terms and conditions agreed in the policy. The nature of the motor vehicle insurance product/service is explained below.

2.6.2 The nature of the motor vehicle insurance product/service

The difference between a product and a service should first be described. A product refers to something that consumers can purchase in a store or shop to satisfy their needs or wants (Ferrell & Hartline, 2014:151; Layon, 2014:2; Fahy & Jobber, 2019:190). In other words, a product is a physical and/or tangible item that is purchased. A service, however, is essentially intangible and it does not result in the

ownership of an item (Bernstein, 2014:174; Fahy & Jobber, 2019:217). The most distinct difference between a product and a service is that a product is physically produced and a service is performed by organisations (Strydom, 2014:201; Cunningham, 2018). For example, a product is a cleaning item (such as a tile cleaner) that is available online or in a store to purchase, whereas a service will be a team of cleaners that is hired to clean the home. Similarly, a motor vehicle is the physical product, while motor vehicle insurance is a service provided by an insurance company. Unlike physical items that are produced and placed into inventory, services are produced and consumed at the same time (Bernstein, 2014:174; Fahy & Jobber, 2019:217). A service is therefore inseparable from the organisation that provides it.

It is important to point out that some organisations can offer both products and services (Ferrell & Hartline, 2014:151; Kahn, 2015:5; Clatworthy, 2019:130). Organisations that sell motor vehicles are a good example, as these organisations should offer a good service before the consumer will decide to purchase the physical motor vehicle. After sale service also takes place after the purchase and includes the warranty and service plan of the motor vehicle that was purchased. This is not the case with short-term insurance organisations, as consumers who purchase insurance will not receive a physical/tangible product for the money paid. Insurance is a financial service offered by insurance companies, where consumers purchase financial protection against loss or harm (Beik, 2018:2).

As explained in Section 2.4.2.3, the short-term insurance industry consists of three lines of business, namely, personal, commercial and corporate business. Motor vehicle insurance can thus also be offered in each of these three lines. The personal business line of short-term insurance is the largest (Financial Services Board, 2014:3). As explained in Section 2.4.2, the personal business line is when the short-term insurance policyholder is a natural person and not a business. For the purpose of this study, the focus was on personal motor vehicle insurance only. Personal motor vehicle insurance provides cover against the accidental damage or theft of a personal motor vehicle and not a company-owned motor vehicle (Still & Stokes, 2016:2).

By selling personal motor vehicle insurance policies to consumers, the insurance company and an individual enter into an insurance contract. This contract specifies the nature and value of the motor vehicle, the risks or loss events this motor vehicle

are insured against, as well as the premium that will be charged for the cover provided (Still & Stokes, 2016:6).

The premium of each personal motor vehicle insurance policy is different, as insurance companies calculate the premium based on age, driving experience and the claim history of the driver (Rankoe, 2014). Most short-term insurance companies use a computer system to determine the value of the motor vehicle, but the individual must provide the insurance companies with details, such as the model number, what year it was manufactured and if any modifications were performed on the motor vehicle (Van der Walt, 2016). It is, however, also important to indicate whether the insured value of the motor vehicle is based on the market, retail or trade value. The market value is the average of the retail and trade value, while the retail value represents the value that will be paid to purchase the insured motor vehicle, and the trade value is what a second-hand dealer will purchase the insured motor vehicle for (Arrive Alive, 2009).

According to Auto Accident (2019), statistics indicate that younger drivers are more likely to be involved in motor vehicle accidents than older drivers. Because of the high risk associated with younger drivers, the driver's age has an impact on the premium. Moodley-Isaacs (2013) concurs that the chances of a young, relatively inexperienced driver being involved in an accident are high. The main cause of motor vehicle accidents and motor vehicle fatalities is due to driver behaviour, as 90% of all accidents are caused by the driver (Ossi in PwC, 2014b:80). Neethling in Hesse (2015) explains that an inexperienced driver is a higher risk, and even if the driver is older, with a recently issued driver's licence, it is also treated as a high risk. The longer an individual drives, the more experience he/she gains and it is for this reason that consumers get a slight discount when they are older than 25 (Arrive Alive, 2021b). The high risk of young and inexperienced drivers is viewed the same by the different short-term insurance companies, as previous claim experiences revealed that the young and inexperienced drivers are in fact a high risk (Schoeman, 2016). Seeing that a driver with little experience in driving might behave/react differently to an experienced driver, the inexperienced driver can be seen as a high risk.

The driver's gender also plays a role, as statistics revealed that women are considered less reckless drivers than men (Masuku, 2018; Dialdirect, 2020). The question can be asked whether it is fair that women pay a reduced premium due to the fact that they

are female? Men are regarded as a higher risk, as statistics revealed that from 2012 to 2015, 60% more men died in road accidents. These numbers are particularly high in the age groups 20-24, 25-29, 30-34 and 35-39, of which the 25-29 group is the highest. This report also revealed that the most fatalities in the road user category for drivers, were male drivers between 20-39 years of age (Arrive Alive, 2021c). Apart from risks such as the high likelihood that males would drink before driving, and the high confidence males have when they are driving, the distance they drive is generally further than that of females (Phillips, 2011).

Where the motor vehicle is parked during the day and night, also has an impact on the premium. With this factor, the insurance companies aim to determine how safe or risky the address is where the vehicle is parked. It will, for example, be safer and a lower risk in a locked garage than when it is parked outside (Van der Walt, 2016). If the driver chooses to pay a bigger excess when he/she claims, the premium will also be lower (BUSINESSTECH, 2019). Excess can be explained as the amount a consumer chooses to pay before the insurance company settles the rest of the claim (Zerbst, 2011; BUSINESSTECH, 2019).

The use of the motor vehicle will also impact the insurance premium, as the motor vehicle can be used for business or personal purposes. Personal use is when a car is used to drive from home to work, drive to holiday destinations, go for shopping and so forth (Masuku, 2018). On the other hand, when a motor vehicle is used for visiting clients, selling services or even taking orders, the motor vehicle is being used for business purposes. Sales representatives and estate agents are examples of individuals that will take out personal motor vehicle insurance and they will have to stipulate that the motor vehicle is used for business purposes. Motor vehicles used for business purposes are usually seen as a higher risk, and therefore, this attracts a higher premium rate (Schoeman, 2016).

The consumer should also indicate who the regular driver of the insured motor vehicle is as the consumer can own the motor vehicle, but another person might drive it. This is therefore also a determining factor of the monthly premium paid by a consumer (Dialdirect, 2020). Furthermore, the inflation and the security measures, such as an approved car alarm system or tracking device in the motor vehicle, are also factors that can impact the premium paid per month (MiWay, 2019).

There are a number of consumers who believe that red or black-coloured motor vehicles have a significant influence on the motor vehicle insurance premium (Fourie, 2013a; Hearst Autos Research, 2021). This is just a myth, as most insurance companies are more interested in the accident history of the driver, the number of kilometres driven per year, and where in South Africa the consumer lives (Discovery, 2021a). Fourie (2013a) and Cox-Steib (2020) are also of the opinion that the colour of the insured motor vehicle does not affect the premium. However, other authors revealed that the colour of the motor vehicle affects the consumers' premium as it pertains to the visibility on the road and paint costs, should paintwork be needed for repairs (Nagel, 2021; WP Motors, 2021).

By taking all the above-mentioned factors into consideration, a personal motor vehicle insurance premium in South Africa is based on the type of motor vehicle, insured value of the motor vehicle, modification to the motor vehicle, demographics of the driver, issue date of the driver's licence, where the vehicle is parked during the day and night, excess amount, what the motor vehicle is used for, who the regular driver is, inflation, and security measures in place. However, the type of motor vehicle insurance that is selected also has a considerable impact on the premium paid, as prices might differ for the different types of cover (Masuku, 2018). The different types of motor vehicle insurance are discussed next.

2.6.3 Different services offered to the motor vehicle insurance market

The majority of short-term insurance companies have three basic types of motor vehicle insurance offerings: comprehensive motor vehicle insurance, third-party fire and theft, and third-party only (Van der Walt, 2016; Doyle, 2021).

Comprehensive motor vehicle insurance refers to cover provided for accidental damage, theft and fire, as well as injury to other parties involved in a motor vehicle accident (Arrive Alive, 2021b). This type of motor vehicle insurance is the most expensive, as it is seen as the all-inclusive type of motor vehicle insurance offered in South Africa (Hesse, 2015c; Expatica, 2021). Depreciation, wear and tear and mechanical or electrical breakdown are expenses that the comprehensive motor vehicle insurance does not cover (South African Insurance Association, n.d.:2).

Third-party fire and theft motor vehicle insurance is cover provided for fire, theft and hijacking incidents, but third-party insurance does not cover the damage to the insured

motor vehicle, only the damage to the other party's motor vehicle involved in the accident (Holden, 2014; Arrive Alive, 2021b). With this type of insurance, the consumer will be responsible for covering the costs of the damages to his/her own motor vehicle (Van der Walt, 2016). Third-party motor vehicle insurance only covers the costs when the consumer is in an accident and the accident was his/her fault (Hesse, 2015c; Ardé, 2020). In other words, any damage, theft, fire or hijacking to the insured motor vehicle will not be covered by the insurance when the accident was the consumer's fault and the consumer will have to pay for this out of his/her own pocket.

Naked and King Price Insurance have a unique type of motor vehicle insurance which is called "Pay As You Drive", and this type of cover is specifically for individuals who do not drive a lot as it offers comprehensive motor vehicle insurance but only for the kilometres that the consumer actually drives. The satellite-tracking device used to track the kilometres can also act as an anti-theft device, since it can assist the authorities in tracking the stolen motor vehicle (Knowler, 2020).

Regardless of the type of motor vehicle insurance chosen, most of the short-term insurance companies offer free roadside assistance programmes, where they will come and assist when a consumer needs roadside assistance. The insurance companies might even make arrangements so that the consumer pays reasonable towing costs (Van der Walt, 2016).

Many of the insurance companies that offer motor vehicle insurance offer a no-claim bonus/cash-back reward as an incentive for the consumer. Insurance companies offer this no-claim bonus/cash-back reward if the consumer does not claim in a specific time period. This prospect of the financial incentive is attractive to consumers. So much so, that they choose not to claim from the insurance company to avoid losing the cash-back reward or discount on future insurance premiums (Wheels24, 2016b).

It is not clear which type of motor vehicle insurance most South African drivers purchase, but a study conducted on US drivers revealed that 78% of American drivers purchase comprehensive insurance for their motor vehicles (Institute Insurance Information, 2021). The next section discussed the business environment of the short-term insurance companies in South Africa.

2.7 THE BUSINESS ENVIRONMENT OF THE SHORT-TERM INSURANCE COMPANIES

The insurance industry is changing at a rate that has not been seen for at least a generation (Liakopoulos, 2016:2). Every organisation operates in a rapidly changing business environment and an organisation should adapt to the changes in its business environment (De Beer & Rossouw, 2018:194). The business environment of organisations, such as short-term insurance companies, consists of the micro, market and macro-environments. While the micro-environment can be controlled by an organisation, they cannot control the market and macro-environment (Erasmus *et al.*, 2019:122-123). Each one of these environments has variables/factors, which can affect the business environment. These variables/factors can have a negative or positive impact on the business strategy and survival. Thus, short-term insurance companies should evaluate and assess these variables/factors regularly to determine the impact. The components of the short-term insurance companies' business environment are discussed below.

2.7.1 Micro-environment

The micro-environment is known as the sum total of all the variables and factors that occur within an organisation (Ferreira, 2011:14; Botha, 2018:32). Organisations have control over this, as this refers to their internal environment. The variables affecting this internal environment are the mission, vision and objectives, areas of management or business functions, and resources within an organisation, as discussed below (Erasmus *et al.*, 2019:125-126).

2.7.1.1 Mission, vision and objectives

The mission and vision statements are vital components in the long-term strategies of any organisation. These statements include inspiring words which are developed by a leader of an organisation to clearly stipulate the purpose, direction and driving forces of an organisation (Epstein, 2021). The mission statement thus stipulates the primary purpose of an insurance company as an organisation (Ahmed, 2019a). The vision statement specifies what the insurance company wants to achieve as a company (Sonkiya, 2020). In other words, the vision explains the future situation of the insurance company. Objectives are the clear goals that an organisation needs to achieve so that the organisation can continue to operate (De Beer & Rossouw,

2018:3). It is thus clear that the mission, vision and objectives are aspects that a short-term insurance company can control, as the leaders and managers in the organisation are the responsible parties who formulate it.

Momentum (2021), a short-term insurance company in South Africa, reveals that their vision statement is "...to satisfy the wealth creation and preservation, insurance and income needs of clients through our deep understanding of the upper retail insurance, savings and investment market in South Africa." The mission statement of this company is "We commit to fulfil your lifelong financial needs by providing value-for-money solutions that are relevant and unique, engaging in a transparent, simplified and effective manner and building enduring partnerships." Discovery (2021b) states, "Discovery is a shared value insurance company whose purpose and ambition are achieved through a pioneering business model that incentivises people to be healthier, and enhances and protects their lives." Another short-term insurance company, iWYZE (2021b), explains that their mission is to "...ensure that your insurance is a little easier to understand." This company's strategy or vision is: "Responding to our customers' needs, we are building a long-term savings, protection, investment and lending group by leveraging the strength of our people and capabilities in South Africa and around the world. We will focus, drive and optimise our businesses to enhance value for customers, shareholders and the communities we serve".

2.7.1.2 Areas of management

Koontz, Weihrich and Cannice (2020:2) define management as "... the process of designing and maintaining an environment in which individuals, working together in groups, effectively accomplish selected aims." Murugesan (2012:1) explains management as the art and science of getting work done through the actions of employees. Management is a process of giving directions and controlling the resources and numerous activities of employees, in order to achieve the objectives of the organisation (Erasmus *et al.*, 2019:202).

The different areas of management or business functions in an organisation are marketing management, public relations management, financial management, purchasing management, human resource management, information management, operations management and general management (Strydom, 2015:136; Botha, 2018:151). These functions should be managed, and the organisation should be

structured in such a way that it can control the influences from the micro-environment, and still function productively within the market environment (Erasmus *et al.*, 2019:202). For example, the marketing management function is responsible for recognising the differences in consumers' preferences and competitors' movements in order to develop strategies, to be proactive in countering any influences from the market environment.

An organisation cannot satisfy the consumers' needs unless the resources, such as human, information, physical and financial resources, are not effectively managed. Every employee in an organisation needs repeated encouragement, and management is the only party that can provide this (Bose, 2012:5). A manager in an organisation has four main functions that he/she should perform, namely, planning, organising, leading and control (De Beer & Rossouw, 2018:13). Thus, in terms of short-term insurance companies, management refers to the individuals in the organisation that manages employees who work together, through planning, organising, leading and controlling resources to achieve the set objectives of the organisation.

In any organisation there are three levels of management, namely, first-line level, middle/functional level and top/strategic level. A supervisor is an example of a first-level manager and this type of manager is mainly responsible for managing the daily activities of four to five subordinates. An example of a middle/functional manager is a marketing manager, who has the responsibility of managing a department and this type of manager is involved in the medium-term planning. Top/strategic level management is a typical chief executive officer (CEO) of an organisation and this type of manager has to perform the strategic planning within an organisation (Pride, Hughes & Kapoor, 2017:173). All the managers in an organisation have routines to gather data and to monitor the business environment. They also understand the changes and development in the business environment (Aghazadeh, 2016:225).

Every manager in an organisation has the responsibility to take the necessary action to enable individuals to make the best contribution towards achieving the objectives of the group. This group can be the team members, departments or the entire organisation (Koontz *et al.*, 2020:2). Thus, every manager in a short-term insurance organisation, irrespective of the level of management, has different, tasks, responsibilities and skills that should be performed in order to achieve the organisational objectives. Management is an internal environmental variable that can

be controlled by the organisation, and the managers in short-term insurance companies should monitor the business environment on a regular basis.

According to Beer, Finnström and Schrader (2016), previous research revealed that executives in different industries indicated the lack of access to leadership training and this can create obstacles for future leadership roles. Painter (2016:3) argues that this is a big problem in the insurance, also short-term insurance, industry. Insurance companies provide various services to institutional, commercial and individual consumers. It is imperative for short-term insurance companies to develop leaders and this can be done by creating a leadership strategy, which is in line with the insurance companies' business strategy.

2.7.1.3 Resources

Resources can be defined as the objects or assets that can be named, have a purpose, share a common uniform boundary and can be manipulated through representations (Johnston & Gamon, 2013:1524; De Beer & Rossouw, 2018:2). Resources in an organisation can be divided into tangible and intangible resources. Tangible resources are objects/assets that are observable and easily quantified. Examples of tangible resources are financial, physical and technological resources. Intangible resources refer to objects/assets that are harder to identify and more challenging to quantify. Human, innovation and reputational resources are examples of intangible resources. Human resources are intangible, as the skills and abilities of staff members and managers are harder to identify (Peng, 2017:99).

The resources in an organisation are limited, and therefore, should be managed wisely, so that there are sufficient resources to achieve the greatest possible measure of prosperity (De Beer & Rossouw, 2018:2). It is the responsibility of managers in short-term insurance organisations, to manage the tangible and intangible resources accordingly so that the greatest achievement can be reached with the number of resources available. This is an internal variable that can be controlled by the short-term insurance companies.

Managers in short-term insurance companies should be aware of the changes and trends among the employees (human resources) they are managing. A study conducted by INSETA (2016:37-38), revealed that employees in the short-term insurance industry have a greater need for stimulation. It is also a norm that individuals

change career paths three to five times in their lifetimes. Furthermore, employees are not loyal towards their employers anymore and they would gladly change jobs to improve their current situation, even if it is just for a short period. Headhunting is also popular, and this results in remuneration which is out of line with that of other employees on the same level. This can trigger dissatisfaction and low morale among the other employees (INSETA, 2016:37-38). These findings can assist managers in short-term insurance companies to incorporate improvements to ensure that employees are better stimulated. Employees' loyalty towards the company should be improved and management should ensure that current employees are not affected when they headhunt for new employees. In the next section, the market environment of short-term insurance companies is discussed.

2.7.2 Market environment

The market environment does not exist in isolation, as the micro and macro-environments impact the market environment. When the managers in organisations analyse the market environment, they evaluate the possible effects of the macro/external environment variables or changes on the organisations' survival and strategy strength (Aghazadeh, 2016:255). Thus, managers in short-term insurance companies should evaluate the possible effects that the external environment might have on the organisational strategy, as this impacts the survival of the insurance companies. Components of this market environment that should be evaluated include market/consumer, suppliers, labour markets and unions, intermediaries and competitors, as discussed below (Erasmus *et al.*, 2019:126).

2.7.2.1 The market

The market variable refers to the consumers that have a need and the financial power to purchase a certain product or service (Ferreira, 2011:16; Erasmus *et al.*, 2019:126). A market/audience can be described as a large number of individuals who have a need for a specific product/service, have the money to purchase the product or service, are willing to spend the money on it and are legally able to buy the product (Erasmus *et al.*, 2019:459). An individual can form part of the market but not be a consumer of a product or service (Lappeman *et al.*, 2021:5). In other words, the market variable within the short-term insurance industry will include individuals who have

personal motor vehicle insurance (insureds) and individuals who do not have personal motor vehicle insurance (non-insureds).

The consumer profile should be established by short-term insurance companies and this is the information that guides them on how to target the audience/market. Most US licenced drivers fall in the 35-39 age category, which includes 90.9% of the country's licenced drivers (Buchholz, 2020). In England, there is a large increase in the number of older individuals (aged 70 and older) that have full driving licences (RAC Foundation, 2021). No information could be obtained about the age of drivers in South Africa who have driving licences.

The Black African population makes up the majority of the South African population, and constitutes approximately 81% of the total population (Maluleke, 2020:23). The percentage distribution of vehicle ownership by population groups in South Africa (in other words, percentage of the population group owning motor vehicles) is Black African 19.8%, Coloured 41.8%, Indian/Asian 81.3%, and White 94.2% (Statistics South Africa, 2017b:12). Therefore, a very small percentage of the Black African population are vehicle owners. In contrast, a high percentage of the White population own motor vehicles, but this population group is also the smallest in the country. However, seen in total, it is important to realise the percentage of vehicle owners of each population group in South Africa, which is as follows: Black Africans possess 52.6% of the motor vehicles in South Africa, Coloureds 9.7%, Indian/Asians 6.5% and Whites 31.2% (Statistics South Africa, 2017b:12). Thus, the Black African population group have the highest percentage of motor vehicle ownership.

Maluleke (2020:2) specifies that approximately 51.1% of the South African population are female, and 48.9% are male. Interestingly, 37.6% of the South African male population own motor vehicles, and only 19.6% of the female population own motor vehicles (Statistics South Africa, 2017b:12).

A study conducted amongst Ghanaian drivers found that 59.6% are married, 27.1% are single, and 13.3% are divorced (Atombo *et al.*, 2017:11). No information could be obtained about the marital status of drivers in South Africa. A study conducted on Qatari drivers found that the highest education level is secondary education (equivalent to high school education in South Africa), which made up 33.4% of the study's respondents (Soliman *et al.*, 2018:655). Several studies found that drivers'

education levels form part of the demographic factors that impact the drivers' driving behaviour (Atombo *et al.*, 2017; Mohamed & Bromfield, 2017; Soliman *et al.*, 2018). No information could be obtained about the highest level of education of drivers in South Africa.

In a study (Martinussen *et al.*, 2017:2) conducted on drivers' driving behaviour in Denmark, the findings related to employment status revealed that 59.3% of the respondents were employed, 28.5% retired, 5.4% self-employed, 4.8% unemployed, and 2% students. No information could be obtained about the employment status of drivers in South Africa.

The province where most drivers drive with their motor vehicles should also be considered, as this might impact the marketing efforts in each province of the country. The live vehicle population (registered motor vehicles) in each province of South Africa are Gauteng 41.4%, Western Cape, 17.2%, KwaZulu-Natal 13.7%, Eastern Cape 6.4%, Mpumalanga 6%, Limpopo 4.8%, North West 4.5%, Free State 4.3% and Northern Cape 1.7% (eNaTIS, 2021). The number of motor vehicle drivers in South Africa can also be linked to the population density of each province. The provinces with the highest population density in South Africa are (1) Gauteng, (2) KwaZulu-Natal and (3) Western Cape (Maluleke, 2020). Therefore, this explains why most registered motor vehicles are also in these three provinces.

The disposable income of consumer is also an important factor to consider. The disposable income of consumers consists of their household income and personal income. In 2018, a study by Statistics South Africa (2018) revealed that social grants remain a vital income source for 44.3% of households, particularly in the country's poorest provinces. Furthermore, the social grants were the second most crucial income source (45.2%) for households, and salaries (64.8%) remain the primary income source for South Africa households. This explains the household income composition in South Africa, but no information could be obtained that clearly specified the average household income in the country at the time of the current study. The average personal income in South Africa is R22 500 per month. However, the highest earnings are the reason for this high average, as most South African workers can merely desire to reach a salary above R20 000 (Head, 2020).

Organisations often segment markets on the basis of demographics as this information is widely available and it can also relate to the consumers' purchase decisions (Lamb, *et al.*, 2013:275, 2018:337). The general demographic variables include age, gender, income, household size, education, ethnic background and family lifestyle (Boone & Kurtz, 2014:170; Willan, 2021). The demographic variables of insurance consumers can impact their purchase decision (Esau, 2015:493; Mazhar, Rehman & Din, 2015:10; Schmidt, 2019:503).

Industry observers predicted in 2014 that a challenge will appear with regard to the short-term insurance industry's consumers over the next five years (INSETA, 2014:24). They believed that consumers perceive no or very little difference between the various short-term insurance brands (Dunn, 2014). Short-term insurance companies were advised to monitor this carefully, because if this is, in fact, the case and consumers do not see a difference between the different brands, they have to improve their brand image to improve the consumers' perception.

According to Kriel (2017), consumer expenditure is under pressure and this is a result of the slow economic growth in South Africa, as well as the high unemployment rate. Johnson *et al.* (2016:9) also agree with the statement that the consumers are under pressure due to the economic conditions in the country. This is true, especially now with the COVID-19 pandemic, impacting consumers' disposable income and the rising unemployment rate in the country (Chitiga-Mabugu *et al.*, 2021:92).

Consumers have become more active in their responses to their experiences with short-term insurance companies (Ernst & Young, 2013:3; Moodley, 2019:5). When consumers experience bad service from a motor vehicle insurance company, they do not just accept this and keep quiet. They raise their voices by posting their experiences online. For example, dissatisfied consumers can post tweets or write a blog about their bad experience (Parkin, Jooste & Thorpe, 2019) and this will impact negatively on the short-term insurance company.

The low level of consumer knowledge about financial concepts, such as inflation, can be seen as a weakness for short-term insurance companies (Sibanda & Sibanda, 2016:5), as this can influence consumers purchase behaviour if they do not have an understanding of financial concepts. This weakness can, however, be turned into a strength, if the short-term insurance companies develop strategies to improve the

education and knowledge of consumers, as well as executing these strategies. For example, short-term insurance companies can update and expand their current marketing efforts to ensure that the education and knowledge of consumers are improved. An informed consumer can make a better distinction between good and bad insurance advice (Llewellyn, 2012:4; Woolard, 2015:3; Cherry, 2020a). Many consumers still prefer the human connection of an insurance professional when buying insurance (Sodiq, 2020:90). The consumer expectations in the short-term insurance industry of South Africa are changing, as they seek simplicity, transparency and speed (Knoesen, 2020). Short-term insurance companies should be aware of all the above-mentioned consumer demands, needs and preferences as this will have an impact on their business strategies.

2.7.2.2 Suppliers

Suppliers refer to the organisations that supply products and services (direct raw materials used to produce outputs) as well as resources (such as equipment, staff and consumables) to an organisation (Cox, 2014:10; Botha, 2018:37). Examples of short-term insurance companies' suppliers are the companies where they purchase the computers, computer software/systems, telephone handsets/devices, the Internet, office equipment and stationary, which the employees use to generate a policy. Outsourced service providers, such as panel beaters can also be suppliers for short-term insurance companies.

Short-term insurance companies pay approved panel beaters to repair the damaged motor vehicles. The repair costs may be high, as the original equipment manufacturer (OEM) parts of vehicles that are still under warranty, are significantly more expensive. The weakness of the rand also causes an increase in the costs of imported parts and most of the OEM parts are imported (Santam, 2015). Coetzee, in Wheels24 (2015), states that sometimes accident-damaged vehicles are "uneconomical to repair" because of the excessive costs to use the OEM parts to repair the damage. Santam introduced a certified aftermarket parts programme which assists in reducing repair costs, by using parts not directly sourced from vehicle manufactures, to repair damaged vehicles. This is a more economical alternative, but the downside is that these aftermarket parts cannot be used on vehicles that are still under warranty (Wheels24, 2015; Stokes, 2021a). Short-term insurance companies will have to assess these variables to make the needed changes or to think of innovative solutions.

2.7.2.3 Labour markets and labour unions

The availability of skilled labour and the effect of strikes on organisations are well-known variables that should be considered by organisations in South Africa (Erasmus *et al.*, 2019:126). This strict regulations within the short-term insurance industry force employees to write examinations to obtain the required qualifications (Financial Sector Conduct Authority, 2021). It was predicted that the increases in regulations and the increasing cost of compliance within the short-term insurance industry will stress the need for qualified and skilled compliance officers (INSETA, 2014:3). The rapid pace of change in these regulations also pose as a key challenge in terms of training employees in insurance companies (Danckwerts *et al.*, 2020:91).

All the employees working within the various short-term insurance companies have the right to belong to a trade union. The main purpose of trade unions is to negotiate on behalf of their members. They will also defend and advance employee's rights and improve the wages and working conditions of members (De Beer & Rossouw, 2018:158).

In South Africa, strike action is used as a measure of last resort when there is no progress in wage negotiations between the employers and the trade unions. During these strikes, assets such as motor vehicles are often damaged. This can, however, be covered under an additional Sasria service, which can be included in a policy (Stokes, 2012b; Coetzee, 2021). Sasria covers damages due to strike action, but not damages caused by war, insurrection, rebellion, revolution and military or usurped power (Saria SOC Ltd, n.d.; Faurie, 2014b). As can be seen in the discussion above, the labour markets and labour unions play a significant role in the short-term insurance industry.

2.7.2.4 Intermediaries

Intermediaries are the link between the organisation and the final consumer. Every organisation is assisted by intermediaries as they can assist in finding consumers. Brokers and agents are examples of intermediaries (Senapati, 2015:19; Jensen, 2019). The short-term insurance companies make use of two types of intermediaries at this stage, namely, intermediated insurance and direct insurance. Intermediated insurance refers to when insurance companies make use of a traditional intermediary, such as a broker to sell their policies. Approximately 84% of all the total gross written

premiums originate from the intermediated distribution channel (Still & Stokes, 2016:173). Direct insurance companies sell the policies directly to the consumers and web-based or technological applications can be used as distribution channels (Still & Stokes, 2016:174; Natarajan, 2018).

The online direct sales of personal motor vehicle insurance have been a viable distribution channel for a number of years. Brokers and agents had to demonstrate their value so that they can retain and expand their market (INSETA, 2014:7). As the industry changes to meet the consumer needs and keeps up to date with other significant changes, the role of intermediaries cannot be underestimated. With all the developments and uncertainty in South Africa, it becomes vital to assist consumers to be insured correctly. This is where the expert advice of brokers can ensure that short-term insurance companies move closer to their consumers (Epic MSLGROUP, 2017).

A threat to the short-term insurance industry is, unfortunately, that many experienced brokers are leaving the industry, as they feel that the extra legal responsibilities are overwhelming and it takes them away from their core business (INSETA, 2014:16; PwC, 2016:52). Potential candidates also do not enter the industry due to the perception that there are prohibitive barriers to entering (INSETA, 2014:16). Each short-term insurance company has to evaluate the involvement, strengths and weaknesses of intermediaries, including brokers and other intermediates, to establish if it will benefit the company in achieving its end goal.

2.7.2.5 Competitors

Competitors can be explained as the other organisations that operate and trade in the same market and have the same consumer groups as the organisation (Cox, 2014:12; Botha, 2018:37). For instance, all the short-term insurance companies that offer personal motor vehicle insurance are competitors in the short-term insurance market. During 2016, the short-term insurance companies struggled to attain their desired premium rates due to the highly competitive industry (KPMG, 2016:99). Currently, short-term insurance companies are still under immense pressure due to low market growth in a highly competitive market (Faurie, 2019a).

The comparison websites/aggregators have assisted short-term insurance companies to move the power back to consumers by forcing motor vehicle insurance companies to price the policies more competitively. This can be disruptive as the impact of this

price competition can be seen in the local short-term insurance market. To worsen the matter, short-term insurance companies are already cutting supply chain costs to remain competitive. The excessively high churn rate/switching cost impacts short-term insurance companies as they have to constantly compete by lowering premiums and they still face the pressure of growing costs (Coutts *et al.*, 2019:11). Previous research points out that the policy price is the primary reason for switching to another motor vehicle insurance provider (Sanders & Tyson, 2014; Livingston, 2020).

Direct insurance companies that offer personal short-term insurance, have a slightly higher market share, as it is more convenient and easier to sell policies online with telesales as a form of support for advice (Still & Stokes, 2016:180). As discussed earlier, the direct insurance companies can be viewed as disrupters within the short-term insurance industry. This is mainly due to the high utilisation of technological advancements to sell their policies directly. This is another example of how the macro-environment influences the market environment. Thus, short-term insurance companies have to evaluate their market share in relation to their competitors, thereafter, decisions and implementations should be made to increase the market share. The macro-environment and its sub-environments are reviewed below.

2.7.3 Macro-environment

The macro-environment surrounds the organisation and its market environment. This environment is made up of sub-environments and there are a number of variables in each environment that will affect the organisation in either a positive or a negative way (Ferreira, 2011:21; Cherunilam, 2016:11). The organisation has no control over these factors.

Short-term insurance companies have to manage the risks in the macro-environment, as it is vital for the sustainability of their companies. These perceived risks are viewed as threats, but short-term insurance companies can make an effort to convert these threats into opportunities (Snyders, 2016). The macro-environment has six distinct sub-environments, namely, the technological, economic, social, physical, institutional-governmental and international environments. Each one of these sub-environments has factors/variables that will impact the organisations (Erasmus *et al.*, 2019:128) and all these sub-environments, their variables and impacts on the short-term insurance companies are discussed below.

2.7.3.1 Technological environment

Technology can be seen as the most dramatic force that disrupts existing businesses, markets, and the macro-environment of an organisation (Fleisher & Bensoussan, 2015:161; Botha, 2018:42). The technological environment includes all the aspects which have to do with the development of new products, and services that are newly available to the market (Ferreira, 2011:25; Cherunilam, 2016:68). This environment can also present opportunities for organisations to present innovative products and services that improve their competitiveness (Aghazadeh, 2016:261).

The technological environment within the short-term insurance industry has changed the way short-term insurance companies do business (Hoosen, 2016). The new technological developments that currently play a role in the short-term insurance companies' technological environment, specifically with regard to personal motor vehicle insurance, are discussed below.

Telematics

Telematics can play an integral part in developing sustainable solutions for motor vehicle insurance companies (Stokes, 2012b; Dharani *et al.*, 2018). The telematics devices provide insurance companies with comprehensive data about the consumers. This device does not only have the function of tracking the vehicle, but it also monitors how the driver drives, whether the driver is prone to speed, sudden braking or quick accelerations. It can also monitor whether the driver is driving a lot during the evenings and critical for insurance companies, it can also indicate whether the driver is on his/her cell phone while driving. All of the information obtained will allow the insurance companies to view the driver as a high risk or not (Ardé, 2016). There are a number of South African short-term insurance companies that utilise telematics to track and collect data about the consumers' driving behaviour. Discovery Insure has seen the benefit of using telematics, and they have already gathered more than 14 billion kilometres of driving data since it was implemented (Stokes, 2021c).

Mobile applications

The utilisation of smartphones and tablet acceptance amongst consumers are continuing to grow in South Africa. The benefit of mobile applications that can be downloaded onto a smartphone or tablet is that it enables consumers and other stakeholders to communicate easily with the short-term insurance companies. Mobile

applications are viewed as the perfect solution because it can facilitate a direct communication link. For example, insurance companies can include an option on the mobile application to contact an emergency service provider, which will allow the consumers to ask for immediate assistance with the press of a button on the application. Furthermore, by incorporating this development in a business strategy, it can simplify and speed up internal operations radically (Fourie, 2013b; Ferenzy *et al.*, 2016).

Short-term insurance companies can also use these applications to send SMSs to the consumers' mobile phones to warn them of potential danger. Smartphones and the application on it can be a connection device to the consumers (Balasubramanian, Libarikian & McElhaney, 2021). For example, insurance companies can warn the consumers via SMS about a weather prediction for hailstorms and advise that insured motor vehicle should be parked undercover (Lamprecht, 2014). Many short-term insurance companies in South Africa still make use of this function.

There are certain challenges that short-term insurance companies will have to overcome when they decide to make use of these applications. There is a shortage of application developers in South Africa and this makes the initial developing costs high (Chutel, 2016). Furthermore, the Internet connectivity in certain parts of the country is not up to standard, and therefore, may negatively affect application users who might be in an area with no or poor Internet connectivity (Fourie, 2013b; Hawthorne & Grzybowski, 2019). However, the opportunity does exist to develop an application which is wireless (KPMG, 2016:80).

Interestingly, a short-term insurance company developed an application that uses a smartphone's accelerometer and GPS to provide detailed driving information such as harsh braking, distracted driving, and speeding. It can also provide personalised driving tips, and has a function that ranks a driver's score against his/her friends, as well as other drivers in South Africa (Discovery Insure, 2014; Discovery, 2021c).

Social media

In the last few years, social media has become a very important communication medium and it should thus form part of the marketing strategy in the financial industry (George, 2017). Social media has become a tool that short-term insurance companies use to validate consumer claims before they pay out (Knoesen, 2018; Faurie, 2019b).

A carefully organised social media presence is a critical aspect of the marketing strategy.

There are, however, risks or threats of including a social media presence (Conway, 2017). Social media risks involve possible harm to the brand reputation when a number of consumers post negative content about bad experiences on the company's social media platform, employees that disclose confidential information about the company, corporate identity theft, and legal, regulatory and compliance violations (Seymour, 2019:7). It is a good idea for short-term insurance companies to ensure that the compliance team (the employees that ensure that the company is in compliance with all the applicable laws, rules and regulations) works with the marketing team, as this can improve the understanding and respect of any social media regulation (Daniele, 2016; George, 2017).

There are certain requirements that organisations should pay attention to when deciding to include social media in their marketing strategies (George, 2017). One of these is the risk of disclosing confidential company information, such as trade secrets, know-how and other copyright information on a social media platform. The employees' rights to use social media if their association with an organisation can be seen on social media should be specified (Daniele, 2016). An organisation should be aware of any social media regulations and compliance challenges that pertain to its industry when something is posted. Organisations should develop proper internal procedures and controls to ensure that associated risks are managed effectively. Organisations should, furthermore, decide which devices and applications employees may use and under what circumstances an employee may communicate with consumers on social media (George, 2017).

Crouth (2016) and Snook (2019) are of the opinion that social media can also be used by short-term insurance companies to determine what type of risk a consumer is, and if the insurance claim should be paid out. If, for example, the consumer posts photos or a status on a public domain/social media site (such as Facebook) the day that a motor vehicle accident claim was submitted to an insurance company, this content can be used as evidence. Insurance companies can investigate on these platforms to make sure that the consumer's story is true, and this could influence whether the claim is successful or not.

Bracher (2017) and Geospatial World (2020) argue that social media can assist insurance companies in the future to determine the risk category of the consumers. The content a consumer posts about him/herself on social media platforms can determine the premium he/she will pay or if the potential consumer will get insurance from the insurance company. Insurance companies will, however, only have access to the consumers' platforms if the security settings are not activated.

Social media can, therefore, be one of the Big Data sources that insurance companies can use to obtain data from (Dillard, 2017:5). The term Big Data and how it can be used by short-term insurance companies is explained next.

Big Data

Big Data is a term for substantial sets of data which are sizable, more varied in a complex structure that is difficult to store, analyse and visualise for further processes or results (Sagiroglu & Sinanc, 2013:42; Taylor, 2021). This data technology offers insurance companies a chance to create, capture and analyse valuable consumer data, which will assist insurance companies to calculate and manage risks more effectively (Ferenzy *et al.*, 2016:6). The advances in data have changed the way in which insurance companies use information. Insurance companies have to make use of more effective ways to gather new data sources so that they can improve in the pricing of risks and at the same time, expand consumer relationships (Preston, 2017). The sources for Big Data, from which short-term insurance companies can obtain data are: telematics devices installed in vehicles, location-based sensors fitted in offices and homes, wearable devices, such as watches and step counters, as well as social media platforms (Dillard, 2017:4).

Big Data has the opportunity to create a more proactive approach within the insurance industry (Preston, 2017). Big Data can ensure that short-term insurance companies understand their consumers and it provides the opportunity to obtain data about a consumer from multiple sources to generate better consumer outcomes. The analysis of data about consumers will allow short-term insurance companies to communicate and interact with consumers on all platforms available (Schliesser, 2014:25; Kaigorodova *et al.*, 2021:38).

By utilising Big Data, the short-term insurance companies can offer consumers a smooth claiming process, for example, if this is in place, a short-term insurance

company will be notified with an alert that an insured motor vehicle was in an accident. Some short-term insurance companies in South Africa already make use of Big Data to monitor the driving behaviour of drivers and reward consumers for good driving (De Vries, 2017). Another advantage for insurance companies using Big Data is that data analysis can allow short-term insurance companies to offer solutions tailored to specific consumer needs. This real-time analysis of Big Data can also bring benefits, such as refined policies, better estimations gained from consumer analysis, assisting in meeting the regulatory and compliance demands of the industry faster and cost effectiveness (Preston, 2017). A further advantage of Big Data is fraud reduction, by obtaining data from new and external sources and using sophisticated algorithms to combine data sets, it detects patterns that can assist short-term insurance companies to reject fraudulent claims (Lewarne, 2017).

The implementation of Big Data amongst insurance companies has been slower than what was expected, but it definitely captured the attention of many insurance companies as this can create a competitive advantage (Preston, 2017). Customisation will become effortless as data capture and analysis expand and become more affordable to insurance companies (Ferenzy *et al.*, 2016:6). The future looks promising for those short-term insurance companies that see the opportunity and invest in Big Data (Havlik, 2016). By considering the benefits provided above, short-term insurance companies can definitely view Big Data as an opportunity.

Cloud computing

Cloud computing is an integrated technology (IT) which can change the way organisations store large amounts of data and it makes provision for designing and deploying applications. Some insurance companies have started to write applications to the cloud, and make use of the cloud-based infrastructure to support the core applications, such as policy administration, claims and billing systems (Lambert, 2014; Betz & Payne, 2021). According to Smith in De Vries (2017), the back-end administration systems of insurance companies are still outdated as these systems have been built in phases over a period of time.

The rise of cloud computing enabled greater access to IT systems, but particularly, the back-end systems which provide access to intermediaries, and it can expedite the risk-rating process, as well as speeding up the sales process extensively (Kaigorodova *et*

al., 2021:38). This type of technology has become very popular in the life insurance industry, but in the other industries, other innovations at a system level that require less capital expenditure have been implemented (Field, 2017). Short-term insurance companies can investigate this advancement and determine if it can be used to streamline processes.

Internet of Things (IoT)

IoT relates to the various physical devices available that can be connected to the Internet to collect and share data (Ranger, 2020). A large number of insurance consumers are willing to share more information in exchange for savings on their policies, and these IoT devices automate the sharing of data (Canorea, 2021). In terms of motor vehicle insurance, telematic tracking devices are used to collect significant volume of data and this helps short-term insurance companies to determine the motor vehicle risk factors (Moodley, 2019:9). This data allows insurance companies to determine a policy rate/price based on the risk factors (Kaigorodova *et al.*, 2021:38). The IoT can definitely be seen as an opportunity for short-term insurance companies in South Africa, as it can enhance the customer experience, add important safety benefits, assist insurance companies to be more proactive, improve efficiency, save costs by reducing risks (Deetjen *et al.*, 2019).

Artificial Intelligence (AI)

Advani (2021) defines AI as the intelligence demonstrated by machines/robots. These machines can learn with experience and perform human-like tasks. Insurance companies currently use AI-driven tools to gather deeper data, more detailed data and connect to consumers in more significant ways (Choudhary, 2020). By adopting AI, short-term insurance companies can assess the damage to a motor vehicle at the beginning of the claim process and generate estimates, which allows effectivity for the insurers and greater clarity for the policy holders (Manning, 2020). AI can therefore be regarded as an opportunity for short-term insurance companies.

Self-driving vehicles

As discussed earlier in this chapter, self-driving/autonomous motor vehicles, which are still in the developing phase, will definitely have an impact on the motor vehicle insurance industry, as motor vehicle insurance policies have to be adjusted accordingly. Through automation, vehicles can operate more cheaply and

consistently, reliably and safely (Bornstein, Rakow & Clemente, 2017; Beachey, 2020).

In a self-driving motor vehicle, the technology in the vehicle takes over for an entire trip. Limited self-driving motor vehicles are vehicles that have built-in technology which takes over all the driving functions in certain traffic/environmental conditions (Venter 2017; Lutkevich, 2019). The self-driving vehicles will most likely reduce the risk of vehicle accidents, but it will not eliminate the risk totally (Aon Risk Solutions, 2014:3; Filiz, 2020). The industry perspective is that self-driving vehicles will likely reduce the claim frequency and the monthly premium, and changes will have to be made to the underwriting policy (KPMG, 2015b:21; O'Very, 2018).

Although self-drive motor vehicles are still in the testing phase and not available to buy, there are a number of newly manufactured vehicles that individuals can purchase that are fitted with assistive technology, such as autonomous braking. In the UK, the first self-driving policy was introduced to accommodate these consumer needs (Kollewe, 2016). In South Africa, insurance companies still have to formulate a legislative framework for self-driving vehicles (Lovells, 2016; Jacobs, 2020b).

Cybercrime

While technological developments can be opportunities for short-term insurance companies, there are also risks involved with these developments. The threat of cybercrime, where these technological advances can be hacked, should be considered (Epic MSLGROUP, 2017). Cybercrime is a rising concern in the short-term insurance industry, especially because many of the functions in this industry are computer-based (Sutherland, 2015; Faurie, 2019c; Johansmeyer, 2021).

There has been an increase in cyber-attacks in South Africa where cyber criminals attack organisations, however, many organisations have made provision for these types of attacks and have amended their strategies (Alfreds, 2016; Singh, 2021). Short-term insurance companies should thus develop strategies to mitigate this threat.

With the introduction of self-driving motor vehicles, future cybercrimes should also be considered by short-term insurance companies. Bornstein *et al.* (2017) state that the future of self-driving vehicles is an overwhelming challenge and the stakes are high when it comes to cybercrime. Fortunately, some of the cyber risks involved in self-driving motor vehicles have been confronted before. A potential danger was

highlighted in 2015, when two computer security specialists (white hat hackers) broke into the protected system and network of a Jeep Cherokee and cut its transmission on the highway. This was part of a research initiative and Chrysler had to recall 1.4 million motor vehicles to resolve the deficiency in the electric control units (ECUs), to ensure that hackers cannot gain access to the ECUs of these motor vehicles in the future (Toews, 2016).

Hackers can also obtain personal information from the ECU of a vehicle, and this is also a risk that motor vehicle manufacturers are aware of (Ranft *et al.*, 2016:17). The risks that have been confronted before can be used as learning opportunity and motor vehicle manufacturers can improve the self-driving motor vehicles' ECUs to prevent hackers from gaining access to these systems (Nash *et al.*, 2017:14). The automotive industry can still make improvements on these vehicles as they can use the advice related to the cyber security systems from the banking and financial services (Bornstein *et al.*, 2017; Noonan, 2019).

Short-term insurance companies can utilise the technological developments discussed above to design tailor-made insurance services (Schliesser, 2014:25; Balasubramanian *et al.*, 2021). Insurance companies in the short-term insurance industry have to evaluate the technological environment constantly as this is a fast-changing environment that offers a number of opportunities. However, if short-term insurance companies do not adapt to these changes competitors will implement these changes first.

2.7.3.2 Economic environment

An organisation has no control over the economic environment, as factors, such as inflation, exchange rates, recessions, and monetary and fiscal policy impact the organisation (Erasmus *et al.*, 2019:128). This environment also includes factors, such as the personal disposable income and the purchasing behaviour of consumers. A consumer's disposable income is affected by the countries' inflation, exchange rates, recessions, and economic growth rates (Ferreira, 2011:21; Cherunilam, 2016:75).

During 2015, the weakening rand had a negative effect on the GDP rate. In addition, the possible downgrade of South Africa's sovereign rating was another challenge for short-term insurance companies (KPMG, 2016:137). The economic growth is of enormous concern for short-term insurance companies and the consumers. Short-

term insurance companies are already struggling to cope with the high inflation rate, as the value of claims is higher due to the imported parts that are needed to repair the damage to motor vehicles. The weakening in the rand is another reason why insurance premiums continue to increase (Roberts, 2016b). Consumers are becoming poorer, and the rise in the unemployment rate is one of the reasons why consumers' disposable income has decreased. Thus, short-term insurance services are seen as luxury services, as consumers cannot afford these services anymore (KPMG, 2016:95).

At the beginning of 2017, two of the foreign-currency rating companies (Standard & Poor's Global Ratings and Fitch Group) downgraded South Africa to junk status (BB+), which is the first level of the sub-investment grade. This downgrade heightened the economic concerns amongst short-term insurance companies (Pearson, 2017). This event impacted the short-term insurance companies and consumers, as the motor vehicle repair costs will increase due to the motor vehicle parts being imported and it will cause an escalation in premiums. In addition, the country's downgrade to BB+ status and the low interest rate forced insurance companies to relook their financial and strategic planning (Danckwerts *et al.*, 2020:3-4).

It was predicted that in 2017, the living costs of consumers will rise and short-term insurance will become unaffordable for consumers (Govender, 2017). The current financial distress of consumers during the COVID-19 pandemic can also impact the penetration rate when consumers decide to cancel their current motor vehicle insurance policies (Peyper, 2021). Short-term insurance companies will have to identify innovative ideas to manage these threats in the economic environment.

2.7.3.3 Social environment

The social environment consists of all the consumer characteristics, such as demographic variables, age, culture, geographic location and so forth. These characteristics are the aspects that affect the consumers' buying behaviour (Del Marmol & Feys, 2015:10; Perera, 2017:12). The consumers' lifestyles, habits and values can influence the organisation (Erasmus *et al.*, 2019:128). For instance, the life stage of a consumer can affect the consumer's behaviour and purchase decisions, which in turn, affects the organisation. The personality of consumers can also

influence the consumers' purchase behaviour, as well as how and when they use the products/services of an organisation (Middlebrook, 2020).

A report compiled by PwC (2014:54) revealed an important demographic factor for short-term insurance companies. They found that the black middle class is emerging in the industry. They also found that changes in literacy and an increase in education can encourage short-term insurance companies to improve the awareness and consumption of insurance services. Another report by Delaporte and Bastid (2016:5) indicated that a new type of consumer has started to make a mark in the global short-term insurance industry. This is the Generation Y, also known as the Millennial generation. The millennial generation was born in the 1980s and 1990s and they are comfortable with digital technology. These individuals are current and immediate future potential consumers, and these are the individuals that are starting to make a mark in the global short-term insurance industry (Delaporte & Bastid 2016:5). Some short-term insurance companies can view this as a threat, and it can disrupt the way traditional short-term insurance companies do business, as many make use of brokers and minimum technological channels.

The social unrest in South Africa was amplified due to the COVID-19 lockdown, and service delivery protests and riots are likely to increase, as a result (Moodley, 2021). As explained earlier, this does not directly impact insurance companies in terms of personal motor vehicle insurance (as it is covered by an add-on to the policy by Sasria), but consumers will ask about this and it should be explained to them. More consumers are working from home, another consequence of the COVID-19, and this has a direct impact on the consumers' risk profile for short-term insurance companies (Moodley, 2021). Short-term insurance companies should take into account all the social environmental changes and should ensure that the business strategy is amended to make provision for these changes.

2.7.3.4 Physical environment

The physical environment refers to the natural resources in a country, which the organisation can use as inputs to produce end-products and services (Aghazadeh, 2016:262). This explanation of the physical environment does not explain how this environment can affect short-term insurance companies. However, this environment can account for risks in the short-term insurance industry. For example, a hailstorm in

a certain area can cause damage to motor vehicles, which will result in a high claim rate during a certain period, and therefore, the physical environment is the reason why some risks emerge in the short-term insurance industry. The worrying climate change, natural disasters and weather conditions are also aspects that can impact on this environment (Del Marmol & Feys, 2015:11; Lappeman *et al.*, 2021). All the aspects of the physical environment that impact the short-term insurance companies are discussed below.

The significant hailstorm that occurred in Gauteng in 2013 resulted in great losses for insurance companies. The losses experienced from this storm exceeded the total losses sustained from the six hailstorms of 2012. In order to reduce future potential insurance losses, insurance companies started to inform consumers about expected hailstorms to mitigate the risk (Vazeer, 2016a). The drought of 2015 and 2016 was the worst drought in South Africa in 111 years. Water shortages were a concern and harvesting losses increased. Furthermore, these conditions increased the chances of fire losses for the consumers of short-term insurance companies (KPMG, 2016:95). Weather conditions thus have an impact on the short-term insurance companies as it can affect their claim rates and income (Du Plessis, 2017). There is a continuing concern that weather catastrophes will impact the sustainability of insurance companies (Madzingira, 2021). Short-term insurance companies have to be able to act proactively in these conditions to minimise their risks.

2.7.3.5 Institutional-governmental environment

The institutional-governmental environment involves the political and legislative components, and organisations should establish how the legislation and political aspects can influence the organisation (Erasmus *et al.*, 2019:128). The short-term insurance industry is governed by the National Treasurer (NT) and the FSCA (Still & Stokes, 2016:253; Krige & Laskov, 2018).

The South African short-term insurance industry is under increased legislative pressure, but at least, the industry is well legislated (INSETA 2014:16). There are several pieces of legislation that have an impact on how short-term insurance companies should operate, specifically, as related to motor vehicle insurance policies. These legislations are the Consumer Protection Act (Act No. 68 of 2008), Financial Advisory and Intermediary Services Act (Act No. 37 of 2002), Companies Act (Act No.

61 of 1973), Financial Institutions Protection of Fund Act (Act No. 28 of 2001), Financial Services Scheme Act (Act No. 37 of 2004), Inspection of Financial Institutions Act (Act No. 80 of 1998), Short-Term Insurance Act (Act No. 53 of 1998), Protection of Personal Information Act (Act No. 4 of 2013), Financial Intelligence Centre Act (Act No. 38 of 2001) (Still & Stokes, 2016:260-271), and the Financial Sector Regulation Act (Act No. 9 of 2017) (Gibson, 2021). Policies that short-term insurance companies offer to consumers should be in line with these acts (Tshidi & Sithole, 2016:9).

The Consumer Protection Act (Act No. 68 of 2008), stipulates that any consumer agreement (policy), which intends to limit the risk or liability of a supplier (a short-term insurance company), must be highlighted to the consumer in writing and in simple language to ensure that the consumer understands the facts, nature and effects of the agreement (Joffe, 2011; Barendse, 2015; Dinnie, 2015). The Protection of Personal Information Act (Act No. 4 of, 2013) ensures that short-term insurance companies conduct themselves in a responsible manner when collecting, processing, storing and sharing personal information of consumers (Tadman, 2017; Sithole, 2021). Short-term insurance companies can be held liable if any personal information about a consumer is disclosed (Financial Services Board, 2016:6). These are two examples of how acts direct the conduct of short-term insurance companies in relation to the policies offered to consumers. Short-term insurance companies had until 30 June 2021 to ensure that their daily operations comply with the POPI Act. Failure to comply can face penalties by the Information Regulator (Sithole, 2021).

Political risks have consequences that are difficult to anticipate (Cape Business News, 2017; Buthelezi, 2021). With regard to a short-term insurance company in South Africa, political action will not necessarily be focused on short-term insurance companies, but the political actions, such as strikes that occur, can present risks for these organisations, as it can result in policy claims. Civil unrest is on the rise in South Africa (Coetzee, 2021), which is a matter of concern for insurance companies (Buthelezi, 2021). However, as discussed earlier, short-term insurance companies do not cover these events, and an additional Sasria service should be included in a policy. Sasria provides special risk cover, such as civil commotion, public disorder, strikes, riots and terrorism, for all individuals that own assets in South Africa. Sasria SOC Ltd is also part of the short-term insurance industry as this is a special risk short-term

insurance company (Saria SOC Ltd, n.d.). All these political aspects should be assessed and the legislation impacting the short-term insurance companies should be taken into account to direct their conduct when offering policies to consumers.

2.7.3.6 International environment

The international environment consists of the local and foreign political trends or events that may have an impact on an organisation (Erasmus *et al.*, 2019:128). Changes in the international environment of the short-term insurance industry will impact the South African short-term insurance industry. Preparations should be made to update strategies for the changes to come.

Regulatory changes in the international market were identified as one of the risks faced by the international insurance industry, as there are broadening costs involved and it can sidetrack management (Strydom, Naidoo & Botha, 2014:23; Chakar, 2020:5). This global regulatory/legislative pressure is already impacting the South African short-term insurance industry and innovative ways to overcome this challenge should be considered.

At a global level, several digital movements are rapidly emerging to form completely new types of insurance organisations. The consistently connected consumer who expects fulfilment when seeking information about the insurance services that are available, acts as the motivation behind this new type of organisation. The delivery of tailored digital products, IoT that increases the need for streaming analytics, and an increased focus on algorithmic risk assessments are examples of current global developments (Daskal, 2021). The global shift has already impacted the South African short-term insurance companies, as was discussed earlier under the technological environment. In general, the short-term insurance industry of South Africa has been slow to adapt to these digital movements (Moyo, 2016).

The two foreign-currency rating companies that downgraded the country can also be seen as an international factor that impacts the short-term insurance companies in South Africa. This was discussed in the economic environment section above. The self-driving motor vehicle is another international movement that will affect the South African insurance companies, but no legislative framework has been introduced thus far. Short-term insurance companies thus have to consider these changes when they develop their policies.

Going forward, competition will escalate globally and partnerships between tech-savvy (technological advanced) officials and well-funded new market entrants are expected to increase. This will promote further innovation and change in the industry. At the same time, more comprehensive data regulations will develop and insurance regulators, as well as data privacy rules, will become more important. Insurance companies will be able to use data to influence the level of service customisation for consumers (Ferenzy *et al.*, 2016:20). These are aspects short-term insurance companies have to investigate to ensure that they compete as sustainable short-term insurance companies in the market.

As can be gathered from all the examples and events that have occurred in the macro-environment of short-term insurance thus far, the impacts are immense. Short-term insurance companies should manage and evaluate the macro-environment regularly to mitigate future risks.

2.8 CONCLUSION

To conclude, the global insurance industry has a rich and ancient history. Insurance has evolved in South Africa from when the first insurance company was established in Cape Town in 1835. The main components in the South African insurance industry, long-term insurance and short-term insurance, were discussed. The role of the FSB and FSCA in the short-term insurance industry was highlighted. The associations that support the short-term insurance industry were specified, and the different types of short-term insurance services available in the country were explained. Developments in the short-term insurance industry of the country were summarised. The distinction between direct short-term insurance companies and traditional short-term insurance companies was made. This study included only direct short-term insurance companies, as these companies have more detailed information about their consumers.

This chapter presented that South Africa is the only country in Africa that has an established, well-developed, mature and comprehensive short-term insurance market. Motor vehicle insurance is part of the short-term insurance industry, and is the type of insurance that is the most sold insurance in the short-term insurance industry of South Africa. The importance of motor vehicle insurance in South Africa, the nature of this type of insurance, and the different types of motor vehicle insurance were discussed.

As the personal business line within the short-term insurance industry is the largest, this study focused only on personal motor vehicle insurance. The components of the business environment, namely, the micro, market and macro-environments within the short-term insurance industry were reviewed. Lastly, the variables or factors of the business environments that influence the short-term insurance companies were comprehensively explained. As can be gathered from the discussion of the business environment in which short-term insurance companies operate, it is clear that the variables in the micro, market and macro-environments have a huge impact. Short-term insurance companies should manage and evaluate these three sub-environments regularly to alleviate the future risks.

CHAPTER 3:

CONSUMER PURCHASE DECISION-MAKING PROCESS

3.1 INTRODUCTION

Marketing is the central bridge between the organisation and its business environment, as this function connects a company and its market, which consists of the consumers and potential consumers (Erasmus *et al.*, 2019:436). The basic underlying principle of the marketing function in an organisation is to understand the consumers (Sethna & Blythe, 2019:6). This includes understanding the individuals' buying behaviour, habits, needs, and how consumers make their purchasing decisions (Parumasur & Roberts-Lombard, 2014:2; Cant, 2020:3).

Consumers refer to the individuals or groups, for example, families or businesses, who purchase, use, maintain and dispose of products and services to increase their life satisfaction and fulfil their needs (Goldsmith, 2021:9). Personal motor vehicle insurance consumers will therefore be the individuals or groups who purchase, maintain or cancel their personal motor vehicle insurance policies. Potential consumers are also part of the market/audience, but these individuals do not necessarily purchase and consume the product or service (Lappeman *et al.*, 2021:5). Therefore, motor vehicle drivers that do not purchase/have personal motor vehicle insurance will be potential consumers. Since consumers and their decision-making when purchasing an organisations products/services are central to the marketing strategies of a company, it is important to give a brief background of what marketing entails before a discussion of the consumer decision-making models is given.

The marketing function of a business, such as a short-term insurance company, will have to be aware of the individuals' needs, wants, and demands to satisfy these needs, wants and demands (Schiffman *et al.*, 2014:6; Kotler & Armstrong, 2018:17). These aspects are discussed in Section 3.2.1, which deals with the components of the marketing concept. The marketing mix and service mix (motor vehicle insurance is a service) elements are also explained in this chapter. Consumer research is discussed and the consumer behaviour concept is reviewed. Roles in the decision-making process, decision-making rules, different types of decision-making, and decision-making styles are also considered. These aspects are important to the marketing

function of short-term insurance companies to determine individuals' behaviour during purchasing decisions. In addition, the theories that are applicable to analysing the purchase decision process in efforts to increase consumer demand in the personal motor vehicle insurance market are explained.

Most of the consumer decision-making theories or models assume that the consumer decision-making process consists of several steps. It is, however, important to point out that these steps may vary from product to product or from service to service, but individuals all pass through similar types of steps (Prasad & Jha, 2014; Mahmood & Baharun, 2019). Several consumer decision-making models that have been developed by scholars over the years, will be evaluated. All the limitations and expansions of the different decision-making models are considered to develop a conceptual purchase decision model for personal motor vehicle insurance. Lastly, the conceptual consumer purchase decision for personal motor vehicle insurance (CPDFPMVI) model is presented.

3.2 THE MARKETING FUNCTION OF A SHORT-TERM INSURANCE COMPANY

As explained in Chapter 2, marketing is a business function of a short-term insurance company. The marketing function of an organisation is responsible for identifying and anticipating consumers' needs and wants, as well as introducing and delivering products and/or services to satisfy the consumers' needs (Lantos, 2011:3-4; Erasmus *et al.*, 2019:436). Consumer preferences are changing and the business environments are rapidly evolving, therefore the marketing function of a business needs to have a good understanding of their consumers' behaviour (Schiffman *et al.*, 2014:6; Coggins, Robinson & Wilkie, 2020). In order to understand the role of the marketing function in a business, the components of the marketing function will be discussed next.

3.2.1 Components of the marketing function

An uncomplicated definition of marketing is the managing of profitable customer relationships (Porral & Stanton, 2017:19). The American Marketing Association (2021) defines marketing as "...the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." Consistent with this definition, is the one from

Pride *et al.* (2015:5) that defines marketing as “the process of maximising returns to stakeholders by developing exchanges with valued customers and creating an advantage from them.” According to Armstrong *et al.* (2015:4) and Kotler and Armstrong (2018:82), an organisation's marketing function is responsible for delivering value to consumers, managing consumer relationships, ensuring that organisational objectives are achieved, and at the same time benefits should be provided to shareholders. The basic activities of a marketing function are thus to understand consumer needs, determine a target market, develop products/services that offer value, price the products/services correctly, and distribute and promote the products/services correctly (Nieuwenhuizen, 2015:97; Botha, 2018:33). These activities form the components of the marketing function, which will be discussed below. However, the marketing concept, which forms the basis of the marketing function, is first explained.

3.2.1.1 The marketing concept

Babin and Zikmund (2016:8) define the marketing concept as a predominant idea in modern marketing thinking that focuses on how an organisation provides value to the consumers beyond the physical product and production processes. Schiffman and Wisenblit (2019:34) concurred with the description above, by stating that the marketing concept has to do with identifying a target market and fulfilling the needs of this target market. Kotler and Armstrong (2018:37) explain the marketing concept as an organisation's achievement of goals, depending on determining the needs and wants of their target market and delivering the desired satisfaction more effectively than their competitors. When an organisation adopts the marketing concept, it develops a marketing orientation (Babin & Zikmund, 2016a:8; Cant, 2020:8).

Strydom (2018:304) agrees with this view by stating that the marketing concept affirms that an organisation should attempt to satisfy consumers' needs through coordinating activities to allow the organisation to achieve its objectives. The essence of the marketing concept lies in four principles, namely, profitability, consumer orientation, social responsibility and organisational integration (Nieuwenhuizen, 2015:96; Erasmus *et al.*, 2019:439).

The survival of an organisation depends on its *profitability*, as an organisation has to experience profitability to be sustainable (Babin & Zikmund, 2016a:10). Organisations

should rather attempt to achieve a specific rate of return in the long term, rather than achieving high returns in the short-term (Strydom, 2018:300). Therefore, long-term profitability is the primary objective of any organisation in the free-market system, as it can result in customer satisfaction and retention (Erasmus *et al.*, 2019:439).

Consumer orientation, also known as market orientation, relates to the organisation's task to research and determine consumers' needs and wants, and then designing a system to satisfy the needs and wants of consumers (Boone & Kurtz, 2016:10; Tomczak, Reinecke & Kuss, 2018:3). This means that all the actions of an organisation should be aimed at satisfying the consumers' needs, demands and wants (Babin & Zikmund, 2016a:8).

The *social responsibility* principle places the focus on how marketing affects the society as a whole in operating with scarce resources, environmental destruction and worldwide competition (Strydom, 2018:303). Organisations are responsible for the community in which the marketing task is performed (Cant, 2020:9), and can engage in projects where money is spent on improving the community. For example, organisations can sponsor sports events and educational institutions, such as at schools and universities. However, organisations need to be mindful and act responsibly by abiding by the laws of the country in which they operate (Erasmus *et al.*, 2019:441).

Organisational integration is the principle that emphasises the need for marketing information to be provided and used by all the organisation's functions (Babin & Zikmund, 2016a:10). All the decisions within an organisation should be coordinated in such a way that it will lead to the successful marketing of products and services (Strydom, 2018:304). Therefore, all the functions of an organisation should work together to achieve the same objective in marketing products and services to the consumers. The consumer needs, wants and demands were mentioned in the consumer orientation principle above, but are explained in detail below.

3.2.1.2 Consumers' needs, wants and demands

Organisations have to understand their consumers' needs, wants and demands (Schiffman *et al.*, 2014:73; Saurav, 2020) in order to provide customer satisfaction. According to Kotler and Armstrong (2018:30), human needs "...are the states of felt deprivation." The human needs include the basic physical needs for food, clothing,

water, and so forth; social needs for belonging and affection; and self-esteem or self-actualisation needs for knowledge and self-expression (Kotler & Armstrong, 2018:30). A need occurs when an individual's existing level of satisfaction does not meet the desired level of satisfaction (Ferrell, Hartline & Hochstein, 2021:118).

Wants are defined by Kotler and Armstrong (2018:30) as "...the form human needs take as shaped by culture and individual personality." A want can also be explained as the individual's desire for a certain product or service which will satisfy the need (Ferrell *et al.*, 2021:118).

When individuals have the buying power to purchase a product or service that will satisfy their needs, it is referred to as a consumer demand (Kotler & Armstrong, 2018:30). The distinguishing difference between an individual's wants and demands is that a demand only occurs when the individual is able and willing to pay for the want (Ferrell *et al.*, 2021:142). Need recognition is an important step in most of the consumer decision-making modules designed by scholars (see Section 3.6).

Consumer satisfaction can be described as the consumer's fulfilment response after purchasing a product or service (Smith, 2019:22). Schiffman *et al.* (2014:25) and Acevedo (2018) state that consumer satisfaction relates to the consumer's perception of the performance of a specific product or service in respect to the consumer's expectations. Solomon, Russell-Bennett and Previte (2013:302), and Staffaroni (2019) describe consumer satisfaction as a reflection of how a person feels about a product or service after it has been purchased from an organisation.

As can be understood from the definitions, a consumer is satisfied when the performance of a product or service is in line with the consumer's expectations. Satisfied consumers can lead to personal recommendations, and in such a way, the organisation can gain new consumers (Sethna & Blythe, 2016:104; Strydom, 2018:308). In order to better identify and satisfy the needs, wants and demands of individuals in the market, the market can be segmented into different groups. This concept of market segmentation is discussed below.

3.2.1.3 Market segmentation

Individuals in a target market can be classified into groups according to their common needs and characteristics. This is called market segmentation (Schiffman *et al.*, 2012:6; Dolnicar, Grün & Leisch, 2018:6). Market segmentation is defined as the

process of splitting individuals in the market into different groups and segments (McDonald & Dunbar, 2012; Cant, 2020:164). A more comprehensive definition of market segmentation is the process where a group of individuals within a broad mass market is divided into smaller groups which will consist of people with similar characteristics who have similar expectations and who are seeking similar benefits from a product or service (Burrow & Fowler, 2016:187; Strydom, 2018:312). For example, short-term insurance companies segment their markets into smaller homogeneous groups of individuals to ensure that the correct marketing efforts are directed at the correct group of individuals.

The geographical location, demographic, physiographic and behavioural variables can be used as the basis or criteria to segment a market (Burrow & Fowler, 2016:187-188; Strydom, 2018:314). The use of geographic location (by region of a country or the world) as basis to segment a market is based on the core assumption that individuals have diverse needs and wants because of where they live (Cahill, 2006; McDonald & Dunbar, 2012; Lamb *et al.*, 2018:399). However, geographic location as a segmentation approach does not ensure that all the individuals in a location will make the same purchase decisions, but it will assist in finding and establishing general patterns (Boone & Kurtz, 2016:277; Rajagopal, 2019:89).

Organisations often segment markets on the basis of demographics, as this information is widely available and it can also relate to the individuals' purchase decisions (Lamb *et al.*, 2013:275, 2018:337). The general demographic variables include age, gender, income, household size, education, ethnic background and family lifestyle (Boone & Kurtz, 2014:170; Willan, 2021).

Physiographic segmentation is segmentation on the basis of variables such as personality, motives, lifestyles and geodemographics, which cluster potential consumers into neighbourhood lifestyles (Lamb *et al.*, 2017:143). Behavioural segmentation is based on what individuals do, for example, what hobbies they have, what food they eat, how they travel, where they work and how they spend their spare time (Sethna & Blythe, 2019:11).

A general consumer profile can be compiled only after an organisation has segmented its market and categorised all the homogenous groups (DeVault, 2021). A general consumer profile will allow the organisation to select a promising segment that can

potentially be targeted. The selected segment will form the target market, and the organisation views this market as potential consumers (Erasmus *et al.*, 2019:447). A target market refers to a group of potential homogeneous individuals who have similar needs that the organisation decides to serve (Armstrong *et al.*, 2015:185; Berkowitz 2017:81; Ward, 2020).

After a target market has been determined, the organisation can position itself by creating an image and identity about the products/services offered in the potential consumers' minds (Schiffman & Wisenblit, 2019:35). Short-term insurance companies should perform market segmentation to establish their target market, after which they position the company, with the correct marketing efforts to form the image and identity about personal motor vehicle insurance policies in the potential or existing consumers' minds. Another essential marketing component that plays an important role in consumer behaviour is the marketing mix, which is discussed below.

3.2.1.4 The marketing mix

The concept 'marketing mix', also known as the 'four Ps', refers to the four marketing activities, namely, product, pricing, distribution and promotion. Organisations have to plan, organise, implement and control these four mix elements to ensure that consumers' needs, wants and demands are met (Percy & Rosenbaum-Elliott, 2016:143; Pride & Ferrell, 2021:6). The original marketing mix, which consisted of 12 elements (product planning, pricing, branding, channels of distribution, personal selling, advertising, promotions, packaging, display, servicing, physical handling, as well as fact finding and analysis), was developed by Neil Borden in the 1950s. However, Eugene McCarthy simplified it to the current basic marketing mix in 1960 (Baines, Fill & Rosengren, 2017:18). This marketing mix is viewed as the basic marketing toolkit that the marketing function in an organisation can use to implement their marketing plans (Ramaswamy & Namakumari, 2013:173; Baker & Saren, 2016:205; Masterson, Phillips & Pickton, 2021).

As the understanding of the marketing functions within organisations developed, marketing professionals and scholars suggested that the basic marketing mix should be expanded (Pride *et al.*, 2018:15). Two scholars, Booms and Bitner (1981), included three additional Ps (physical evidence, process and people) into the basic marketing mix. This was done specifically for services, as the services context differs from the

product context (Baines *et al.*, 2017:20, 2021:12). The manner in which organisations market products differs from how services are marketed. Thus, the expanded marketing mix was proposed. The expanded marketing mix is also called the service mix (Chaffey & Smith, 2017:54). Physical evidence, process and people are additional Ps in the service mix, but another P (partnership) has been suggested by Pride *et al.* (2018:17) to form part of the service mix. Each one of the Ps is explained below.

Firstly, the original 'four Ps' consist of the product, price, place and promotion. *Product* as an element of the marketing mix, refers to decisions and actions associated with the products/services an organisation manufactures or delivers to consumers and how it meets the individuals' needs (Percy & Rosenbaum-Elliott, 2016:144; Masterson *et al.*, 2021:25). The packaging and labelling of products are also included in the product element of the marketing mix (Baines *et al.*, 2021:11). With regard to short-term insurance companies, the product refers to a service, and includes the motor vehicle insurance policies and the insurance packages (as explained in Chapter 2, Section 2.6.2) offered to the market to satisfy the individuals' needs.

The *price* element relates to the decisions and actions linked with determining the prices of products and services to be offered. This includes every decision and activity regarding the pricing objectives, pricing policies and ensuring that consumers receive value for money (Pride & Ferrell, 2021:7). For example, short-term insurance companies have to make decisions and take action regarding the prices of motor vehicle insurance policies to ensure that consumers receive value for their money.

The *place* element refers to the distribution of products/services and includes the distribution channels and physical distribution activities (Baker, 2014:296; Masterson *et al.*, 2021:25). This element is important, as the distribution strategies will ensure that consumers find the products/services in the correct quantities, at the right time and the right place (Boone & Kurtz, 2016:47). For consumers to be satisfied, organisations such as short-term insurance companies have to ensure that products and services are available at the right time and in/at convenient locations (Pride & Ferrell, 2021:7) to satisfy the needs of their consumers. The distribution strategy can include a direct approach, traditional approach, or may be a combination of the two approaches, as discussed in Chapter 2, Section 2.4.2.2.

Promotion is the last element of the original marketing mix concept, and this element refers to the use of communications to persuade individuals and create awareness related to purchasing a product or service (Baines *et al.*, 2017:40). This element is also concerned with all the activities involved in informing and educating individuals about product and service offerings (Pride & Ferrell, 2021:8). Promotion can be viewed as the link between the sellers and buyers. Organisations can make use of salespeople/brokers to communicate messages about a product or service, but they can also convey the message directly through advertisements (Boone & Kurtz, 2016:48) or other promotion mix elements such as sales promotion, direct marketing, interactive marketing, public relations and personal selling (Fennis & Stroebe, 2021:27). Short-term insurance companies have to consider the different ways of communicating to inform, educate, persuade and remind individuals about their motor vehicle insurance policies.

These 'four Ps' remain central to the marketing mix of an organisation as they represent the core strategic marketing focus (Pride & Ferrell, 2021:6). However, short-term insurance companies also have to incorporate the service mix, as these types of companies offer a financial service to the market. The four additional Ps to form the service mix include physical evidence, process, people and partnerships.

The *physical evidence* element relates to the tangible components regarding service delivery, such as the building where the organisation operates from or the uniforms the employees wear while they deliver a service (Baines *et al.*, 2021:12). The equipment used and the physical environment or atmospherics whilst delivering a service also form part of the physical evidence element (Ramaswamy & Namakumari, 2013:713; Pride *et al.*, 2018:16). The online physical presence also has to be in place, and this refers to the online digital presence through using the brand image/logo on the organisation's website and updating the content regularly (Chaffey & Smith, 2017:94). For example, the physical evidence components within a short-term insurance company will include the employees' uniforms (including the contracted-out employees), the emails from consumers, the logo on the email, and so forth.

The *process* element involves the internal and external processes and transactions and the communication within the organisation, which are requirements to be fully operational (Chaffey & Smith, 2017:94). The timing of the service delivery will be impacted by the processes used to deliver the service. The degree of personalisation

and automation whilst delivering a service is also important (Pride *et al.*, 2018:16). Short-term insurance companies should consider these activities to provide a quick service. During the quotation stage, for example, the short-term insurance companies can do this process quicker by using Big Data and automated computer systems (discussed in Section 2.7.3.1).

People, as an element in the service mix, refers to the employees who work at an organisation, in other words, the individuals who ensure that a service is delivered (Sethna & Blythe, 2019:13). This also relates to how the employees treat consumers while a service is being delivered (Pride *et al.*, 2018:15). The human element in offering services is the employees as they get paid to prepare, produce and deliver the services (Masterson *et al.*, 2021:268). The employees of short-term insurance companies who interact with the consumer when a policy is sold or when a claim is logged, thus constitute the people element.

The last service mix element is *partnerships*, and this entails the associations and agreements with other organisations, where two organisations form business partnerships, alliances and joint ventures (Pride *et al.*, 2018:17). The fact that a major deal of marketing today is based on strategic partnerships and alliances has provided the need to include this element in the marketing mix (Chaffey & Smith, 2017:51). More insurance companies focus on partnerships or associations to drive growth, create new channels and drive innovations (Reader, 2016:4). Insurance companies are starting to recognise that the greatest opportunities will likely come from outside of the organisation. An example of how short-term insurance companies can include this element is to form a partnership with brokers and with specific panel beaters to ensure that a quality service is delivered to the consumer. Another example is where short-term insurance companies form partnerships with academics to generate new ideas (Perkmann & Salter, 2012; OECD, 2015:42).

A short-term insurance company will benefit from including these service mix elements in their marketing plan, since the implementation of these elements can assist in successfully directing the marketing efforts to the target market. The way individuals think, feel and act during and after a purchase relate to the consumers' behaviour. The consumer behaviour aspect is discussed below.

3.3 CONSUMER BEHAVIOUR

Jacoby (1978:87) was one of the first authors who stated that, in essence, consumer behaviour "...encompasses the acquisition, composition, and disposition of goods, services, time and ideas by decision-making units (for example, individuals, families, organisations, etc.)." Lamb *et al.* (2011:191) provide a more general definition of consumer behaviour, which is: "Consumer behaviour describes how consumers make purchase decisions and how they use and dispose of purchased goods or services." Schiffman *et al.* (2012:2), however, define consumer behaviour, as "... the behaviour that consumers display in searching for, purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs." Schiffman *et al.* (2014:4) as well as West, Ford and Ibrahim (2015:80) agree with this definition of consumer behaviour.

Consumer behaviour also refers to the study of how individuals purchase products and services (Kardes, Cronley & Cline, 2015:7; Hoyer *et al.*, 2018:5). It is, however, clear from all the above definitions that consumer behaviour suggests more than just how products and services are acquired. The three activities highlighted in all the definitions are how consumers acquire, use, and dispose of products and services.

When consumers acquire products and services it also involves their decisions about time and money (Hoyer *et al.*, 2018:6). Personal motor vehicle insurance consumers can obtain motor vehicle policies from brokers, online directly from short-term insurance companies, or contact the companies directly to purchase the policy. The time and effort spent to obtain the desired personal motor vehicle insurance policy will also be part of the acquisition activity. How consumers use products and services refers to consuming (Sethna & Blythe, 2016:7; Rajagopal, 2019:4).

Regarding personal motor vehicle insurance, it will be difficult to determine how consumers use (or consume) a policy, as it is a service offered until a claim is logged. To dispose of a product or service refers to how the consumers get rid of the product or services when it is worn out or used up (Hoyer *et al.*, 2018:6; Sethna & Blythe, 2019:9). How consumers cancel or terminate their personal motor vehicle insurance policies with short-term insurance companies when they do not want to have insurance or cannot afford it anymore, will reveal the disposal activity involved in consumer behaviour.

According to Schiffman *et al.* (2014:4), the study of consumer behaviour involves how individuals in a market think (the purchase decision-making process), feel (the emotions of consumers) and behave (the physical actions of consumers which is the result of decisions and feelings). In other words, consumer behaviour involves how individuals spend their available resources, such as money, time and effort, on products and services. However, Sethna and Blythe (2019:10) illustrated that the basic attitudes (made up of thought, emotion and intended behaviour) and the personal and environmental factors are the general aspects of consumer behaviour. The purchase decision-making process is analysed and discussed in more detail in Section 3.6 of this chapter.

Consumer behaviour research is important for organisations. The information obtained can assist strategic marketing in terms of segmentation, targeting, and positioning by identifying the consumer differences and similarities to ensure correct consumer profiling is performed (West *et al.*, 2015:82; Rajagopal, 2019:3). Other benefits of conducting consumer behaviour research, include improving business performance by creating consumer-focused strategies, the ability to influence public policies (for example, if the study is about the nutrition of foods), and it can assist in educating consumers to make better decisions (Kardes *et al.*, 2015:11-12; Ahmed, 2019b). The sections below review the type of consumers and consumers' mental and physical activities.

3.3.1 Types of consumers

Consumers refer to the individuals or groups, for example, families or businesses, who make the decisions to purchase, use, maintain, and dispose of products and services to increase their life satisfaction and fulfil their needs (Goldsmith, 2021:9). A consumer also pays for the product or service (Parumasur & Roberts-Lombard, 2014:2; Khartit, 2021). The individuals or groups who decide to purchase motor vehicle insurance and pay for the policy will be viewed as motor vehicle insurance consumers.

Burrow and Fowler (2016:316) indicated that service organisations, such as short-term insurance companies, have two types of consumers, namely, individual consumers and business consumers. Parumasur and Roberts-Lombard (2014:2) and Long (2020) agreed that individual consumers purchase for their households, whereas business consumers are part of households but purchase in the capacity of a business. The

individual consumers are thus the individuals that purchase personal motor vehicle insurance and the business consumers are the businesses (big or small) that purchase motor vehicle insurance for their company-owned motor vehicles. This study focused on the individual consumers who decided to purchase personal motor vehicle insurance, but this study also investigated why individuals decide not to purchase personal motor vehicle insurance. Individuals who follow the purchase decision-making steps but decide not to purchase, are referred to as potential consumers.

3.3.2 Mental and physical activities of consumers

The definition of consumer behaviour refers to both mental and physical activities. The mental, also known as cognitive activities, relate to the individual's thought processes, their opinions, beliefs, attitudes and intentions about a product or service (Kardes *et al.*, 2015:10; Pride & Ferrell, 2021:145). These activities occur when the individuals go through the decision-making process and evaluate how well the product/service satisfies their need (Parumasur & Roberts-Lombard, 2014:5; Erasmus *et al.*, 2019:459).

The physical activities involved with consumer behaviour relate to actions that are taken by the consumers regarding how they purchase and how they compare the information about products/services (Einstein, 2017:55). The different mental and physical activities of consumers are discussed in the sections below.

3.4 CONSUMER DECISION-MAKING

A decision is an individual's response to a situation, and it entails judgment, expectations and evaluations (Oliveira, 2007:16; Ismagilova *et al.*, 2019:11). Another definition of a decision is that a decision occurs when an individual selects an option between two or more available options (Schiffman *et al.*, 2012:63; Smith, 2019:90). Individuals can therefore only select/choose an option if there are alternative options available.

In the personal motor vehicle insurance market, consumers and potential consumers have numerous options to select from, as quite a number of short-term insurance companies offer personal motor vehicle insurance. Consumers have to decide to purchase or not to purchase, how to purchase the service (which distribution channel), and how to pay for the service (Schiffman *et al.*, 2012:63; Acevedo, 2018:17). This

study focused on the consumer and potential consumer's decision to purchase or not to purchase personal motor vehicle insurance.

The steps that consumers generally follow when they purchase products or services is known as the consumer decision-making process (Lamb *et al.*, 2011:191; Cant, 2020:125). In other words, when an individual decides to purchase a personal motor vehicle insurance policy, he/she passes through various steps, which form part of the consumer decision-making process. Parumasur and Roberts-Lombard (2014:264) define the consumer decision-making process as "...a sequential and repetitive set of psychological and physical activities ranging from problem recognition to post-buying behaviour." There are, however, some individual (motivation, social, perception, learning, personality and attitudes) and external (marketing efforts of company, economic environment and the consumer's reference group) influencing factors that can impact an individual's decision-making (Kaser, 2013:48; Stankevich, 2017:10).

Furthermore, the consumer decision-making process, also known as the purchase decision-making process, can be explained as an outline of how individuals generally make decisions. Not all the individuals who follow these purchase decision-making process steps become consumers, as they might abandon the whole idea at any point in the process (Lappeman *et al.*, 2021:154). Even though most scholars refer to the consumer decision-making process, all the individuals in a market that have a need for a certain product or service will follow these steps. Not only the consumers, but also potential consumers, follow the consumer decision-making process, whether they actually purchase or not.

Consumer decision-making is similar to problem-solving because a problem occurs when individuals perceive a difference between their current situation and what they want (Parumasur & Roberts-Lombard, 2014:263-264; Khanna & Hanspal, 2019). Due to the individual's problem, a need exists and this need should be satisfied. All the steps included in the consumer/purchase decision-making process, as well as the influences on the individuals' decisions, were introduced in Chapter 1. These steps will be discussed comprehensively in Section 3.6, where they will be illustrated in the different decision-making models. The roles in the decision-making process, decision-making rules, types of decision-making and the different decision-making styles are explained below. These can impact the short-term insurance company's understanding of the individuals' purchasing decision-making behaviour.

3.4.1 Roles in the decision-making process

Organisations can attempt to understand their consumers' behaviours during purchase decision-making by identifying the different roles an individual can play in decision-making (Gbadamosi, Bathgate & Nwankwo, 2013:73; Aghazadeh, 2017:332). The five different roles that can be identified in most decision-making processes are initiator, influencer, decider, purchaser and user, as explained below (Parumasur & Roberts-Lombard, 2014:4; Kotler & Armstrong, 2018:192):

- The initiator is the individual that first suggests making the purchase (Lamb *et al.*, 2018:112).
- The influencer is the individual whose views or advice is taken into consideration when the purchase decision is made, and this individual thus influences the purchase decision (Armstrong *et al.*, 2015:150; Kotler & Armstrong, 2018:192).
- The decider is the individual who makes the decision to purchase or not to purchase, what to purchase, how to purchase or where to purchase (Kotler *et al.*, 2013:228; Gbadamosi, 2019:296).
- The individual who physically makes the purchase is the buyer or purchaser (Lamb *et al.*, 2018:112).
- Finally, the user is the individual who uses the product or service (Gbadamosi, 2019:296).

By identifying the main participants and the roles played by participants in a decision-making process, organisations can direct their marketing efforts accordingly (Kotler & Armstrong, 2018:192). Short-term insurance companies can therefore benefit by understanding the participants (the market) and the roles these participants play during the decision-making process. This will allow them to design the correct marketing efforts aimed at the correct participants.

3.4.2 Decision-making rules

The decision rules, also referred to as information processing strategies, are the procedures used by individuals to facilitate brand choices/decisions (Sethna & Blythe, 2019:57). The two main categories are compensatory and non-compensatory decision rules (Schiffman *et al.*, 2012:77; Arunangshu, Pradip & Satakshi, 2021:94-95).

Compensatory decision rules refer to how the deficiencies in one criterion of the brand can be compensation for the strengths or advantages of another criterion. Individuals often use this rule as it emphasises the balance and trade-offs between options as individuals search for their choice (Emilien, Weitkunat & Lüdicke, 2017:244). For example, when an individual decides to purchase motor vehicle insurance, he/she might be able to compensate on the fact that the car rental option is not included but the price will be more affordable.

The *non-compensatory decision rules* are strategies used by individuals when a product/service does not meet the decision rule for one attribute/feature and this cannot be compensated for by its strengths or advantages in other areas (Sethna & Blythe, 2019:56). In other words, this rule does not allow individuals to balance the positive evaluation of a brand on one feature against the negative evaluation on another feature. Three non-compensatory decision rules can be considered, namely, the conjunctive decision rule, the disjunctive decision rule and the lexicographic decision rule (Schiffman *et al.*, 2012:78; Arunangshu *et al.*, 2021:95-96), which can be explained as follows:

- The conjunctive decision rule implies that the individual will establish a minimum benchmark level/cut-off point to evaluate the brand feature. Therefore, brands that do not meet the benchmark level will not be further considered (Sethna & Blythe, 2019:57). When applying this rule, an individual can use a certain price as a benchmark/cut-off point to make a decision between the different personal motor vehicle insurance policies.
- The disjunctive decision rule relates to when an individual sets a minimum cut-off point separately for each feature. This is similar to the conjunctive decision rule, but the cut-off level might be higher than that normally established in the conjunctive decision rule (Schiffman *et al.*, 2012:78; Arunangshu *et al.*, 2021:95). With this rule, an individual who is busy making the decision to purchase personal motor vehicle insurance can use a certain price as the cut-off point, but the price might be higher than that in the conjunctive decision.
- When individuals make a lexicographic decision, the rule is that the individual first ranks the features according to perceived relevance or importance, and then the various alternatives are compared in terms of the feature that is considered most

important. If one option is ranked the highest then this option will be selected (Sethna & Blythe, 2019:56). For instance, when an individual considers technology as the most important feature when selecting a short-term insurance policy, he/she will have to work through all the quotations and rank them in order of importance. The option with the most technological features will be the highest ranked and this option will be selected.

3.4.3 Types of decision-making

The main types of decisions that consumers and potential consumers make during the decision-making process are complex, dissonance-reducing, variety-seeking, habitual/routine, and impulsive decision-making (Du Plessis, Strydom & Jooste, 2012:83-84; Masterson *et al.*, 2021:99). In addition, the type of decision an individual makes depends on the type of product/service purchased, the purchase situation, and the level of purchase involvement (Lamb *et al.*, 2011:197; Pride & Ferrell, 2021:146).

During *complex decisions*, individuals are highly involved in a purchase and they are aware of significant differences between the brands. An individual usually makes this type of decision when purchasing an expensive product/service that is not bought frequently and involves risks, for example, when purchasing a motor vehicle, computer, furniture, and so forth (Du Plessis *et al.*, 2012:83; Berger-Grabner, 2021).

Dissonance-reducing decisions occur when individuals think there is a small difference between brands, and although they are highly involved in the purchase, they put little effort into searching for information about a brand. Purchasing electrical tools or insurance are examples of a purchase where dissonance-reducing decisions occur (Masterson *et al.*, 2021:99).

Habitual/routine decisions are taken by individuals when there is a low involvement in a purchase, and when they perceive few significant differences between the different brands. If consumers are satisfied with a product/service, it will be purchased again, therefore, forming a habit. Toothpaste and soap are examples of items purchased during a habitual decision (Parumasur & Roberts-Lombard, 2014:271; Berger-Grabner, 2021). Individuals make habitual/routine decisions when purchasing low-cost items that require little search and decision effort, such as buying a bottle of water or batteries (Pride & Ferrell, 2021:179).

A *variety-seeking decision* is made when individuals understand the criteria for evaluating the product/service, but they have not yet established a clear brand preference. Individuals have a low involvement in the purchasing process as they purchase different brands (takeaway foods, restaurants, entertainment) for the sake of having a variety (Kardes *et al.*, 2015:231; Masterson *et al.*, 2021:99).

An *individual takes an impulsive decision* if it is an unplanned action or a purchase is made on the 'spur of the moment'. Therefore, the decision is made at the point of purchase. Items such as bubble gum and magazines are examples of items that are purchased when an impulsive decision is made. (Du Plessis *et al.*, 2012:84; Cant, 2020:125).

Individuals that review or consider purchasing financial service policies/products, such as personal motor vehicle insurance, will engage in dissonance-reducing behaviour, as they must make a decision between numerous similar alternatives (Belch & Belch, 2015:125; Katrodia, 2021:61). During this type of behaviour, individuals are highly involved in the purchase, but they are of the opinion that there are only minor differences between the insurance products offered by the short-term insurance companies (Jooste, 2014:66; Techasurin *et al.*, 2020:2). In other words, individuals wanting to purchase personal motor vehicle insurance will typically shop around to see what is currently available in the market, but they will purchase without thinking about the decision for too long.

3.4.4 Decision-making styles

The concept of a decision-making style was first defined by Sproles and Kendall (1986:267) as the mental orientation that characterises an individual's approach to making choices. As explained earlier, various consumer and potential consumer characteristics, such as personality and attitude, contribute to the individual's process of making decisions between alternatives. The decision-making styles can be categorised into three main approaches, namely, the psychographic/lifestyle approach, consumer typology approach, and the consumer characteristic approach (Bandara, 2014:5; Rašković *et al.*, 2020:497).

The common theme among these three approaches is the perception that the individual has to consider a number of dimensions (for example, time spent on searching, cost sensitivity, importance of brand) while making the decision and

following the decision-making process (Merviö, 2015:290; Sandell, 2019:1383). The consumer characteristics approach was recognised as the approach with the highest explanatory power, as it provides consumers' affective and cognitive orientation within the decision-making process (Piacentini & Cui, 2012:32; Bandara, 2014:5; Prakash, Singh & Yadav, 2018:90).

Sproles and Kendall (1986:269) identified the following eight categories of decision-making styles: perfectionism or high-quality conscious, brand conscious, novelty-fashion conscious, recreational and hedonistic conscious, price and 'value for money' conscious, impulsive, confusion by overchoice, and habitual or brand-loyal. Each one of these styles is discussed briefly below as it can assist short-term insurance companies in understanding how certain characteristics can influence the individuals' decision-making process.

- For individuals who are *perfectionistic or high-quality conscious*, quality becomes the determining factor when choosing between alternatives (Merviö, 2015:288; Acevedo, 2018:26).
- The *brand conscious* individual is orientated to purchase the more expensive and well-known brands (Mokhlis & Salleh, 2009:575; Berger-Grabner, 2021).
- The *novelty-fashion conscious* individuals are individuals who seek for new things and these consumers are innovative and try to keep up with new trends (Information Resources Management Association, 2017:25; Reilly, 2021:123).
- *Recreational and hedonistic conscious* individuals purchase because they find it enjoyable (Grable, Archuleta & Nazarinia, 2011:294; Acevedo, 2018:26).
- The *price and 'value for money' conscious* individuals are low-price conscious and typically make comparisons to look for the best value for money option (Chebat & Oumlil, 2015:170; Reilly, 2021:123).
- An *impulsive* individual is someone who will purchase on the spur of the moment and who is not bothered by how much is spent, and he/she wants to get the 'best buys' (Mokhlis & Salleh, 2009:575; Acevedo, 2018:27).
- *Confusion by overchoice* refers to the individuals that experience difficulty and confusion due to the large amount of information about the product/service and the

number of alternatives they have to choose from during the decision-making process (Merviö, 2015:290; Reilly, 2021:123).

- Lastly, the *habitual or brand-loyal* style of consumer decision-making relates to the individual who has favourite brands and/or favourite stores. The individual tends to purchase the same brand and/or at the same store over and over again (Chebat & Oumlil, 2015:170; Acevedo, 2018:27).

It is important for an organisation's marketing function to have an understanding of the decision-making styles, as these styles influence the consumer and potential consumer's behaviour during decision-making (Walsh *et al.*, 2001:117; Atadil *et al.*, 2018:618; Sandell, 2019:1383). According to an individual's characteristics, these styles can assist short-term insurance companies in directing their marketing efforts at the right type of consumers. The purchase decision-making theories applicable to the motor vehicle insurance market are discussed in the next section.

3.5 PURCHASE DECISION-MAKING THEORIES

Insurance companies should continuously strive to respond and satisfy the changing needs and wants (market demand) of insurance consumers and potential consumers in their efforts to ensure their sustainability (Desrosiers, 2012:1; Muia, 2017:36). Currently, the market penetration of motor vehicle insurance is extremely low, as only 30 to 35% of all the motor vehicles on South Africa's roads are insured (Buys, 2015:23; Bubear, 2016; Geldenhuys, 2020a; South African Insurance Association, 2021). Motor vehicle insurance is also not mandatory in South Africa, as discussed in Chapter 2.

Knowing why some individuals in the market decide to purchase motor vehicle insurance, while some decide against it, will give short-term insurance companies an understanding of why consumers and potential consumers behave the way they do. With this information they can implement strategies to encourage market demand. The purchase decision process of insureds and non-insureds can assist in obtaining information on the reasons why individuals decide to purchase or not to purchase motor vehicle insurance, which can be used to stimulate the consumer demand. There are various theories on the purchase decision or consumer decision-making. The two theories discussed below are applicable to analysing consumers' purchase decisions.

3.5.1 The risk theory

The risk theory refers to the likelihood that a catastrophic loss, which can lead to physical and emotional harm of any kind, can be experienced (Onafalujo *et al.*, 2011:285; Xu & Fan, 2019:550). This is in fact why most people purchase insurance, since there is a risk that they can lose/damage the asset. The risk is that which is being ensured (Thoyts, 2010:4; Jankensgard & Kapstad, 2021:102). The term risk is defined by the Oxford English and Spanish Dictionary (2021) as “a situation involving exposure or danger” and “the possibility that something unpleasant or unwelcome will happen.” These definitions point out that which constitutes risk is the element of uncertainty and the potential of loss. If it is unknown whether a particular event will occur, this possibility is known as uncertainty, whereas, if it is unknown whether a particular event will occur but the probability that it will occur can be estimated, this possible occurrence is then called a risk (Thoyts, 2010:4; Jankensgard & Kapstad, 2021:27).

Risk perception is also an important term that should be explained as each individual can view a risk differently. Physiological evidence of a study conducted by Slovic (1987) revealed that individuals perceive risks differently. The way in which individuals view a risk can be described as their risk perception, however, the risk perception can be influenced by objective facts and also by the individuals’ values and beliefs (Drennan, McConnell & Stark, 2015:70). Some other factors that can influence the individual’s risk perception include the characteristic of the risk source itself, value attitude, ethnic-cultural and the socioeconomic background of the individual, and the level of information about the risk (Onafalujo *et al.*, 2011:286; Hanger *et al.*, 2018:681).

These above-mentioned factors can influence the risk perception of motor vehicle insurance consumers and potential consumers in the South African personal motor vehicle insurance market. An individual who perceives the risk of being in an accident as low, might view this as the underlying reason for not purchasing motor vehicle insurance. This theory was, however, not tested in the current study as the consumers’ perceptions of risks were not analysed or measured.

3.5.2 The decision theory

The decision theory distinguishes between normative/rational decision theories and descriptive theories (Hansson, 2005:6; Oliveira, 2007:12; Coxon, 2012:30; Takemura, 2014:10, 2021:6). The normative decision theory, also known as the rational decision

theory, is a theory of how individuals should make decisions (Coxon, 2012:30; Briggs, 2014; Takemura, 2021:6). A descriptive decision theory is a theory that explains how people make decisions (Hansson, 2005:6; Briggs, 2014; Takemura, 2021:6) and it also explains how the psychological aspects influence the individuals' decisions, as well as the reasoning behind decisions (Oliveira, 2007:12; Takemura, 2021:6). Both the normative and descriptive theories reveal the nature of actual human decision-making to a degree (Takemura, 2014:10, 2021:6).

As the purpose of the current study was to determine why consumers decide to, or decide not to purchase motor vehicle insurance, the psychological elements were investigated, as well as the reasoning behind why certain decisions are made or not made. Therefore, all the rational and descriptive theories, and their development over the years, are explained below to consider if one or more of these theories might fall within the scope of this study.

3.5.2.1 Rational decision theories

Many seminary scholars have contributed towards these theories. The *utility theory* was developed by Von Neumann and Morgenstern (1944). The term utility is defined as the state or quality of being useful (Dictionary.com, 2021). In economics the utility theory is used to measure the pleasure or happiness with a product or service, and how it relates to the purchasing decisions made by individuals (Simon, 1959:258; Moffatt, 2019; Pirgmaier, 2021).

The expected utility theory

The expected utility theory, which is based on individual preferences, was first proposed by Bernoulli (1954). According to this theory, individuals do not evaluate prospects by the expectation of their monetary outcomes, but rather by the expectation of the subjective value of these outcomes. According to Oliveira (2007:13) and Casquilho (2015:186), the expected utility theory can be interpreted in two ways, namely, analytically and synthetically. The analytic view is where the choices represent the revelation of preferences, which are defined as utilities, and the synthetic view is about the decision-makers' evaluation of utilities and probabilities, and the integration of these judgements lead to a decision.

However, the expected utility theory makes predictions that are not the same as consumers' actual behaviour, and does not take the social, situational and cognitive

factors that are likely to influence the consumers' purchase behaviour, into account (Kunreuther & Pauly, 1982:26; Kahneman & Tversky, 1984:349). The individuals might also respond differently towards risk than what is predicted in the expected utility theory, since individuals perceive risks differently (Richter, Schiller & Schlesinger, 2014:93; Lewandowski, 2017:288).

The subjective expected utility (SEU) theory

The expected utility theory was extended as long ago as 1954 by Savage (1954), where he combined the utility theory and the expected utility theory to form the subjective expected utility (SEU) theory. The SEU theory is a theory of decision-making that predicts that a decision-maker chooses the alternative that maximises subjective expected utility. SEU can be defined as "the expected utility of an event or outcome calculated from subjective probabilities rather than from objective probabilities based on relative frequencies of observable events" (Colman, 2015:738; Chen, 2021).

This theory has to do with the utility function and the probability function that are combined to measure the decisions of individuals (Fishburn, 1981:190). Furthermore, this theory can be interpreted as a product of the performance of two tasks, namely, judgement and decision-making. For the judgement task, the information regarding each available alternative needs to be reduced to a set of distinct outcomes and their subjective probabilities. The decision-making task includes considering the utilities of these outcomes by their subjective probabilities and selecting the alternative with the highest expected utility (Erev, 1992:117). This was viewed as the dominant rational theory, and it assumes that people behave as though they make the most of the sum of products of utility and probability (Slovic, Fischhoff & Lichtenstein, 1977:9).

This theory is not applicable to this study, as the aim of this study was to determine the purchase decision process in the personal motor vehicle insurance market and not to make predictions about the consumers' choices.

The theory of reasoned action

Fishbein and Ajzen (1975) proposed the theory of reasoned action, which predicts behaviour intentions during the decision to purchase a product or service. The beliefs and antecedents to behavioural intentions are divided into two distinct sets, namely, the normative and behavioural. The behavioural beliefs are suggested as being the

underlying influence on the attitude of an individual towards performing the behaviour, and the normative beliefs have an impact on the individual's subjective norm about performing the behaviour (Madden, Ellen & Ajzen, 1992:3).

Fishbein and Ajzen (1975) indicated that there were three boundary conditions that could affect the extent of the relationship between intentions and behaviours. The three boundary conditions are: the degree to which intentions and behavioural measures correspond with regard to their levels of specificity, the stability of intentions between time as a measurement and performance of behaviour, and the degree to which carrying out the intention is under the volitional/decisional control of the individual (Madden *et al.*, 1992:4).

The theory of planned behaviour

The theory of planned behaviour was suggested by Ajzen (1985) to extend the boundary condition of pure volitional/decisional control. This theory allows researchers to predict intentions and behaviours with regard to the purchase or use of a single brand/product, as well as the purchase choice and use between more than one brand/product (Ajzen, 2015).

Although both of these last two theories imply that individuals make behavioural decisions based on careful consideration of available information (Conner & Armitage, 1998:1430), they were not relevant to the current study as the purchase intentions and behaviours of individuals were not predicted.

3.5.2.2 Descriptive decision theories

Festinger (1957) first introduced the *theory of cognitive dissonance*, which suggests that individuals have an inner need to hold all their attitudes and beliefs in harmony and avoid disharmony, which is known as dissonance. In other words, individuals experience tension or discomfort when their beliefs or attitudes are not equal to their behaviours (Cherry, 2020b). Cognitive dissonance is the term used to describe feelings of discomfort from having conflicting/inconsistent attitudes, beliefs and thoughts, especially with regards to behavioural decisions (McLeod, 2018; Cherry, 2020b). For example, when this discomfort exists between an individual's beliefs/attitudes/thoughts and the information contradicts the individual's beliefs/attitudes/thoughts, the individual experiences a feeling of regret after making a purchase (Bolia, Jha & Jha, 2016:148).

This theory only applies to the post-purchase stage of the decision-making process, as feelings of regret indicate that cognitive dissonance occurred after purchasing or not purchasing personal motor vehicle insurance. As explained in the section regarding the type of decisions (Section 3.4.3), when personal motor vehicle insurance is purchased, it involves dissonance-reducing behaviour, but it might be that consumers regret their decisions to purchase. This theory was not tested in this study, as the post-purchase step of the consumer decision-making process was not part of the scope of the current study.

The prospect theory

The prospect theory developed by Kahneman and Tversky (1979) is one of the first theories that began to provide a more descriptive analysis of decision-making (Coxon, 2012:32; Desrosiers, 2012:7; Thomas & Loughran, 2018). The prospect theory suggests that individuals begin by mentally discarding information that is of little use to making decisions. Individuals then use a neutral reference point from which to make judgements of potential losses or gains. Thereafter the prospects of the decision are evaluated according to the individual's attitude towards risk (Coxon, 2012:32).

The prospect theory considers the outcomes of decisions as obtaining gains or losses rather than utilities (Coxon, 2012:32; Stoner & Wankel, 2012:30). This theory also predicts that individuals are more sensitive to minor losses than to minor gains, and the perception of loss or gain is dependent on the reference point (Tversky & Kahneman, 1991:1039). The reference point refers to the current asset position (Hansson, 2005:47; Karni, Maccheroni & Marinacci, 2015:919). This theory indicates that when individuals dislike losses more than an equivalent gain, they are more willing to take risks to avoid a loss (Samson, 2016:116).

This theory was not tested in the current study, but the results might reveal, that if individuals are more sensitive to minor losses (for example, the monthly policy fee) than major gains (for example, when the motor vehicle is damaged and the insurance company pays to repair it), they are willing to take the risk of not having personal motor vehicle insurance.

The theory of buyer behaviour

The theory of buyer behaviour, developed by Howard and Sheth (1970), attempts to explain the brand choice behaviour of a buyer or consumer. This theory also assumes

that the brand choice is not random, but is rather systematic, and therefore presents a model. It should be pointed out that this theory is based on products, and not services, such as personal motor vehicle insurance. This model and its shortcomings will be discussed in Section 3.6.4.

The last few years of experimental and empirical research in behavioural research have suggested that researchers should consider the various underlying behavioural processes. However, no theory could explain observed behaviour (Harrison & Rutström, 2009; Burghardt & Bodansky, 2021:2-3). Theoretical models form the basis of most empirical and experimental research (Richter *et al.*, 2014:86; Flache *et al.*, 2017).

As this study assessed the individuals' behaviour during their purchase decisions, all the consumer decision-making models are reviewed in the section below.

3.6 REVIEW OF CONSUMER DECISION-MAKING MODELS

Milner and Rosenstreich (2013), as well as Mahmood and Baharun (2019), acknowledged that the existing theories of purchase/consumer decision-making are not appropriate for the financial services market and there is a need to develop a new conceptual model. Most of the consumer decision-making models assume that the decision-making process consists of several steps. Not all the individuals who follow these steps become consumers, as they might abandon the whole idea at any step (Lappeman *et al.*, 2021:154). While it is important to point out that these steps may vary from products to services, consumers and potential consumers all pass through similar steps (Prasad & Jha, 2014:335; Panwar *et al.*, 2019:36).

As discussed earlier, although most scholars refer to the consumer decision-making process, not only consumers follow these steps, as all the individuals in a market that have a need for a certain product or service will follow these steps. Scholars have developed several consumer decision-making models over the years, and the expansion of these models is discussed below.

3.6.1 Andreasen model (1965)

Andreasen (1965) presented one of the earliest consumer behaviour models, as illustrated in Figure 3.1 on the next page.

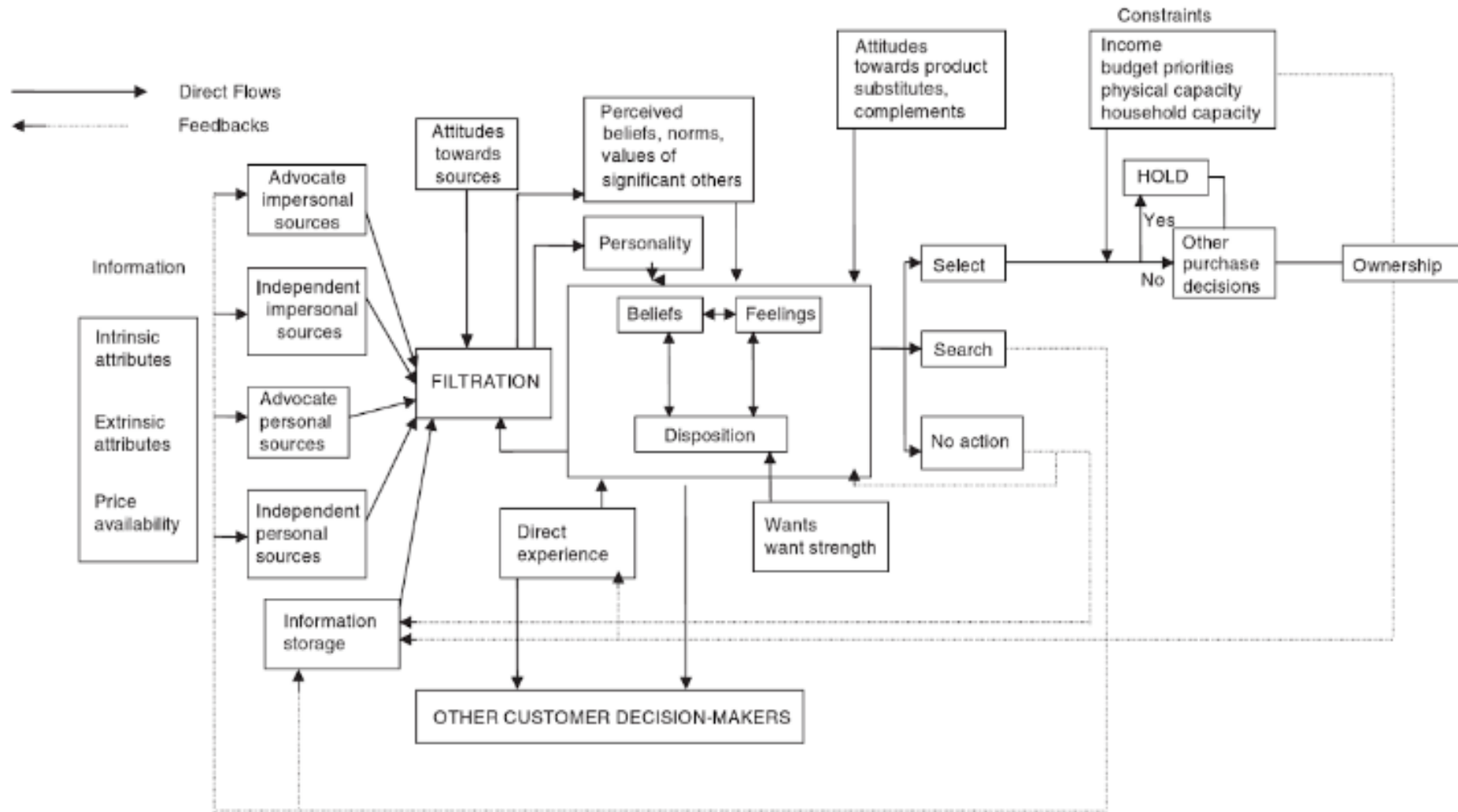


Figure 3.1: Andraesen model

Source: Adapted from Andraesen in Horner & Swarbrooke (2016:47)

As can be seen in Figure 3.1, this model emphasises the importance of information in the decision-making process, as the direct flows are indicated by solid arrows and the feedback by the dotted line arrows. The information processing during the decision-making process includes the attainment of information, interpreting the information and evaluating the information to make the final decision (Viksne *et al.*, 2016:233). The model also highlights the importance of attitudes, however, it fails to highlight individual attitudes in relation to the repeat purchase behaviour of individuals (Horner & Swarbrooke, 2016:46; Panwar *et al.*, 2019:36).

Repeat purchase falls within the post-purchase step that does not form part of the scope of the current study. The model indicates that beliefs, norms, values, feelings and personalities might influence the filtration of information, but no psychological factors and sociocultural factors are included.

3.6.2 Nicosia model (1966)

A decision-making model developed by Nicosia (1966) was one of the first models that shifted the focus from the action of purchase to the more complex decision process that consumers engage in regarding products and services (Batra & Kazmi, 2008:374; Prasad & Jha, 2014:339; Mahmood & Baharun, 2019:479).

The Nicosia model concentrates on the purchase decision of a new product or service (Horner & Swarbrooke, 2016:46). As can be seen in Figure 3.2, this model was presented in a flow chart format, where four major fields or components were highlighted. The four fields are firstly, communication of information to affect the consumer's attitude (influences from organisation's attributed and consumer attributes), secondly, the search and evaluation process, thirdly, the decision which is the act of purchase, and lastly, the consumption/storage and experience/feedback.

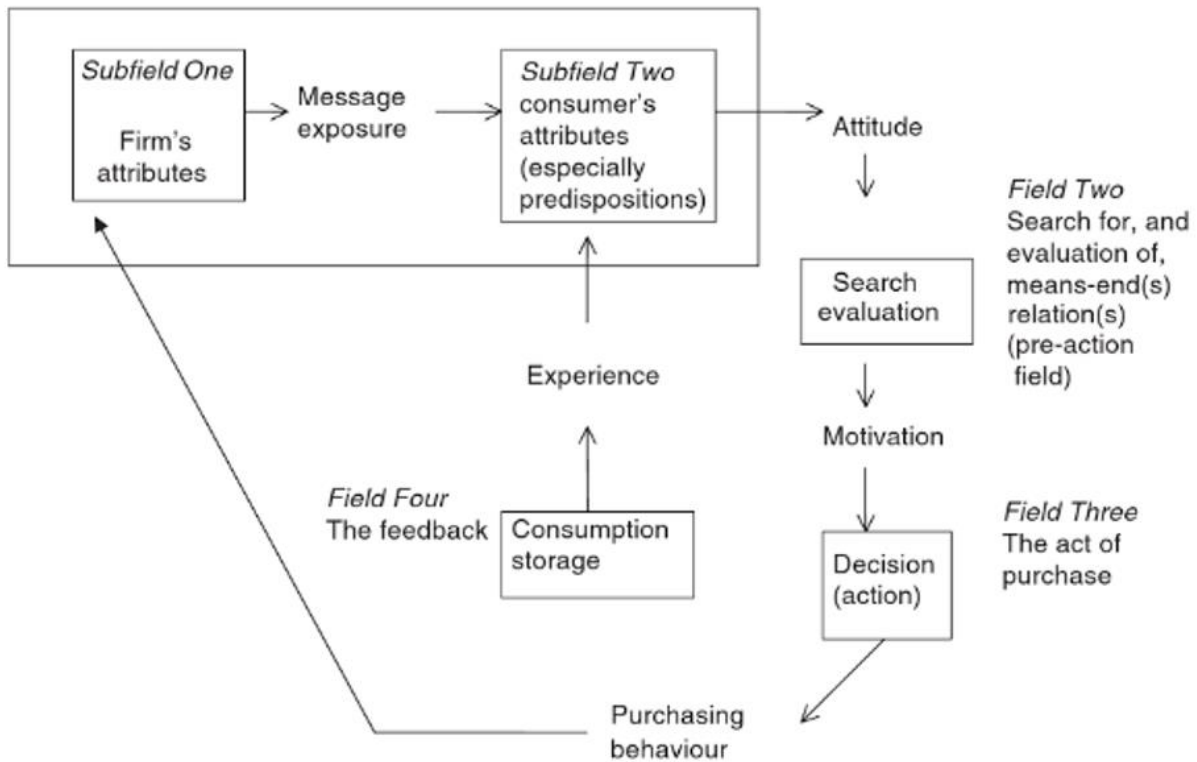


Figure 3.2: Nicosia model

Source: Adapted from Nicosia in Horner & Swarbrooke (2016:48)

A major limitation of the Nicosia model is that it is based from a marketer's perspective and is not based on the consumer's perspective. The consumers' activities are generally defined and not explained in detail (Milner & Rosenstreich, 2013:108; Mahmood & Baharun, 2019:480). While little empirical work has been done to support the model, the descriptions of purchase decision-making have been criticised, as this model does not have the ability to describe or predict the actual consumer behaviour with accuracy (Tuck in Foxall, 2004:13).

3.6.3 Engel, Kollat and Blackwell model (1968)

A more detailed consumer decision-making process that was presented by Engel, Kollat and Blackwell (1968) can be seen in Figure 3.3. This model highlights the input factors, information processing, decision process, and variables influencing the decision process.

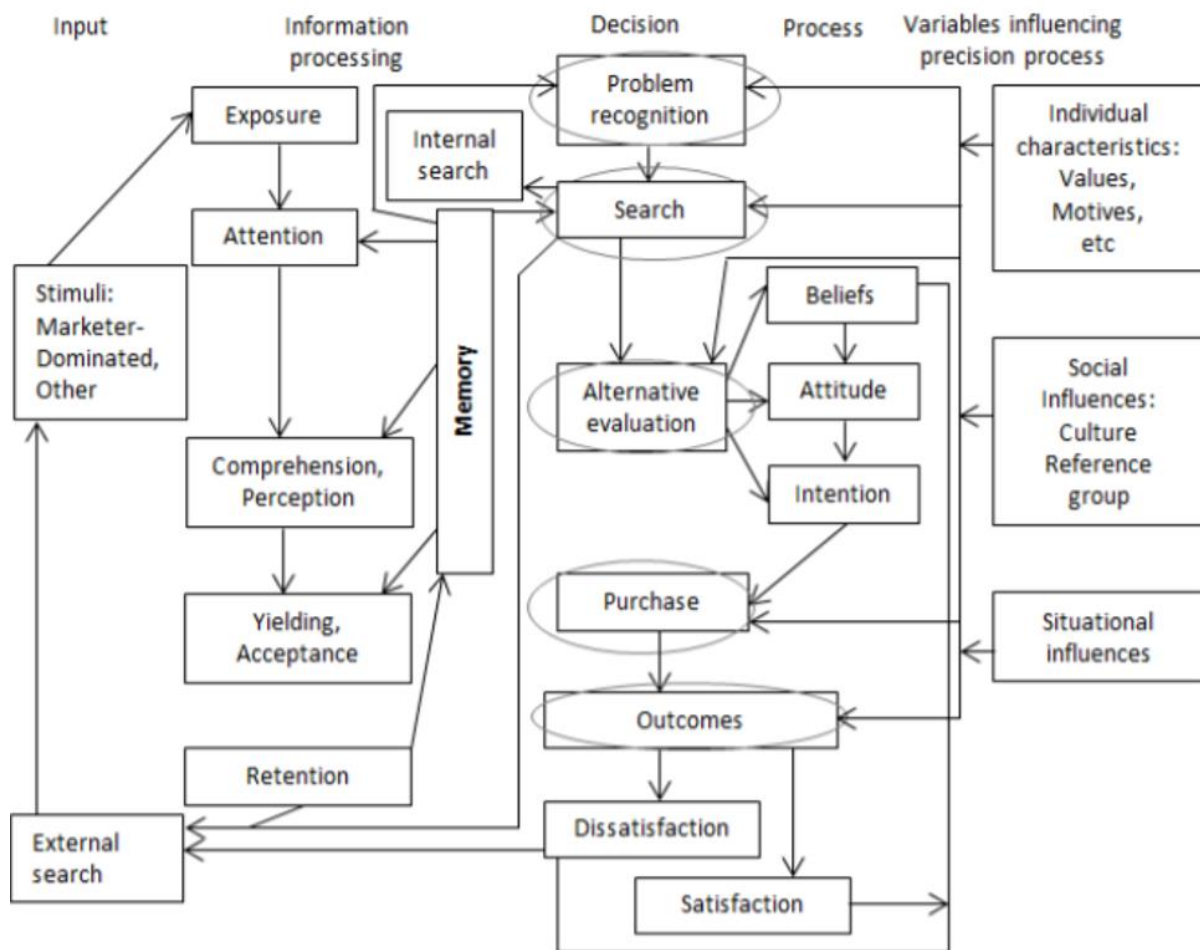


Figure 3.3: Engel, Kollat and Blackwell model

Source: Adapted from Engel, Kollat & Blackwell in Viksne *et al.* (2016:234)

What differentiates this model from the others discussed thus far is its emphasis on the external variables/factors that might have an impact on the decision process. According to this model, the influences include individual characteristics such as values and motives, social influences such as culture and reference group, and situational influences. This model, unfortunately, gives little guidance on which specific situational influences can impact the decision process (Hunt, 1983:12).

In terms of short-term insurance, situational factors, such as the individuals' physical factors, social factors, time factors, the purchasing reason and their moods might influence the individuals' decisions. As the situational influences are not specified, this model was not suitable for the current study.

The linear nature of the model has also been criticised, as the elements of the purchase decision-making process do not necessarily occur in a set sequence (Brinberg & Lutz, 1986; Bray, 2008:14; Viksne *et al.*, 2016:237; Omotoyinbo, Worlu &

Ogunnaike, 2017:112). As it is difficult to predict in which order consumers will act in the decision-making process, it is suggested that a non-linear/not sequential decision-making process stage should be included in a model for personal short-term insurance.

This model has another limitation, which is the implicit assumption that consumers have the capability to evaluate the alternatives and make a rational decision on the best suited alternative (Milner & Rosenstreich, 2013:109; Mahmood & Baharun, 2019:483). The insurance industry is unique in the sense that consumers might have difficulty evaluating the decision to purchase directly after the purchase has been made. For example, the advice received from the broker leads the consumer to make a decision to purchase a personal motor vehicle insurance policy, but the purchase decision can only be evaluated when a claim is made and the short-term insurance company has to pay for the damaged motor vehicle to be repaired/replaced.

Loacker (2015:95) agreed by stating that the actual utility of insurance often does not occur before an insured event has taken place. However, the post-purchase evaluation step falls out of the scope of this study, as only the purchase decision process of personal motor vehicle consumers and potential consumers South Africa was determined.

3.6.4 Howard and Sheth model (1969)

Another effort to create a comprehensive model of consumer decision-making was the model developed by Howard and Sheth (1969). This model was based on the Howard and Sheth theory of buyer behaviour, and this theory attempted to explain the purchase behaviour of consumers buying a brand choice, as well as other types of buying (Hunt, 1983:12). The Howard and Sheth model is illustrated in Figure 3.4.

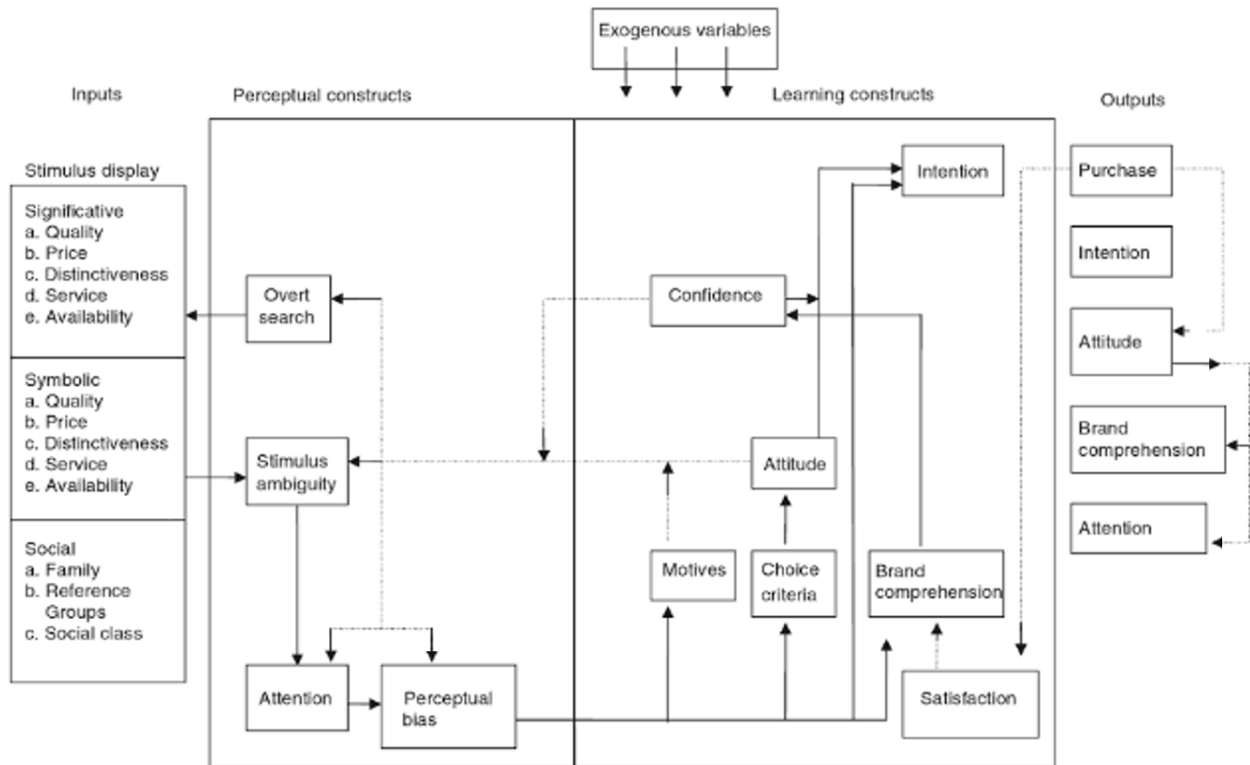


Figure 3.4: Howard and Sheth model

Source: Adapted from Howard & Sheth in Horner & Swarbrooke (2016:49)

As can be seen in the figure above, the flow of information is presented in four main concepts, namely, inputs (marketing and social stimuli), perceptual constructs (attention and information search), learning constructs (motives, choice criteria, brand comprehension, leading to an attitude, confidence, intention and satisfaction) and outputs (purchase, intention, attitude, brand comprehension and attention). A fifth concept, the exogenous variables, is also visible. The exogenous variables concept illustrates the influences on perceptual and learning constructs, such as the importance of the purchase, the individual's background, reference groups, personality traits, time available and financial status (Howard & Sheth in Milner & Rosenstreich, 2013:110). The output stage is also part of this illustration and the intention aspect is an important aspect as this indicates the individual's intention to repurchase or not.

This model is seen as an important step towards the more recent input-process-output models (Milner & Rosenstreich, 2013:109; Prasad & Jha, 2014:339). However, the fact that this model is in linear form is also problematic, as explained in the critique of the previous model.

The Howard and Sheth model improved the complexity of the purchase process with various variables and relationships to internal processes and external influences, as well as information sources. It is, however, important to state that the complexity of this model can also be seen as a shortcoming (Milner & Rosenstreich, 2013:110; Mahmood & Baharun, 2019:484).

It must also be mentioned that the initial testing of this model was highly unfavourable, with non-confirmatory results (Farley & Ring, 1970). However, the initial testing by Farley and Ring (1970) raised uncertainties regarding the data, and a call for improvements to the data collection and procedures before the constructs and relationships claimed by the Howard and Sheth model could be confirmed (Milner & Rosenstreich, 2013:110).

The model testing by Farley and Ring (1970) became a subject of criticism, leading to a discussion on how consumer decision-making models should be tested in general (Hunt & Pappas, 1972; Lutz & Resek, 1972; Taylor & Gutman, 1974; Milner & Rosenstreich, 2013). It is essential to state that Taylor and Gutman (1974) are of the opinion that a comprehensive model can provide value conceptually, even if it is not possible to test it. The conceptual CPDFPMVI model, which was tested in this study, is presented in Chapter 4.

3.6.5 Perreault and McCarthy model (2002)

The Perreault and McCarthy model (Figure 3.5) is a modification of the Engel, Kollat and Blackwell model, with the problem recognition or need-want awareness step as the first step in the decision process. The psychological and social influences are also visible in this model, as well as the additional purchase situation's impacts on the decision process.

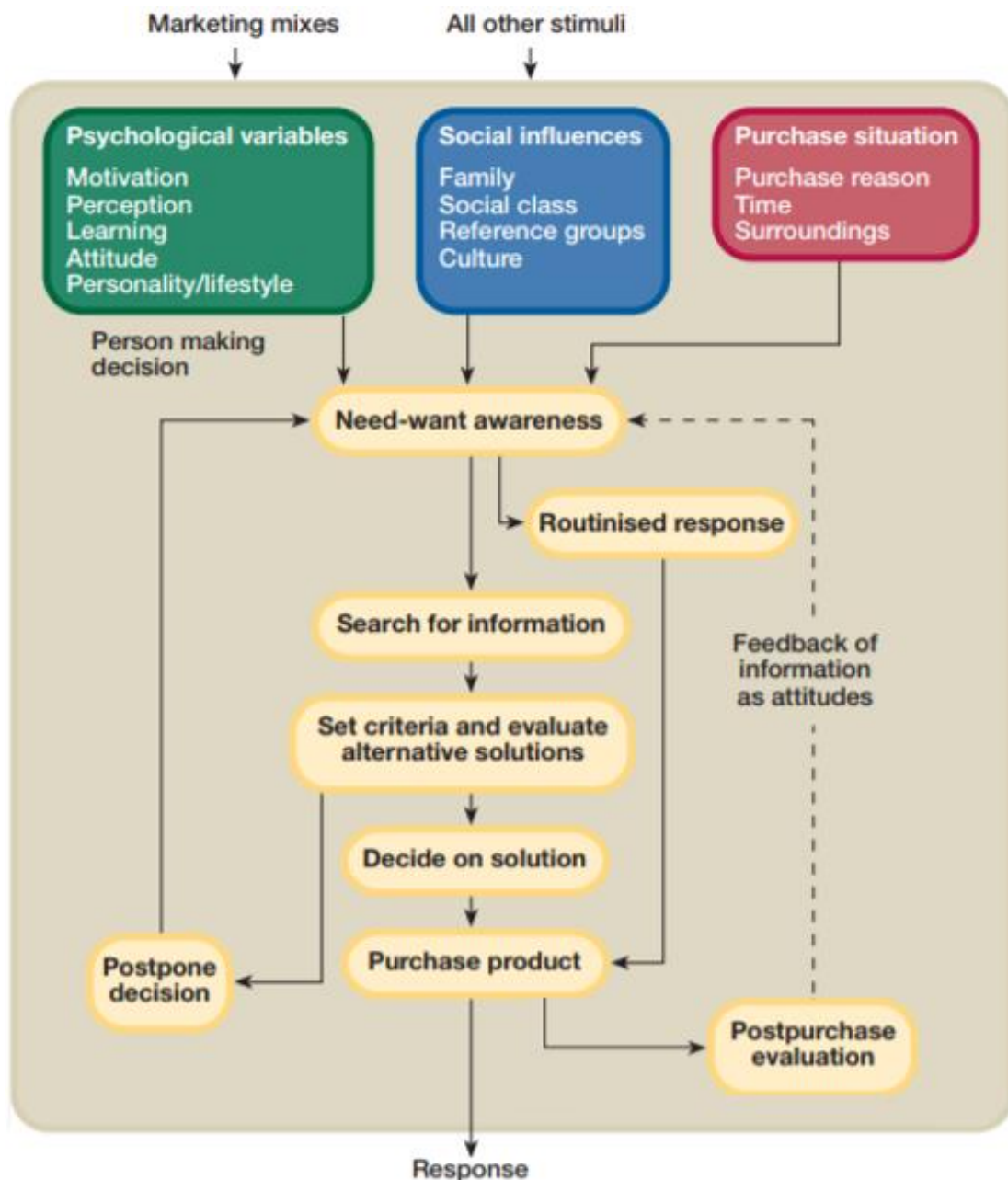


Figure 3.5: Perreault and McCarthy model

Source: Perreault & McCarthy (2002:173)

The marketing mix/four Ps (discussed in Section 3.2.1.4) is also a new influence that is illustrated in this model. Post-purchase evaluation, which involves feedback, is also part of this model. However, the weaknesses of this model are that the three distinct stages (input, process and output) are not clearly indicated in this figure, and it is not clearly indicated how the psychological variables influence the process (Raiguru & Misra, 2017:664).

3.6.6 Schiffmann, Kanuk and Hansen model (2012)

The Schiffman, Kanuk and Hansen model (Figure 3.6) is one of the most recent consumer decision-making models. It is also a relatively comprehensive model, as it clearly illustrates the three main stages (input, process and output) of the decision-making process. The input stage indicates that the external influences, which consist of the firm's marketing efforts and sociocultural environments, influence the consumers' decision-making. The consumer decision-making stage directly impacts the post-decision behaviour. However, the post-decision behaviour did not form part of the conceptual model of the current study.

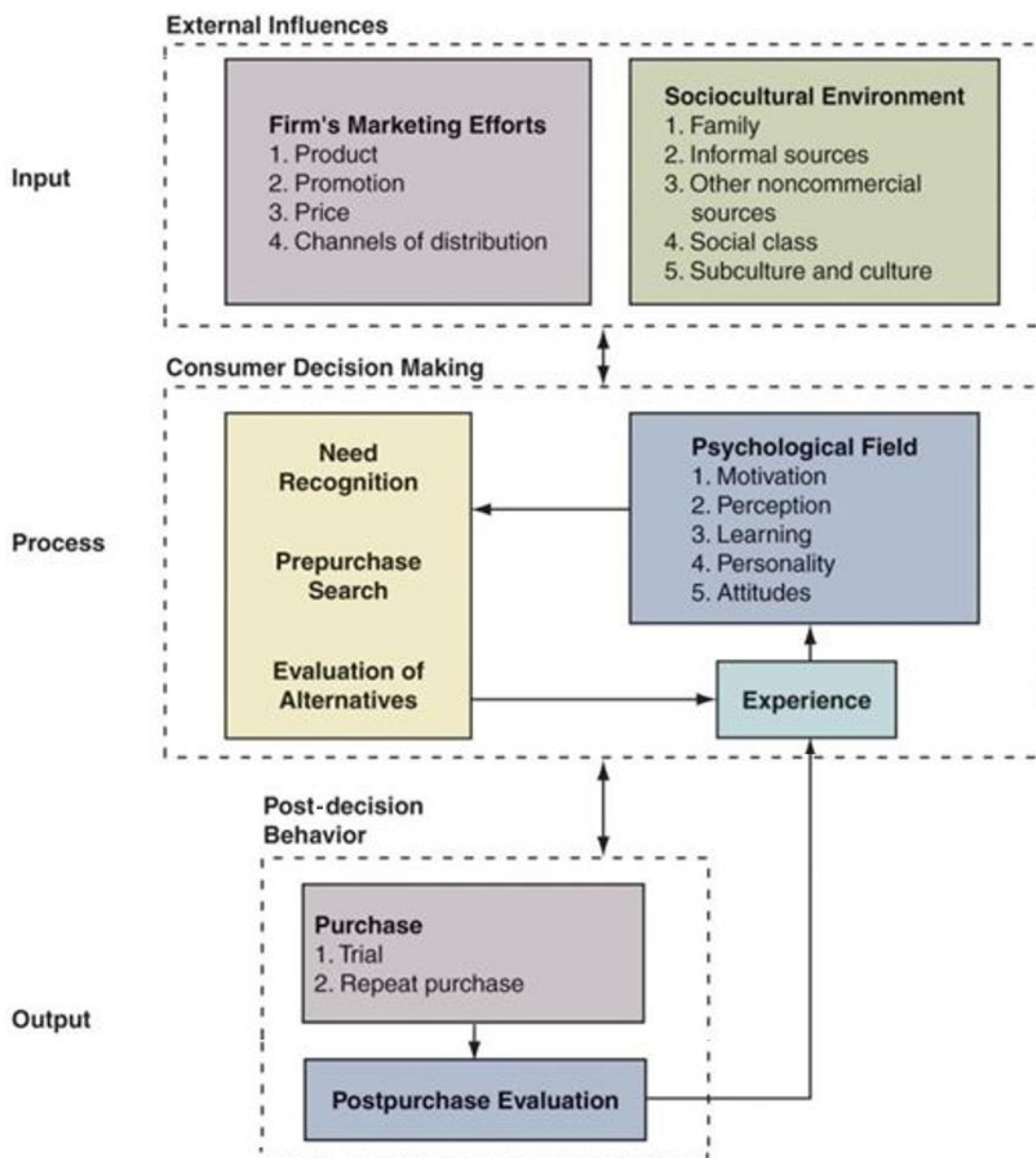


Figure 3.6: Schiffman, Kanuk and Hansen model

Source: Schiffmann *et al.* (2012:36)

This model is a further modification of the Perrault and McCarthy model. The marketing mix, labelled the firm's marketing efforts, is also included in this model. However, the marketing mix elements only refer to the four original Ps and the service marketing Ps are not included. This is thus a limitation as it cannot be applied to services, such as insurance. The social influences have been expanded and the cultural issues are included in the sociocultural influences section of this model. Lastly, the process stage is clearly indicated and the psychological experiences are additional variables that can influence the need recognition or pre-purchase search, or the evaluation of alternatives. This model could therefore be considered for adaption to the personal motor vehicle insurance market.

3.6.7 Milner and Rosenstreich model (2013)

The Milner and Rosenstreich model, illustrated in Figure 3.7, is a decision-making model specifically for the financial services market. This model also illustrates three different stages, namely, inputs, process and outcomes.

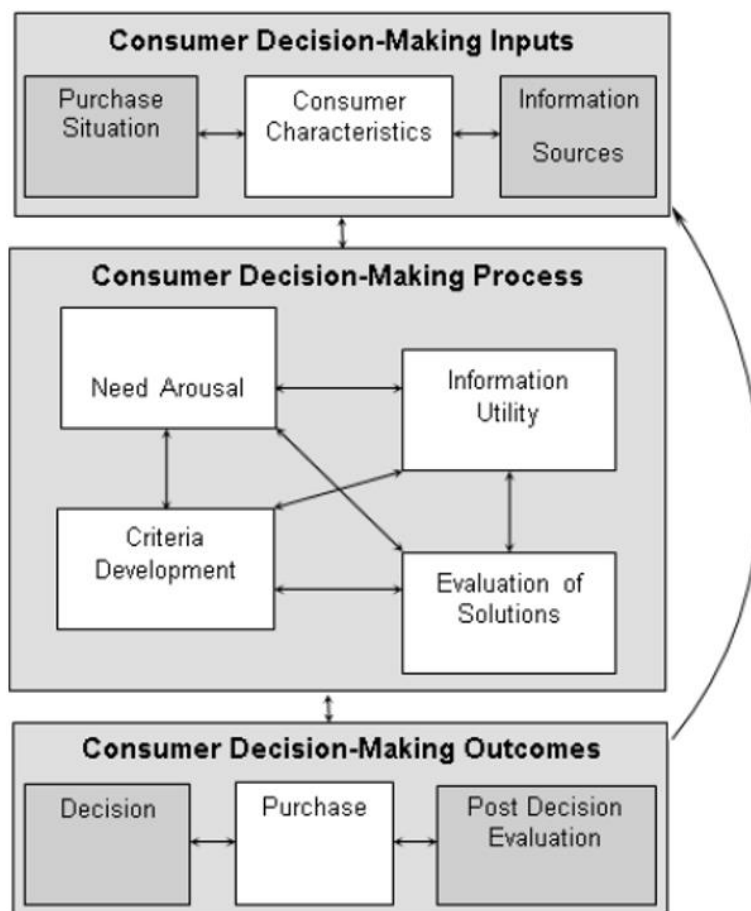


Figure 3.7: Milner and Rosenstreich model

Source: Milner & Rosenstreich (2013:111)

The same three stages as in the Schiffman, Kanuk and Hansen model are illustrated in this model, although the last stage is called the outcome stage. The purchase situation, consumer characteristics and information sources are the input factors, according to this model. These input factors are very broad and no specific variables or points are provided to explain each factor. Milner and Rosenstreich (2013:112) explain in the discussion of the model that the purchase situation refers to the external drivers, while the consumer characteristics consist of the sociocultural and psychological influences, and the information sources relate to sources from companies' marketing efforts and the sociocultural variables. The information sources, as input factor, is an expansion of the Schiffmann, Kanuk and Hansen model.

The steps in the consumer decision-making process stage are also illustrated in a linear form, but more financial terms are used. For example, the information utility is known to be the pre-purchase search step, and the need evaluation of solutions refers to the evaluation of the purchase alternatives. The criteria development step is, however, additional in this model. No option is included to make provision for the consumer that does not purchase, therefore, this can be seen as a limitation. A substantial shortcoming of this model is that the customers' experience is not taken into consideration.

Although there were shortcomings, this model was suitable to be considered for the development of a conceptual purchase decision model specifically for the personal motor vehicle insurance market.

3.6.8 Schiffman and Wisenblit model (2015 and 2019)

Figure 3.8 presents the Schiffman and Wisenblit model. This is the most recent decision-making model, and it is an expansion of the Schiffman, Kanuk and Hansen model.

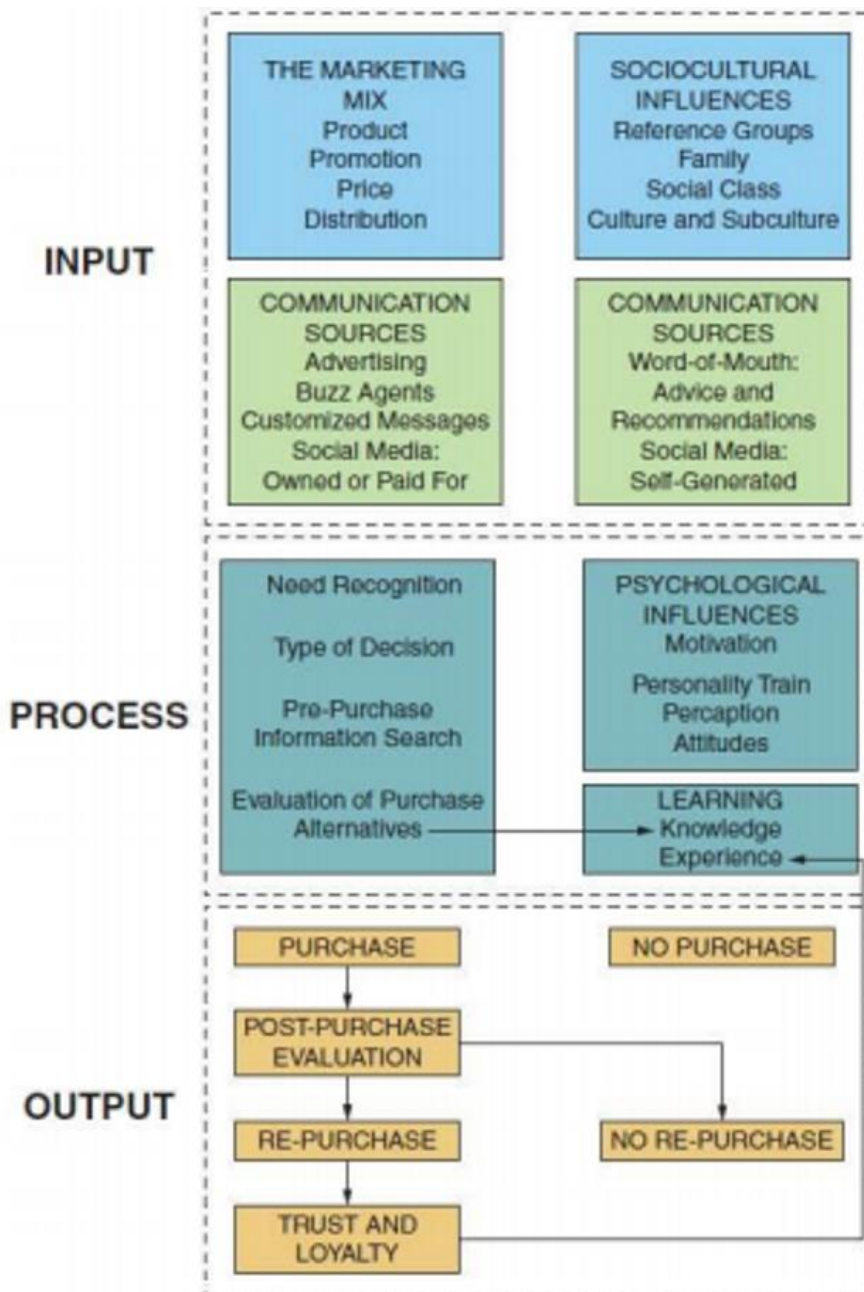


Figure 3.8: Schiffman and Wisenblit model

Source: Schiffman & Wisenblit (2015:20, 2019:375)

Similar to the Schiffman, Kanuk and Hansen model (and also the Milner and Rosenstreich model), the Schiffman and Wisenblit model includes the three stages in decision-making. With regard to the input stage, the communication sources are an expansion of the Schiffman, Kanuk and Hansen model. The communication sources indicate the mechanisms that deliver the marketing efforts and sociocultural influences to the consumer (Schiffman & Wisenblit, 2015:340, 2019:376). This model also does

not include all the service marketing mix elements, which can be seen as a limitation, given that personal motor vehicle insurance is a financial service.

In this model and in the Schiffman, Kanuk and Hansen model, the psychological factors are part of the decision process stage and these psychological factors also have an influence on the consumers' decision (Milner & Rosenstreich, 2013:112; Erasmus *et al.*, 2019:454).

Seeing that the current study was developing a conceptual model specifically for the personal motor vehicle industry, the relevant type of decision would be a dissonance-reducing type of decision (as explained in Section 3.5.3). It was, therefore, for the purpose of the current study, necessary to include these psychological factors as individual/internal factors that would influence the purchase decision.

The actual decision to purchase or not to purchase is illustrated in the output stage, which is an expansion of the previous models discussed. The rest of the items in this model will not be discussed as the conceptual model used in this study ended with the purchase decision step.

This section discussed the expansion and limitations of the different decision-making models. The next chapter presents the conceptual CPDFPMVI model, considering all the criticisms and benefits of the models discussed above.

3.7 CONCLUSION

To conclude, the marketing function of a short-term insurance company has to be aware of the consumers' needs, wants and demands to satisfy the consumers' needs, wants and demands. The service mix elements were specified in this chapter, and taking into consideration that motor vehicle insurance is a service, the service mix should be included in short-term insurance companies' marketing plan.

Different roles can be played in the decision-making process and consumers have decision-making rules/strategies, which they use to make a decision. Short-term insurance companies should consider several types of decision-making and various decision-making styles, as these aspects are important in determining the individual's behaviour during purchase decisions.

Constructs	Items	Obtained from which consumer decision-making model
	<ul style="list-style-type: none"> ▪ Customised messages ▪ Paid-for social media efforts ▪ User-generated social media posts 	Schiffman, Kanuk and Hansen model.
Psychological attributes that influence the need recognition	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain short-term insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company 	Schiffman, Kanuk and Hansen model
Decision-making process	<ul style="list-style-type: none"> ▪ Pre-purchase search considering previous experiences ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative qualities ▪ Evaluate alternative brands 	More detailed steps were included as items which were included was gained from the discussion about the Schiffman, Kanuk and Hansen model. According to Schiffman and Wisenblit (2015:340, 2019:376)
Demographics	<ul style="list-style-type: none"> ▪ Age ▪ Gender ▪ Marital status ▪ Highest level of education ▪ Employment status ▪ Household income 	Not in one of the models reviewed. The general demographic variables of consumers (Boone & Kurtz, 2014:170; Willan, 2021) were included.
Decision to purchase (Yes)		Schiffman, Kanuk and Hansen model
Decision not to purchase (No)		Schiffman, Kanuk and Hansen model

The table above illustrates from which reviewed models each construct and item in the conceptual CPDFPMVI model was obtained. The next chapter presents the conceptual CPDFPMVI model for the current study.

CHAPTER 4:

A CONSUMER PURCHASE DECISION FOR PERSONAL MOTOR VEHICLE INSURANCE CONCEPTUAL MODEL

4.1 INTRODUCTION

The existing theories of purchase/consumer decision-making (as discussed in Chapter 3) are not appropriate to the financial services market, and there is a need to develop a new conceptual model (Milner & Rosenstreich, 2013:106; Mahmood & Baharun, 2019). Personal motor vehicle insurance is a type of financial service offering. A conceptual model that illustrates the purchase decision process of personal motor vehicle insurance consumers and potential consumers can be used to describe the purchase behaviour. In this chapter, the conceptual CPDFPMVI model is presented and discussed.

4.2 CONSUMER PURCHASE DECISION MODEL ADAPTED FOR PERSONAL MOTOR VEHICLE INSURANCE MARKET

This study aimed to determine the purchase decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance, by developing a unique model that will assign a probability to each of the possible choices based on the context of the decision. Despite the researcher's best efforts, no similar studies could be found where unique purchasing decision models with regard to individuals in the personal motor vehicle insurance industry of South Africa and internationally had been developed.

A tested consumer purchase decision model, specifically in terms of personal motor vehicle insurance can assist short-term insurance companies to understand the purchase behaviour of their consumers (insureds) and potential consumers (non-insureds). After considering the limitations of and expansions to the different decision-making models, the conceptual CPDFPMVI model in Figure 4.1 was developed to illustrate the purchase decision process for personal motor vehicle insurance according to the theory reviewed in Chapter 3.

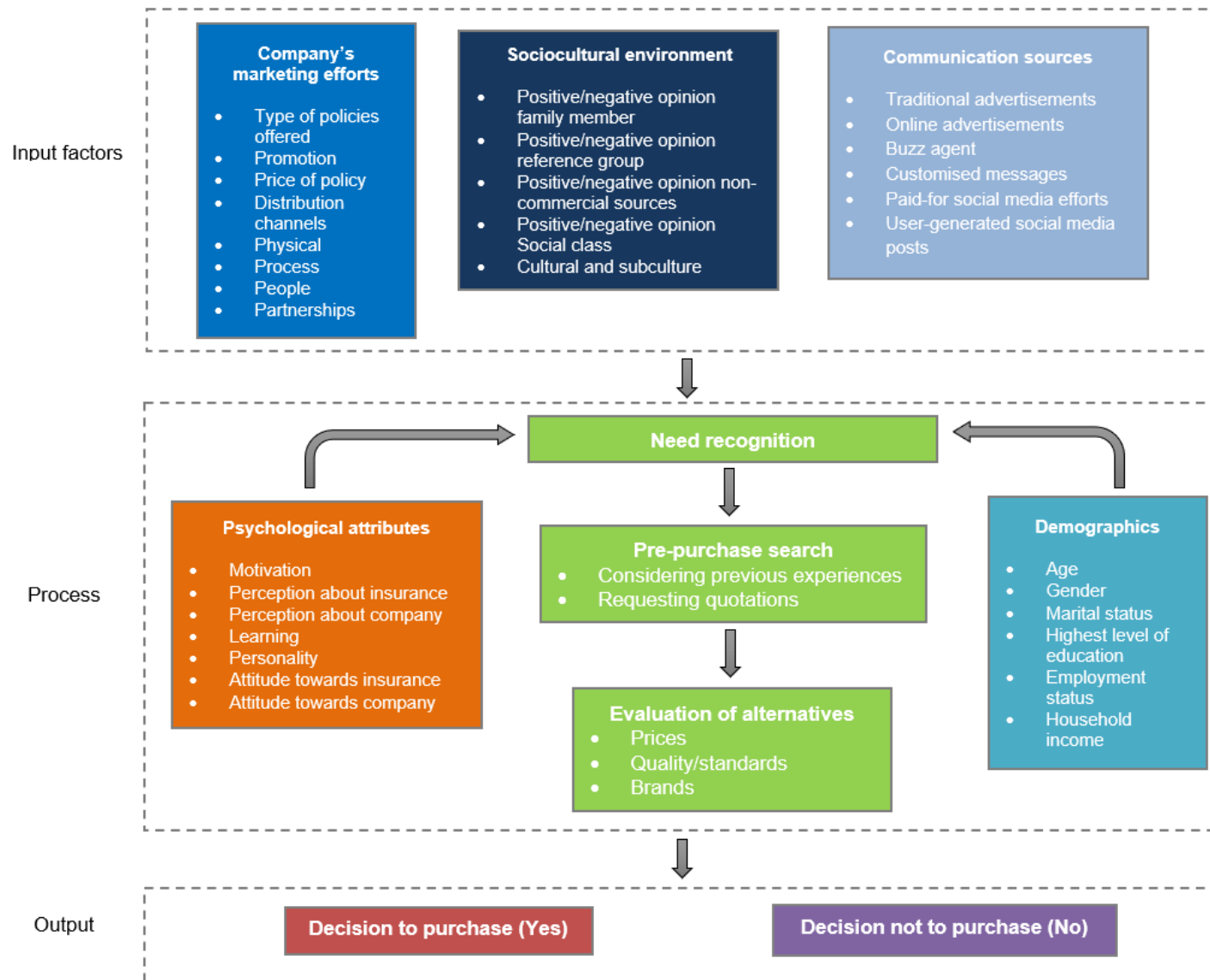


Figure 4.1: A conceptual CPDFPMVI model

The recent consumer decision-making models reviewed in Chapter 3 illustrate the three stages: input, process, and output. These three stages are also illustrated in the conceptual CPDFPMVI model above. The steps outlined in the conceptual CPDFPMVI model above are explained in detail below.

4.3 EXTERNAL INFLUENCES

As illustrated in Figure 4.1 above, four types of influence can affect the need recognition step, which impacts the purchase decision of individuals: the company's marketing efforts, sociocultural environment, communication sources, and psychological attributes. External influences relate to the outside stimuli that affect an individual during the purchase decision process (Stankevich, 2017:10). The external influences are divided into the company's marketing efforts, the sociocultural environment and communication sources. All these external influences are discussed in the sections below. Psychological attributes and the demographics of individuals are internal influences, and this type of influence is discussed in Section 4.4

4.3.1 Marketing efforts

The company's marketing efforts refer to the marketing mix elements (price, product, place/distribution and promotion) that a short-term insurance company should perform as part of its marketing plan. As explained in Section 3.2.1.4, personal motor vehicle insurance is a financial service. Therefore, the model should include the additional four Ps (physical evidence, process, people and partnerships), which the other models have not included.

A company's marketing efforts should be a direct attempt to reach, inform and persuade individuals that need personal motor vehicle insurance (Schiffman & Wisenblit, 2015:19, 2019:375), but these efforts can also be the reason why individuals decide not to purchase, or why consumers choose, or do not choose, a certain short-term insurance company, as discussed below:

- For example, if the *price* is too high for a policy, the individual will choose a cheaper policy. Individuals might also feel that the price for motor vehicle insurance is too high and they cannot afford it, and therefore decide not to purchase motor vehicle insurance at all.

- The product/service is the *type of policies* (for example, comprehensive motor vehicle insurance, third-party fire and theft, and third-party only) offered by a company. This will also be an influencing factor, as the specific need related to insurance determines the type of policy the consumer will look for.
- The *promotion* efforts of a company can positively influence an individual, if the company has launched a promotional campaign that attracts an individual, and this influences the purchase decision for motor vehicle insurance.
- The *distribution channels* used to sell motor vehicle insurance can also impact the individual's purchase decision process. For example, if an individual prefers not to contact a direct short-term insurance company but would instead use a broker, a short-term insurance company that uses brokers will be selected.
- The *physical evidence* efforts (the appearance of the company's building, employee uniforms and online physical presence) can impact an individual's purchase decision.
- The *process* efforts can also influence the purchase decision. For instance, when an individual asks for a quotation, and it takes longer than what he/she expected, consumers might decide not to purchase.
- The way that the *people* in the company deliver the service can also influence the individual's purchase decision. If a potential consumer contacts a short-term insurance company directly and the employee delivering the service is rude and not helpful, then this might influence his/her decision to purchase personal motor vehicle insurance from that company.
- *Partnerships* or associations with other companies that an individual dislikes or likes can have an effect on the individual's purchase decision process. For example, certain short-term insurance companies have motor partners where individuals can purchase an extended motor warranty after the manufacturer motor warranty has expired and this can convince potential consumers to purchase insurance from a company that has this association.

The next section discusses the sociocultural environment is discussed.

4.3.2 Sociocultural environment

The sociocultural environment consists of family, reference groups, non-commercial sources, social class, cultural and subcultural factors that can affect the purchase decision process of consumers or potential consumers. The sociocultural inputs relate to all the non-commercial influences on the need recognition of individuals (Schiffman & Wisenblit, 2015:19, 2019:376).

4.3.2.1 Positive/negative opinion from a family member

The family influence can be a comment or an opinion of a family member that might influence the decision-making stage (Loacker, 2015:111). This comment or opinion by a family member can influence the decision process negatively or positively. A consumer's family forms the environment where the individual learns values, and it develops and shapes their personality (Kotler & Armstrong, 2018:164). The individual's family environment offers the possibility of developing opinions about certain subjects, particularly personal motor vehicle insurance.

4.3.2.2 Positive/negative opinion from a reference group

A reference group is any person or group of people that serve as a point of comparison/reference. This reference group can influence why individuals form their values and attitudes, or be the reason why they behave the way they do (Strydom, 2018:307). The reference group thus provides some points of comparison to consumers and potential consumers regarding their behaviour, lifestyle or preferences. Furthermore, a reference group influences individuals' self-image and influences their purchase behaviour (Kotler & Armstrong, 2018:162). The influence from a consumer's reference group can form a positive or negative opinion, which will impact their decision to purchase. In this case, the positive or negative opinion of a reference person or group can be used as a basis of comparison, which will influence the consumers' need to purchase personal motor vehicle insurance.

4.3.2.3 Positive/negative opinion from non-commercial sources

Non-commercial sources can be the comments of a friend, a newspaper article and the views of an expert on a blog or other internet platforms (Schiffman *et al.*, 2012:68; Hollensen, 2019). This type of source can influence the purchase decision of an individual when deciding about short-term motor insurance (Ismagilova *et al.*, 2017:9). The positive or negative comments (personal words and recommendations) from

trusted friends and other customers are viewed as more credible than those coming from commercial sources, such as advertisements (Kotler & Armstrong, 2018:163).

A study conducted by Facebook IQ (2019) on US insurance consumers found that 80% of the insurance buyers regard recommendations from family and friends as important when deciding on insurance brands and different policies. This just shows the influence word-of-mouth from non-commercial sources can have on the consumers' decision to purchase personal motor vehicle insurance.

4.3.2.4 Positive/negative opinion from social class

Social class can be explained as a group of people who have the same prestige and status in society (Parumasur & Roberts-Lombard, 2014:7; Schiffman & Wisenblit, 2019:268). The social class includes individuals that share similar values, interests and behaviours (Kotler & Armstrong, 2018:162). The social class reflects three different components of an individual's social status, namely income, education and occupation. Other aspects include home value, area of residence, employment positions, interests and recreation (Schiffman & Wisenblit, 2019:268). Thus, individuals in the same social class give their opinions (whether positive or negative). These opinions gained from members with the same values and interests can influence an individual's purchase decision.

With regard to personal motor vehicle insurance, the positive or negative opinion of members in the individual's social class is a factor that influences the need to purchase (the first step in the decision-making process).

4.3.2.5 Cultural and subcultural factors

An individual's cultural and subcultural factors shape personal perceptions, dispositions and behaviours (East *et al.*, 2017:115). A person's culture is the basic contributing factor of what he/she wants and how he/she behaves. Individuals grow up in a society, and as a child, they learn the basic values, perceptions, wants and behaviours from their families. Subcultures include population groups, native language, religion and racial groups (Kotler & Armstrong, 2018:159). For example, an individual's language preference might influence his/her purchase decision if the service is not offered in his/her preferred language. The section below discusses the communication sources.

4.3.3 Communication sources

The communication sources that are gathered from the company's marketing efforts and sociocultural environment include the mechanisms that are used to deliver the message to the consumers (Schiffman & Wisenblit, 2015:340, 2019:376). As depicted in the Schiffmann and Wisenblit model, communication sources from a company's marketing efforts are advertising, buzz agents, customised messages and owned or paid-for social media. Word-of-mouth, advice, recommendations and social media posts from sociocultural influences (user-generated social media content) can be communication sources that deliver a message to consumers.

The communication sources indicate the mechanisms that deliver the marketing mix and sociocultural influences to the consumer (Schiffman & Wisenblit, 2015:340, 2019:376). The communication sources discussed below can impact an individual's need to purchase personal motor vehicle insurance.

4.3.3.1 Traditional and online advertisements

The advertising activities performed by organisations, such as short-term insurance companies, whether traditional or online, shape the image of the insurance companies in the consumers' consciousness (Borda & Jędrzychowska, 2012:28; Juska, 2018:4). Advertisements have a significant influence on the purchase behaviour of individuals (Haider & Shakib, 2017). Traditional advertisements refer to advertisements on television (TV) and radio, whereas examples of online advertisements are video advertisements and banner ads on websites. Organisations invest more in social media and mobile advertisements, which also shift towards digital marketing (Haider & Shakib, 2017). A study conducted by Facebook IQ (2019) on UK and Australian insurance consumers found that 33% of the UK and 37% of the Australian insurance consumers show an interest in a motor vehicle insurance brand or product once they have seen an advertisement on Facebook and other social media platforms.

4.3.3.2 Buzz agents

Advertising efforts by insurance companies can serve as an effective tool to generate buzz among consumers, and this can drive traffic towards a certain motor insurance company and its offerings (Jacobs, 2020a). Buzz agents are individuals enlisted by companies or even created opinion leaders to serve as 'brand ambassadors' that spread the word about a company's products (Kotler & Armstrong, 2018:163).

Consumers can also act as buzz agents. Consumers that are a source of a product referral and tell other individuals about a certain product or a service are regarded as buzz agents (Claro & Bortoluzzo, 2015:210). Therefore, any person who is a product referral source and tells other individuals about motor vehicle insurance can be regarded as a buzz agent within the motor vehicle insurance market.

4.3.3.3 Customised messages

Customised messages that are communicated to consumers form part of the direct marketing efforts of companies. Since direct marketing is more targeted, a customised message is usually directed at a specific consumer or group of potential consumers, and it is personalised (Kotler & Armstrong, 2018:440). There is a distinct move toward personalised marketing within the motor vehicle insurance market, as this allows insurers to build a better relationship with consumers (Adamova *et al.*, 2018). Personalised/customised messaging strategies can be executed to engage with consumers, and this is an effective way of reaching insurance consumers and potential consumers (Moorcraft, 2021). Thus, the customised messages that short-term insurance companies communicate should be personalised to build better relationships with consumers.

4.3.3.4 Paid-for social media content

Paid-for social media content is another communication mechanism that organisations, such as short-term insurance companies, can utilise to communicate their service offerings to their market. Social media marketing activities include actions/posts on social media platforms that encourage individuals to choose products and brands (Bilgin, 2018:129; Parkin *et al.*, 2019).

An advertising campaign on Facebook is an example of paid-for social media content, but the new robust way of paying for social media content is to make use of social media influencers (Appel *et al.*, 2020:82). Organisations can pay money to an influencer with a large following population to mention a brand or product/service in a social media post (Carter, 2018). The influencer's opinion of the brand or product/service shared on social media is seen by a considerably larger number of people, and these are people who trust the influencer (Barysevich, 2020). One of the primary reasons individuals trust influencers is that they can relate to the influencers

on a personal level (Barker, 2020). Nearly 40% of Twitter users indicated that they made a purchase as a direct result of an influencer's tweet (Santora, 2021).

Previous research shows that social media marketing activities significantly affect consumer brand awareness, brand image, and brand loyalty (Bilgin, 2018:142). Therefore, paid-for social media content can be regarded as a communication mechanism that influences the purchase decision of personal motor vehicle consumers and potential consumers.

4.3.3.5 User-generated social media content

User-generated social media content can be explained as personal words about a company or service, advice, and recommendations shared/posted on a social media platform. These posts are generated by the individual's family members or someone from the individual's reference group. User-generated content on social media is changing the way consumers purchase products/services (Agarwal, 2020:3076).

Recent research found that word-of-mouth using user-generated social media is essential in the motor vehicle insurance market to enable consumers to talk about the company's motor vehicle insurance products (Ekanayake, 2021). Consumer reviews on the internet are a powerful source of recommendations, and the consumers' purchase decisions are strongly influenced by this electronic form of word-of-mouth (Teixeira, Pereira & Dionísio, 2018:361). This shows the influence that user-generated social media posts can have on the individuals' decision to purchase personal motor vehicle insurance.

Although advertising (online and traditional), customised messages and paid-for social media are promotional efforts performed by the firm, and buzz agents can be a distribution effort by the firm, the communication sources refer to the mechanisms that deliver the message to the individuals. Word-of-mouth, advice and recommendations as well as self-generated social media by a family member, someone from the reference group, non-commercial sources or a member of the social class, are all different mechanisms that can deliver a message to the individual, and that can influence the individual's purchase decision. In other words, these communication sources can be seen as the methods or platforms that are used to communicate a message to consumers. For example, a post on Facebook that was created and posted by the short-term insurance company can convey a message to an individual,

and Facebook is thus the social media platform used as a communication source to convey the message. This message can influence the need recognition, or it can be the reason why potential consumers never reach the decision-making process stage.

All the factors discussed in this section do not only influence the need recognition step but can also influence the individual to stop with the decision process and force them to make the decision not to purchase a personal motor vehicle insurance policy. In the following section, the process stage is explained.

4.4 INTERNAL INFLUENCES

The individual factors that influence individuals during the consumer decision process are known as internal influences (Kaser, 2013:48; Stankevich, 2017:10). The internal factors that influence the individual's purchase decision refer to the personal and interpersonal aspects that are processed in the consumer's mind, which influence the purchase behaviour, and specifically, the need to purchase (Acevedo, 2018:19; Cunningham, 2018).

As indicated in Figure 4.1, the psychological attributes and the individuals' demographics are internal influences that form part of the process phase. The influence of these individual factors on the need recognition step is explained below.

4.4.1 Psychological attributes

As illustrated in the conceptual model, psychological attributes are an internal influence, as discussed below. Motivation, perception, learning, personality, and attitudes form part of the psychological attributes that influence the need recognition step.

4.4.1.1 Motivation

Motivation can be seen as the driving force that drives individuals to fulfil their needs and wants (McIntee, 2014:72; Rajagopal, 2019:17). A motive, also known as the drive, is the need that adequately pushes an individual to seek satisfaction (Kotler & Armstrong, 2018:169). If an individual has a specific need, he/she will be motivated to purchase it (Strydom, 2018:306). A consumer tries to satisfy the most important need first, and a motivated person is ready to act (Kotler & Armstrong, 2018:172).

The motivation of consumers to purchase insurance is determined by two main factors, namely, risk expectation and risk sensitivity. Risk expectation refers to the financial value of insurance for the item/object (motor vehicle) being insured. Risk sensitivity relates to the concerns consumers have, and these concerns directly affect the moral benefit of having insurance or not (Meral, 2019). The risk sensitivity is also related to the individual's peace of mind in knowing that they are 'protected' in the case of an event occurring (Suter *et al.*, 2017:84). For example, the risk sensitivity might be higher if the individual has recently been in a motor vehicle accident, and the individual will not think twice about purchasing motor vehicle insurance again in the future. The other side of the coin is if an individual views himself/herself as a good driver because the motor vehicle they currently drive was not damaged in an accident in a number of years. The risk sensitivity of such an individual will be low and he/she might not see the benefit of purchasing insurance.

4.4.1.2 Perception

As mentioned above, a motivated individual is ready to act, and how an individual acts is affected by his/her perception of the situation (Kotler & Armstrong, 2018:172). Perception is a process of establishing the properties of stimuli by means of using one or more senses such as vision, hearing, taste, smell and touch (Hoyer *et al.*, 2018:80). Perceptions determine what individuals pay attention to and what stimulates their interests. In addition, it can influence them to attach their own interpretations to a message (Erasmus *et al.*, 2019:455).

Each individual within the personal motor vehicle insurance market may have a different perception of motor vehicle insurance, and also of a specific short-term insurance company. It will be difficult to establish what each consumer's perception is, but their perceptions about motor vehicle insurance and about a specific short-term insurance company is a psychological factor that impacts their need to purchase personal motor vehicle insurance.

4.4.1.3 Learning

The learning attribute refers to the process of how individuals purchase and consume information, as well as the experience that they can apply to future decisions (Parumasur & Roberts-Lombard, 2014:6; Erasmus *et al.*, 2019:455). When individuals act during the decision-making process, they learn (Kotler & Armstrong, 2018:173).

The experience gained from participating or acting in the decision to purchase personal motor vehicle insurance changes their future purchase decisions. Therefore, the learning/experiences gained from previous motor vehicle insurance purchases can influence future purchase decisions.

4.4.1.4 Personality

Personality is related to the personal differences of individuals and it determines and reflects how individuals think (Strydom, 2018:306). The inner characteristics (specific qualities, attributes, traits, factors and mechanisms that distinguish one individual from another) form an individual's personality (Schiffman & Wisenblit, 2015:67, 2019:90). It is, however, essential to point out that personality reflects individual differences, personality is generally consistent and enduring, and although it is enduring, it can change (Schiffman & Wisenblit, 2015:68; Sethna & Blythe, 2019). For example, an individual's personality can change or be altered by a major life event like the birth of a child, the death of a loved one and so forth. This could influence his/her decision to purchase short-term personal motor vehicle insurance. Each individual's distinct personality influences his/her purchase decision (Kotler & Armstrong, 2018:168).

4.4.1.5 Attitude

An individual can have a positive, negative or neutral attitude towards a product/service or a brand. This depends on their past experience with the product/service, such as insurance and the insurance company (Strydom, 2018:306). An individual's attitude describes relatively consistent evaluations, feelings, and tendencies toward an object or an idea (Kotler & Armstrong, 2018:173). Previous research suggests that attitudes regarding insurance are mainly formed from past purchase experiences (Suter *et al.*, 2017:155).

It is clear to see how these psychological attributes form part of the individual's experience, and how these attributes can influence the need recognition step towards making the decision to purchase personal motor vehicle insurance. These factors not only influence the need recognition step, but can also influence the individual to abandon the decision process and force them to make the decision not to purchase a personal motor vehicle insurance policy.

The demographics of individuals and how this influences the need to purchase is discussed below.

4.4.2 Demographics of individuals

The demographics of individuals can also impact the decision to purchase. Therefore, this can also be viewed as an internal influence. As discussed in Section 3.2.1.3, organisations often segment markets on the basis of demographics and it can also relate to the individuals' purchase decisions (Lamb *et al.*, 2013:275, 2018:337). The general demographic variables include age, gender, income, household size, education, ethnic background and family lifestyle (Boone & Kurtz, 2014:170; Willan, 2021).

None of the decision-making models reviewed in Chapter 3 included the demographics of individuals. This can be viewed as a shortcoming, as these demographic variables may influence the need to purchase, which affects the individual's purchase decisions. The conceptual CPDFPMVI model (in Figure 4.1) includes all the demographic variables that might have an influence on the consumers or potential consumers' need to purchase personal motor vehicle insurance.

Age, gender, marital status, highest level of education, employment status and household income are all the demographic variables identified for the current study that could possibly have an impact on the respondents need to purchase personal motor vehicle insurance (as discussed in Section 7.4.1). The decision-making process is discussed below.

4.5 DECISION-MAKING PROCESS

As mentioned above, the decision-making process explains how consumers and potential consumers make decisions (Schiffman & Wisenblit, 2015:341, 2019:376), and it starts with *need recognition*. This step can also be called problem recognition or problem awareness, as illustrated in some of the models discussed in Chapter 3.

An unsatisfied need is recognised when an individual notices a difference between the desired state of affairs and the actual state of affairs (Lamb *et al.*, 2013:186; Sethna & Blythe, 2019). The desire to recognise the need is dependent on two factors. Firstly, the magnitude of the difference between the actual and desired state (the bigger the difference, the higher the desire will be to recognise the need). Secondly, the importance of the need is considered. The more important the need, the higher the desire will be to satisfy the need (Du Plessis *et al.*, 2012:86; Reyes, 2020:32). If an

individual does have a need for personal motor vehicle insurance, he/she will continue with the pre-purchase search.

The type of decision step suggested by the Schiffman and Wisenblit model was not included in the proposed conceptual CPDFPMVI model, as it was already established that individuals who consider purchasing personal motor vehicle insurance would engage in dissonance-reducing behaviour (Belch & Belch, 2015:125; Katrodia, 2021:61). Therefore, it was decided not to include this step in the conceptual CPDFPMVI model.

The *pre-purchase search* or search for information step is where the individual searches for information that supports a specific purchase decision (Hoyer *et al.*, 2018:189). The search for information prior to the purchase may be internal (remembering facts about a policy or recalling experiences of previous service deliveries) and/or external, which include reading about possible policies, searching on the Internet or visiting a broker (Sethna & Blythe, 2019). Regarding personal motor vehicle insurance, this will typically be the step where individuals think about previous experiences (internal search) and request a few quotations of policies from different short-term insurance companies (external search). Motor vehicle insurance consumers can also search for information online regarding a specific company and its policy offerings. The findings of this search remain important in the consumers' purchasing decisions (Mau, Pletikosa & Wagner, 2018:1139). When the individual has performed this pre-purchase search, he/she will move to the evaluation of alternatives step. However, if the information obtained does not meet the individual's requirements or needs, he/she can decide to stop the process.

Evaluation of alternatives is where the information gathered by the individual is evaluated (McIntee, 2014:67; Strydom, 2018:308). This is how individuals process the information obtained in the pre-purchase search to choose between the alternative brands (Kotler & Armstrong, 2018:177). Individuals use criteria such as price, quality, performance standards, ethical characteristics, and aesthetic qualities to measure whether the desired product/service will contribute to their need satisfaction and lifestyle (Erasmus *et al.*, 2019:458). A list of brands from which individuals plan to make their selection can also be used to evaluate alternatives (Schiffman & Wisenblit, 2015:342, 2019:379).

During this step, individuals who obtain information about personal motor vehicle insurance will use the criteria mentioned above, such as price (price of the policy on quotation) and quality (the standard of the quotation) or the brand list (list of different companies), to compare the different quotations and measure if there is a policy that will contribute to their need satisfaction. After the information and alternatives have been evaluated, the individual has to make a choice to purchase or not to purchase. The purchase decision step is discussed below.

4.6 PURCHASE DECISION

The purchase decision or choice made by the consumer is the result, and therefore, the final step illustrated in the output stage (Milner & Rosenstreich, 2013:115; Schiffman & Wisenblit, 2019:375). This is the final step in the purchase process, where individuals take action to buy or not to buy the service/product (Erasmus *et al.*, 2019:458), in this case, personal motor vehicle insurance. The purchase decision step is where the individual makes the purchase or not, and this is also the step that determines if the individual becomes a consumer or not (Lamb *et al.*, 2018:112). Individuals who decide to make the purchase will become consumers, and those who decide not to purchase cannot be regarded as consumers. The post-decision behaviour will not be covered as this falls out of the scope of the current study.

4.7 CONCLUSION

None of the existing consumer decision-making models illustrates the purchase decision behaviour within the financial service market, specifically for the personal motor vehicle insurance industry. Therefore, the conceptual CPDFPMVI model was presented and discussed in this chapter. This proposed CPDFPMVI conceptual model was tested in the current study. The next chapter presents and discusses the research methodology regarding the testing of this conceptual model.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 INTRODUCTION

The literature review for this study was discussed in Chapters 2 and 3. The conceptual model named the consumer purchase decision for personal motor vehicle insurance (CPDFPMVI) was presented and discussed in the previous chapter (Chapter 4). This chapter aims to present and explain the research methodology used in this study. A detailed discussion of the research design, critical methodology, measurement process, sampling design and techniques, data collection process and data analysis methods are provided. The specific steps in the empirical research process are explained and the analytical methods used are justified. The measures taken to ensure reliability and validity are outlined. All the ethical considerations and how they were implemented during the research process are comprehensively explained. Consequently, the primary research process is outlined in this chapter.

5.2 RESEARCH OBJECTIVES REVISITED

The purpose of this study was to determine the purchasing decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance. This study aimed to develop a unique model that will assign a probability to each of the possible choices based on the purchase decision context.

The primary objective of this study is to develop a model that explains the purchase decision of the consumers' purchasing decision process in the South African personal motor vehicle insurance industry. The purchasing behaviour of insureds and non-insureds was determined by testing a conceptual CPDFPMVI model. A tested consumer purchasing decision model, specifically in terms of personal motor vehicle insurance, can assist short-term insurance companies in understanding the purchase behaviour of their consumers (insureds) and potential consumers (non-insureds).

In order to achieve the primary objective of this study, several secondary objectives were developed. The primary and secondary research objectives of this study are presented next.

5.2.1 Primary research objective

To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry.

5.2.2 Secondary research objectives

The following secondary research objectives were formulated for the current study:

- To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.
- To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.
- To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.
- To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

The primary and secondary research objectives outline the purpose of this study. Setting the research objectives is the first step in the research process, as these objectives are the goals to be achieved when conducting the research (Zikmund *et al.*, 2013:50). The research process followed to conduct the research to achieve the set objectives is explained next.

5.3 THE RESEARCH PROCESS

Research cannot be conducted without a purpose; therefore, the research question/problem of this study was identified in Chapter 1, and the primary and secondary objectives were developed to answer this research question or to solve the research problem. In order to solve the problem and to answer the research question, decisions need to be made by the researcher to determine which appropriate process will solve the problem or answer the research question.

The research process is an arrangement of clearly defined steps that should be followed during a research study (Cooper & Schindler, 2014:12). Although the research process steps are illustrated in a certain sequence, certain steps might overlap, and some of the steps will have to be revisited more than once. Each time a step is revisited, the researcher has to reflect on the issue at hand, and the ideas might need to be redefined (Saunders *et al.*, 2019:11).

The research process followed in this study is illustrated in Figure 5.1.

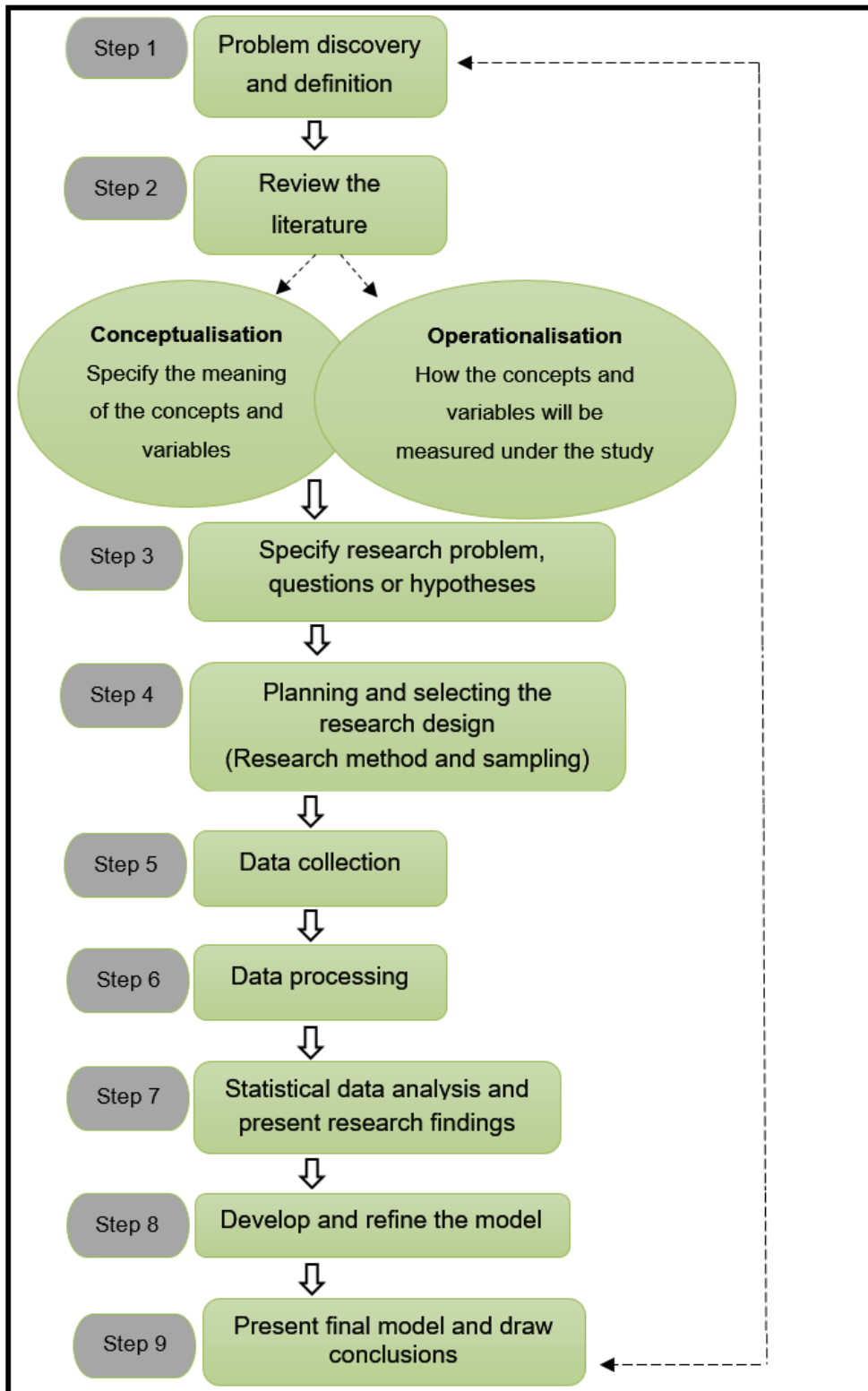


Figure 5.1: The research process

Source: Adapted from Babbie (2016:114) and Zikmund *et al.* (2017:17)

The steps depicted in the figure above are explained below.

5.3.1 Steps in the research process

As illustrated in Figure 5.1, the following steps were performed during the research process:

- Step 1 of the research process includes the **problem discovery and problem definition** (refer to Chapter 1). During this step, the researcher identified and explained the research problem and the gap in knowledge that is worthy of research and that can contribute to the existing body of knowledge. From this research problem, research objectives and research questions were formulated to ensure that the research problem can be addressed. The research problem of this study can be summarised as follows: Only 30 to 35% of the motor vehicles that drive on South African roads have motor vehicle insurance (Buys, 2015:23; Bubear, 2016; Geldenhuys, 2020a; South African Insurance Association, 2021). Therefore, it is imperative to understand the behaviour behind motorists' decisions regarding the purchasing of motor vehicle insurance. The development of a model that illustrates the motorists' purchasing decision when deciding to purchase personal motor vehicle insurance can assist short-term insurance companies to understand the purchase behaviour of their consumers (insureds) and potential consumers (non-insureds).
- Step 2 is to critically **review the relevant literature** (refer to Chapter 2 and 3). A literature review is a written argument that supports a research topic by building a case from credible evidence gained from previous research (Machi & McEvoy, 2016:5; Efron & Ravid, 2019:156). The literature review of a study also included two important factors, namely, conceptualisation and operationalisation (Babbie, 2021). During this step in the research process, the researcher reviewed all the previous and academic research to write an argument that supports the research topic of this study. Conceptualisation was provided by exploring the key concepts, such as consumer purchasing decisions and the other variables that are included in the consumer purchasing decision process. Operationalisation was incorporated by developing a conceptual CPDFPMVI model, and this model indicates how each variable will be measured.
- Step 3 of the research process deals with **selecting a specific research problem, question or hypotheses** (see Section 5.2). The formulation of a specific research

problem is vital as it provides a direction of the study. The research problem, as was identified in Step 1, was sufficient, but it was refined after the literature review had been conducted. As the research problem determines the nature (qualitative or quantitative) of the research that will be conducted, the testing of a conceptual model requires statistical analysis, and it was decided to make use of a quantitative survey.

- Step 4 involves **planning and selecting the research design** (see Sections 5.4, 5.6, 5.7 and 5.8). This step includes the research methods, selection of population and sampling methods to be used. For the purposes of this study, a quantitative survey method was selected. The population selected was motorists in South Africa, and two sampling methods were used, namely, convenience sampling and snowball sampling. An online self-administered questionnaire was used to collect the primary data for this study.
- Step 5 relates to the **data collection** process (see Section 5.9).
- Step 6 deals with the **data processing** (see Section 5.10).
- Step 7 includes the **statistical data analysis and presentation of results** (see Section 5.11)
- Step 8 involves the **development and refinement of the model**. The model-building strategy utilised to achieve the final CPDFPMVI model is illustrated in Figure 5.12.
- Step 9 is the last step which involves **presenting the final model and drawing conclusions**. The final step in the research process is to present the data findings (see Section 5.13).

The research design used in the current study is discussed below.

5.4 RESEARCH DESIGN

The research design of a study is the plan of action that indicates how to achieve the research objectives. This plan will specify the methods and procedures that will be used to collect and analyse the needed data (Zikmund *et al.*, 2017:21). A research design consists of the strategy used to access the information to conduct research, what the units of analysis/individuals are and how to access them, and the variables and measurements used to test and address the research objectives and questions

(Ang, 2021:126). Another short description of a research design is that it is the blueprint for collecting, measuring, and analysing data (Cooper & Schindler, 2014:125; Cooper, Schindler & Sharma, 2019).

From the above definitions and descriptions the essential elements of a research design can be identified as follows:

- A plan of action and time-based plan.
- A plan is always based on the research question or research objectives.
- A plan to access sources and types of information.
- A plan for specifying the relationships of the variables of the study.
- A procedural outline for every primary research activity.

In addition to these elements, the research design selected for a study should also reveal the decisions made during the research process. Some reflections include:

- How the causal connections between variables are expressed if the results found can be generalised in a bigger/another sample population than what was chosen;
- How particular behaviours should be explained and interpreted.
- In what manner the interconnections and changes in the social phenomena should be explained (Bryman, 2016:40).

The research design serves two main functions: to provide detail on the steps and procedures taken to conduct the study, and it ensures that the procedures are adequate to acquire valid, objective and accurate answers to research questions and objectives (Kumar, 2019).

It can be argued that there is no single best research design, as every research study is different. Therefore, each study will have a unique research design that has the most appropriate methods and procedures to collect the specific data required (Zikmund *et al.*, 2017:27). The research design is essential to develop the criteria for evaluating research (Mårtenssona *et al.*, 2016:594) and it guarantees that a researcher reaches valid findings, comparisons and conclusions (Kumar, 2019).

A research design consists of certain components, namely, the research methodology, data-collection methods, data analysis techniques and instrument development

(Cooper & Schindler, 2014:89; Cooper *et al.*, 2019). Figure 5.2 illustrates the components of the research design.

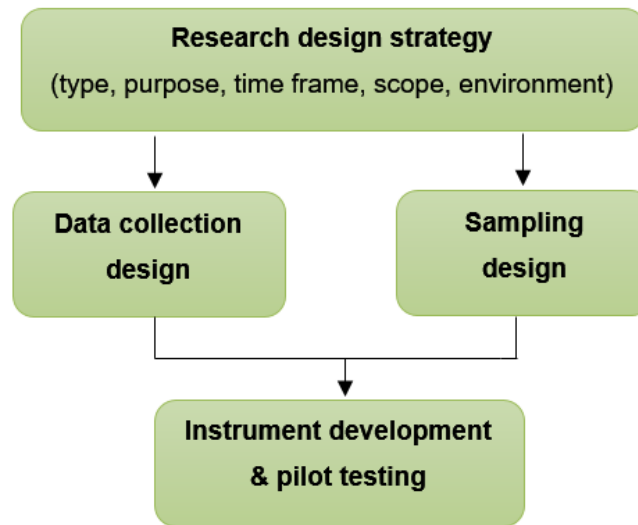


Figure 5.2: Components of the research design

Source: Adapted from Cooper & Schindler (2014:124); Cooper *et al.* (2019)

Key issues, such as validity, reliability, replication, trustworthiness, generalisability and authentication, should be included in the research design (Conrad & Serlin, 2011:149; Adams, Khan & Raeside, 2014:65; Leavy, 2017:155). This, however depends on the broad approach followed, whether qualitative or quantitative. For example, in qualitative research, trustworthiness is relevant, while in quantitative research validity and reliability are important.

All of these components and key issues are included in the research design of this study and will be discussed in detail throughout this chapter. Firstly, all the important research terminology involved in the research design and research process is presented next.

5.5 RESEARCH TERMINOLOGY

This section presents a brief discussion of the terminology concerning the research process used in the current study and the rest of this thesis.

5.5.1 Research paradigm: Ontology, epistemology and axiology

The term paradigm originated from the Greek word “paradeigma” which means pattern (Killam, 2013:5). A paradigm is a way of thinking or looking at the world, and it is

composed of specific philosophical assumptions that guide and direct a researcher's thinking and action (Mertens, 2019). Ontology, epistemology and axiology are the philosophical assumptions that describe a research paradigm (Chilisa, 2019).

Ontology relates to how individuals are connected in societies and how they make sense of the reality in which they live (Edelheim, 2015:30; Raghvan, 2021:14). Thus, ontology is the philosophical assumption that explains the social reality. In other words, of concern for a study will be what the nature of reality is. Epistemology, also known as the study of knowledge, explains why individuals equally decide that certain things are true and others are not (Saunders *et al.*, 2019:133). Therefore, the philosophical assumption that relates to the ways of knowing is epistemology. Axiology involves the study of value or goodness, like ethics in research, and should be a fundamental part of the research planning and implementation process (Mertens, 2019). It indicates the ethics and value procedures in a study.

To summarise, the research paradigm of a study is a way of explaining a worldview that is informed by three philosophical assumptions regarding the nature of social reality (ontology), ways of knowing (epistemology) and ethics/value procedures (axiology). These three terms and philosophical assumptions are essentially part of the research paradigm, which is discussed in more detail in Section 5.6.1.

5.5.2 Deduction and induction

The two research approaches that can be followed in a research process are deduction and induction. Deduction relates to the approach used to develop a hypothesis or hypotheses based on existing theory, and designing a research strategy to test the hypothesis/hypotheses (Wilson, 2014:13). The deductive approach is essentially about testing or verifying an existing theory and not to develop a new theory (Babbie, 2016:51). The following steps are included in the deductive approach: the researcher draws what is known about a particular theoretical topic in order to develop hypotheses, data should be collected on concepts/variables of the hypotheses; lastly, the hypotheses are confirmed or rejected based on the findings (Bryman, 2016:21). A survey is normally associated with the deductive approach (Saunders *et al.*, 2019:153), and this type of research is related to quantitative research (Bryman, 2016:21). With the deductive approach, the researcher works from the theory to the

data. Whereas, with the inductive approach, the researcher works from the data to the theory (Wilson, 2014:13).

As indicated above, the inductive approach is the opposite of the deductive approach as it involves the development of a theory after the data has been collected and analysed (Saunders *et al.*, 2019:153). This approach can also be explained as the approach used to generate conclusions from one or more facts or parts of the evidence, and the conclusions explain the facts (Cooper & Schindler, 2014:658). This type of research is associated with qualitative research (Wilson, 2014:13; Bryman, 2016:24).

After distinguishing between the two possible approaches, it is evident that this study needed to follow the deductive approach. The theory has been presented in Chapters 2, 3 and 4, and will be tested during the data collection and data analysis steps of the research process by using quantitative methods.

5.5.3 Empirical research, primary data and secondary data

The term empirical research relates to making planned observations (Patten, 2017:3). A more detailed explanation of empirical research is that it refers to a process of collecting data and analyses of primary data, which was based on observations or experiments, to test a hypothesis (Cooper & Schindler, 2014:66; Patten, 2017:3). Empirical research is also conducted to determine the effect or causes and empirical evidence is expressed in generalisations, laws and propositions (Rosenberg, 2018).

To summarise, empirical research is the research process followed when primary and/or secondary data are collected and analysed through observations or experiments to gain effects and causes or testing hypotheses. In this case, empirical research will be conducted as primary and secondary data were collected.

Primary data are the raw data collected for the first time by a researcher for a specific purpose to achieve the research objectives of a study (Cooper & Schindler, 2014:663; Cooper *et al.*, 2019). This type of data also relates to the 'fresh data' obtained in a study (Bradley, 2013:112; Xian & Meng-Lewis, 2018:103). Primary data can be in a qualitative or quantitative form (Cooper & Schindler, 2014:96; Cooper *et al.*, 2019) and with regard to this study, quantitative primary data were collected. The results are presented in Chapters 6 and 7 after it was analysed to draw up conclusions. Most

research objectives and questions are achieved and answered by using a combination of primary and secondary data (Saunders *et al.*, 2019:338).

Secondary data are the data that was gathered and recorded by someone else for other purposes than the current research study (Zikmund *et al.*, 2017:99). This type of data includes both quantitative and qualitative data (Saunders *et al.*, 2019:338). Still, it has at least one level of interpretation inserted between the event (the first time that the data were collected) and when it was recorded in a study (Cooper & Schindler, 2014:86; Cooper *et al.*, 2019). Secondary data were not collected in this study as no existing data were used in the analysis phase. Only a detailed summary of previous studies was used to compile the literature review.

5.5.4 Variables

A variable can be defined as the element or factor that is under investigation (Williamson & Johanson, 2018:340). A more comprehensive definition is that a variable is “a symbol of an act, trait, characteristic or attribute, which can be measured and to which a value can be assigned” (Cooper & Schindler, 2014:55; Cooper *et al.*, 2019). Stated in another way, to test a hypothesis or a conceptual model, it is compulsory to identify specific items (variables) that will be tested or measured (Stokes & Wall, 2014:105).

It is common to distinguish between the different variables that can be used during a research process and those variables that can be included in questionnaires used for survey research, namely:

- Dichotomous variables which only have two values reflect the presence or absence of a property. It can therefore also be nominal or ordinal. Yes and no questions are typically dichotomous variables, but values such as male and female may also be included, if these are the only options.
- Continuous variables are measured in a range and it may include decimal numbers. Income and age are examples of continuous variables.
- Nominal values are impossible to define in a numerical category or value and it cannot be ranked. Examples of such variables are gender, geographic location and occupation.

- Ordinal variables refer to variables that can be ranked in order of magnitude, but the values are not different. For example, a five-point Likert-scale is typically used to measure this type of variable.
- Interval variables include the variables or categories that have identical distances between them. The Celsius temperature measured is a good example of interval variables as the zero degrees variable does not represent “no temperature”, but it represents a value like any other variable. For example, 13 degrees and zero degrees are 13 degrees less than if the temperature was 13 degrees.
- Ratio variables also have identical distances or amounts between them. The difference between an interval variable and a ratio variable is that there is an absolute zero value. Take for example, if a company makes a profit of R50 000 in one year and R100 000 the following year, the profits have doubled in the next year, whereas if the profit for the following year was R50 000 again, there would be no increase and the true value will be zero (Cooper & Schindler, 2014:55; Bryman, 2016:51; Saunders *et al.*, 2019:511).

According to Zikmund *et al.* (2017:48), variables can also be categorised as dependent and independent variables. A dependent variable relates to the variables that can be explained or predicted and the variable that is of primary interest to the researcher (Sekaran & Bougie, 2020:85). The independent variables are measurable characteristics that can theoretically influence the dependent variables positively or negatively. Empirically it might help explain variation with no direct influence or causality (Babbie, 2021:17). Dependent variables change in response to changes in other variables, whereas independent variables in most cases, cause changes in dependant variables (Saunders *et al.*, 2019:511). The specific variables used in this study are provided in Table 5.7, which is presented later in this chapter.

5.6 DESCRIPTORS OF THE OVERALL RESEARCH DESIGN OF THE STUDY

Various descriptors can be used to form the specific research design used in a study by referring to the different design dimensions (Cooper & Schindler, 2014:126; Cooper *et al.*, 2019). The eight dimensions are illustrated in Table 5.1.

Table 5.1: Research design descriptors

Category	Options
Research paradigm	<ul style="list-style-type: none"> ▪ Post-positivism ▪ Constructivism ▪ Pragmatism ▪ Realism ▪ Postmodernism
The degree to which the research question has been formed	<ul style="list-style-type: none"> ▪ Exploratory research questions ▪ Descriptive research questions ▪ Causal research questions
The method of data collection	<ul style="list-style-type: none"> ▪ Monitoring ▪ Communication study
The power of the researcher to produce effects in the variables under study	<ul style="list-style-type: none"> ▪ Experimental ▪ Ex post facto study
The purpose of the study	<ul style="list-style-type: none"> ▪ Reporting ▪ Descriptive study ▪ Causal ▪ Explanatory ▪ Predictive
The time dimension	<ul style="list-style-type: none"> ▪ Cross-sectional study ▪ Longitudinal
The topical scope of the study	<ul style="list-style-type: none"> ▪ Case study ▪ Statistical study
The research environment	<ul style="list-style-type: none"> ▪ Field setting ▪ Laboratory setting ▪ Simulation

Source: Adapted from Cooper & Schindler (2014:126); Sekaran & Bougie (2016:43); Cooper *et al.* (2019)

Each one of these descriptors is explained in the sections below.

5.6.1 Research paradigm

This topic was briefly discussed in Section 5.5.1. The starting point of the research design is to determine a research paradigm (Collis & Hussey, 2021:10). Research depends on the link/relationship between the research design, research method and the research paradigm. This link/relationship is illustrated in Figure 5.3. Only the research paradigm (also known as the philosophical worldview) will be discussed in this section. The other elements will be discussed later in the chapter.

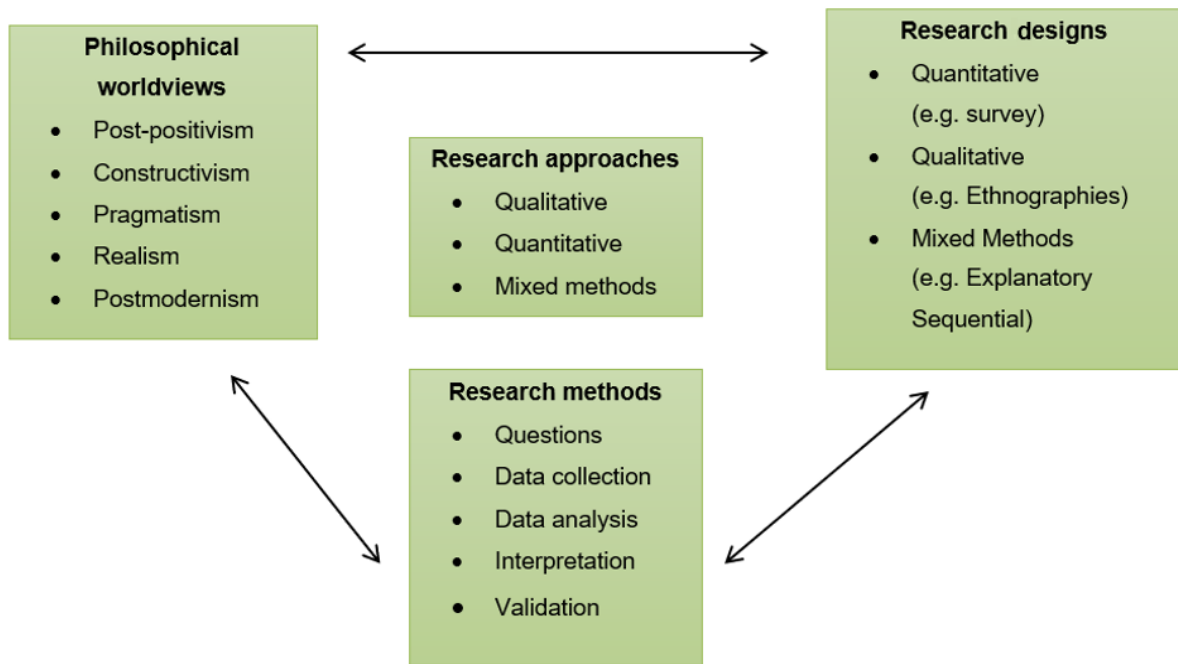


Figure 5.3: Link between research paradigms, research design and research methods

Source: Adapted from Creswell (2014:5); Creswell & Creswell (2017); Saunders *et al.* (2019:144-145)

The term paradigm refers to a set of assumptions or a belief system shared by the members of a scientific community (Cooper, 2018). The research paradigm can be explained as the framework that guides how research should be conducted, based on the individual's philosophies regarding their assumptions about the world and the nature of knowledge (Collis & Hussey, 2021:10). A paradigm can also be explained as one of the fundamental models or frames that researchers use as a reference to organise observations and reasoning (Babbie, 2016:33). Essentially, a paradigm becomes the lenses through which research is perceived and executed (Leavy, 2017:12). In other words, the way in which the researcher views the world, therefore also known as 'philosophical worldviews' (Creswell, 2014:5; Creswell & Creswell, 2017). As depicted in Figure 5.3, the types of assumptions or beliefs an individual researcher holds based on the factors mentioned above will determine the researcher's choice of research design and research methods. The main paradigms will be briefly discussed below.

5.6.1.1 Post-positivism

The post-positivism/positivism philosophical belief originated in the natural sciences and promotes an objective, patterned and identifiable reality (Leavy, 2017:12). Post-

positivists hold a deterministic philosophy, since causes will lead to the outcome (Creswell, 2014:7; Creswell & Creswell, 2017). The research paradigm for the current study is the post-positivist view, as the researcher had to identify and assess the causes that influence outcomes by testing a conceptual model. This paradigm is mostly found when quantitative research is conducted (Creswell, 2014:10; Collis & Hussey, 2021:40).

The positivism approach generally relies on the following principles (Bell *et al.*, 2019:30):

- The only phenomena which can be observed by senses and can be warranted as sources of knowledge.
- The purpose of theory is to generate hypotheses that can be tested. Normally quantitative research starts with testing a theory.
- Knowledge is gained through gathering facts that provide the basis for universal propositions.
- Science should be conducted in such a way that it is value-free. Research methods and conclusions should not be biased.
- There should be a distinction between scientific statements and normative statements. Senses cannot confirm normative statements. Thus scientific statements should be formed.

As a final point, the sole purpose of research according to a paradigm is to determine and confirm theories by testing them empirically. The current study tested a conceptual model (theory), and therefore, the positivism approach was utilised.

5.6.1.2 Constructivism

The constructivism/interpretivism approach is generally used in qualitative research (Creswell, 2014:8; Gray, 2020:27). This paradigm emphasises that individuals produce the idea of several realities which exist in the context of social interactions and subjective meanings via social interaction (Roller & Lavrakas, 2015:3). Constructivism highlights the “worldview of experiences as it is lived and assessed by the social actors” (Klenke, 2016:22).

Most researchers who use the constructivism approach accept that the position cannot be pushed to the extreme, but they instead tend to question the individuals whether

there is a truth to be told in meeting with society (Pasian, 2015:62). Constructivism implies that social beliefs and categories are not only produced through social interaction, but are constantly being revised (Bryman, 2016:33).

Studies that are conducted with a constructivist view usually include open-ended interviews, observations and narrative documents like diaries, unlike post-positivism research that includes structured interviews and/or questionnaires (Gliner, Morgan & Leech 2017:9). Thus, this paradigm was not suitable for the current study.

5.6.1.3 Pragmatism

The pragmatism approach involves mixing methods, techniques and procedures associated with quantitative or qualitative methods, which is a necessity (Gray, 2020:31), as this approach offers a practical and applied research philosophy that is orientated towards action (Klenke, 2016:26). Researchers who follow this research paradigm, focus on the 'what' and the 'how' of the research problem (Creswell, 2014:11; Creswell & Creswell, 2017). Furthermore, pragmatism recognises that there are many ways to conduct research and interpret the worldview, and therefore, it is vital to include multiple research methods (Saunders *et al.*, 2019:151). Since this study only included quantitative research methods, this approach was not applicable.

5.6.1.4 Realism

The essence of realism is what researchers' sense reality is, which implies that the objects have an existence independent from the human mind (Saunders, Lewis & Thornhill, 2012:136; Sekaran & Bougie, 2020:24). Objects of research such as culture, the organisation and corporate planning exist, and act independently from the observer. This is why researchers who follow this approach are available for systematic analysis as a natural phenomenon (Gray, 2020:29). In other words, realism assumes that objects exist independently from human minds, and it takes the natural sciences approach towards developing knowledge.

There are two major forms of realism, namely empirical/direct realism and critical realism (Bryman, 2016:26). Empirical/direct realism means that by using the appropriate methods, reality can be understood (Bell *et al.*, 2019:31). Therefore, direct realists believe what they see is what they get. Differently stated, what direct realists experience through their senses represents the world accurately (Saunders *et al.*, 2019:147). Critical realism, on the other hand, implies that what researchers

experience are sensations, the images/representations of things in the real world and not the things directly (Saunders *et al.*, 2019:147). Realism was not used as a paradigm in this study.

5.6.1.5 Postmodernism

Postmodernism is explained by Saunders *et al.* (2019:160), as a philosophy that

...emphasises the world-making role of language and power relations.

Postmodernists seek to question the accepted ways of thinking and give voice to alternative worldviews that have been marginalised and silenced by dominant perspectives. Postmodernists deconstruct data to expose the instabilities and absences within them.

Postmodernism draws attention to the social, historical and/or political construction of knowledge, people, and social relations (Mora *et al.*, 2012:44). Postmodernism is mainly applied in the artistic and social sciences. The loose alliance of intellectual perspectives which collectively create a challenging critique of fundamental premises is the basis of the scientific research (INtgrty, 2016).

The typical methods used in postmodernism research are typically deconstructive in nature, such as in-depth investigations of anomalies, silences, and absences. The data are normally qualitative in nature (Saunders *et al.*, 2019:145). As the current study only included quantitative research methods, this approach was not suitable.

To conclude, Table 5.2 summarises the philosophical worldviews as discussed above.

Table 5.2: Comparison between research paradigms

	Post-positivism	Constructivism	Pragmatism	Realism	Postmodernism
Ontology	<ul style="list-style-type: none"> ▪ Reality is objective. ▪ Independent of social actors. 	<ul style="list-style-type: none"> ▪ Reality is socially constructed. ▪ Might change. ▪ Multiple realities. 	<ul style="list-style-type: none"> ▪ Multiple realities. ▪ Paradigm that answers research question the best is selected. 	<ul style="list-style-type: none"> ▪ Reality is objective. ▪ Exists independently from human thoughts. ▪ Interpreted through social conditioning 	<ul style="list-style-type: none"> ▪ Reality is socially constructed. ▪ Some meanings are dominated and silenced.
Epistemology	<ul style="list-style-type: none"> ▪ Only observable phenomena can provide credible data. ▪ Should focus on causality and law-like generalisations. ▪ Phenomena are reduced to simplest elements. 	<ul style="list-style-type: none"> ▪ Subjective meanings. ▪ Focus on the details of situation. ▪ Reality behind these details. ▪ Subjective meanings motivate the actions. 	<ul style="list-style-type: none"> ▪ Both observable phenomena and subjective meanings can provide knowledge. ▪ Focus on practical applied research. ▪ Integrate different perspectives to assist in interpreting the data. 	<ul style="list-style-type: none"> ▪ Observable phenomena can provide credible facts. ▪ Insufficient data result in inaccuracies in sensations. ▪ Focus is on explaining within a context or contexts. 	<ul style="list-style-type: none"> ▪ What counts as the “truth” and “knowledge” is decided by dominant ideologies. ▪ Focus on absences/silences/repressed meanings/interpretations/voices. ▪ Exposure of power relation and challenge of dominant views as the contribution
Axiology	<ul style="list-style-type: none"> ▪ Research is undertaken in a value-free manner. ▪ Researcher is independent of data. ▪ Maintains an objective stance. 	<ul style="list-style-type: none"> ▪ Research is value bound. ▪ Researcher is part of the research. 	<ul style="list-style-type: none"> ▪ Values play a big role in interpreting results. ▪ Researcher adopts both objective and subjective points of view during data interpretation. 	<ul style="list-style-type: none"> ▪ Research is value laden. ▪ Researcher is biased by worldviews, experiences and upbringings, which will have an impact on the research. 	<ul style="list-style-type: none"> ▪ Research is value bound. ▪ Research embedded in power relations. ▪ Some research narratives are repressed and silenced. ▪ Researcher is radically reflective.

Source: Adapted from Saunders *et al.* (2019:144-145)

The table above illustrates the comparison between the different research paradigms discussed in this section. As presented, the current study followed the post-positivism approach where a conceptual model (theory) was tested.

The following section explains the degree to which the research questions have been formed.

5.6.2 The degree to which the research questions have been formed

Research questions are the key questions that the research process will address, and they are generally the basis of the research objectives (Saunders *et al.*, 2019:815). The three basic types of research questions that research studies can address are exploratory, descriptive and causal research questions (Sekaran & Bougie, 2020:58).

Studies with exploratory research questions are usually qualitative in nature (Sekaran & Bougie, 2020:58); their purpose is exploration and usually to develop hypotheses or questions for further research. In other words, exploratory research usually is unstructured to generate future research tasks (Cooper & Schindler, 2014:126; Cooper *et al.*, 2019). Furthermore, this type of research is conducted to clarify ambiguous situations or to determine ideas that may be potential business opportunities (Babin & Zikmund, 2016a:54; Zikmund *et al.*, 2017:20).

The two more formal types of research questions are the descriptive and causal type of research objectives. The formal type of studies starts with the hypotheses or research questions and it includes the precise procedures and data sources specifications (Cooper & Schindler, 2014:126; Cooper *et al.*, 2019). Descriptive research questions are designed to collect data that describe characteristics and it can be quantitative or qualitative in nature (Sekaran & Bougie, 2020:58). This type of research describes objects, people, groups, organisations or environments and it can be used to help describe market segments (Babin & Zikmund, 2016a:54; Zikmund *et al.*, 2017:24). Causal research objectives aim to delineate one or more factors that are causing a problem. A typical example of a causal research question is “How does perceived value affect consumer purchase intentions?” (Sekaran & Bougie, 2020:57).

The research question for the current study are descriptive in nature, as the research aimed at determining the characteristics and understanding of the purchasing decision process which results in some individuals deciding to purchase and others not to

purchase personal motor vehicle insurance (Babin *et al.*, 2015:127; Saunders *et al.*, 2019:801). The section below discusses the data-collection method selected for the current study.

5.6.3 The method of data collection

Data can be collected through monitoring or communication. Monitoring refers to the process where data are collected through observations. In contrast, communication relates to the process where the researcher asks respondents questions and the responses are captured (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019).

This study's research questions and objectives were answered by following the communication process, as data were collected by asking respondents questions and capturing the responses. Data were collected through a web-based survey and respondents were invited to complete an online self-administered questionnaire (see Appendix A). The researcher's control over the variables in this study is discussed in the following section.

5.6.4 The researcher's control over variables in this study

A researcher can manipulate the variables of a study and this depends on whether the study follows an experimental or ex post facto design (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019). Studies that follow the experimental design use predictions rather than research questions (Saunders *et al.*, 2019:190). The researcher attempts to control/manipulate the variables in the study as certain variables create effects in other variables (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019). With the ex post facto design, there is no manipulation of the variables as the researcher has no control over it (Sekaran & Bougie, 2020:181). Thus, the researcher can only report what happened and what is happening (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019).

For the purposes of the current study, the researcher did not attempt to manipulate or control the variables in the study and merely reported on the purchasing decision process of personal motor vehicle insurance consumers and potential consumers in South Africa. It is for this reason that this study followed the ex post facto design and statistical tests on findings and strict sampling procedures were used to ensure that bias was not introduced.

The purpose of the study is discussed next.

5.6.5 The purpose of the study

Any study should have a purpose and the purpose of each study can differ with regard to the following aspects: reporting, descriptive, causal-explanatory or causal-predictive (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019). A reporting study will provide a summary of the data. The data will be reported to achieve a deeper understanding or to determine statistic comparisons. If the aim of the research is to determine who, what, where, when, or how much, the study is a descriptive study. Studies that are causal-explanatory of nature aim to establish how one variable leads to changes in another variable. Lastly, causal-predictive studies strive to predict an effect on one variable by manipulating another variable, while holding all the other variables constant (Cooper & Schindler, 2014:127; Cooper *et al.*, 2019).

Taking into account that the aim of this study's primary and secondary objectives was to determine who, what, where, when, or how much, it is a descriptive study. This study also attempted to create comparisons between the data so that the purchasing decision process of personal motor vehicle insurance consumers and potential consumers can be better understood, therefore reporting was also an aim of the study. Therefore, the purpose of this study was both reporting and descriptive.

The time dimension with regard to this study is covered in the next section.

5.6.6 The time dimension

The time dimension of a study will depend on whether the study is a cross-sectional study or a longitudinal study (Cooper & Schindler, 2014:128; Cooper *et al.*, 2019). If the data for a study are only gathered once over a period of days or weeks or months, it is a cross-sectional study (Sekaran & Bougie, 2020:113), but if it is repeated two or more times over an extended period, it is a longitudinal study (Zikmund *et al.*, 2017:137).

The current study used the cross-sectional method, since data was only collected once to investigate the consumer purchase decision process within the personal motor vehicle industry of South Africa.

The next section discusses the topical scope of the current study.

5.6.7 The topical scope

The scope of a study can be statistical in nature, and within a case study design, the researcher can also employ statistical analysis. A statistical study aims to determine a population's characteristics and the aim is to draw conclusions from the characteristics of a sample. Furthermore, hypotheses are tested and generalisations are drawn from the findings according to the representativeness of the sample, as well as the validity of the design (Cooper & Schindler, 2014:128; Cooper *et al.*, 2019). Case studies focus on gathering data about a certain object, event or activity (Sekaran & Bougie, 2020:106). Studies that are based on a case study are often more qualitative in nature, but not definite, as these studies aim to find important themes (Zikmund *et al.*, 2017:68).

The topical scope of the current study is statistical, as this study aimed to determine the characteristics of personal motor vehicle insurance consumers and potential consumers within South Africa. The section below explains the research environment of this study.

5.6.8 The research environment

A study can be conducted in a contrived (under artificial, staged or manipulated conditions) or non-contrived setting. A study that is performed in a non-contrived setting is known as a field study, and a researcher uses the same natural environment in which the respondents normally function (Sekaran & Bougie, 2020:109). Research that is conducted in a laboratory setting is normally artificial or staged, or the conditions are manipulated. Simulations can be used in research to replicate the essence of a system or a process (Cooper & Schindler, 2014:128; Cooper *et al.*, 2019).

The current study was conducted in a field setting, as the data were collected in the same environment in which the respondents normally function, without any conditions being manipulated or simulated. The research approach of this study is discussed in the following section.

5.7 RESEARCH APPROACH

As mentioned above, the paradigm, the research design and the research methods contribute to the research approach. The research approach of a study refers to the plans and procedures for research that stipulate the steps and detailed methods of

data collection, analysis and interpretation (Creswell, 2014:3; Creswell & Creswell, 2017). The three main research approaches to be followed are qualitative, quantitative and a mixed methods approach. Table 5.3 illustrates the differences between these three research approaches.

Table 5.3: Key associations of qualitative, quantitative and mixed method approaches

Key associations	Qualitative approaches	Quantitative approaches	Mixed method approaches
Research philosophy	<ul style="list-style-type: none"> ▪ Constructivist knowledge claims 	<ul style="list-style-type: none"> ▪ Post-positivist knowledge claims 	<ul style="list-style-type: none"> ▪ Pragmatic or critical realist knowledge claims ▪ Sequential, concurrent and transformative
Methods	<ul style="list-style-type: none"> ▪ Inductive ▪ Open-ended questions, emerging approaches, non-standardised, text or image data ▪ Likely to use non-probability sampling methods 	<ul style="list-style-type: none"> ▪ Deductive ▪ Close-ended questions, predetermined approaches, numeric data ▪ Probability and non-probability sampling methods can be used ▪ Statistical techniques used to analyse data 	<ul style="list-style-type: none"> ▪ Inductive or deductive ▪ Both open- and closed-ended questions, both emerging and predetermined approaches, and both quantitative and qualitative data and analysis ▪ Probability and non-probability sampling methods can be used
Research strategies	<ul style="list-style-type: none"> ▪ Has a variety of strategies ▪ Each strategy has a specific emphasis or scope ▪ Strategies are: action research, case study research, ethnography, grounded theory and narrative research. 	<ul style="list-style-type: none"> ▪ Examines relationships between variables ▪ Experimental and survey (questionnaire or structured interviews or structured observation) research strategies 	<ul style="list-style-type: none"> ▪ Collects both quantitative and qualitative data ▪ Develops a rationale for mixing methods ▪ Integrates the data at different stages of inquiry ▪ Use research strategies of both qualitative and quantitative research

Source: Saunders *et al.* (2019:176-183)

The key associations of the main three research approaches are illustrated in the table above. The qualitative and quantitative research methods will be discussed next. The mixed method approach is a combination of the qualitative and quantitative methods, and does not need to be discussed separately.

5.7.1 Qualitative research

Qualitative research is an approach that is used to explore and understand the meaning that individuals or groups ascribe to a social or human problem (Creswell, 2014:4; Creswell & Creswell, 2017). In qualitative research, non-numeric data (words, images and video clips) are collected through the use of a technique such as an interview (Saunders *et al.*, 2019:179). This type of research focuses on discovering new insights and inner meanings, and it is also less structured than most quantitative studies (Babin & Zikmund, 2016a:109). Qualitative research mainly answers the ‘how’ (process) and ‘why’ (meaning) things happen, therefore developing an in-depth understanding of the problem/phenomenon (Cooper & Schindler, 2014:144; Cooper *et al.*, 2019).

Table 5.4 summarises the main attributes of qualitative research.

Table 5.4: Main attributes of qualitative research

Research aspect	Attribute
Focus	Understand and interpret the problem/phenomenon.
Purpose	Discover ideas; used in exploratory research with general research objectives.
Approach	Observe and interpret data.
Data-collection approach	Unstructured and free-form.
Researcher’s independence	Researcher is intimately involved; therefore results are subjective.
Sample design	Nonprobability and purposive sampling usually utilised.
Sample size	Small samples used, often in natural settings.
Research design	Exploratory research designs are used most often.
Data type and preparation	Verbal or pictorial descriptions that are reduced to verbal codes.
Data analysis	Human analysis following computer or human coding.

Source: Adapted from Cooper & Schindler (2014:147); Zikmund *et al.* (2017:66)

Taking into consideration all the attributes of qualitative research provided in the table above, it is clear that this approach would not be suitable for the current study, and it would rather follow a quantitative approach. In the next section, the quantitative research approach is discussed.

5.7.2 Quantitative research

Quantitative research is the approach that is used to collect data that generates numeric data of numerical nature (Saunders *et al.*, 2019:176). When researchers want to test hypotheses or answer specific research questions, they will follow a quantitative approach, as this type of research answers the questions that are necessary to determine a course of action (Zikmund *et al.*, 2017:66). Furthermore, quantitative research strives to verify the theory by focusing on gathering the facts to establish valid claims (Gray, 2020:210). More specifically, quantitative studies answer questions related to how much, how often, how many, when, and who (Cooper & Schindler, 2014:146; Cooper *et al.*, 2019).

Quantitative research assesses the relationship between variables measured numerically, and that are analysed using several statistical techniques (Saunders *et al.*, 2019:178). Quantitative research follows a deductive research approach (Bell *et al.*, 2019:35) and attempts to measure something precisely. This type of research usually measures consumer behaviour, knowledge, opinions, or attitudes (Cooper & Schindler, 2014:146; Cooper *et al.*, 2019). Quantitative methodologies have become the research approach commonly used for studying consumer behaviour (Hackett, 2019).

A deductive approach is evident when determining the relationship between theory and research (Bryman *et al.*, 2014:62). The four main features of deductive reasoning in quantitative research are:

- Measurement: The data-collection instrument has to be valid and reliable.
- Causality: This feature explains why things are the way they are by establishing the causal impact between independent variables and dependent variables.
- Generalisation: The results of a study can be generalised to a population outside of the selected sample.
- Replication: The findings of a study can be replicated or reproduced by any researcher as it was originally conducted independently and objectively, but the study should be capable of replication.

Table 5.5 summarises the main attributes of quantitative research.

Table 5.5: Main attributes of quantitative research

Research aspect	Attribute
Focus	Describe, explain or predict.
Purpose	To test hypotheses or answer specific research questions.
Approach	Measure and test data.
Data collection approach	A structured approach and categories are provided.
Researcher's independence	Researcher acts as an observer; thus results are objective and free from bias.
Sample design	Probability sampling is utilised.
Sample size	Large sample sizes are used to produce generalised results.
Research design	Descriptive and/or causal research designs are most often used.
Data type and preparation	Verbal descriptions are reduced to numerical codes for computerised analysis.
Data analysis	Computerised analysis (statistical and mathematical analysis) that upholds a clear distinction between facts and judgements.

Source: Adapted from Cooper & Schindler (2014:147); Zikmund *et al.* (2017:66)

These main attributes provided in the table above explain the quantitative approach that was followed in the current study. A quantitative design was followed in the primary research stage of this study, as research questions/objectives are generally deductive and certain variables needed to be investigated (Leavy, 2017:72).

According to Cooper and Schindler (2014:146), quantitative research attempts the precise measurement of something, and in business research specifically, quantitative methodologies usually measure consumer behaviour, knowledge, opinions or attitudes. Thus, the insureds and non-insureds' purchase decision behaviour had to be assessed by means of a quantitative research approach. The sampling design and approach followed in this study are provided in the following section.

5.8 SAMPLING DESIGN

The previous sections presented all the important concepts involved in the nature of this study. This section discusses how the population that the researcher wanted to

study was determined. The concepts regarding the sampling design are defined and the specific methods selected for this study are explained in detail in this section.

5.8.1 Population, population element, sample and census defined

The term population can be explained as the entire group of people, events, or things of interest that a researcher wishes to study or investigate (Sekaran & Bougie, 2020:222). The target population is an essential aspect of the sampling plan of a study. It refers to the total number of elements of a particular population that is relevant to a research study (Babin & Zikmund, 2016b:69). A population element or case relates to the individual respondent from which the measurement is taken (Cooper & Schindler, 2014:338; Cooper *et al.*, 2019). A sample is the subset of the population, whereas a census refers to the number of individual respondents in the population (Saunders *et al.*, 2019:292). These concepts are illustrated in Figure 5.4.

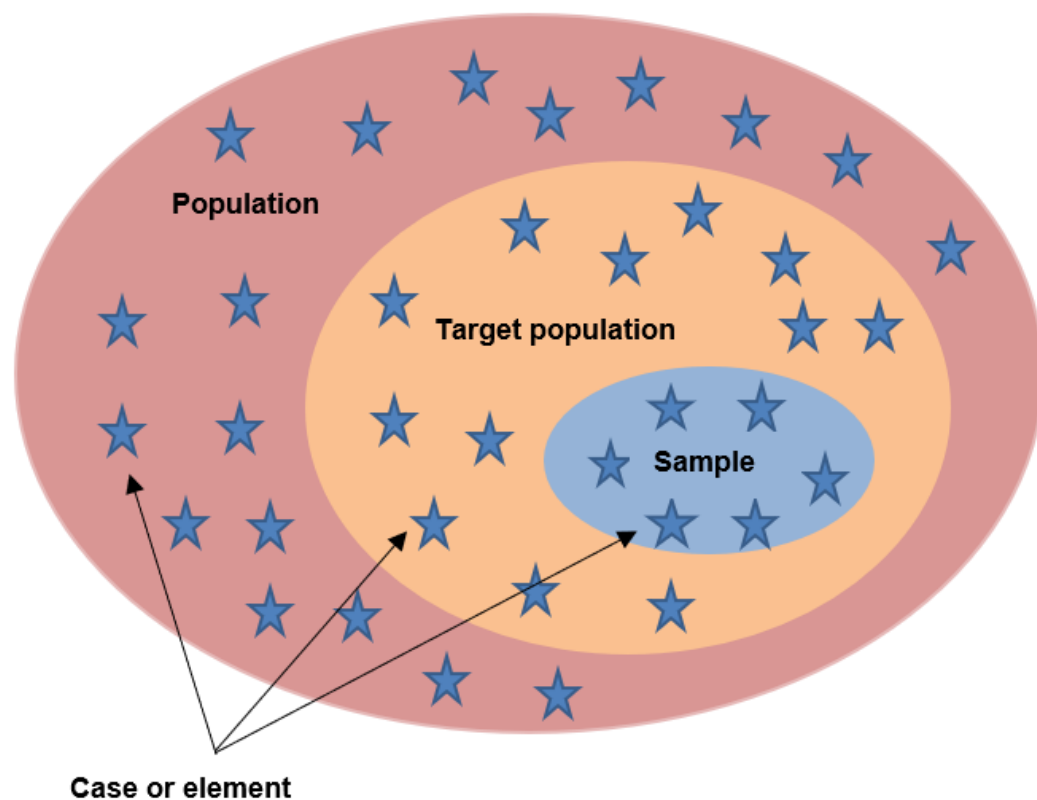


Figure 5.4: Population, sample and population element or case

Source: Saunders *et al.* (2019:296)

The target population of this study was individuals who are vehicle owners and/or drivers (motorists) in South Africa. More specifically, the target population consisted

of individuals who have the choice to purchase or not to purchase personal motor vehicle insurance. The number of registered vehicles in South Africa was 12 882 765 in August 2021 (eNaTIS, 2021). Since this is the live motor vehicle population on the roads in the country, the drivers or owners of these motor vehicles can be seen as the theoretical population of this study. It was, however, challenging to include the entire target population, as the contact details of all these elements were not available; thus a sample had to be drawn from this target population (as will be discussed in the following section).

This target population was selected as it holds the following significant academic reference relevance:

- The current study only aimed to determine the purchasing decision process of personal motor vehicle insurance consumers and potential consumers, not other insurance types for vehicles such as buses, trucks, motorcycles, and so forth. It is for this reason that the motor vehicle owners or drivers that drive on South African roads were selected as the target population and not drivers or owners of vehicles such as buses, trucks, motorcycles, and so forth.
- The market perspective from the purchasing decision process was investigated. A market/audience can be described as a large number of individuals who have a need for a specific product/service, have the money to purchase the product/service, are willing to spend the money on it and are legally able to buy the product (Erasmus *et al.*, 2019:459). An individual can form part of the market but not be a consumer of a product or service (Lappeman *et al.*, 2021:5). Considering the explanation above, the personal motor vehicle insurance market includes individuals who have personal motor vehicle insurance (insureds) and those who do not have insurance (non-insureds).

5.8.2 Sampling method

As the size of certain populations is too large, researchers choose to select a sample from within the entire population for the research study. However, if a census approach is followed, the entire population is researched. Sampling is a valid alternative to a census, if it is impractical to survey the entire population, and when time and costs are constraints to surveying the entire population (Saunders *et al.*, 2019:249).

The current study used sampling. Sampling includes any process that draws conclusions based on measurements of a portion of the entire population (Babin & Zikmund, 2016a:69). When a sample is selected for a study, it should represent the full set of cases/elements in a manner that is meaningful to the study, and it should be justified (Cooper & Schindler, 2014:84; Cooper *et al.*, 2019). There are two main sampling types, namely, probability and non-probability sampling. Probability sampling relates to techniques that are based on random sampling procedures, whereas non-probability sampling refers to techniques that rely on the judgement of the researcher (Zikmund *et al.*, 2017:351-356).

Table 5.6 tabulates the attributes and methods of these two sampling procedures.

Table 5.6: Attributes and methods of main sampling methods

Probability sampling	Non-probability sampling
Attributes	
<ul style="list-style-type: none"> ▪ Controlled random selection. ▪ Every individual has an equal chance of being selected. ▪ Findings can be generalised. ▪ Sampling bias is eliminated. 	<ul style="list-style-type: none"> ▪ Arbitrary sample selection process. ▪ Probability of individual being selected in unknown. ▪ Normally used if generalisation is not the goal. ▪ Simpler to carry out. ▪ Less time and money are required. ▪ Seen as the most feasible method.
Methods	
<ul style="list-style-type: none"> ▪ Simple random sampling. ▪ Systematic sampling. ▪ Stratified sampling. ▪ Cluster sampling. ▪ Multistage sampling. 	<ul style="list-style-type: none"> ▪ Convenience sampling. ▪ Purposive (judgement) sampling. ▪ Quota sampling. ▪ Snowball sampling.

Source: (Cooper & Schindler 2014:348-361; Cooper *et al.*, 2019)

This study used non-probability sampling methods to select a sample from the entire population. Firstly, it is essential to discuss the means of accessing the potential respondents and then the specific sampling techniques employed.

5.8.2.1 Means of accessing potential respondents

After identifying the target population, the researcher searched for an available sample frame by contacting the Road Traffic Management Corporation (RTMC). This

government entity is responsible for coordinating and facilitating motor vehicle registrations in South Africa. The RTMC, therefore, has a database of all the registered motor vehicle owners in South Africa. However, this organisation could not provide the researcher with access to a complete database of current contact details and email addresses of registered motor vehicle owners. Therefore, the researcher had to find other means of obtaining these potential respondents.

The Automobile Association (AA) of South Africa has a database with up-to-date email addresses of motorists in South Africa, and this database was a means of accessing potential respondents for the study. In addition, the Facebook Market Insight tool was used to distribute the survey to individuals who are likely to drive motor vehicles in South Africa. Thus, Facebook was also used as a means of accessing potential respondents of this study.

The current study employed more than one non-probability sampling technique to sample the respondents. The figure below illustrates the steps taken to select the non-probability sampling techniques used to sample the respondents.

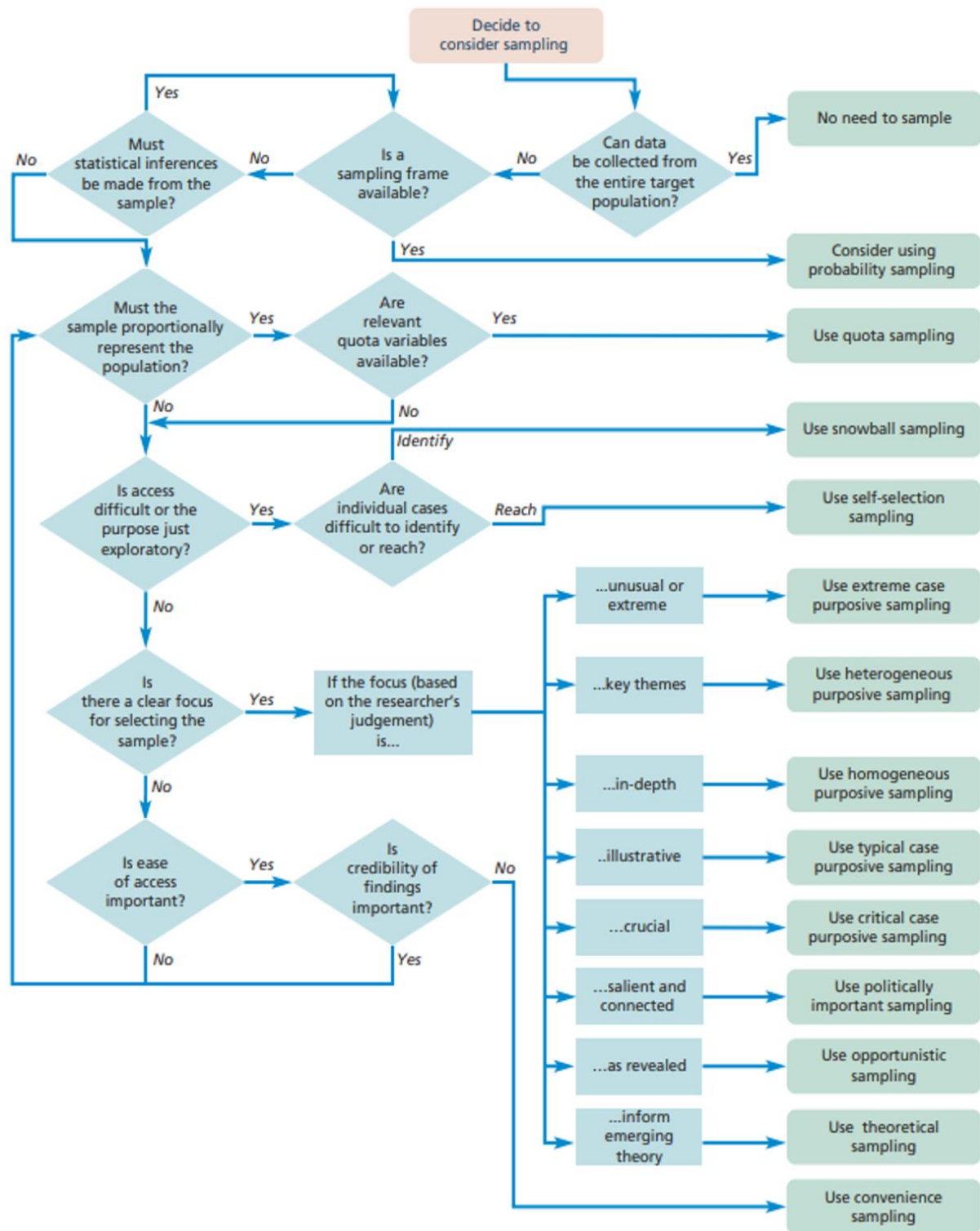


Figure 5.5: Selecting a non-probability sampling technique

Source: Saunders *et al.* (2019:316)

The steps outlined in Figure 5.5 were followed to select the sampling techniques. Only the sampling techniques applicable to the study will be discussed.

5.8.2.2 Convenience sampling

Availability sampling, also recognised as convenience or haphazard sampling, is used when the researcher wants to study the characteristics of individuals passing the sampling point at a specific time, or if other sampling methods are not feasible (Babbie, 2021:192). One of the main reasons researchers consider convenience sampling is that this method is always feasible when resources are low and when there is no sampling frame available (Silvia, 2020:60). This type of sampling involves the haphazard selection of individuals that are easily available to invite them to a study. Convenience sampling is a non-probability sampling method widely used when online questionnaires are distributed via email or social media platforms like Facebook (Saunders *et al.*, 2019:324). Convenience sampling was not the researcher's first choice, but it was deemed feasible as no sampling frame was available, and the target sample included motorists in South Africa.

An advantage of convenience sampling is the ease of availability, in the sense that individuals are easy to identify and reach (Silvia, 2020:60). The downside to using convenience sampling is that there is a potential of bias (Zikmund *et al.*, 2017:358). This was, however, limited as the first two questions in the questionnaire were screening questions. These two questions restricted the sample to South Africans who drive motor vehicles and are personally responsible for their decision to purchase personal motor vehicle insurance cover.

This sampling method does not facilitate any control over the representativeness of the sample (Babbie, 2021:192), and caution regarding generalisability was thus exercised by the researcher (Saunders *et al.*, 2019:324; Babbie, 2021:192). In other words, the findings of this study cannot be overgeneralised as this sampling method is restrictive in that sense. However, the findings gained from this study could still provide valuable new insights for future replication studies.

By distributing the survey via the AA database, which is a database of motorists in South Africa, the researcher used convenience sampling. The individuals in this database were invited using an email and each respondent had to click on the survey link in the email to be able to complete the questionnaire. The figure below is a screenshot of the message that was distributed to the database of South African motorists.

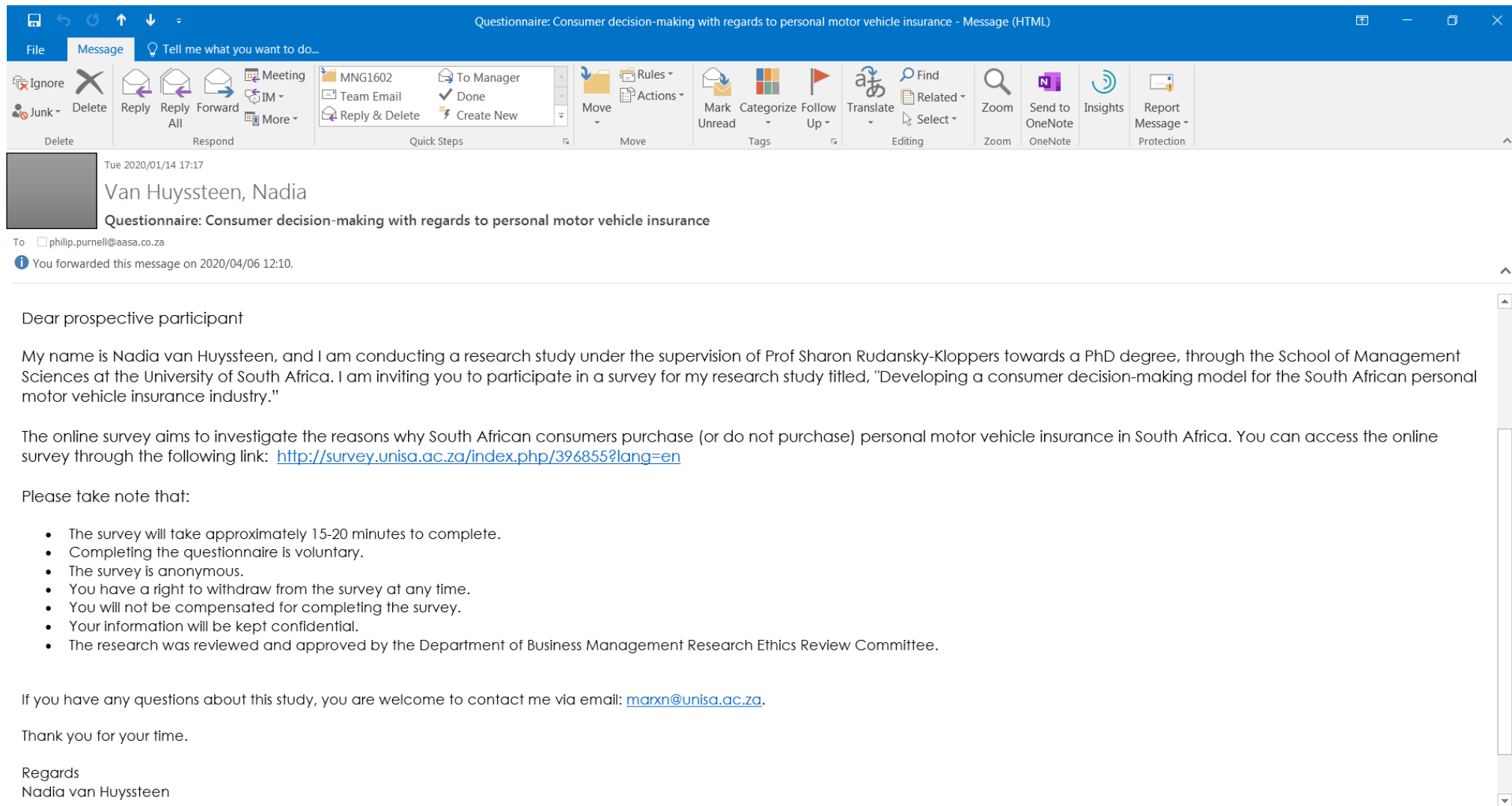


Figure 5.6: Email distributed to the AA database

The other sample frame, namely Facebook, was used in three ways to distribute the survey to potential respondents. Firstly, the Facebook advertisement marketing tool was used to implement convenience sampling to recruit respondents. By explicitly targeting individuals who showed an interest in motor vehicles within the nine different provinces in the county, the researcher posted a Facebook advertisement with the questionnaire link, and the respondents had to click on the link to be able to view and complete the questionnaire. Figure 5.7 illustrates the message distributed on the Facebook advertisement marketing tool.

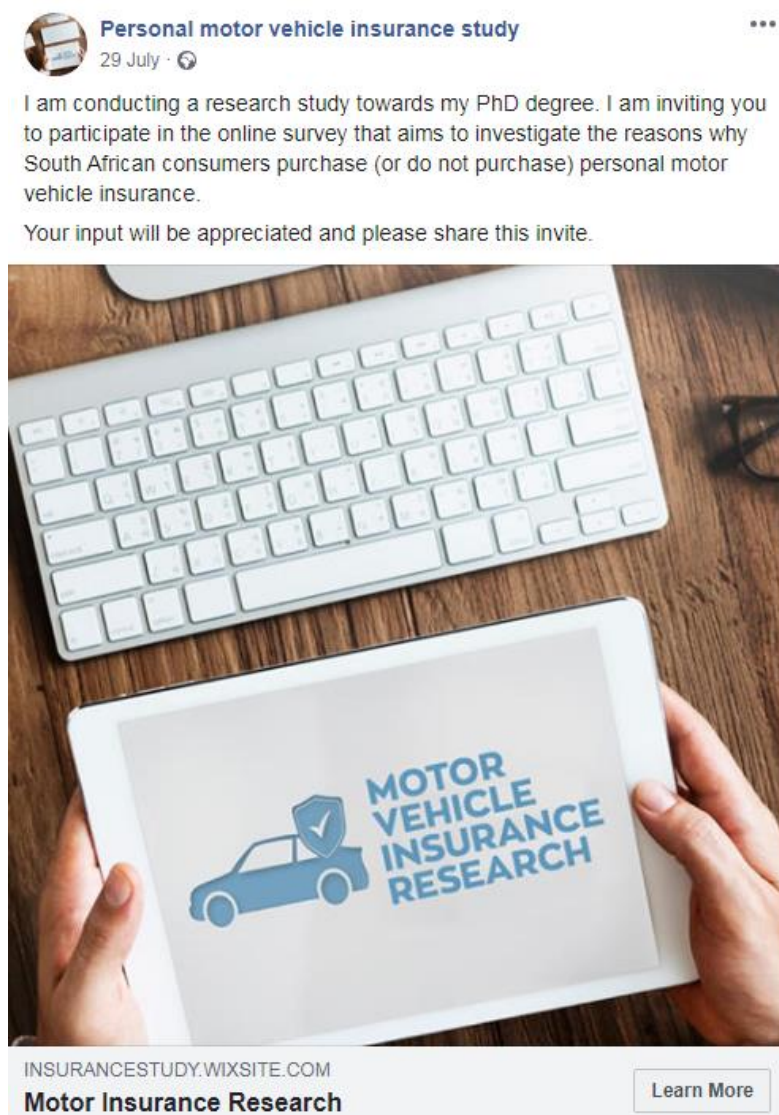


Figure 5.7: Message distributed on Facebook advertisement marketing tool

The figure above demonstrates how the message was posted on the Facebook page of everyone who was targeted. The individuals still had to click on the link to complete the online questionnaire.

5.8.2.3 Snowball sampling

Snowball sampling is another non-probability sampling method that can be utilised to identify potential respondents. This type of sampling technique is used when a researcher asks current respondents to identify one or more individuals who meet the specific criteria and who are willing to participate in the study (Johnson & Christensen, 2017).

Snowball sampling was used in this study as a complementary method by posting the online survey on Facebook and convincing Facebook users to recruit their friends to complete the survey. Advantages of this sampling method include low costs and large sampling sizes. The downside to using snowball as a sampling technique is that individuals tend to refer individuals who are like-minded and similar; thus, the sample cannot be generalised (Kosinski *et al.*, 2016; Allen, 2017:481). It is for this reason that the researcher decided to use both the convenience and snowball sampling methods in this study.

Figure 5.8 illustrates the post used to recruit respondents by using snowball sampling. This post was shared on the researcher's Facebook page and it requested individuals to complete and share the questionnaire link, and in such a way, invite more respondents to the study.



Figure 5.8: Facebook post using snowball sampling

The initial date of the post can be seen in the figure above. This post was posted more than once to ensure that the maximum number of individuals were recruited.

Facebook groups were also used to invite respondents to partake in the study. The same message (as indicated in Figure 5.9 below) was posted in Facebook groups from all nine provinces. Groups like Garden Route Classifieds - Selling and Buying - From Mosselbay to PE, Nelspruit/Barberton/Hazyview/Bushbuckridge Community Trade Zone, Advertise Port Elizabeth, Free State Buy and Sell, advertise and sell anything, Potch Koop en Verkoop, Sell It! Buy It !! joburg ,CPT, Durban, were used to post the invitation. The researcher had to ask permission from some of the groups to post the invitation. Snowball sampling was used to invite respondents to the study by posting the message below (Figure 5.9) in the above-mentioned groups.

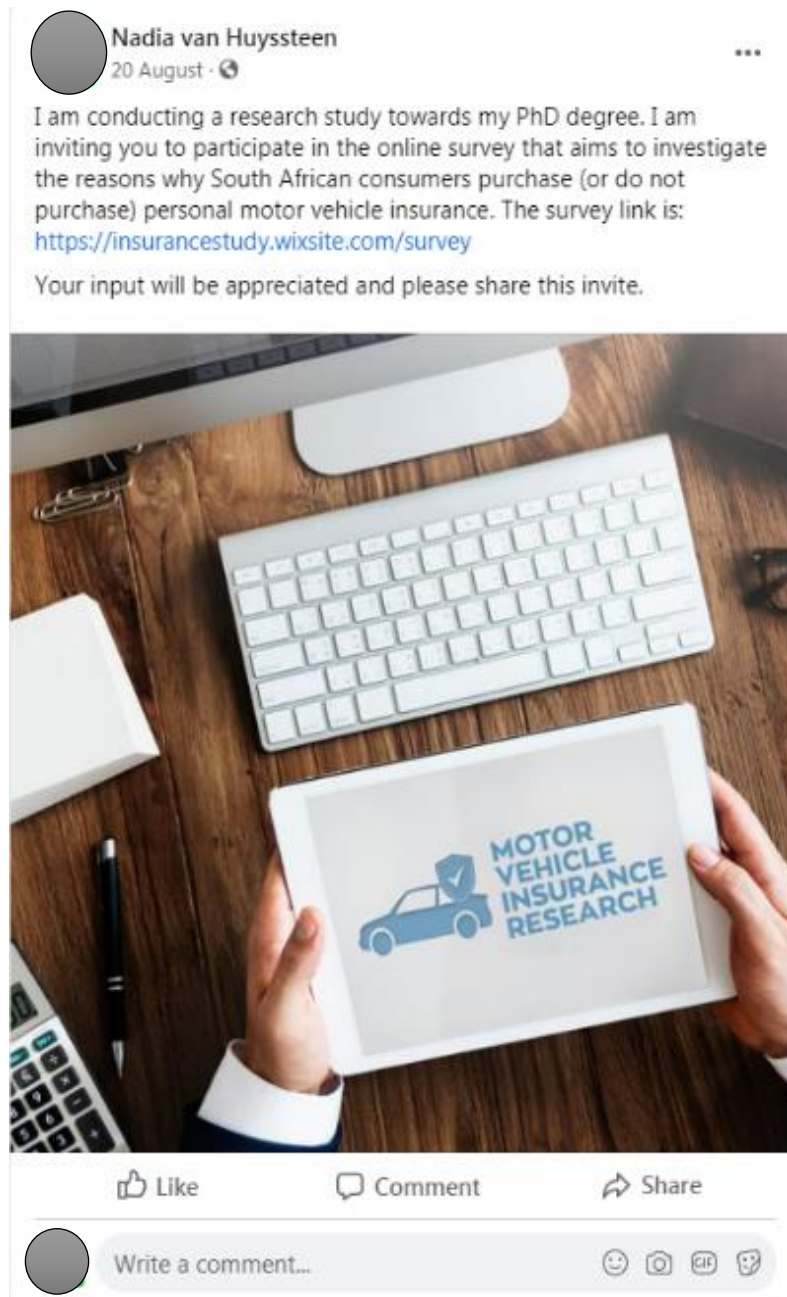


Figure 5.9: Facebook groups post using snowball sampling

The figure above illustrates the message that was distributed on several Facebook groups that facilitate the buying and selling of products in all nine provinces of South Africa. This message was also posted more than once in each group.

Even though the data-collection instrument was developed to be an online questionnaire, the researcher struggled to obtain views/responses from individuals without personal motor vehicle insurance. Thus, the questionnaire was printed and distributed to individuals who drive motor vehicles. The researcher asked current respondents to identify one or more individuals who drive motor vehicles and who

might be willing to participate in the study, and to complete the paper-based questionnaire. With this last attempt to invite respondents to the study, the researcher used a combination of the snowball and convenience sampling method. Snowball sampling, since the current respondents were asked to invite individuals to partake in the study, and convenience sampling, because the invited individuals had to drive a motor vehicle and be easily accessible.

5.8.3 Sample size

The sample size refers to the number of respondents that are included in a study. The sample size is dependent on a number of factors, such as cost available, the overall size of the population, level of precision required, type of questions asked, and the type of method used to collect data (Clark, Foster & Bryman, 2019:177-179). The sample size used in each statistical analysis method is guided by the type of statistical analysis method used (see Section 5.11.2). Taking into consideration that no set rule exists on the ideal size of a sample, as it is dependent on the design and nature of the study, the points below were followed in determining the sample size of the current study.

Hall (2020:107) identified a few points that should be considered when determining the sample size of a quantitative study:

- With a larger population size, the sample size will have to increase in relation to a smaller population size. The size of the sample will level off as the population increases beyond around 100 000.
- The margin of error can be reduced by increasing the sample size.
- The more viability associated with the measures that are implemented, the larger the sample that is required to ensure a given level of precision.
- The costs connected with sampling have to be balanced against the increase in precision obtained from large samples.

Concerning this study, a sample size of at least 600 respondents was considered sufficient, as adequate statistical analyses methods could have been successfully conducted with this sample size. Individuals had to click on the link to complete the questionnaire, which is called 'the click-through rate' (Laubenstein, 2018). Taking into account that the click-through rate for online surveys can be very low, a minimum

response rate of 600 was required. Given the data analysis planned for this study, the target sample size would consist of 300 respondents with motor vehicle insurance and 300 who do not have motor vehicle insurance. The researcher hoped that the sample would be spread between the different age groups, ethnicity groups, gender groups, marital status groups, education levels, employment groups, income groups and provinces in which respondents drive the motor vehicles to provide an overall impression of the population and assist the researcher in developing a consumer purchasing decision model for personal motor vehicle insurance. In addition, the researcher aimed for a larger sample size than projected in order to offer more accurate results.

A response rate of less than 1% was achieved (678 responses), which is low. Nonetheless, it is not uncommon to have a low response rate in using the web-based/online survey method, and previous research has indicated that online surveys have a lower response rate than paper-based questionnaires (Nulty, 2008:303; Ebert *et al.*, 2018).

The survey completeness of online surveys is usually higher than that of paper-based questionnaires (Ebert *et al.*, 2018), and this was, in fact, also a finding in this study. Proportionally more respondents fully completed the online questionnaires in comparison to the paper-based questionnaires, where some questionnaires were not fully completed. Guinalíu and Díaz De Rada (2020) found that using mixed modes to collect data can increase the survey's response rate. Therefore, the researcher decided to use the paper-based questionnaire method as well, as there was a low response rate to the online survey. The data collection of this study is discussed in the section below.

5.9 DATA COLLECTION

The data can be collected once the sample has been identified. Various methods can be used to collect data from the respondents, but the most popular methods in business research are interviews, observations and questionnaires (Sekaran & Bougie, 2016:111). Each of these data-collection methods has its own advantages and disadvantages, and the type of method should complement the type of data collected. As discussed before, a quantitative research method was employed, and it is for this reason that a questionnaire was the data-collection tool or instrument. The

data-collection instrument used in this study and the data-collection process followed in this study are discussed in detail below.

5.9.1 Data-collection instrument

Data were collected by means of a survey strategy and, more specifically, online and paper-based surveys using a self-administered questionnaire (see Appendix A). The presence of an interviewer is not required when self-administered questionnaires are used, as the respondents are responsible for reading and answering the questionnaire themselves, and the questionnaires can be distributed in various ways (Babin & Zikmund, 2016a:187). A self-administered questionnaire can be in a paper-based or electronic/online form, and the purpose is that the respondents answer the questions by themselves and return the completed questionnaire in the method requested by the researcher (Sekaran & Bougie, 2020:159).

The questionnaire should be developed in such a way that the respondents will be able to answer it without needing any assistance. Therefore, attention should be given to instrument development and design. According to Bryman and Bell (2015:245-248) and Saunders *et al.* (2019:536-537), there are a number of principles that should be considered when it comes to the questionnaire design phase, namely:

- A clear title should be provided for the survey and a cover letter explaining the purpose of the survey, any ethical considerations and measures taken to protect respondents' anonymity and confidentiality should be included.
- Questions should be short, but enough detail should be provided to collect the appropriate data. The questionnaire should be presented in a formal manner and the formatting should be done in such a way that the questionnaire is pleasant and easy to read.
- The questionnaire should be clearly presented so that the respondents know what is expected of them in each question. The wording of the questions should be explicit to ensure that there is no ambiguity or misunderstandings.
- In order to minimise confusion, a vertical format for answering the questions is preferred.
- Clear instructions on how questions should be answered must be provided.
- The questions and answers should not be split and should be kept together.

- Closing remarks should be provided at the end of the questionnaire.

All these principles were considered during the questionnaire design phase. The cover letter for the questionnaire (see Appendix A) includes the purpose of the study, the approximate time it will take to complete the questionnaire, and the assurance that the respondents' anonymity and confidentiality will be upheld. Clear instructions were provided (respondents were requested to place a tick in the box they wish to select) and it was stated that there were no right or wrong answers.

Respondents were assured that they can withdraw at any stage and that their participation was voluntary. Respondents were further informed that there are no benefits for participating in the study; it is envisioned that the findings of this study will be used in a PhD thesis; and the findings could also be shared in conference presentations, the publication of academic articles and other communication. In case the respondents would like to receive feedback regarding the results of this study, they were informed that they could contact the main researcher. The respondents were assured that the researcher did not foresee any negative consequences to them from completing the survey. The respondents gave consent by proceeding with the survey. Each of the questions and its answers were placed together on the same page and all the questions were in electronic format online. The questionnaire was pretested (the pretesting phase is discussed later in this section).

As discussed earlier, the online survey by means of using a self-administered questionnaire was initially selected for this study as it is a cost-effective method and it is less time-consuming than interviews and observations (Sekaran & Bougie, 2020:144). Even though the data-collection instrument was developed to be an online questionnaire, the researcher struggled to obtain views/responses from individuals without personal motor vehicle insurance. Thus, the decision was made to use the paper-based survey method as well to collect data from respondents who do not have access to the Internet or Internet-operated devices.

According to Wagner, Kawulich and Garner (2012:100), survey research is normally used to obtain data from large groups of respondents. Online surveys specifically allow a researcher to send questionnaires to a large group of individuals via the Internet, and data can also be collected through email, websites and mobile phones (Kumar, 2019). As explained earlier, the online survey link to the questionnaire was distributed

via email to the AA database and posted on Facebook. Respondents could then choose if they wanted to complete it on their computers, laptops or mobile phones. Facebook is becoming a powerful research tool because it provides a large pool of respondents (Kosinski *et al.*, 2016:70). Relevant Facebook users were invited to this study, as the Facebook Market Insight tool was used to distribute the survey to individuals who are likely to drive motor vehicles in South Africa. Regarding the paper-based questionnaire, the researcher asked current respondents to identify one or more individuals who drive motor vehicles and who might be willing to participate in the study and to complete the paper-based questionnaire. Therefore, the paper-based questionnaires were distributed by hand to the current respondents who said they could assist and these respondents handed questionnaires to individuals who drive motor vehicles and who were willing to participate in the study.

Self-administered surveys do have some disadvantages. This method introduces a larger chance of non-response (due to respondents not understanding the question or skipping the question accidentally) as well as non-response error (Sekaran & Bougie, 2020:144). These can, however, be limited by presenting the questions in such a way that the respondents clearly understand the questions. Additionally, in the online format, the respondents were not able to go on to the next question if everything was not answered on that page.

There are some other disadvantages of an online self-administered questionnaire that have to be outlined as well. Firstly, many consumers are not computer literate. For this study, consumers had to be computer literate and had to have access to a device and Internet to be able to complete the questionnaire. Secondly, not all respondents are willing to participate in a survey, and respondents in this study had to be willing to complete the questionnaire. This is, however, a disadvantage for any type of survey.

The length of the questionnaire should also be taken into consideration by ensuring that the questionnaire is not too long, and it should not include many open-ended questions. As theory is being tested in the current study, the focus, was on collecting quantitative data, and no open-ended questions were included in the questionnaire. Questions 6 and 7 requested additional specifications if the option for 'Other' was selected. These options were, however, still numerical and cannot be seen as open-ended questions. Question 13 is a fill-in question that requests the age of the respondents, which is also numerical.

While the researcher has little or no control over who completes the questionnaire, questions can be included to ensure the correct target population completes it. These questions are called screening questions. The first two questions in the questionnaire allowed that only the individuals who drive motor vehicles are included, and also the individuals that are personally responsible for their decision to purchase personal motor vehicle insurance cover in South Africa. If respondents selected option 2 in one of these two questions, these questionnaires were discarded and respondents were instructed to stop completing.

There is also a risk of receiving incomplete or incorrectly completed questionnaires back from the respondents. Therefore, the questionnaire is submitted to pilot test phase where the questionnaire is pretested to reduce the possibility of incomplete questionnaire submissions and also to make sure that it is not too long. In order to avoid incorrectly completed questionnaires, the researcher has to ensure that the skip questions and instructions are clear and also tested in the pretesting phase.

Online self-completion surveys have a lower response rate than other types of surveys (Bell *et al.*, 2019:237). However, there are ways to increase the response rate, and this was done by using more than one sampling method (convenience and snowball sampling) to ensure that the largest sample was invited to partake in the study. The low response rate has been stated as a limitation and it will be addressed accordingly. In the next section, the instrument design and development are discussed.

5.9.1.1 Instrument design and development

All the above-mentioned survey instrument design principles were taken into account during the first draft development, together with the detailed literature review in Chapter 3. Barry *et al.* (2011:97-98) warn researchers not to develop their own scales in questionnaires without following the correct steps and procedures. These authors provide a guide that researchers can use to develop successful survey instruments. By making use of this guide, Figure 5.10 illustrates the steps taken to develop scales in this study's questionnaire.

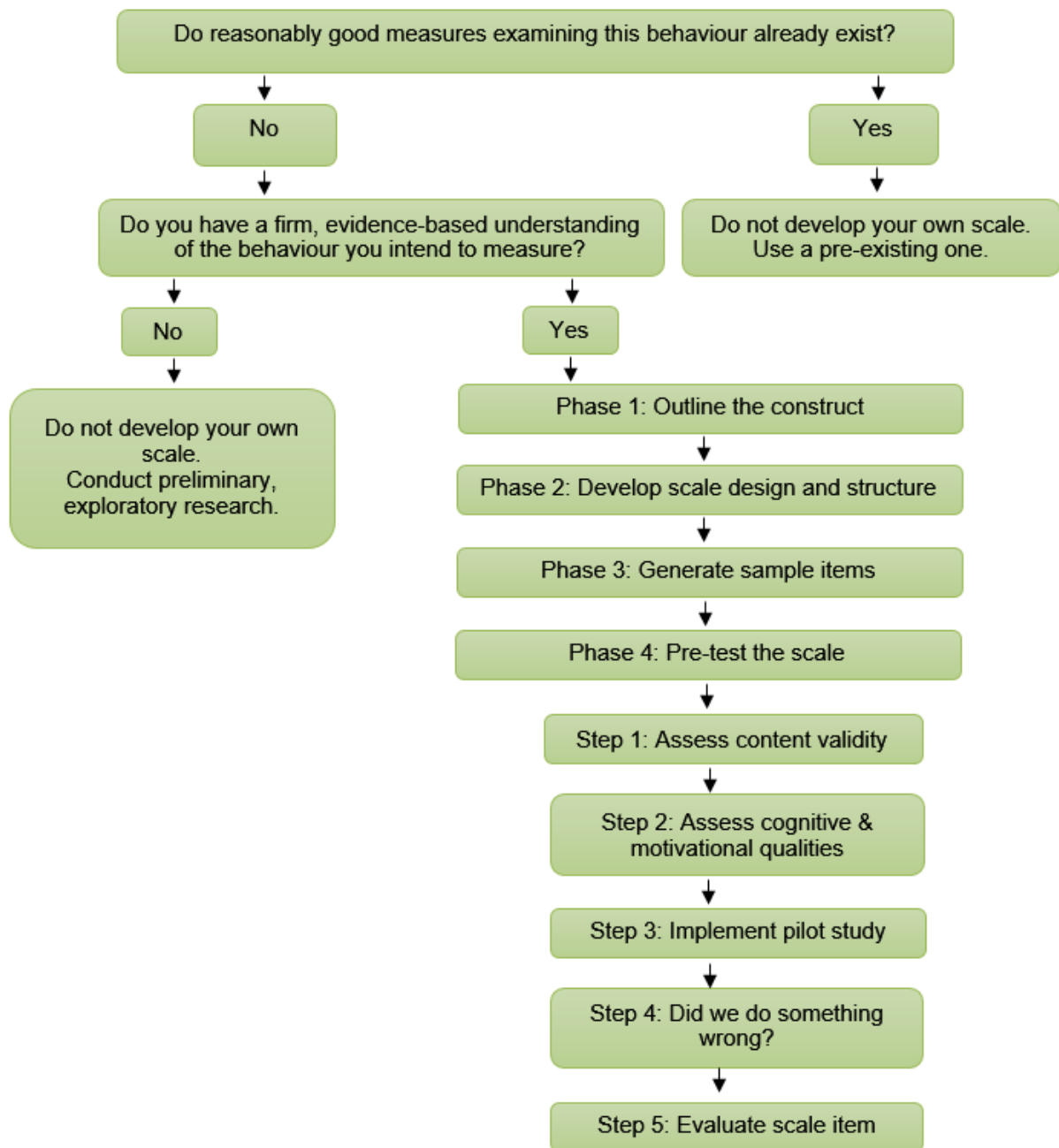


Figure 5.10: Scale development steps

Source: Barry *et al.* (2011:98)

The figure above presents the steps followed to develop the instrument design (questionnaire) for this study. The researcher could obtain good measures, but this was because the researcher had previously gathered an evidence-based understanding of the intended behaviour measure by reviewing the existing theories and various decision-making models (as discussed in Chapter 3) during the literature review.

Phase 1 of the study was performed during the literature review, where the existing theories and various decision-making models were extensively reviewed to outline the constructs. The existing theories and various decision-making models discussed in Chapter 3 led to the development of a conceptual CPDFPMVI model. This model could theoretically determine the purchasing decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance. The constructs that were identified are illustrated in Table 5.7 below.

Phase 2 was performed by developing a suitable scale design and structure according to the analysis plan and appropriate response scale to facilitate the analysis. Therefore, a five-point Likert-scale was developed for each construct (see Table 5.7 below).

In Phase 3, broad and comprehensive sample items were developed for each construct according to the theory.

Phase 4 started by assessing content validity (Step 1). Two individuals (supervisor and statistician) both knowledgeable in the content area, reviewed the item pool of each construct to determine the clarity and relevance to each construct. These suggestions and alterations were taken into consideration, and the needed improvements were made. Step 2 was performed by asking one respondent to read through the scale to assess each item's cognitive and motivational qualities. Feedback from this assessment was recognised, and the needed improvements were made. Step 3 was performed by conducting a pilot study (refer to the next section). Steps 4 and 5 were also performed during the pilot test process and are explained in the section below. The pilot testing phase is explained below.

5.9.1.2 Pilot testing of data-collection instrument

A pilot test refers to a small-scale data collection process among respondents similar to those in the final data collection of the study (Babin & Zikmund, 2016a:64). It is vital that the selected respondents of a pilot study form part of the target population and that the same procedure and steps are followed as in the primary data collection phase. The pilot test should be performed to determine the accuracy of instructions and to establish any weaknesses in the design of the instrument (Bryman & Bell, 2015:272). A pilot test was done in this study and the steps are presented in the figure below.



Figure 5.11: Pilot test process

Source: Researcher's own compilation

The self-administered survey instrument for this study was pilot tested as follows:

1. The first questionnaire draft was reviewed by the supervisor, who is a professor specialising in marketing management (an expert from a theoretical perspective). Therefore, content validity was ensured. Appropriate revisions were made.
2. The second questionnaire draft was assessed by a statistician to ensure that the questions included in the questionnaire would offer statistically sound information.

3. Revisions were made and the questionnaire was submitted for ethical clearance to the Business Management Ethics Review Committee.
4. The needed corrections were made as suggested by the Committee and the questionnaire, as well as the study was approved. Only after the ethical clearance certificate has been issued could the respondents be contacted.
5. Respondents with valid driver's licenses who are drivers of personal motor vehicles were asked to complete the pilot test. The researcher firstly performed a paper-based pilot test where a printed questionnaire was delivered/handed to the respondents. Thirty completed questionnaires were received back and the researcher had an in-depth interview with three of the respondents who were randomly selected. The purpose of these interviews was to test their understanding of the questions, the length and the flow of the questionnaire (Step 4 of the scale development steps was also performed here). After the interviews and hard copy questionnaires were received back from the respondents, the needed amendments were made to the questionnaire.
6. Statistical analysis was conducted on the responses obtained just to ensure that the questions had a statistical significance (Step 5 of the scale development steps was performed here). The statistician made recommendations and the needed corrections were made.
7. The revised questionnaire was again reviewed by the supervisor to make sure all the changes had been implemented and that it was ready for the online capturing on LimeSurvey.
8. The questionnaire approved in Step 7 was developed online on LimeSurvey.
9. After it was captured on LimeSurvey, the online questionnaire was tested by the researcher to ensure that all the skip questions were correctly directed, and that all the information on the online questionnaire was correct.
10. Only when the researcher was satisfied that the questionnaire was correctly captured on LimeSurvey, was it released for the online pilot test.
11. The online pilot test was performed and it was open for seven days, and 22 respondents completed the questionnaire.

12. The researcher received feedback from three of the respondents, which indicated small errors and these revisions were made and the final changes were captured on LimeSurvey.
13. The online self-administered questionnaire was ready to be released for the primary data collection phase.

The pilot test process as explained above, led to the final online self-administered questionnaire. The section below provides the details of the self-administered questionnaire used for this study.

5.9.1.3 The self-administered questionnaire

The self-administered questionnaire (see Appendix A) used in this study consists of an introductory paragraph, 12 questions regarding the consumer purchasing decision process and demographic questions at the end. The introductory paragraph states the purpose of the study, the time it will take to complete the questionnaire and guarantees the respondents' anonymity and confidentiality.

The way in which the questions are formulated is extremely important as it impacts the type and quality of information that one receives from the respondents. The wording and structure of the questions should be clear and it should be based on the research objectives to ensure that the correct data will be collected (Kumar, 2019). It is for this reason that each question should be linked to a research objective/question.

Table 5.7 indicates the link between the questions asked in the questionnaire and research objectives (as stated in Chapter 1).

Table 5.7: Research objectives and self-administered questionnaire questions matrix

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry.	Q1 – Q21	Primary objective which will be answered when all the results are combined.	n/a	n/a	n/a
Screening questions	Q1 and Q2	Drivers of motor vehicles and personally responsible for purchasing personal motor vehicle insurance cover	Nominal	Dichotomous question	Used to determine if the respondent is eligible to complete the survey. If respondents selected option two in one of these questions, they were asked to stop completing the questionnaire.
Filter question	Q3	Have or do not have personal motor vehicle insurance	Nominal	Dichotomous question	This filter question determined with which set of questions the respondent would begin the questionnaire.

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.	Q8	Construct: Influence of marketing efforts on need recognition			
	Q8.1	Type of personal motor vehicle insurance policies	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q8.2	Advertisements or promotional activities	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q8.3	Way to purchase	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q8.4	Price	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
	Q8.5	Physical evidence efforts	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Element of the service marketing mix (Chaffey & Smith, 2017:54).
	Q8.6	Process	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Element of the service marketing mix (Chaffey & Smith, 2017:54).
	Q8.7	Employees	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Element of the service marketing mix (Chaffey & Smith, 2017:54).
	Q8.8	Partnerships or associations	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Element of the service marketing mix (Chaffey & Smith, 2017:54).

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.	Q9	Construct: Sociocultural environment influences on need recognition			
	Q9.1	Positive opinion from family member	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from a family member forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.2	Negative opinion from family member	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from a family member forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.3	Positive opinion from reference member	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from a reference member forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.4	Negative opinion from reference member	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from a reference member forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
	Q9.5	Positive comments of a friend, a newspaper article or the views of an expert	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from non-commercial sources forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.6	Negative comments of a friend, a newspaper article or the views of an expert	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from non-commercial sources forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.7	Positive opinions of individuals in the same social class	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from social class forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.8	Negative opinions of individuals in the same social class	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, opinion from social class forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q9.9	Cultural and subcultural factors	Ordinal	5-point Likert response format measuring influence ranging	Forms part of the Schiffmann and Wisenblit decision-making

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
				from no influence (1) to extremely large influence (5)	model (Schiffman & Wisenblit, 2015:20, 2019:375).
To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.	Q10	Construct: Influences of communication sources on need recognition			
	Q10.1	Traditional advertisements	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, advertisements forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375). A distinction should be made between traditional and online advertisements.
	Q10.2	Online advertisements	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Author-generated, advertisements forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375). A distinction should be made between traditional and online advertisements.
	Q10.3	Buzz agent	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375)..

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
	Q10.4	Customised messages	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q10.5	User-generated social media posts	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q10.6	Paid-for social media efforts	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.	Q11	Construct: Psychological attributes that influence the desire to recognise a need			
	Q11.1	Motivation	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q11.2	Perception about motor vehicle insurance	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q11.3	Perception about a certain short-term insurance company	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit consumer decision-making model

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
					(Schiffman & Wisenblit, 2015:20, 2019:375).
	Q11.4	Purchase and consume information	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q11.5	Personality	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375)..
	Q11.6	Attitude towards motor vehicle insurance	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).
	Q11.7	Attitude towards a certain short-term insurance company	Ordinal	5-point Likert response format measuring influence ranging from no influence (1) to extremely large influence (5)	Forms part of the Schiffmann and Wisenblit decision-making model (Schiffman & Wisenblit, 2015:20, 2019:375).

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.	Q12	Construct: Decision-making process to purchase			
	Q12.1	Search for information - previous experiences.	Ordinal	5-point Likert response format measuring to which extent usage ranging from no extent (1) to extreme extent (5)	Author-generated. Internal search for information, where individuals remember facts about a policy or recall experiences of previous service deliveries (Sethna & Blythe, 2019).
	Q12.2	Search for information - request quotations	Ordinal	5-point Likert response format measuring to which extent usage ranging from no extent (1) to extreme extent (5)	Author-generated. External search of information, where individuals read about possible policies, searching on the Internet or visiting a broker (Sethna & Blythe, 2019).
	Q12.3	Compare the price of the different quotations to measure	Ordinal	5-point Likert response format measuring to which extent usage ranging from no extent (1) to extreme extent (5)	Author-generated. Individuals use price to measure whether the desired product/service will contribute to their need satisfaction and lifestyle (Erasmus <i>et al.</i> , 2019:458).
	Q12.4	Compare the quality of the different quotations to measure	Ordinal	5-point Likert response format measuring to which extent usage ranging from no extent (1) to extreme extent (5)	Author-generated. Individuals use quality to measure whether the desired product/service will contribute to their need satisfaction and lifestyle (Erasmus <i>et al.</i> , 2019:458).

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
	Q12.5	Compare the brand list to measure	Ordinal	5-point Likert response format measuring to which extent usage ranging from no extent (1) to extreme extent (5)	Author-generated. Individuals use performance to measure whether the desired product/service will contribute to their need satisfaction and lifestyle (Erasmus <i>et al.</i> , 2019:458).
To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa. and To assess the consumer demographic profile within the South African personal motor vehicle insurance industry. and To compile a general demographic profile	Q13	Age	Nominal	Open-ended question	Demographic criterion. A factor that determines the policy premium, as discussed in Chapter 2. Demographics relate to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q14	Population group	Ordinal	Multiple-choice question requiring a single response	Demographic criterion
	Q15	Gender	Nominal	Dichotomous question	Demographic criterion. A factor that determines the policy premium, as discussed in Chapter 2. Demographics relate to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q16	Marital status	Ordinal	Multiple-choice question requiring a single response	Demographic criterion. A factor that determines the policy premium, as discussed in Chapter 2. Demographics relate

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
that describes the average personal motor vehicle driver in South Africa.					to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q17	Highest level of education	Ordinal	Multiple-choice question requiring a single response and please specify option	Demographic criterion. A factor that determines the policy premium, as discussed in Chapter 2. Demographics relate to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q18	Employment status	Ordinal	Multiple-choice question requiring a single response	Demographic criterion
	Q19	Which province travel with motor vehicle	Ordinal	Multiple-choice question requiring a single response	This question was included to ensure that the sample is representative in South Africa according to the number of registered motor vehicles in each province. Demographics relate to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q20	Monthly income of your immediate family	Ordinal	Multiple-choice question requiring a single response	Essential to include, as consumers might not be able to afford these services (KPMG, 2016:95). Demographics relate to the individuals' purchase

Research objective	Corresponding section in questionnaire			Type of question	Sources used to generate question/justification of inclusion
	Number	Question	Classification of variable		
					decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
	Q21	Monthly personal income	Ordinal	Multiple-choice question requiring a single response	Essential to include, as consumers might not be able to afford these services (KPMG, 2016:95). Demographics relate to the individuals' purchase decisions (Lamb <i>et al.</i> , 2013:275, 2018:337).
Additional questions	Q4	Type of personal motor vehicle insurance cover	Ordinal	Multiple-choice question requesting a single response	Author-generated
	Q5	Payment party	Ordinal	Multiple-choice question requesting a single response	Author-generated
	Q6	Reason/s why respondent has insurance	Ordinal	Multiple-choice question requesting multiple responses and 'please specify' option	Author-generated
	Q7	Reason/s why respondent does not have insurance	Ordinal	Multiple-choice question requesting multiple responses and 'please specify' option	Author-generated

5.9.2 Data-collection process

After developing the data-collection instrument, the researcher should continue to the data-collection phase. The raw data gathered from the self-administered questionnaire have to be edited, coded and captured (data processing) before it can be utilised to answer the research questions. The data processing phase is discussed in Section 5.10 below.

The data-collection process for this study started in January 2020 and it ended in November 2020, during the lockdown period of the COVID-19 pandemic in the country. Data were collected during these 11 months by sending out the online self-administered survey link via email and posts on Facebook and distributing paper-based questionnaires (as indicated in Figures 5.6, 5.7, 5.8 and 5.9). The collection period was extended a number of times due to challenges caused by the lockdown and the low response rate. Thus, the survey link was emailed and posted several times, and the paper-based questionnaire was also distributed during these 11 months in efforts to increase the response rate. No incentives were offered to the respondents for completing the questionnaire during the data collection process. The next section explains data collection errors.

5.9.3 Data-collection errors

Some errors can occur during the data collection of a study, and it can never be totally eliminated (Hair, Page & Brunsveld, 2020:36). It is, however, important for the researcher to outline these errors and to minimise errors as far as possible. The errors can be intentional, for example, if the researcher incorporates deliberate falsifications, or unintentional, in the case of systematic or random sampling errors that arise during the research process.

Once the data has been collected, the researcher has to check for errors. There might be data missing in the questionnaire, or responses might suggest that the respondents did not understand the question or the instructions were not properly followed (Hair *et al.*, 2020:36).

In the case of the online survey for the current study, there cannot be any missing data as the online survey does not allow the respondent to continue to the next question if the previous question is not answered. A pilot test was conducted to ensure that all

the respondents understood the questions. The respondents cannot misinterpret the instructions as the questions will only appear on the screen; all the instructions are built into the online questionnaire.

The data processing step is outlined in the next section.

5.10 DATA PROCESSING

The data processing activities are data capturing (or data entry), coding and editing (Biemer *et al.*, 2017:191). Data processing can also be done simultaneously while data is still being collected, as is the case in an online self-administered questionnaire (Fielding, Lee & Blank, 2017:214). The data processing activities implemented in this study are discussed in this section below.

5.10.1 Data capturing

Data capturing refers to the step where data are transformed into a quantitative form while also being converted into a machine-readable format that can be read and manipulated by computer software (Babbie, 2021:413). The data for this study were captured via LimeSurvey, as the respondents completed the questionnaire online. The captured data were retrieved in an Excel spreadsheet (machine-readable form) before it was uploaded to IBM SPSS (Version 27), the computer software used.

5.10.2 Data coding

According to Saunders *et al.* (2019:570), all data have to be coded by using numerical numbers. By doing this, the data are converted into controllable and logical texts that can be processed by a computer. When data are coded, each quantitative response is given a code and this should be done before data analysis starts (Kara, 2019:39). In essence, coding is the process of categorising information, and numerical coding is the process of categorising and numbering information for quantitative analysis (Adams & Lawrence, 2019). Numerical coding was conducted in this study, as data were quantitatively analysed.

Almost all the questions in the self-administered questionnaire used in this study were pre-coded, except for question 13, which is a fill-in question. Categories and numbers were assigned for each question during the design of the questionnaire. Therefore,

coding was done before the questionnaire was captured online. No coding had to be done after the data collection process.

5.10.3 Editing

Once the data capturing and coding have been conducted, data editing should be performed. Data editing relates to the detecting and correcting of inconsistent data on the spreadsheet before it is transferred into the software package (Babbie, 2016:390). In other words, coding refers to the cleaning of the data to ensure that there are no errors in the spreadsheet (Maylor, Blackmon & Huemann, 2017:299).

In this study, the data were carefully examined and edited to ensure that the errors were identified and minimised, and all the inconsistencies were cleared. The data on the Excel spreadsheet was reviewed to confirm that all the numerical values given of each response were valid and correct. Once the data were cleaned and edited, the data analysis process commenced, as discussed in the next section.

5.11 DATA ANALYSIS

After the data collection process where the data have been collected and processed, the data can now be analysed. Data analysis can be described as applying reasoning to understand the data collected (Zikmund *et al.*, 2017:30). The quantitative data analysis phase includes different methods for coding, categorising and assigning meaning to data. This data is numeric and it is usually comprised of statistical measures (Gliner *et al.*, 2017:9). Data analysis for quantitative research contains descriptive and inferential statistical analysis (model fit analysis), which each have their own set of analysis techniques. These techniques are discussed below.

5.11.1 Descriptive statistics

Descriptive statistics are utilised to provide a broad description of the dataset and descriptions of variables in the dataset. In addition, descriptive statistics should include the size of the dataset, characteristics of the sample, and descriptions of the variables associated with the main questions in the study (Williamson & Johanson, 2018:439). In other words, the descriptive statistics in a study describe and summarise the data.

The researcher makes use of charts and/or graphs when it comes to the writing up of descriptive statistics in a study (Gray, 2020:663). The types of descriptive statistics

are frequency counts, measures of central tendency and measures of dispersion (Fallon, 2016:16-18). Each one of these descriptive statistics is explained below:

- **Frequency counts** are used when the number of occurrences of a category is counted, and frequencies are usually reported in percentages (Leavy, 2017:11). The purpose of frequency counts is to indicate how many respondents are in each category. This is typically depicted in a graph or a chart to interpret it in a logical manner (Gliner *et al.*, 2017:169).
- **Measures of central tendency** describe the central point of a measure in terms of a mean, mode or median (Maylor *et al.*, 2017:302). The mean refers to the average of the data, and the median is the point on the scale below where half of the values lie, and the mode is the value with the most frequent occurrence (Williamson & Johanson, 2018:436).
- **Measures of dispersion** indicate the degree to which the data is spread or distributed. The measures used are range, interquartile, variance and standard deviation. Range describes the difference between the maximum and minimum values, and interquartile range is when data values are separated in four equal sections and the two middle sections are used. Variance is the average of the squared deviations from the mean of the distribution, and standard deviation is the average deviation from the mean of the distribution (Williamson & Johanson, 2018:437). The variance and standard deviation are seen as the most useful measures of dispersion (Zikmund *et al.*, 2017:434).

As indicated above, descriptive statistics can be presented in a graphic format by means of using diagrams and charts. Frequency tables, histograms, bar charts and pie charts are mostly used as graphical representations of data when it comes to descriptive statistics (Cooper & Schindler, 2014:534; Gliner *et al.*, 2017:169; Cooper *et al.*, 2019).

In conclusion, frequency counts, measures of central tendency, and measures of dispersion form part of the descriptive statistics in quantitative research. The descriptive statistics of this study are presented in Chapter 6 and once this step was completed, the researcher continued to the inferential statistics (model fit analysis).

5.11.2 Model fit analysis

The primary objective of this research is to develop a model that explains the purchase decision of the consumers' purchasing decision-making process in the South African personal motor vehicle insurance market. It is, therefore, necessary to choose a statistical method to analyse the structural relationships and determine the acceptability of the proposed model.

Several statistical methods can be used to develop a consumer purchasing decision model. It is, however, important to establish if an already tested model will be used or a new conceptual model, as this will determine the model-building strategies. As indicated earlier in this chapter, the theory in the literature review chapters (Chapters 2 and 3) was used to compile a conceptual CPDFPMVI model. Taking that the CPDFPMVI conceptual model has not been tested before, a distinctive model-building strategy ideal for this study was developed. The model-building strategy utilised to achieve the final CPDFPMVI model is illustrated in Figure 5.12.

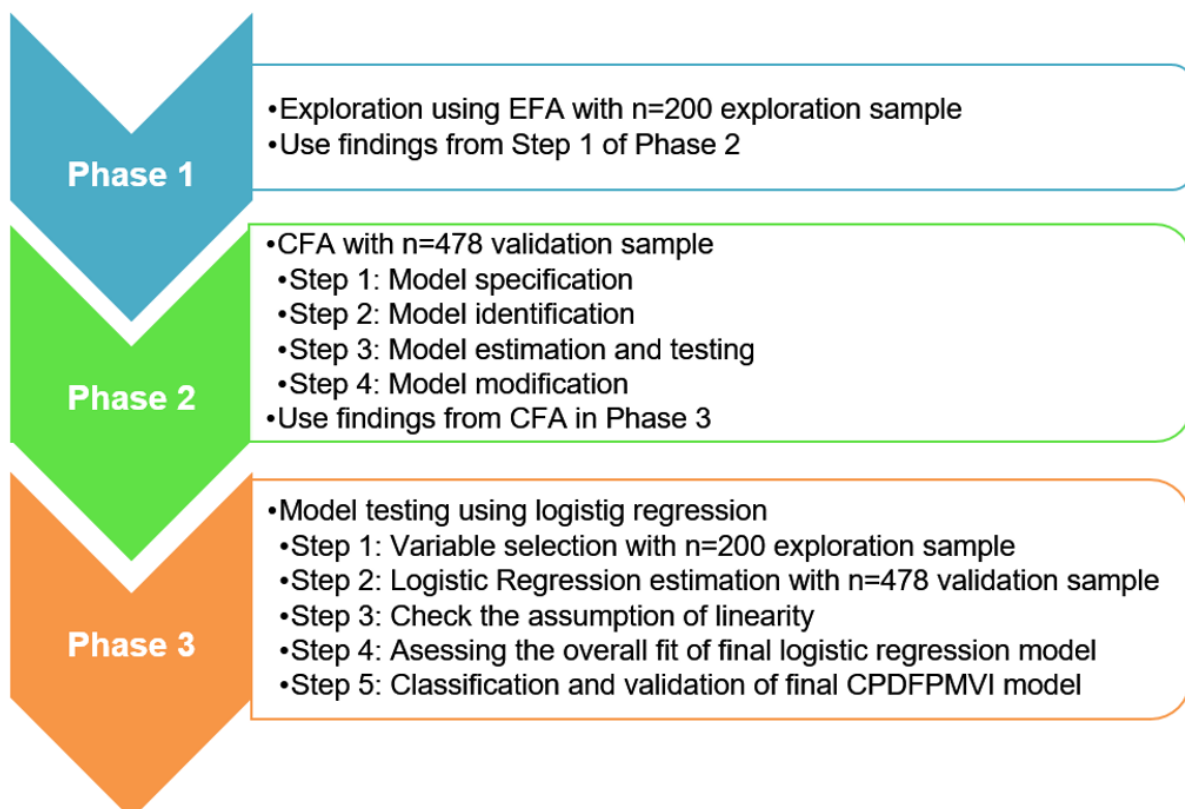


Figure 5.12: Model-building strategy to achieve CPDFPMVI model

Source: Researcher's own compilation

The process underlying the model fit strategy consists of three phases, namely, the Exploratory Factor Analysis (EFA) phase, Confirmatory Factor Analysis (CFA) phase and the logistic regression phase. All these were, in essence, part of the process of informing the logistic regression model. Model fit was just one aspect that was considered as part of assessing the measurements. The decision behind each statistical method in this model-building strategy is explained below.

EFA is a statistical method used to discover the underlying structure of a relatively large set of variables (Hair *et al.*, 2019:124). Taken that the conceptual model has not been tested before, the EFA would be ideal for exploring and estimating the factor structure of the current theoretical model (Matsunaga, 2010:98). EFA with a holdout sample of 200 was performed to explore the factor structure as Phase 1 of this study.

CFA is a type of structural equational modelling (SEM) method used to test how well a pre-specified measurement theory, composed of measured variables and factors, fits the reality as captured data (Hair *et al.*, 2019:660). CFA is also broadly used to test the factor validity required in this step to ensure the model specification and identification. Previous studies found it beneficial to use CFA as the follow-up strategy on EFA (previous stage) to confirm the existence of a specific factor structure (Nayeem & Casidy, 2015:70). CFA with a validation sample of 478 was performed to determine a model fit.

The logistic regression model-building strategy aims to find the best fitting and most parsimonious, interpretable model to describe the relationship between an outcome (dependent) variable and a set of independent (predictor or explanatory) variables (Hosmer, Lemeshow & Sturdivant, 2013:1). Furthermore, logistic regression is a statistical model-building strategy utilised when the dependant variables are categorical variables (binary or dichotomous), and the independent variables are metric variables (Hair *et al.*, 2019:551).

In this study, the dependent variable is the answers to Question 3 in the questionnaire (see Appendix A). This question was a dichotomous question, and it will be the outcome of this model. The independent variables are the latent variables tested and accepted in Phase 2 (the CFA). Also, certain demographic variables, as tested in the questionnaire, are included in the independent variables/covariances. An overall sample size of over 400 is recommended to achieve the best results while using the

logistic regression model-building strategy (Hair *et al.*, 2019:557). The overall sample in this study was over the recommended 400, therefore, this model-building strategy was fitting. An exploration sample of 200 was used to conduct the univariate analysis to identify all the important covariances. Furthermore, a validation sample of 478 was used for model estimation in this last phase.

These methods and all the other possible statistical tools that can be used to test the conceptual model for this study are comprehensively discussed in Chapter 7. Furthermore, a motivation for the use of each statistical method used in the model-building strategy is provided in Chapter 7. In the next section, the reliability and validity measures are discussed.

5.12 RELIABILITY AND VALIDITY

The survey research instrument (the self-administered questionnaire in this study) should be reliable and valid in order to ensure that both the results and conclusions are accurate and precise (Ruel, Wagner & Gillespie, 2016:78). Reliability means consistency, and validity refers to the accuracy (Bryman, 2016:157; Clark *et al.*, 2019:52). The validity and reliability measures followed in this study are discussed next.

5.12.1 Reliability

Reliability can be defined as the degree to which measures are free from random error, and consequently, produce consistent results (Zikmund *et al.*, 2017:274). Simply put, reliability measures whether or not consistent results will be obtained if the research is repeated (Ruel *et al.*, 2016:78).

According to Mitchell in Saunders *et al.* (2019:518), there are three ways to test the reliability at the questionnaire design stage, namely, test re-test, internal consistency, and alternative form. These three ways to test reliability are explained below.

- **Test re-test** includes the administration of the same scale or measure to the same respondents at two separate times to test the stability. When the measure is stable over time, a test that is administered under the same conditions will obtain similar results each time (Zikmund *et al.*, 2017:174).

- **Internal consistency** can be tested by means of split-half reliability, or the more common method to test for internal consistency is Cronbach's alpha (Patten & Newhart, 2018:144). The split-half method is when the researcher randomly divides the scale items in half, and takes the results obtained from one half of the scale items and checks it against the results obtained from the other half (Zikmund *et al.*, 2017:275). To get the Cronbach's alpha, the researcher has to calculate the average of the coefficients from all the possible combinations of split halves. An alpha coefficient ranges between one (indicating perfect internal consistency) and zero (indicating no internal consistency) (Bell *et al.*, 2019:173). Values of 0.7 and above reveal that the questions combined in the scale are measuring the same thing (Saunders *et al.*, 2019:518).
- **Alternative form** relates to the method that is used when responses are compared to alternative forms of the same question or groups of questions (Saunders *et al.*, 2019:518).

Internal consistency was assessed to ensure reliability in this study. The Cronbach alpha coefficient was used to ensure internal consistency as this assesses the degree to which the instrument items, where applicable, are homogenous, and whether it reflects the same underlying construct (Cooper & Schindler, 2014:260; Zikmund *et al.*, 2017:274; Cooper *et al.*, 2019).

Reliability in terms of the model-building strategy is a bit more complex. The reliability of a CFA model is reported by considering the CR (Composite Reliability) value, which indicates the reliability and internal consistency of a latent variable (Hair *et al.*, 2019:763). The rule of thumb is that the CR value should be higher than 0.70 to indicate internal consistency, while in exploratory research, 0.60 to 0.70 is considered acceptable (Hair *et al.*, 2017:122).

The final CFA model demonstrated overall reliability, and it was regarded as an acceptable model to use in Phase 3 (the logistic regression model-building strategy). The reliability aspects also are comprehensively discussed in Chapter 7.

5.12.2 Validity

Validity determines whether or not the self-administered questionnaire measures what it is supposed to measure (Bell *et al.*, 2019:174). Firstly, the researcher conducted pilot tests of the self-administered questionnaire to ensure validity (Dikko 2016:521).

There are, however, different types of validity, namely, content (or face) validity, criterion validity and construct validity (Zikmund *et al.*, 2017:276-277). These different types of validity and how they were implemented in this study are explained below.

- **Content or face validity** determines if the measure (self-administered questionnaire) reflects the content of the concept in question. Individuals with experience in the field can be asked to act as judges in determining whether or not the measure reflects the concept in question (Bell *et al.*, 2019:174). The content validity was ensured as experts in the field validated the questionnaire.
- **Criterion validity** is established when the following question can be answered: “Does my measure correlate with other measures of the same construct?” Criterion validity can be categorised as concurrent validity or predictive validity (Zikmund *et al.*, 2017:277). Concurrent validity indicates how well the measure can estimate the present performance, and predictive validity is determined when a new measure predicts a future event (Bell *et al.*, 2019:174). The self-administered questionnaire used in the current study was judged in terms of relevance, freedom from bias, reliability and availability.
- **Construct validity** is determined during the statistical analysis phase of a study as it indicates the degree to which the measure confirms the concept/construct gained from the theory (Zikmund *et al.*, 2017:277). Therefore, it is important to understand the theoretical basis of the measurements obtained. Construct validity was tested through EFA and CFA.

Validity in each phase of the model-building strategy is unique to each analysis method used. For the EFA, discriminate validity, which refers to measures of constructs that should theoretically not be related to each other (Fornell & Larcker, 1981; Hair *et al.*, 2019:761), was used.

Three types of validity had to be determined during CFA. Firstly, construct validity, which is the main objective of CFA, deals with the measurement's accuracy. Once a good fit is established, the four additional components of construct validity should be evaluated (Hair *et al.*, 2019:675). These components include: conforming to its conceptual definition, that it is unidimensional, and meets the necessary levels of reliability (Hair *et al.*, 2019:162). All these components will be evaluated in Section 7.3.4 when a model fit is achieved.

Secondly, convergent validity assesses the extent to which a measure correlates positively with others (Civelek, 2018:32). Therefore, the AVE (average variance extracted) value should be higher than 0.5 (Hair *et al.*, 2017:122). However, it is important to note that while the AVE values should preferably be higher than 0.05, the context of the CR should also be taken into account.

Thirdly, discriminant validity refers to the extent to which a latent variable is distinct from other latent variables or indicators (Hair *et al.*, 2019:676). The Fornell and Larcker criterion can be used to assess discriminant validity, and this method compares the square root of the AVE with the correlation of latent variables. The square root of each construct's AVE should have a higher value than the correlations with other latent variables (Fornell & Larcker, 1981; Hair *et al.*, 2019:761). All three of these types of validity were ensured with the final CFA model.

With the logistic regression model-building strategy, the validation sample of n=478 used to perform this logistic regression was particularly useful, as it provides evidence of external validity. External validity refers to the extent to which the results of a specific analysis can be generalised in other situations/populations (Hair *et al.*, 2019:373). A more detailed discussion on the validity aspects in each phase of the model-building strategy is provided in Chapter 7. The next section presents the data findings.

5.13 PRESENTATION OF DATA FINDINGS

The final step in the research process is to present the data findings. This final stage involves the interpretation of information and the drawing of conclusions (Zikmund *et al.*, 2017:30). Therefore, it is vital that the findings are presented effectively and is not merely a summary of the findings. The data findings are presented in Chapter 8 of this thesis. The section below covers the ethical considerations of this study.

5.14 ETHICAL CONSIDERATIONS

Ethics in business research involves the moral principles and values that influence how a researcher conducts his/her research activities (Ghauri *et al.*, 2020:23). Ethical principles and standards should be implemented during each step in the research process (Babin *et al.*, 2015:41). Ethical principles are divided into four main categories, as follows (Bell *et al.*, 2019:114; Gray, 2020:83):

- No harm to respondents;
- Obtain informed consent from respondents;
- Respect respondents' privacy; and
- Avoid the use of deception.

The research process in this study was directed by the ethical standards as set by the University of South Africa. Ethical clearance (Appendix B) was obtained from the Business Management Research Ethics Review Committee at the University of South Africa before the pilot test and data collection started. In addition, the researcher consulted UNISA's Ethical Policies and Procedures to ensure that ethical research was conducted. All the ethical requirements outlined in this policy were adhered to, specifically, during the data collection and data analysis phases and these ethical considerations are discussed below.

5.14.1 Voluntary participation

No one should be forced to participate in a survey; therefore it should be voluntary, and if an individual decides that he/she does not want to partake in the survey the individual's decision should be respected (Sekaran & Bougie, 2020). Respondents should be given a choice to withdraw from the survey at any stage.

The cover letter to the current study's questionnaire informed respondents that participation in this study is voluntary and they could withdraw at any point.

5.14.2 No harm to respondents

It is the responsibility of the researcher to determine if there is a possibility of harm to the respondents, and if there is a possibility, measures should be taken to minimise the harm (Bell *et al.*, 2019:114). Research can be considered harmful to the respondent if it triggers embarrassment, ridicule, belittlement or general mental distress (Sudman in Gray, 2020:83), or if it generates anxiety or stress to the respondents or even if it generates negative emotional reactions (Gray, 2020:83).

This study's purpose was to investigate consumers' purchasing decision process in the South African personal motor vehicle insurance market, and as such, carried low risk, as human respondents were asked to complete an anonymous online self-administered questionnaire. There were no physical, psychological, social or any other

risks to any of the respondents. The questionnaire did not include sensitive questions, and the respondents were reassured that there would be no right or wrong answers in the questionnaire. The only foreseeable risk is one of potential inconvenience or discomfort to the respondents in completing the questionnaire.

5.14.3 Anonymity and confidentiality

Anonymity means that the respondents should not be identified without their permission, and confidentiality refers to the respondents' information that should be kept confidential (Zikmund *et al.*, 2017:165). Personal information obtained from the respondents should not be shared, especially if permission was not requested from them, and respondents should not be victimised when participating in the study.

Anonymity and confidentiality were ensured in this study by informing respondents in the respondent information sheet about the following:

- The survey is anonymous and confidential.
- The researcher will have no way of connecting the information provided by respondents to them personally, and the answers will be used for research purposes only.
- Findings are anonymously processed and will be used in a PhD dissertation, and it could also be shared in conference presentations, the publication of academic articles and other communication.

5.14.4 Informed consent

Respondents have to be informed about the nature of the study (Zikmund *et al.*, 2017:165), and it is vital that informed consent is obtained from all respondents included in the study (Sekaran & Bougie, 2020:159). Informed consent means that the respondents are provided with sufficient information about the research study for them to be able to make an informed decision as to whether or not they want to partake in the study (Bell *et al.*, 2019:118). The researcher has to disclose and explain the procedures of the research design to the respondents before permission to carry out the study is asked in the informed consent section of the questionnaire. If an organisation is also involved in the study, consent should be given by the organisation as well (Gray, 2020:84). Only the respondents' informed consent was required in this study as no organisations were included.

According to Saunders *et al.* (2019:260), a signed informed consent in an online questionnaire can be facilitated using an electronic checkbox. This study used this method, as the respondents gave informed consent by clicking on the “next” button. Appendix A includes the information about the study and the instructions provided, as well as the informed consent.

The above-mentioned points are only a few of the important ethical considerations that were used to guide the data-collection process of the current study. The different ethical aspects were considered during the different stages of the research process. These considerations are outlined in Figure 5.13.

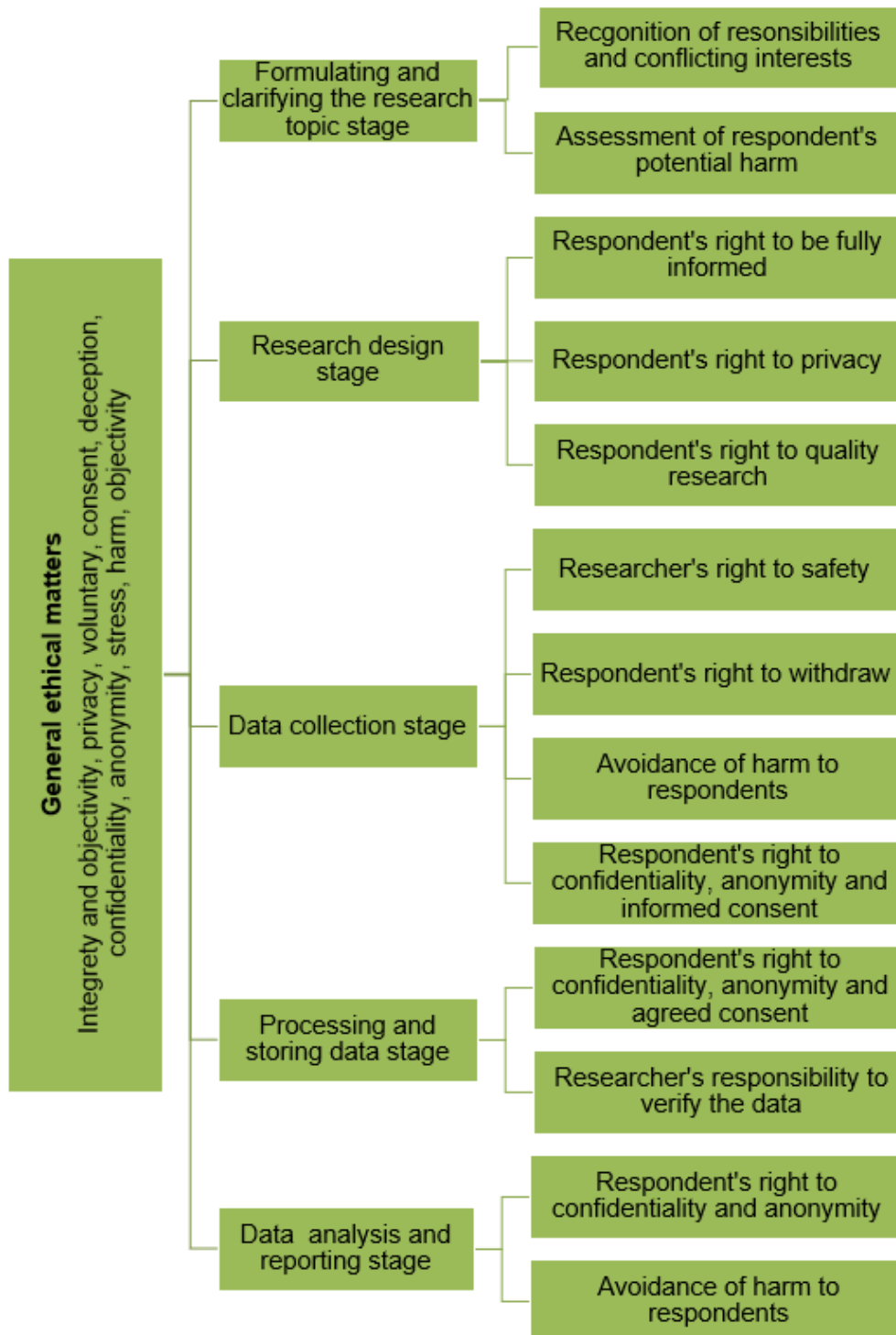


Figure 5.13: Ethical matters during different stages of the research process

Source: Adapted from Saunders *et al.* (2019:264)

The ethical matters in the figure above were considered and assured during each one of the research stages. The conclusion of this chapter is provided in the following section.

5.15 CONCLUSION

The purpose of this chapter was to discuss the research methodology used in the current study. This chapter revisited the study's research objectives and provided a figure that stipulates the steps followed in the research process. The specific research design was discussed, and the research terminology used in the rest of the chapter was briefly explained. The descriptors of the overall research design of this study were covered and the quantitative research approach used was explained and motivated. A further discussion of the sampling design followed in this study can be found in this chapter. Two sampling methods were used, namely, convenience sampling and snowball sampling. An online self-administered questionnaire was developed and used as the data-collection instrument.

Furthermore, the data-collection process followed in this study was explained in detail. The primary data was collected by means of an online self-administered questionnaire, which was thoroughly edited, captured, coded and cleaned before the data could be analysed. An in-depth discussion of the data processing steps that were followed in the current study was presented, as well as a framework of the data analysis steps executed during this study. A number of statistical analyses were utilised to process and analyse the data obtained. The statistical data analysis can be found in the next chapter, and it will be discussed extensively. This chapter concluded with a discussion of the reliability and validity of the research instrument, as well as the ethical considerations that were implemented throughout the research process.

CHAPTER 6: DESCRIPTIVE FINDINGS OF RESEARCH

6.1 INTRODUCTION

A quantitative research approach was followed to determine the purchasing decision process of consumers (insured) and potential consumers (non-insureds) regarding personal motor vehicle insurance by developing a unique model that will assign a probability to each of the possible choices based on the context of the decision. The descriptive findings presented in this chapter and the inferential statistical analysis (revealed in Chapter 7) were provided to address this study's primary and secondary research objectives, as specified in Table 6.1.

Table 6.1: Primary and secondary research objectives

Primary research objective
To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry.
Secondary research objectives
<ul style="list-style-type: none"> • To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa. • To investigate the steps of the decision-making process for the personal motor vehicle insurance market in South Africa. • To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.

- To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.
- To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

The descriptive statistics presented in this chapter mainly reveal the respondents' (who are all personal motor vehicle drivers) demographic composition, and a demographic profile of the average personal motor vehicle insurance consumer and personal motor vehicle driver were developed. Additionally, the descriptive statistics offer a response profile of the statements investigating respondents' purchase decision process regarding personal motor vehicle insurance. As mentioned in Chapter 5, the data analysis process was followed in a systemic manner. The descriptive statistics of this study are presented in the sections that follow.

6.2 DESCRIPTIVE ANALYSIS OF RESEARCH FINDINGS

The frequency tables (see Appendix C), which indicate the respondents' frequency or incidences that selected an option and valid percentages, were composed on IBM SPSS (Version 27), a statistical software package. Figures and tables were then created on Microsoft Excel. The measuring instrument (refer to Appendix A) was developed to measure respondents' purchase decision process regarding personal motor vehicle insurance. The 21 questions in the instrument, which include a range of items or statements, were intended to determine respondents' purchase decision process regarding personal motor vehicle insurance. In theory, these items in the instrument should deliver a consumer purchase decision model for the South African personal motor vehicle insurance industry.

As mentioned above, this chapter reveals the descriptive analysis of the data and illustrates the respondents' demographic composition, using non-probability sampling methods.

6.3 DEMOGRAPHIC COMPOSITION OF THE RESPONDENTS

The following demographic information was collected from the respondents to compose a demographic profile of personal motor vehicle drivers and consumers in South Africa:

- Age
- Population group
- Gender
- Marital status
- Highest level of education
- Employment status
- Province mostly travelled in with personal motor vehicle
- Household income
- Personal income

The demographic profiling results of the questions asked are illustrated in the frequency tables (see Appendix C). The sections below present all the most critical findings from the data analysis.

6.3.1 Age

The respondents were asked to specify their age. A nominal open-ended question was provided, and respondents were requested to type or write their ages on the space or line provided in the questionnaire. Table C1.1 in Appendix C reveals the statistics for the age groups 18 – 30, 31 – 40, 41 – 50, 51 – 60, and Over 60.

Figure 6.1 indicates the result from the 'age' variable.

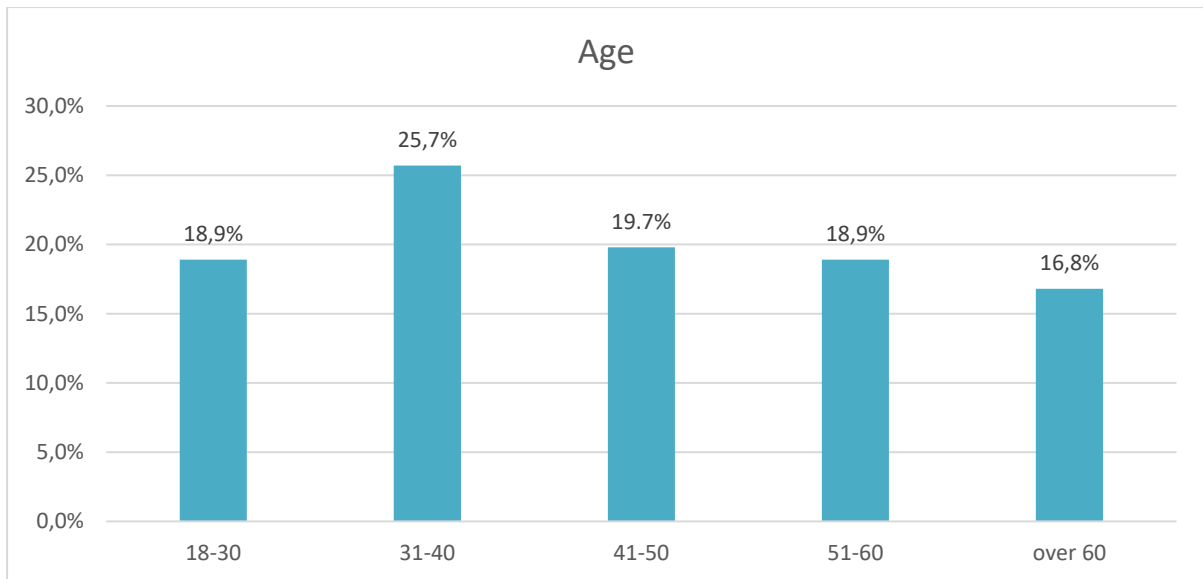


Figure 6.1: Age (n=678)

Source: Researcher's own compilation

As shown in the figure above, the ages are grouped, and the largest age group represents 25.7% of the respondents (174 respondents) in the 31-40 age group. The 41-50 age group consists of 19.7% of the respondents (134 respondents), and both the age groups 18-30 and 51-60 equally represent 18.9% of the respondents (128 respondents). The over 60 age group is the smallest group of 16.8% of the respondents (114 respondents).

As mentioned in Chapter 2 (Section 2.7.2.1), most US licenced drivers fall within the 35-39 age category, which is 90.9% of the country's licenced drivers (Buchholz, 2020). According to the findings of this study, the largest group of drivers (25.7%) also fall within a similar age category of 31-40 years. In contrast to the findings in this study where the over 60 age group represented the smallest group, in England, there is a large increase in the number of older individuals (aged 70 and older) that have full driving licences (RAC Foundation, 2021).

6.3.2 Population group

All the respondents were requested to indicate their population group. This ordinal, multiple-choice question requiring a single response had six options: Asian, Black African, Coloured, Indian, White, and Other with a 'please specify' line. The frequency

statistics (Table C2 in Appendix C) were used to develop Figure 6.2, which illustrates the results of the 'population group' variable.

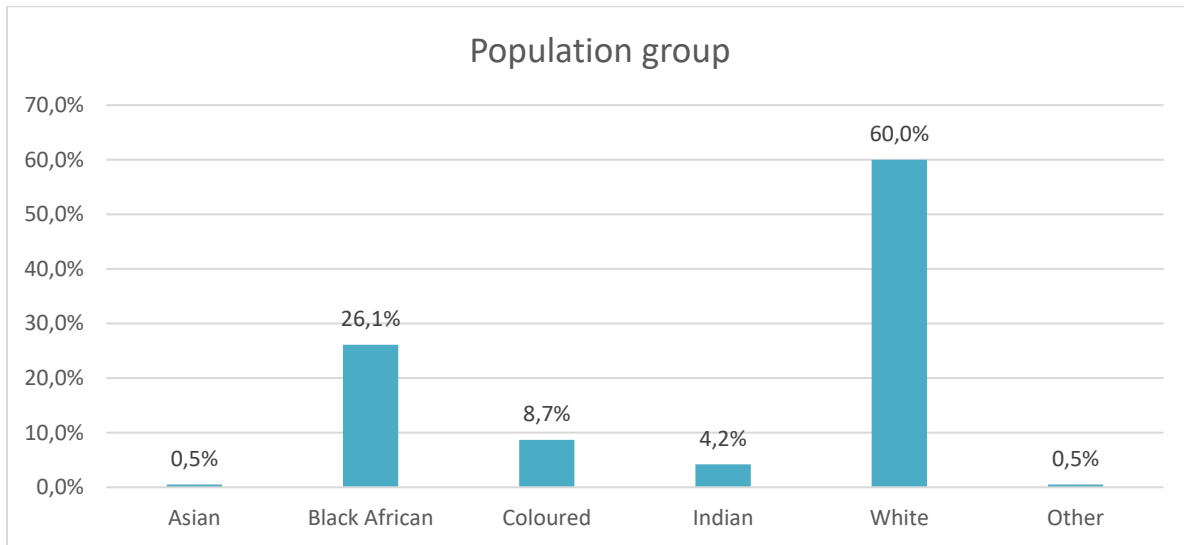


Figure 6.2: Population group (n=662)

Source: Researcher's own compilation

Figure 6.2 shows that the largest population group in this study is White, comprising of 60% or 397 respondents. The second-largest population group is Black African, which consists of 26.1% of the respondents (173 respondents). Thirdly, the Coloured population group makes up 8.7% of the respondents (58 respondents), and the Indian population group 4.2% of the respondents (28 respondents). Three respondents indicated that they form part of the Asian population group, which is 0.5% of the respondents. The rest of the of respondents (0.5% or 3 respondents) selected the Other option, but none of them specified another population group.

The findings of this study reveal that the white population group is the largest population group participating in the study. As indicated in Chapter 2 (Section 2.7.2.1), the percentage distribution of vehicle ownership by population groups in South Africa are as follows: Black African 19.8%, Coloured 41.8%, Indian/Asian 81.3% and White 94.2% (Statistics South Africa 2017b:12). Taking into consideration that the Black African population is the largest population group in the country, and only 19.8% of the entire Black African population own a motor vehicle. The 19.8% represents the biggest population group that owns motor vehicles in

South Africa, while the white population the smallest population group. Therefore, it would have been ideal to obtain a similar response rate to these statistics.

6.3.3 Gender

The respondents were asked to indicate their gender. This nominal dichotomous question had two options, namely, male and female. In Table C3 (see Appendix C), the frequency statistics of this question are provided. Figure 6.3 presents the descriptive statistics of this question which tested the 'gender' variable.

The figure below reveals that 52.5% of the respondents (356 respondents) indicated that they are male, and the other 47.5% of the respondents (322 respondents) indicated that they are female. Thus, male motorists represent the biggest gender group of motorists who completed this survey.

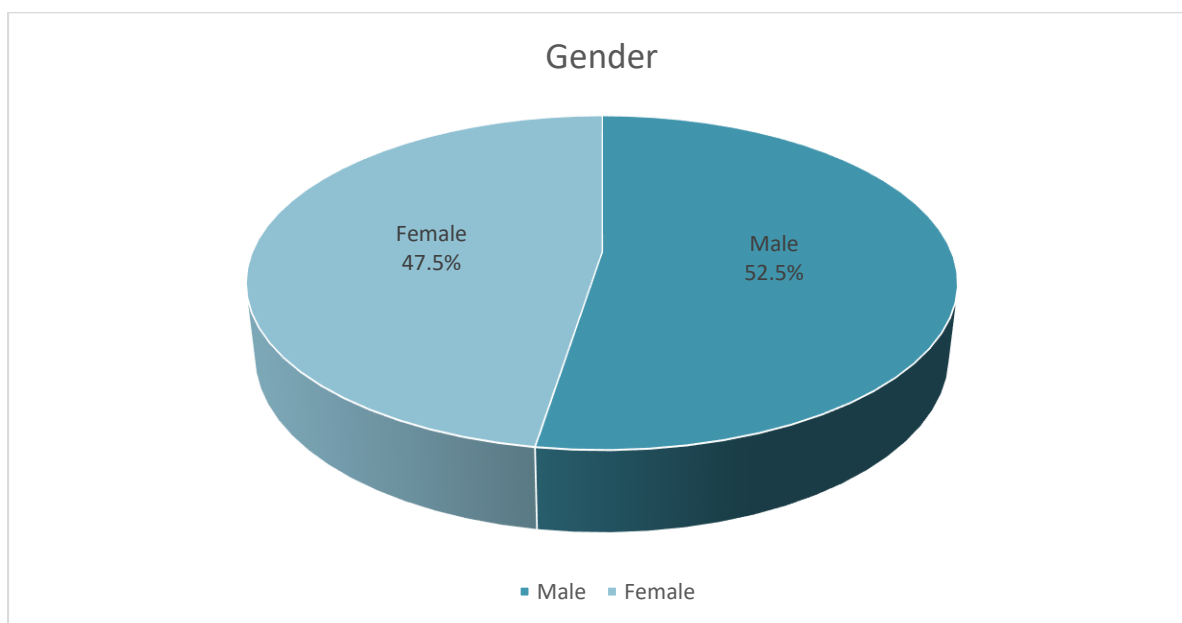


Figure 6.3: Gender (n=678)

Source: Researcher's own compilation

As stated in Chapter 2 (Section 2.7.2.1), Maluleke (2020:2) specified that approximately 51.1% of the South African population is female, and the other 48,9% is male. Interestingly, 37,6% of the South African male population own motor vehicles and only 19.6% of the female population own motor vehicles (Statistics

South Africa 2017b:12). This matches this study's finding, which reveals that men are the largest gender group under South African motorists.

6.3.4 Marital status

The respondents were requested to answer an ordinal multiple-choice question requiring a single response to indicate their marital status. The marital status options included single, married, living with a partner but not married, divorced and widowed. Figure 6.4 presents the marital status variable's descriptive findings, derived from the frequency table (Table C4 in Appendix C).

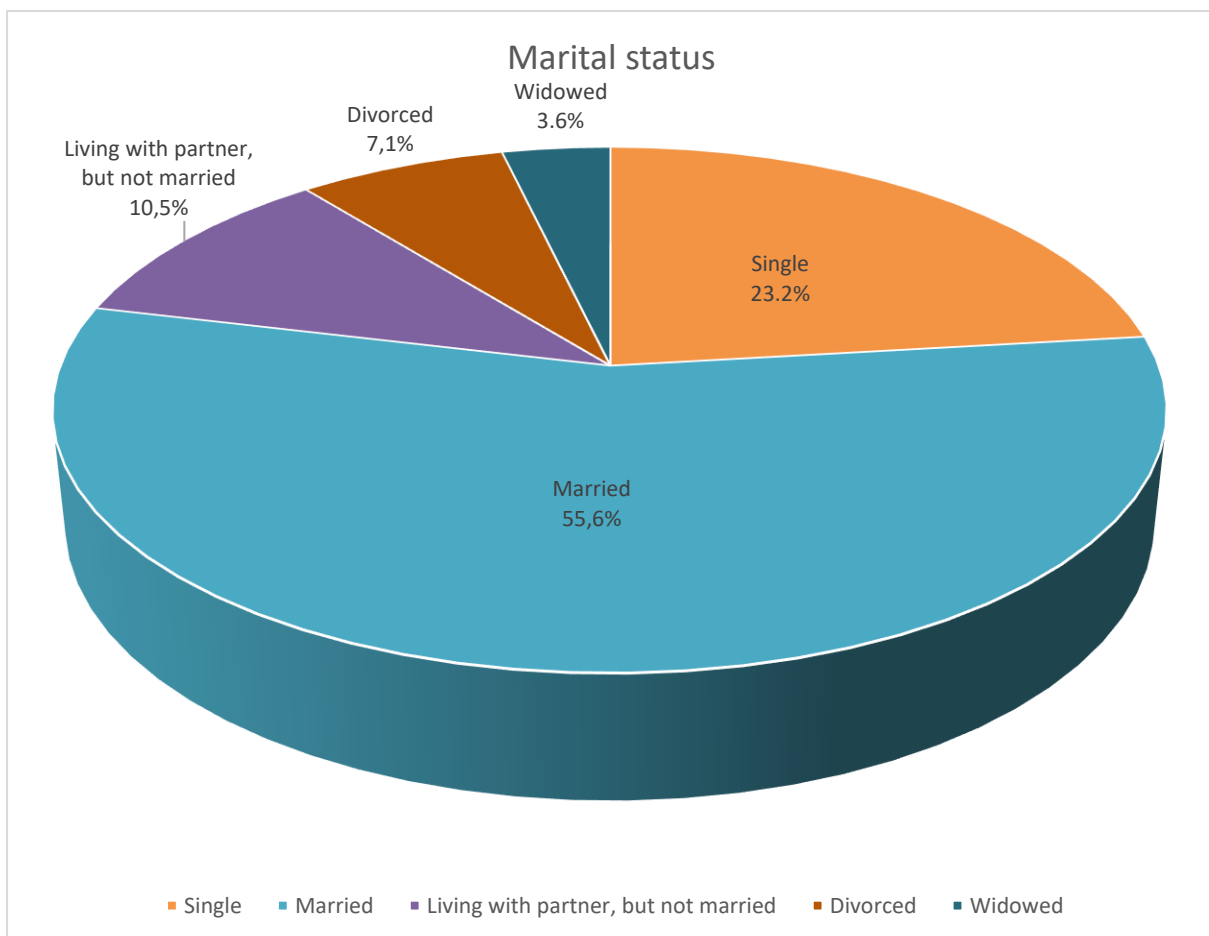


Figure 6.4: Marital status (n=678)

Source: Researcher's own compilation

As depicted in the figure above, more than half of the respondents indicated that they are married, representing 55.6% of the respondents (377 respondents). The single category consists of 23.2% of the respondents (157 respondents), while 10.5% of the respondents (71 respondents) specified that they are living with a partner but are not

married, 7.1% of the respondents (48 respondents) indicated that they are divorced, and 3.6% of the respondents (25 respondents) are widowed.

As indicated in Chapter 2 (Section 2.7.2.1), a study conducted amongst Ghanaian drivers found that 59.6% are married and 27.1% are single (Atombo et al., 2017:11). It is interesting to note that these findings look very similar to this study's findings related to marital status.

6.3.5 Highest level of education

The respondents were asked to indicate their highest level of education by answering the ordinal multiple-choice question requiring a single response. The following options were available: Less than Grade 12, Grade 12 Matric, post-Matric Certificate, Higher Certificate, Diploma, Higher Diploma, Post Higher Diploma (Master's or Doctoral Diploma), Bachelor Degree, Honours Degree and Doctorate Degree. The respondents were instructed to select only one option.

The figure illustrates the descriptive findings of the “highest level of education” variable, and the frequency table (Table C5) is available in Appendix C.

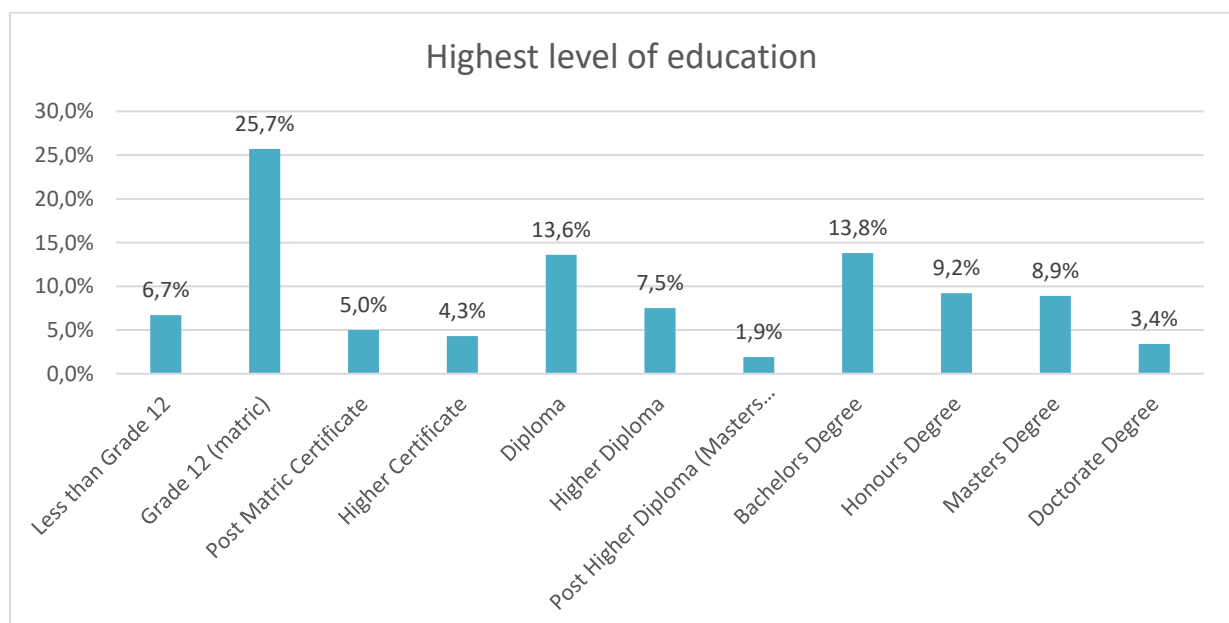


Figure 6.5: Highest level of education (n=676)

Source: Researcher's own compilation

Figure 6.5 presents the descriptive findings, and the respondents indicated the following:

- The highest level of education group is Grade 12, making up 25.7% of the respondents (174 respondents).
- The Bachelor's Degree category scored 13.8% of the respondents (93 respondents).
- In the Diploma category, 13.6% of the respondents (92 respondents) revealed that their highest education level is a diploma.
- Of the respondents, 62 (9.2% of the respondents) indicated that their highest education level is an Honours Degree.
- Of the respondents, 60 (8.9% of respondents) specified that a Master's Degree is their highest level of education.
- The Higher Diploma category makes up 7.5% of the respondents (51 respondents).
- The respondents who indicated that their highest level of education is less than grade 12 made up 6.7% of the respondents (45 respondents).
- Of the respondents, 34 (5% of the respondents) revealed that their highest level of education is a Post-Matric Certificate.
- The Higher Certificate category presents 4.3% of the respondents (29 respondents).
- The respondents who indicated that a doctorate degree is the highest level of education made up 3.5% of the respondents (23 respondents).
- Only 1.9% of the respondents (13 respondents) specified that their highest level of education is a Post Higher Diploma.

The findings of this study align with a study conducted in Qatari (mentioned in Chapter 2, Section 2.7.2.1), which found that most drivers with a driver's license have a secondary education level (Soliman et al., 2018:655). Secondary education in Qatari is equivalent to high school education in South Africa. In addition, several studies found that drivers' education levels form part of the demographic factors that

impact the drivers' driving behaviour (Atombo et al., 2017; Mohamed & Bromfield 2017; Soliman et al., 2018).

6.3.6 Employment status

All the respondents were requested to answer this ordinal multiple-choice question requiring a single response which included the following options: Student, Unemployed, Temporarily employed (including Fixed Term Contracts), Permanently employed on a full-time basis, Permanently employed on a part-time basis and Retired.

Figure 6.6 depicts the descriptive statistics of the 'employment status' variable. Table C5 in Appendix C provides the frequency counts.

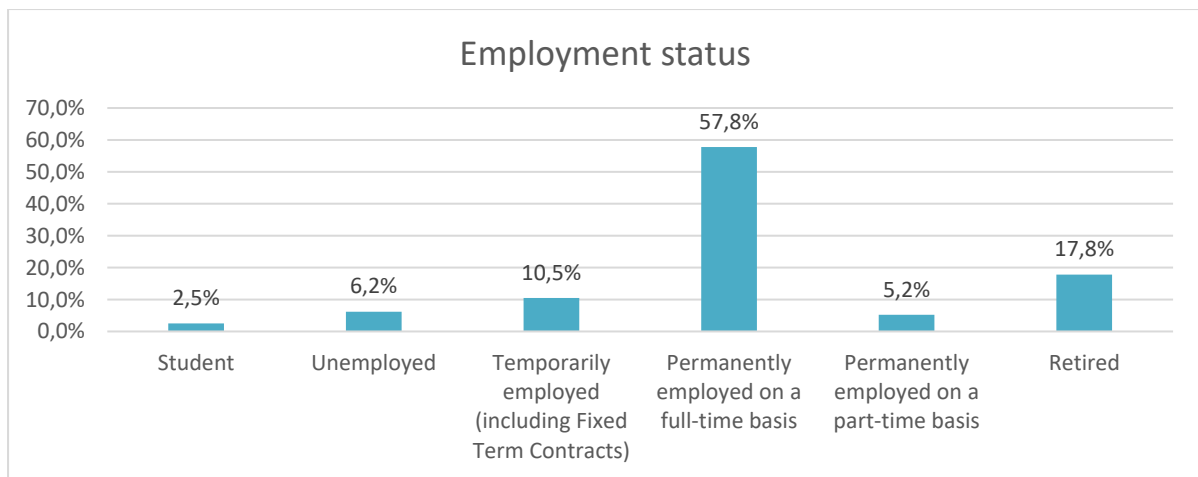


Figure 6.6: Employment status (n=678)

Source: Researcher's own compilation

The table above illustrates that more than half of the respondents, 57.8% (392 respondents), are permanently employed on a full-time basis, and 17.8% of the respondents (121 respondents) are retired. The temporarily employed category presents 10.5% of the respondents (71 respondents), the unemployed category consists of 6.2% of the respondents (42 respondents), and the permanently employed on a part-time basis category makes up 5.2% of the respondents (35 respondents). Only 2.5% of the respondents (17 respondents) indicated that they are students.

This study found that most respondents (57.8%) are permanently employed on a full-time basis. Interestingly, as specified in Chapter 2 (Section 2.7.2.1), employment

status findings in a study conducted on drivers' driving behaviour in Denmark revealed that 59.3% of the respondents were employed, 28.5% retired, 5.4% self-employed, 4.8% unemployed and 2% students (Martinussen et al., 2017:2). Even though the current study used different categories, these statistics appear to be in line with another global study's findings.

6.3.7 Province mostly travelled in with personal motor vehicle

An ordinal multiple-choice question requiring a single response was included in the questionnaire to determine in which province the respondents mostly travel with their personal motor vehicles. Respondents were asked to identify in which of the nine provinces (Gauteng, Western Cape, KwaZulu-Natal, Free State, North West, Eastern Cape, Mpumalanga, Limpopo and Northern Cape) they mostly travel with their personal motor vehicles.

Figure 6.7 illustrates the descriptive findings from the 'Province mostly travelled in with the personal motor vehicle' variable. The frequency table (Table C7) is available in Appendix C.

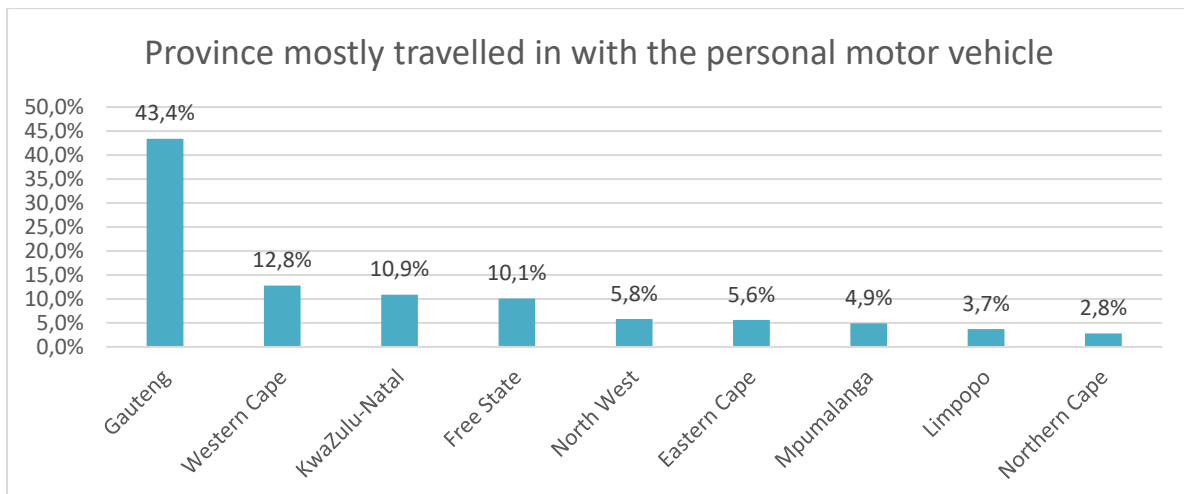


Figure 6.7: Province mostly travelled in with the personal motor vehicle (n=678)

Source: Researcher's own compilation

The figure above presents the following findings:

- Of the respondents, 43.4% (294 respondents) indicated Gauteng.
- The Western Cape category consists of 12.8% of the respondents (87 respondents).

- Of the respondents, 10.9% (74 respondents) revealed that KwaZulu-Natal is the province they mostly travel in.
- Free State accounts for 10.1% of the respondents (69 respondents).
- The North West province represents 5.8% of the respondents (39 respondents).
- The Eastern Cape category makes up 5.6% of the respondents (38 respondents).
- Of the respondents, 4.9% (33 respondents) indicated Mpumalanga.
- Of the respondents, 3.7% (25 respondents) revealed that Limpopo is the province they travel in most.
- Only 2.8% of the respondents (19 respondents) specified Northern Cape.

As shown in Figure 6.7 above, the three provinces in which respondents mostly travel with their personal motor vehicles are Gauteng (43.4%), Western Cape (12.8%) and KwaZulu-Natal (10.9%).

As indicated in Chapter 2 (Section 2.7.2.1), the live vehicle population (registered motor vehicles) in each province of South Africa are Gauteng 41.4%, Western Cape, 17.2%, KwaZulu-Natal 13.7%, Eastern Cape 6.4%, Mpumalanga 6%, Limpopo 4.8%, North West 4.5%, Free State 4.3% and Northern Cape 1.7% (eNaTIS, 2021). Therefore, the three provinces with the largest live vehicle population in the country are Gauteng, Western Cape and KwaZulu-Natal, which are also the three provinces where respondents mostly travel with their personal motor vehicles.

The number of motor vehicle drivers in South Africa can also be linked to the population density of each province. The provinces with the highest population density in South Africa are (1) Gauteng, (2) KwaZulu-Natal and (3) Western Cape (see Section 2.7.2.1). Therefore, this explains why most registered motor vehicles are also in these three provinces.

6.3.8 Household income

The respondents were asked to indicate which of the following income categories best describe the monthly income of their immediate family from all sources (including the respondents' income), before tax and other deductions: R0 – R800, R801 – R1 200, R1 201 – R2 500, R2 501 – R6 000, R6 001– R16 000, R16 001 – R26 000, R26 001 – R36 000, R36 001 – R46 000, R46 001 – R56 000, R56 001 or more, and Prefer not to say/Don't know/NA. The purpose of this ordinal multiple-choice question requiring a single response is to determine respondents' household income.

Table C8 (in Appendix C) presents the frequency count, and Figure 6.8 illustrates the descriptive statistics of the 'household income' variable.

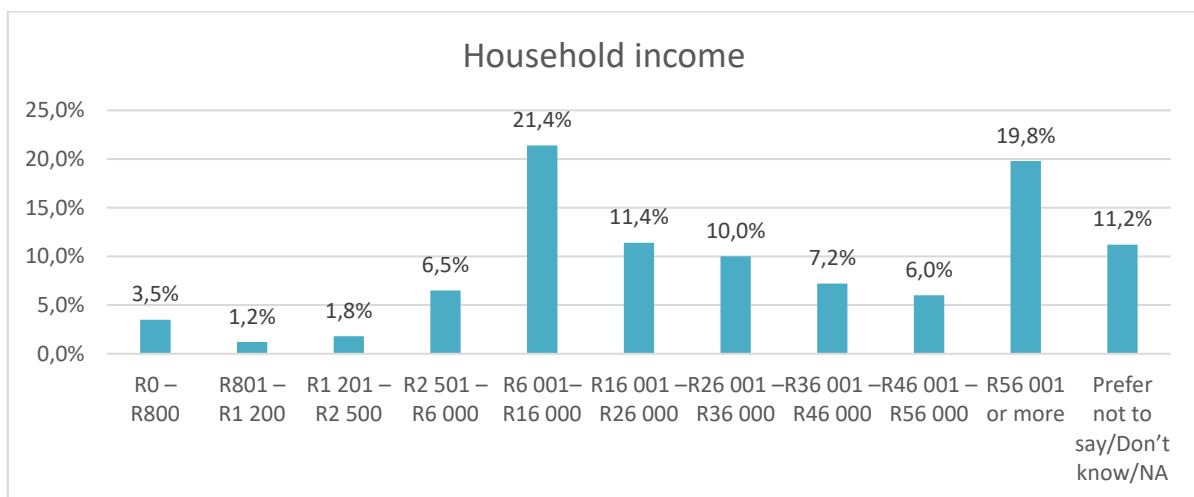


Figure 6.8: Household income (n=678)

Source: Researcher's own compilation

Figure 6.8 indicates that 21.4% of the respondents (145 respondents) indicated that their household income falls in the R6 001-R16 000 category, while 19.8% of the respondents (134 respondents) specified that they have a household income of R56 001 and more. The R16 001-R26 000 category represents 11.4% of the respondents (77 respondents), the 'prefer not to say' category represents 11.2% of the respondents (76 respondents), the 36 001-R46 000 category represents 7.2% of the respondents (49 respondents), the R2 501-R6 000 category represents 6.5% of the respondents (44 respondents), the R46 001-R56 000 category represents 6% of respondents (41 respondents), the R0-R800 category represents 3.5% of the respondents (24 respondents), the R1 201-R2 500 category represents 1.8% of the respondents (12

respondents), and the R801-R1200 category represents 1.2% of the respondents (8 respondents).

The findings indicate that 75.8% of the respondents have a monthly household income of more than R6 000. As mentioned in Chapter 2 (Section 2.7.2.1), while information could be obtained about the household income composition in South Africa, nothing could be obtained about the average household income currently in South Africa.

6.3.9 Personal income

The respondents were asked to indicate which of the following income categories best describe their monthly personal income from all sources, before tax and other deductions: R0 – R800, R801 – R1 200, R1 201 – R2 500, R2 501 – R6 000, R6 001– R16 000, R16 001 – R26 000, R26 001 – R36 000, R36 001 – R46 000, R46 001 – R56 000, R56 001 or more, and Prefer not to say/Don't know/NA. The purpose of this ordinal multiple-choice question requiring a single response is to determine respondents' personal income. Table C9 (in Appendix C) presents the frequency count, and Figure 6.9 illustrates the descriptive statistics of the 'household income' variable.

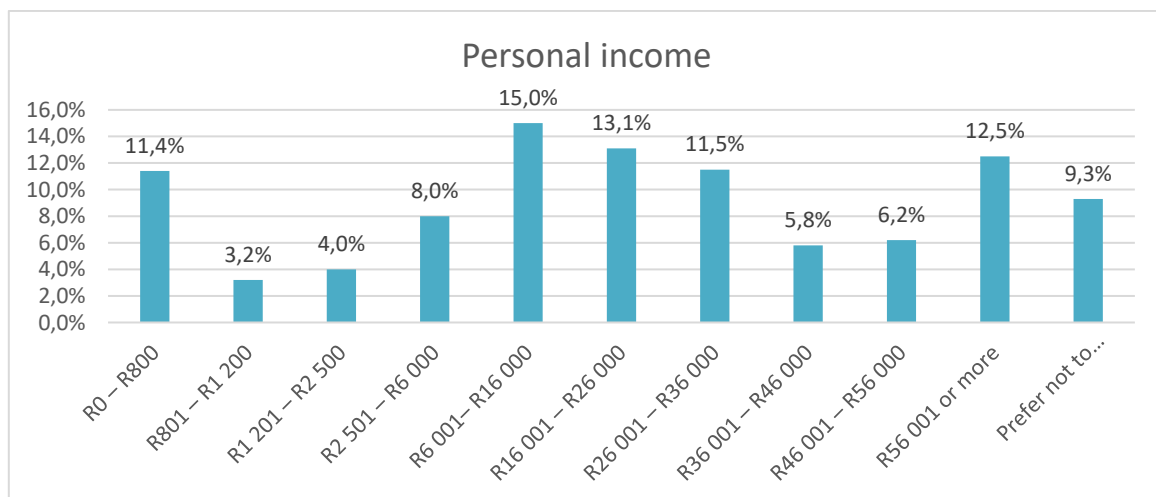


Figure 6.9: Personal income (n=678)

Source: Researcher's own compilation

As shown in Figure 6.9, the highest earned personal income category is R6 001-R16 000, representing 15% of the respondents (102 respondents). The R16 001-R26 000

category makes up 13.1% of the respondents (89 respondents), the R56 001 or more category is made up of 12.5% of the respondents (85 respondents), the R26 001-R36 000 category is made up of 11.5% of the respondents (78 respondents), the R0-R800 category is made up of 11.4% of the respondents (77 respondents), the 'prefer not to say' category is made up of 9.3% of the respondents (63 respondents), the R2 501-R6 000 category is made up of 8% of the respondents (54 respondents), R46 001-R56 000 category is made up of 6.2% of the respondents (42 respondents), the R36 001-R46 000 category consists of 5.8% of the respondents (39 respondents), the R1 201-R2 500 category consists of 4% of the respondents (27 respondents), and the R201-R1 200 category is made up of 3.2% of the respondents (22 respondents).

The findings reveal that 49.1% of the respondents earn more than R16 000 per month. As specified in Section 2.7.2.1 (Chapter 2), the average personal income in South Africa is R22 500 per month. However, the individuals with the highest earnings in the country are the reason for this high average, as most South African workers can only desire to reach a salary above R20 000 (Head, 2020).

6.3.10 Consumer demographic profile

The descriptive demographic statistics presented above can explain the consumer profiles (consumers who purchase personal motor vehicle insurance) that participated in this study. Only the respondents who indicated that they have personal motor vehicle insurance (answered yes in question 3 of the questionnaire, see Appendix A) were considered for this consumer demographic profile as they have purchased personal motor vehicle insurance in South Africa. Therefore, this study's consumer demographic profile can be used to develop a description of the average personal motor vehicle insurance consumer in South Africa.

Table 6.2 presents the statistics and a description of the average personal motor vehicle insurance consumer.

Table 6.2: Consumer demographic profile according to this study

Construct	Average personal motor vehicle insurance consumer according to the study
Age	The average age is 50 years old. (Standard deviation=15.9)
Population group	Likely to be a white consumer (85.2%). <i>*[Accessed 95%LCL=80.9% and 95%UCL=98.1%]</i>
Gender	Equal probability in terms of gender. (Male=47.6% and Female=52.4%) <i>*[Accessed Male - 95%LCL= 41.7% and 95%UCL= 53.6%]</i> <i>*[Accessed Female - 95%LCL= 46.4% and 95%UCL= 58.3%]</i>
Marital status	Likely to be married (64.3%). <i>*[Accessed 95%LCL=58.5% and 95%UCL=69.9%]</i>
Highest level of education	Likely to have a Post Higher Diploma (Master's or Doctoral Diploma) or higher education level (56.3%). <i>*[Accessed 95%LCL=50.4% and 95%UCL=62.2%]</i>
Employment status	Likely to be permanently employed on a full-time basis (63.9%). <i>[Accessed *95%LCL=58.1% and 95%UCL=69.5%]</i>
Province mostly travelled in with personal motor vehicle	Likely to travel most in Gauteng (61.3%). <i>*[Accessed 95%LCL=55.4% and 95%UCL=67%]</i>
Household income	Likely to have a household income of more than R16 001 (89,5%). <i>*[Accessed 95%LCL=76.8% and 95%UCL=102.5%]</i>
Personal income	Likely to earn more than R16 001 personally (86.8%). <i>*[Accessed 95%LCL=74.4% and 95%UCL=99.5%]</i>

*95.0% Lower Confidence Level (LCL) and 95.0% Upper Confidence Level (UCL) indicates a range of values that is likely to encompass the true value

Source: Researcher's own compilation

The table above describes the average personal motor vehicle insurance consumer. This description was developed from the demographic profile of respondents who have purchased personal motor vehicle insurance and who participated in this study. This description explains the different characteristics of the average personal motor

vehicle insurance consumer. Short-term insurance companies can use this information about consumers in their marketing efforts to target the correct audience.

6.3.11 Respondent demographic profile

The descriptive demographic statistics presented above can explain the respondent profiles that participated in this study (Sections 6.3.1 to 6.3.9). Therefore, this study's demographic profile can be used to develop a description of the average personal motor vehicle driver in South Africa. Table 6.3 presents a description of the average personal motor vehicle driver.

Table 6.3: A description of the average personal motor vehicle driver

Construct	Average personal motor vehicle driver according to this study
Age	The average age is 45 years old. (Standard deviation=15.1)
Population group	Likely to be a white driver (58.6%). <i>*[Accessed 95%LCL=54.1% and 95%UCL=63%]</i>
Gender	Likely to be a male driver (55.2%). <i>*[Accessed 95%LCL= 50.8% and 95%UCL= 59.6%]</i>
Marital status	Likely to be married (54.4%). <i>*[Accessed 95%LCL= 49.9% and 95%UCL= 58.8%]</i>
Highest level of education	Likely to have a Post-Matric Certificate (Grade 12) or higher education level (66.9%). <i>*[Accessed 95%LCL= 58.6% and 95%UCL= 75.5%]</i>
Employment status	Likely to be permanently employed on a full-time basis (63.8%). <i>*[Accessed 95%LCL= 59.4% and 95%UCL= 68%]</i>
Province mostly travelled in with personal motor vehicle	Likely to travel most in Gauteng (43.9%). <i>*[Accessed 95%LCL=39.5% and 95%UCL=48.4%]</i>
Household income	Likely to have a household income of more than R6 001 (76.9%). <i>*[Accessed 95%LCL=61% and 95%UCL=95.6%]</i>
Personal income	Likely to earn more than R2 501 personally (79.6%). <i>*[Accessed 95%LCL=67.7% and 95%UCL=92.4%]</i>

*95.0% Lower Confidence Level (LCL) and 95.0% Upper Confidence Level (UCL) indicates a range of values that's likely to encompass the true value

Source: Researcher's own compilation

The table above describes the average personal motor vehicle driver, and this description was developed from the respondents' profiles in this study. This description explains the different characteristics of the average personal motor vehicle driver. Short-term insurance companies can make use of this information in their marketing efforts to target the correct audience.

The next section presents the findings of all the general personal motor vehicle insurance questions, which were included in determining the personal motor vehicle insurance status.

6.4 GENERAL PERSONAL MOTOR VEHICLE INSURANCE QUESTIONS

The first two questions were used as filter questions to include respondents who drive motor vehicles and are personally responsible for their decision to purchase personal motor vehicle insurance. These questions were included to ensure that the correct individuals who decide to purchase or not purchase personal motor vehicle insurance are included in the study. The first question requested the respondents to indicate whether they drive a motor vehicle. Only one out of 706 respondents indicated that they do not drive a personal motor vehicle (refer to Table C10 in Appendix C). Thus, this respondent was excluded from the study.

In the second question, the respondents were asked to specify if they are personally responsible for the decision to purchase personal motor vehicle insurance. Only 27 respondents indicated 'no', and these respondents were also excluded from the study (see Table C11 in Appendix C). A total of 678 respondents were thus included in the study.

Some general personal motor vehicle insurance questions were included to obtain some background information related to the personal vehicle insurance status, the current type of personal vehicle insurance cover, the responsible party that pays for the personal vehicle insurance, and reasons for having/not having personal motor vehicle insurance.

The general personal motor vehicle insurance results of the questions asked are illustrated in the frequency tables (see Appendix C). In the discussions below, all the most critical findings from the data analysis are provided.

6.4.1 Currently have/do not have personal motor vehicle insurance

This question aimed to determine how many respondents currently have a personal motor vehicle and insurance and how many do not. The respondents were asked to answer this nominal dichotomous question by indicating yes or no. The answer to this question determined which set of questions the respondents would be directed to next.

In Figure 6.10, the descriptive statistics of the 'decision to purchase personal motor vehicle insurance' variable are provided, and the frequency count is available in Table C12 (Appendix C).

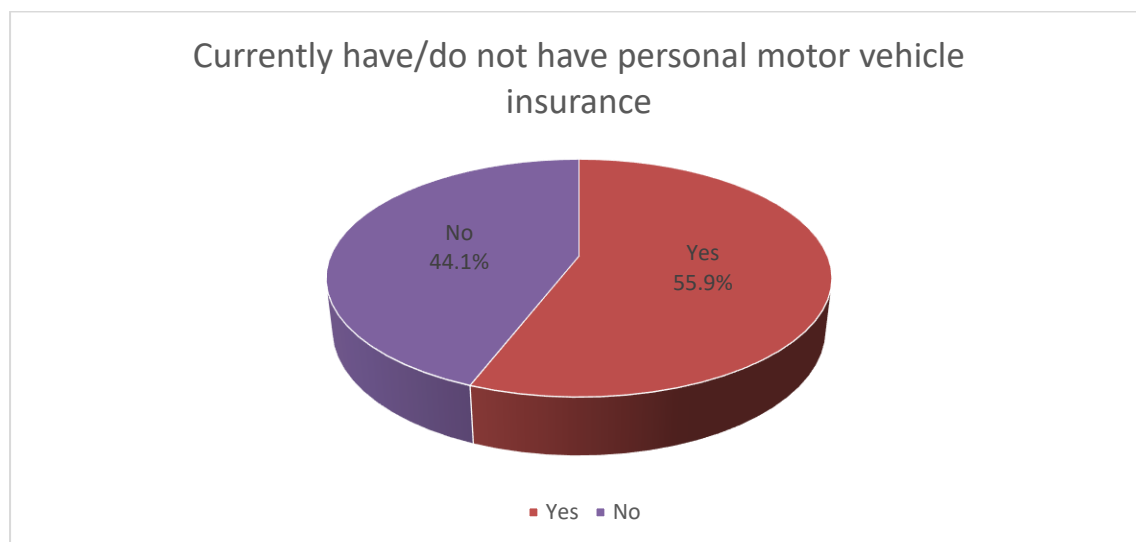


Figure 6.10: Currently have/do not have personal motor vehicle insurance (n=678)

Source: Researcher's own compilation

As shown above, more than half of the respondents, 55.9% (379 respondents), indicated that they currently have personal motor vehicle insurance, and 44.1% (299 respondents) specified that they currently do not have personal motor vehicle insurance.

According to this finding, 55.9% of the respondents' motor vehicles are insured, and 44.1% are not insured. As stated in Chapter 2 (Section 2.6), in South Africa, there are over 11 million registered vehicles (excluding caravans and trailers), and the

majority (60-65%) of these vehicles are not insured (Automobile Association of South Africa, 2020). However, it is essential to note that these statistics include minibuses, buses, bus trains, midibuses, motorcycles, quadrucycles, tricycles, LDVs, panel vans, other light load vehicles and trucks. In contrast, this study only includes respondents who drive personal motor vehicles. Taking this study's results into consideration, the assumption can be made that only 44% are willing to take the risk of not having personal motor vehicle insurance (as discussed in the prospect theory, Section 3.5.2.2).

6.4.2 Type of personal motor vehicle insurance

The respondents were asked to reveal which type of personal motor vehicle insurance cover they currently have. This ordinal, multiple-choice question requesting a single response had the following options: Comprehensive, Third-party fire and theft, Third-party only, Pay as You Drive, and not certain.

The table below illustrates the descriptive findings for the 'type of personal motor vehicle insurance cover' variable, and the frequency count is shown in Table C13 (see Appendix C).

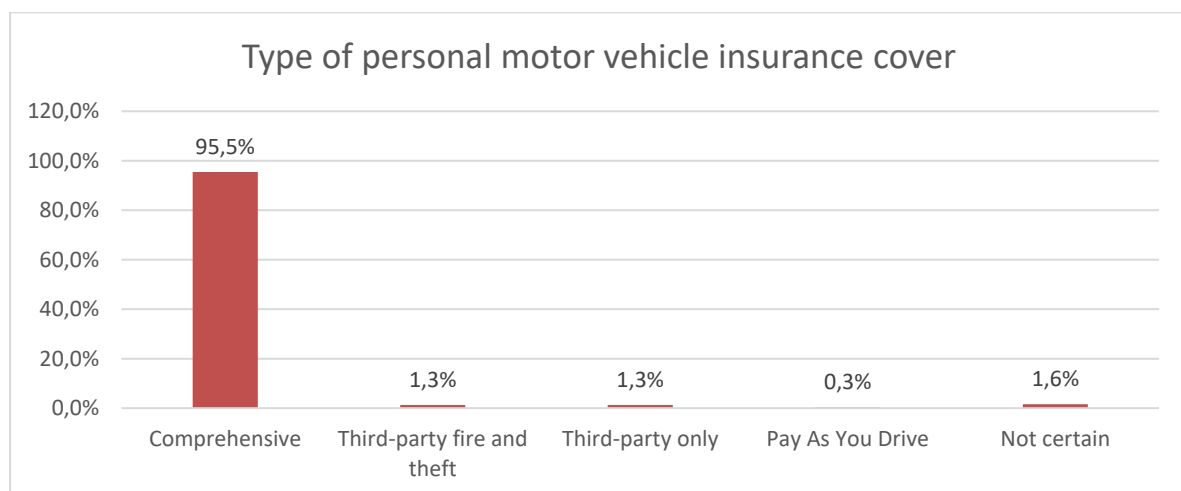


Figure 6.11: Type of personal motor vehicle insurance cover (n=379)

Source: Researcher's own compilation

Figure 6.11 reveals that almost all the respondents, 95.5% (362 respondents), indicated that they have Comprehensive cover. The Third-party fire and theft, and Third-part only category both equally represent 1.3% of the respondents (5

respondents), while 1.6% of the respondents (6 respondents) specified that they are not certain, and only 0.3% of the respondents (1 respondent) revealed that he/she has the Pay as You Drive cover.

Comprehensive insurance is the most purchased type of personal motor vehicle insurance under the respondents. As mentioned in Chapter 2 (Section 2.6.3), a total of 78% of American drivers purchase comprehensive insurance for their motor vehicles (Institute Insurance Information, 2021), which is considerably less than the findings of the current study.

6.4.3 Payment party

The respondents were asked to identify the party responsible for paying the personal motor vehicle insurance. The options were: I pay for it myself, my family member pays for it, and my employer pays for it as part of my employment package. The ordinal, multiple-choice question requesting a single response tested the 'payment party' variable.

The descriptive findings are presented in Figure 6.12. In Table C14 (Appendix C), the frequency count of the descriptive findings is provided.

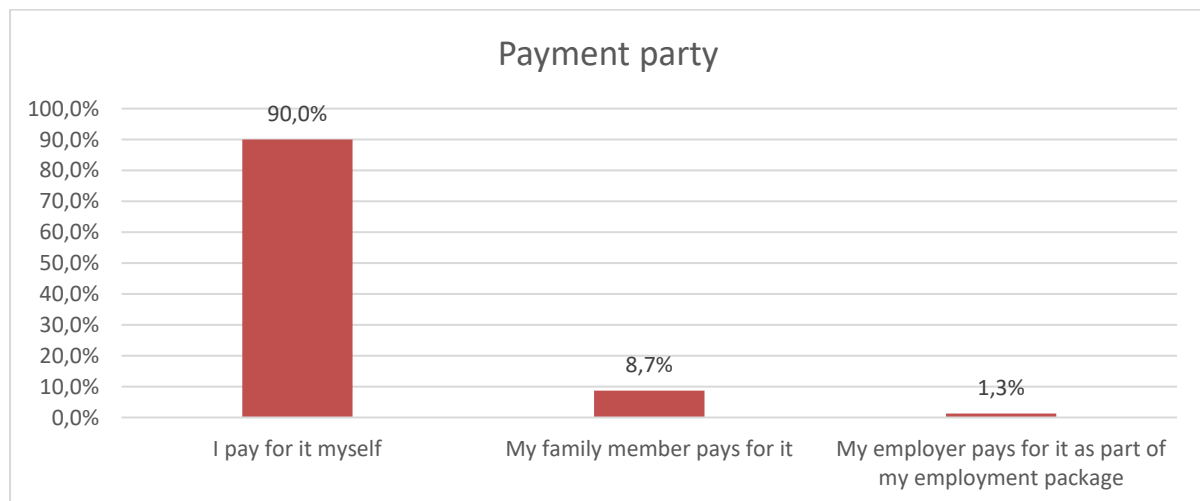


Figure 6.12: Payment party (n=379)

Source: Researcher's own compilation

As depicted in the figure above, almost all the respondents, 90% (341 respondents), indicated that they pay for the insurance themselves. The respondents who specified

that a family member pays for their insurance represents 8.7% of the respondents (33 respondents), and only 1.3% of the respondents (5 respondents) revealed that their employers pay for their insurance.

Most (90%) of the respondents revealed that they pay for the motor vehicle insurance themselves. As the respondents pay for this financial service themselves, they indeed have a view on what impacts their decision to purchase motor vehicle insurance, which can contribute greatly to this study's results.

6.4.4 Reasons for having personal motor vehicle insurance

The respondents were asked to answer this ordinal, multiple-choice question with various options and a 'please specify' option. The following options were provided: Not willing to take the chance that I cannot cover the costs when in an accident, Replacement value of my motor vehicle is high, Motor insurance is a necessity, I know that I can benefit from having motor vehicle insurance, I have motor vehicle insurance because my father/mother has/had it, Due to the high crime rate in the country, and other.

The descriptive findings for the 'reasons for having personal motor vehicle insurance' variable are illustrated in Figure 6.13. The frequency tables (Table C15.1-C15.6) can be viewed in Appendix C. The respondents could choose more than one option for this question.

As depicted in the figure below, most of the respondents, 82.1% (311 respondents), specified that they are not willing to take the chance that they cannot cover the costs when in an accident. More than half of the respondents, 57.3% (217 respondents), revealed that motor insurance is a necessity, 45.6% of the respondents (173 respondents) indicated that the replacement value of their motor vehicles is high, 39.6% of the respondents (150 respondents) specified the reason as the high crime rate in the country, and the 'I know that I can benefit from having motor vehicle insurance' category represents 27.4% of the respondents (104 respondents).

The respondents who selected the "other" option make up 6.3% of the respondents (24 respondents). The main other reasons specified include: it is a requirement from banks/financial houses that finance the motor vehicle, had losses/damages in the past,

and too many drivers on roads that do not have insurance. Only 2.6% of the respondents (10 respondents) indicated that they have motor vehicle insurance because their father/mother has/had it.

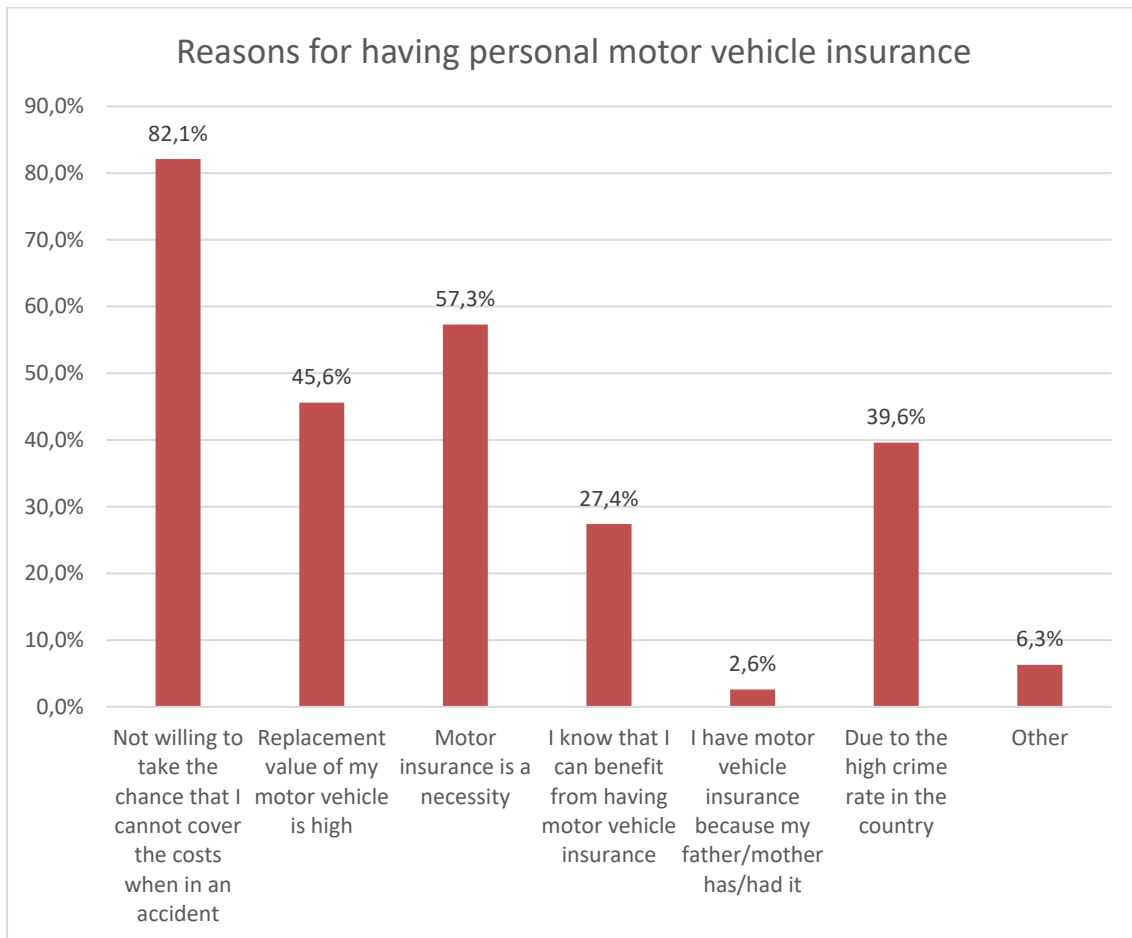


Figure 6.13: Reasons for having personal motor vehicle insurance (n=379)

Source: Researcher's own compilation

The main reason respondents purchase motor vehicle insurance is thus because they are not willing to take the chance that they cannot cover the costs when in an accident. The second reason is that they view motor insurance as a necessity. Thirdly, the respondents indicated that the motor vehicle's replacement value is too high not to have motor vehicle insurance cover.

6.4.5 Reasons for not having personal motor vehicle insurance

The respondents were requested to answer this ordinal, multiple-choice question requesting multiple responses and a 'please specify' section, which had the following

options: Insurance companies refused coverage for personal motor vehicle, I do not believe that I can benefit from having insurance, I am dissatisfied with previous insurance policy or insurance company, I do not need insurance, I cannot afford insurance, The replacement value of my motor vehicle is low, I do not know what motor insurance is, and 'other'.

The descriptive findings for the 'reasons for not having personal motor vehicle' variable are illustrated in Figure 6.14. The frequency tables (Table C16.1-C16.8) are presented in Appendix C. The respondents could choose more than one option.

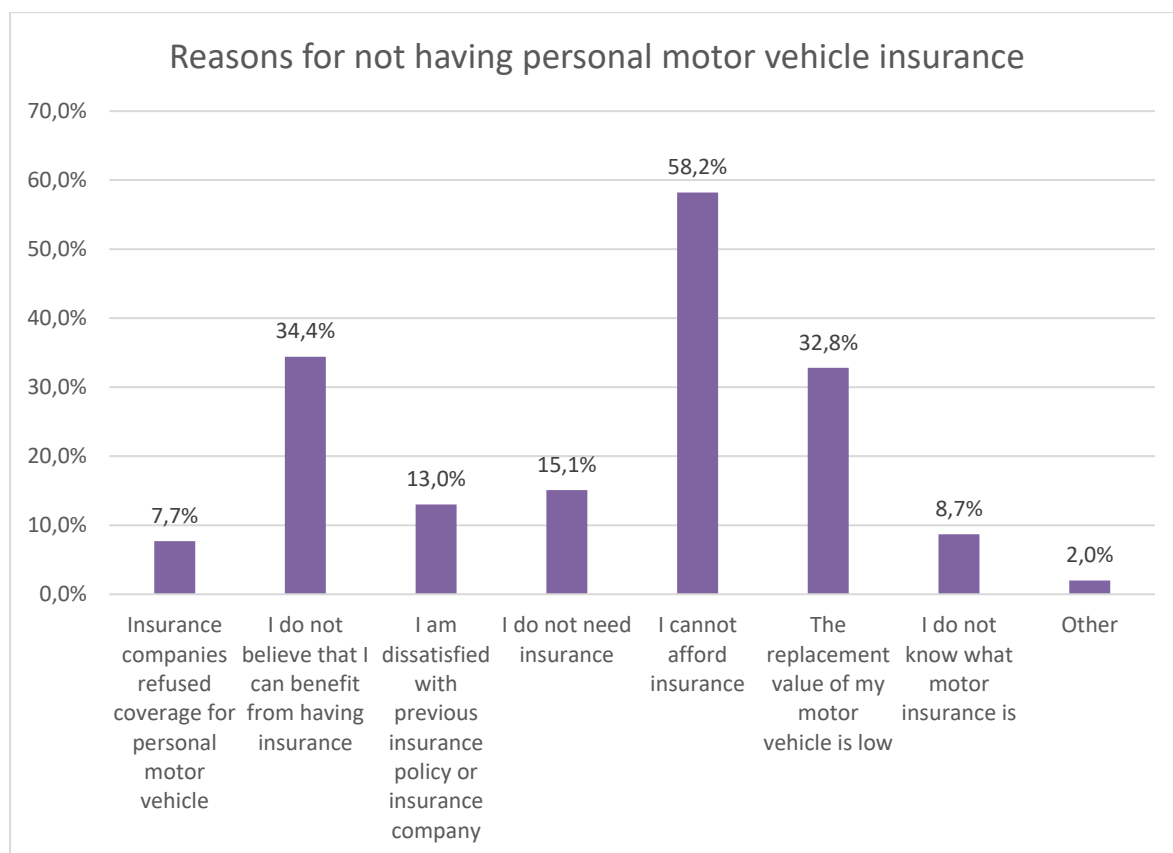


Figure 6.14: Reasons for not having personal motor vehicle insurance (n=299)

Source: Researcher's own compilation

As illustrated in the figure above, more than half of the respondents, 58.2% (174 respondents), indicated that they cannot afford insurance, 34.4% of the respondents (103 respondents) specified that they do not believe that they can benefit from having insurance, 32.8% of the respondents (98 respondents) revealed that the replacement value of the motor vehicle is low, 15.1% of the respondents (45 respondents) answered I do not need insurance, 13% of the respondents (39 respondents) selected the 'I am dissatisfied with a previous insurance policy or insurance company' option

and 8.7% of the respondents (26 respondents) indicated that they do not know what motor insurance is. The respondents who selected the 'Insurance companies refused coverage for personal motor vehicle' option represent 7.7% of the respondents (23 respondents), and only 2% of the respondents (6 respondents) selected the 'other' option. The other reasons specified are insurance companies are looking for reasons not to pay out, saving money and will not insure me.

The findings reveal that most respondents (58.2%) indicated affordability as the main reason why they do not have personal motor vehicle insurance. As discussed in Chapter 1 (Section 1.2), various authors mentioned that affordability is one of the main reasons why motorists in South Africa do not purchase motor vehicle insurance (Auto & General Insurance 2015; Mokhothu, 2020), but no statistics are available to provide insight on how important each reason is to drivers in South Africa.

The following section presents and discusses the descriptive statistics related to the external influences (see conceptual model, Figure 4.1), which are seen as input factors in the purchase decision process of the insureds and non-insureds.

6.5 INPUT STAGE: EXTERNAL INFLUENCES

The item 'External influences' was measured by looking at three constructs: the company's marketing efforts, sociocultural environment and communication sources. Each of these constructs consists of various elements that influence the need to purchase, which is the first step of the decision-making process. Questions were asked on each of these elements relating to the external influences on the purchase decision process. The scale used for all three construct elements was a 5-point Likert-type scale where: (1) was no influence, (2) small influence, (3) moderate influence, (4) large influence and (5) extremely large influence.

The descriptive statistics for each one of the elements in each construct relating to the input factors: external influences are presented below in terms of Company's marketing efforts, Sociocultural environment, and Communication sources.

6.5.1 The company's marketing efforts

6.5.1.1 Type of personal motor vehicle insurance offered

The respondents were requested to indicate the extent of influence the 'Type of personal motor vehicle insurance policies offered at a company' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.15 and Table 17.1 in Appendix C.

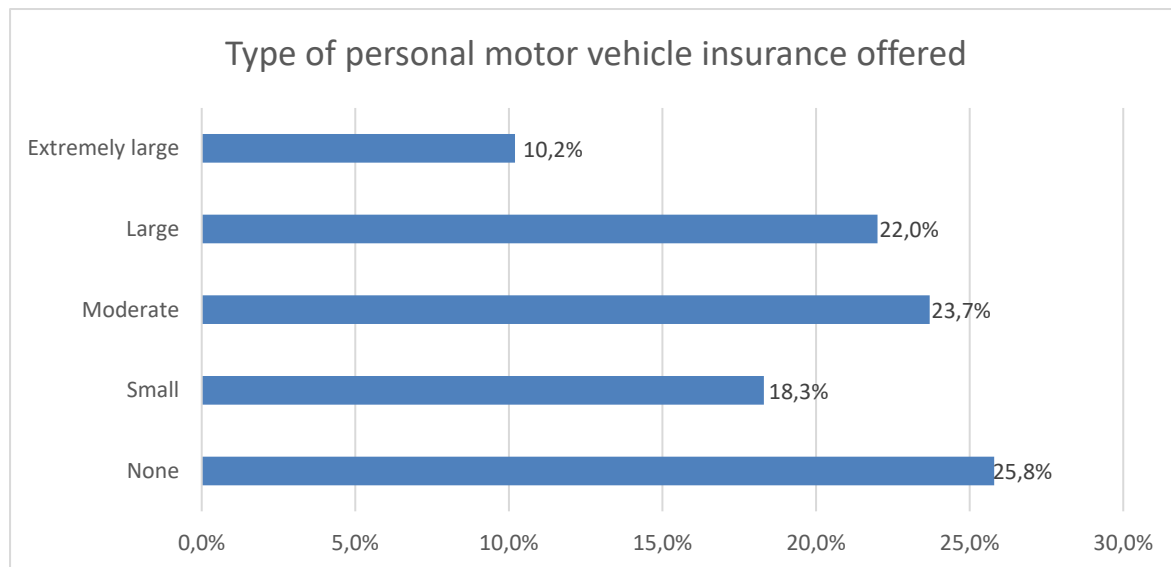


Figure 6.15: Type of personal motor vehicle insurance offered (n=678)

Source: Researcher's own compilation

Of the respondents, 25.8% (175 respondents) indicated that the type of personal motor vehicle insurance policy offered does not influence their need to purchase. The respondents who indicated that it has a moderate influence represent 23.7% of the responses (161 respondents), 22% of the respondents (149 respondents) revealed that it has a large influence, 18.3% of the respondents (124 respondents) specified that it has a small influence and only 10.2% of the respondents (69 respondents) indicated that it has an extremely large influence on need to purchase.

The results indicate that the majority of the respondents (74.2%) signalled that the type of personal motor vehicle insurance policy offered does influence their need to purchase personal motor vehicle insurance to some extent. Not only does this finding correspond with the literature (see Chapter 4, Section 4.3.1), which explains that the type of product influences the need to purchase, it also has implications for

the type of service offering insurance companies offer to the consumers. The additional add-on features to a policy, pay out bonuses and rewards for good driving behaviour can be included in the type of financial service offered to personal motor vehicle insurance consumers. Since this is an aspect that has an influence on consumers' decisions, it has implications for insurance companies.

6.5.1.2 Advertisements or promotional activities performed

The respondents were asked to indicate the extent of influence the 'Advertisements or promotional activities performed by a short-term insurance company' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.16 and Table 17.2 in Appendix C.

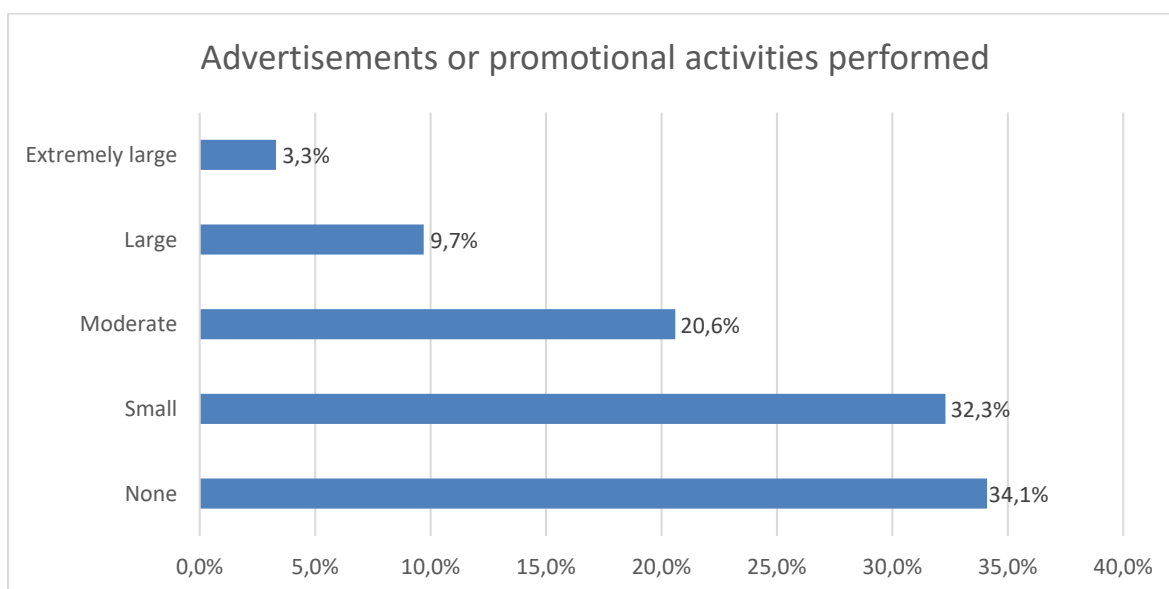


Figure 6.16: Advertisements or promotional activities performed (n=678)

Source: Researcher's own compilation

As shown in the figure above, 34.1% of the respondents (231 respondents) revealed that an insurance company's advertisements or promotional activities do not influence their need to purchase. The respondents who indicated that it has a small influence make up 32.3% of the respondents (219 respondents), 20.6% of the respondents (140 respondents) specified that it has a moderate influence, 9.7% of the respondents (66 respondents) indicated it has a large influence and only 3.3% of the respondents (22 respondents) revealed that it has an extremely large influence on their need to purchase.

More than half of the respondents (65.9%) indicated that the advertisements or promotional activities performed by insurance companies influence their need to purchase personal motor vehicle insurance to some extent. However, more respondents (66.4%) indicated that advertisements or promotional activities performed by insurance companies influence their need to purchase personal motor vehicle insurance to a small or no extent. This is a finding that has implications for insurance companies' promotion strategies, whether it be to focus on online advertising or traditional advertising, or both. Furthermore, this finding agrees with the literature (see Chapter 4, Section 4.3.1), which explains that insurance companies' advertisements or promotional activities influence the need to purchase.

6.5.1.3 Price of a policy

The respondents were asked to indicate the extent of influence the 'Price of policy' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.17 and Table 17.3 in Appendix C.

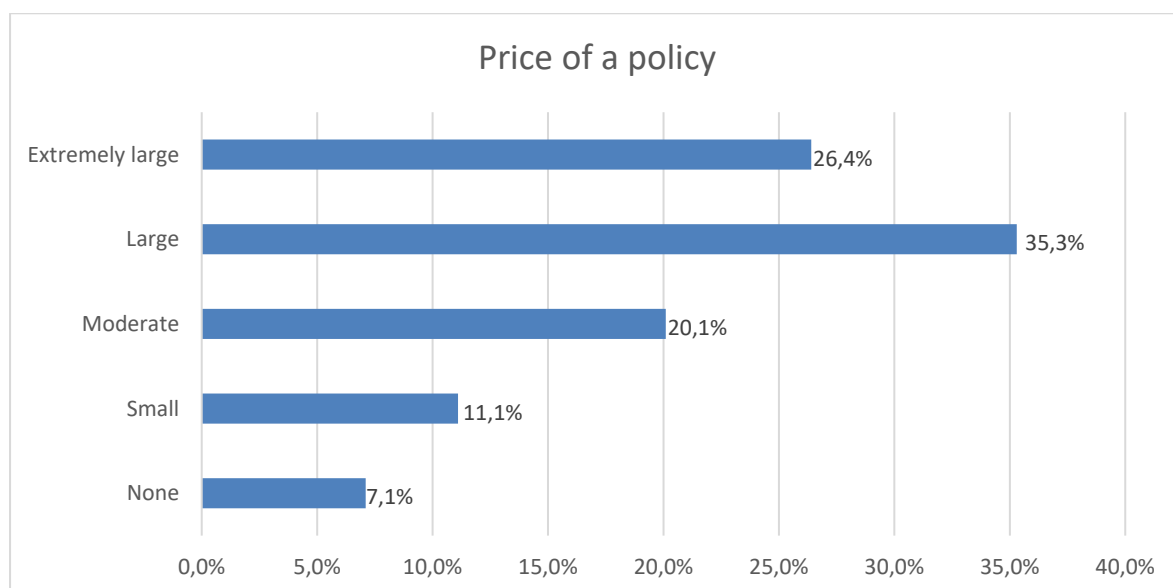


Figure 6.17: Price of policy (n=678)

Source: Researcher's own compilation

As depicted in the figure above, 35.3% of the respondents (240 respondents) indicated that a policy's price has a large influence on their need to purchase, and 26.4% of the respondents (179 respondents) specified that it has an extremely large influence. The respondents who revealed that it has a moderate influence represent 20.1% of the

respondents (136 respondents), while 11.1% of the respondents (75 respondents) indicated it has a small influence, and 7.1% of the respondents (48 respondents) revealed that it does not influence their need to purchase.

The main finding is thus that more than half of the respondents (61.7%) believe that the policy price largely influences their need to purchase personal motor vehicle insurance. This is a meaningful finding which has implications for the pricing strategies of insurance companies. Considering the financial constraints and considerations that consumers might have due to the COVID-19 pandemic, it will be wise for insurance companies to incorporate pricing strategies that will still draw consumers even during these difficult financial times. Furthermore, this finding corresponds with the literature (see Chapter 4, Section 4.3.1), explaining that the policy's price influences the need to purchase.

6.5.1.4 How personal motor vehicle insurance can be purchased

The respondents were asked to indicate the extent of influence the 'Way in which you can purchase personal motor vehicle insurance' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.18 and Table 17.4 in Appendix C.

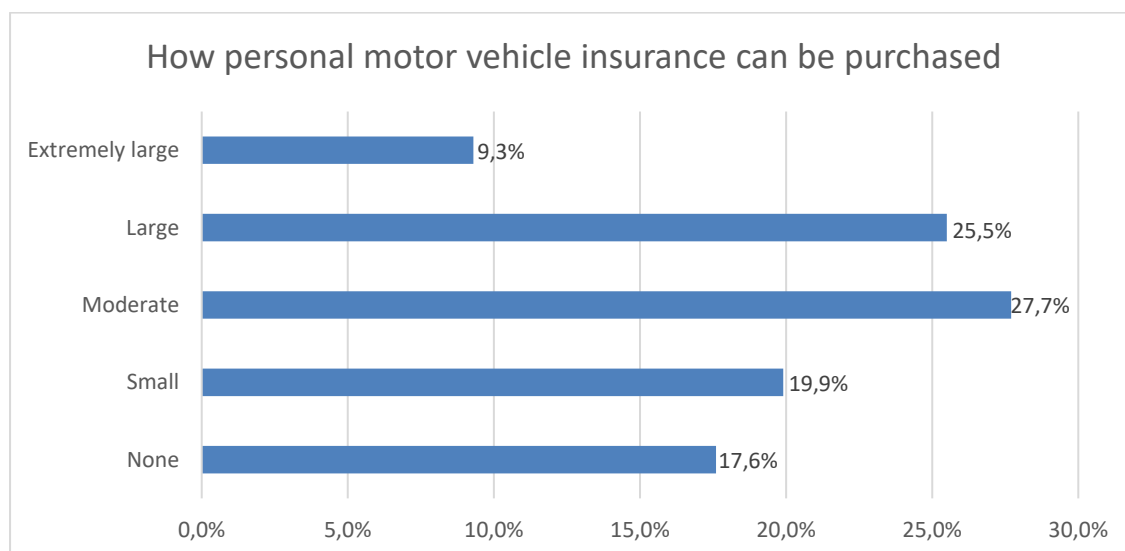


Figure 6.18: How personal motor vehicle insurance can be purchased (n=678)

Source: Researcher's own compilation

The figure above shows that 27.7% of the respondents (188 respondents) indicated that the way in which personal motor vehicle insurance can be purchased has a moderate influence on their need to purchase, 25.5% of the respondents (173 respondents) specified that it has a large influence and only 9.3% (63 respondents) revealed that it has an extremely large influence. The respondents who indicated it has a small influence make up 19.3% of the respondents (135 respondents), and 17.6% of the respondents (119 respondents) specified that it does not influence their need to purchase.

Even though only 34.8% of the respondents indicated that the way personal motor vehicle insurance can be purchased has a large influence on their need to purchase, it is noteworthy that the majority of the respondents (82.4%) specified that it influences them to some extent. This is an interesting finding which has implications for the distribution strategies of insurance companies. Even with the shift to direct online purchasing, there is still a demand for the intermediated distribution channel, such as brokers (as discussed in Section 2.4.2.2). Therefore, short-term insurance companies that offer personal motor vehicle insurance should look into providing direct purchase channels and intermediated channels using brokers. Furthermore, this finding agrees with the literature (see Chapter 4, Section 4.3.1), which explains how personal motor vehicle insurance can be purchased influences the need to purchase.

6.5.1.5 The company's physical evidence efforts

The respondents were asked to indicate the extent of influence 'The company's physical evidence efforts, for example, how the building looks, employee uniforms and online physical presence' have on the need to purchase personal motor vehicle insurance.

This element's descriptive findings are illustrated in Figure 6.19 and Table 17.5 in Appendix C.

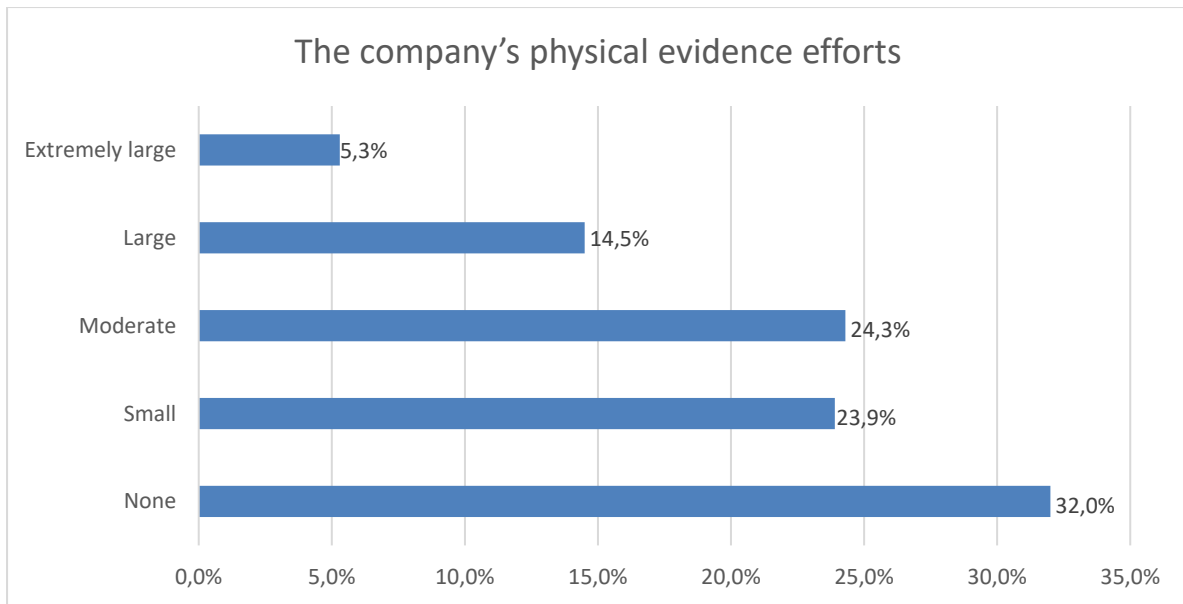


Figure 6.19: The company's physical evidence efforts (n=678)

Source: Researcher's own compilation

Figure 6.19 reveals that 32% of the respondents (217 respondents) indicated that the company's physical evidence efforts do not influence their need to purchase, 23.9% of the respondents (162 respondents) specified that it has a small influence, and 24.3% of the respondents (165 respondents) indicated that it has a moderate influence. The respondents who indicated that it has a large influence make up 14.5% of the respondents (98 respondents), and 5.3% (36 respondents) of the respondents revealed that it has an extremely large influence on their need to purchase.

Even though 32% of the respondents reflected that the company's physical evidence efforts do not influence their need to purchase personal motor vehicle insurance, most respondents (68%) indicated that it influences their need to some extent. This finding has implications for the branding strategies of insurance companies, especially the online digital presence, as this might be the first point of access for most individuals when they search for motor vehicle insurance. Furthermore, this finding agrees with the literature (see Chapter 4, Section 4.3.1), which explains that the company's physical evidence efforts influence the need to purchase.

6.5.1.6 The duration of the process to get a quotation

The respondents were asked to indicate the extent of influence 'The duration of the process to get a quotation' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.20 and Table 17.6 in Appendix C.

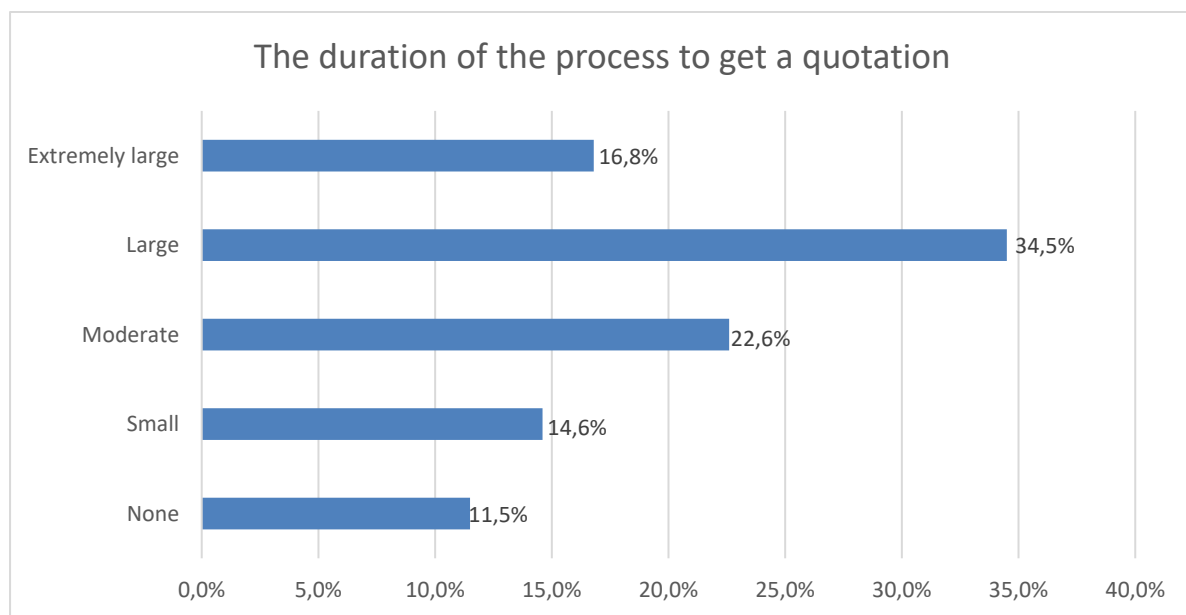


Figure 6.20: The duration of the process to get a quotation (n=678)

Source: Researcher's own compilation

The figure above shows that 34.5% of the respondents (234 respondents) indicated that the duration of the process to get a quotation has a large influence on their need to purchase, and 16.8% of the respondents (114 respondents) revealed that it has an extremely large influence. The respondents who indicated that it has a moderate influence, represent 22.6% of the respondents (153 respondents), while 14.6% of the respondents (99 respondents) specified that it has a small influence, and only 11.5% of the respondents (78 respondents) indicated that it has no influence.

It is interesting to note that more than half of the respondents (51.3%) revealed that the duration of the process to get a quotation largely influences their need to purchase personal motor vehicle insurance. This finding has implications for the service delivery strategies of insurance companies. Consumers have busy lives and want to purchase insurance as they need it at that specific time, therefore a degree

of automation should be considered by short-term insurance companies. Furthermore, this finding agrees with the literature (see Chapter 4, Section 4.3.1), which explains that the duration of the process to get a quotation influences the need to purchase.

6.5.1.7 How the employees in the company interact with consumers

The respondents were requested to indicate the extent of influence 'The way in which the employees in the company interact with consumers' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.21 and Table 17.7 in Appendix C.

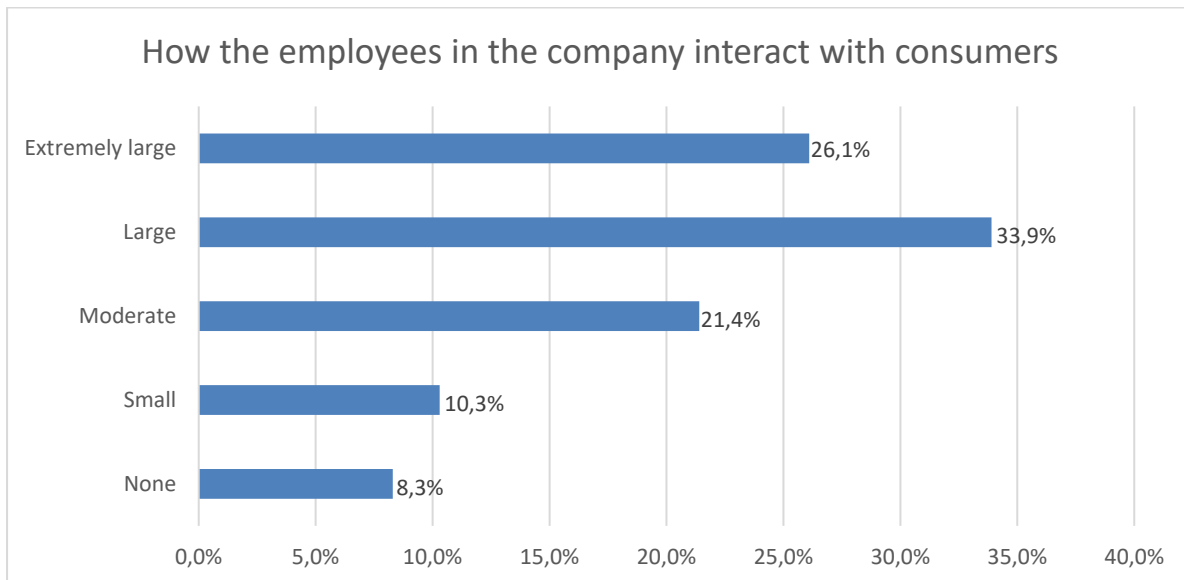


Figure 6.21: How the employees in the company interact with consumers (n=678)

Source: Researcher's own compilation

As shown above, 33.9% of the respondents (230 respondents) specified that how the company's employees interact with consumers has a large influence on their need to purchase, and 26.1% (177 respondents) revealed that it has an extremely large influence. The respondents who indicated it has a moderate influence make up 21.4% of the respondents (145 respondents), while 10.3% of the respondents (70 respondents) indicated it has a small influence, and only 8.3% of the respondents (56 respondents) specified it does not influence their need to purchase.

It is very interesting to note that more than half of the respondents (60%) indicated that the way the employees in the company interact with consumers has a large influence on their need to purchase personal motor vehicle insurance. This finding has implications for the service delivery strategies of insurance companies, especially how employees treat consumers while they deliver the service. Insurance companies can benefit from trained and skilled employees who know how to treat consumers correctly when a policy is sold or when a claim is logged. Furthermore, this finding agrees with the literature (see Chapter 4, Section 4.3.1), which explains that the way the employees in the company interact with consumers influences the need to purchase.

6.5.1.8 Partnerships or associations with other companies that consumers trust

The respondents were asked to indicate the extent of influence ‘Partnerships or associations with other companies that you trust’ have on the need to purchase personal motor vehicle insurance. This element’s descriptive findings are illustrated in Figure 6.22 and Table 17.8 in Appendix C.

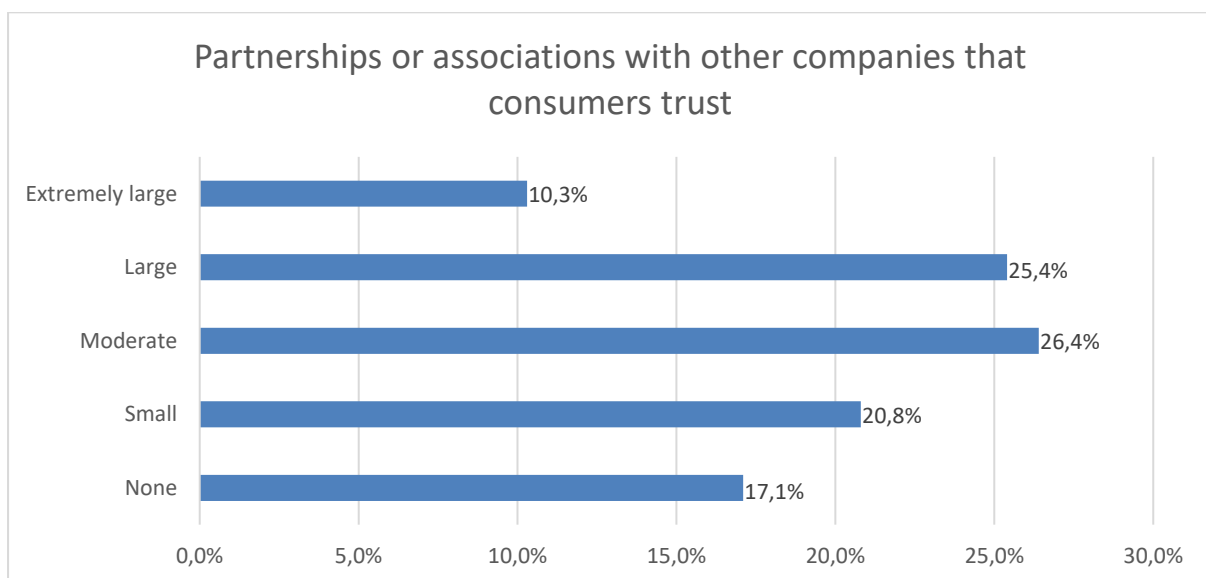


Figure 6.22: Partnerships or associations with other companies that you trust (n=678)

Source: Researcher’s own compilation

As illustrated in the figure above, 26.4% of the respondents (179 respondents) indicated that partnerships or associations with other companies they trust have a

moderate influence on their need to purchase and 25.4% of the respondents (172 respondents) specified that it has a large influence. Only 10.3% of the respondents (70 respondents) revealed that it has an extremely large influence. The respondents who indicated that it has a small influence represent 20.8% of respondents (141 respondents), and 17.1% of the respondents (116 respondents) specified that it has no influence.

Most respondents (82.9%) thus feel that partnerships or associations with other companies have an influence (from small to extremely large) on their need to purchase personal motor vehicle insurance. As stated in the literature (see Chapter 4, Section 4.3.1), more insurance companies focus on partnerships or associations to drive the growth, create new channels and drive new innovations. It is interesting to note that consumers and potential consumers also view partnerships and associations as an aspect which will influence their need to purchase. Therefore, this finding can motivate insurance companies further in establishing alliances and partnerships to drive growth, develop new channels and drive innovation.

The influence of sociocultural factors on the need to purchase personal motor insurance (which is the first step of the decision-making process) is discussed in the next section.

6.5.2 The sociocultural environment

6.5.2.1 A positive comment or opinion of a family member

The respondents were requested to indicate the extent of influence 'A positive comment or opinion of a family member' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.23 and Table 18.1 in Appendix C.

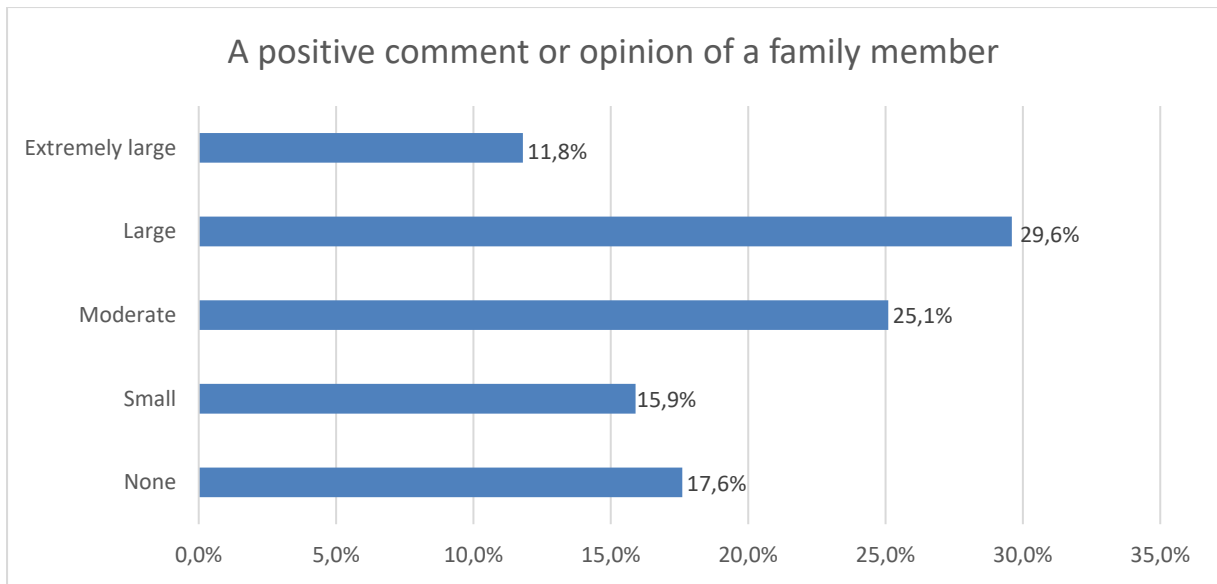


Figure 6.23: A positive comment or opinion of a family member (n=678)

Source: Researcher's own compilation

Figure 6.23 shows that 29.6% of the respondents (201 respondents) specified that a positive comment or opinion of a family member has a large influence on their need to purchase, 11.8% of the respondents (80 respondents) revealed that it has an extremely large influence and 25.1 % of the respondents (170 respondents) indicated that it has a moderate influence on their need to purchase. Only 15.9% of the respondents (108 respondents) selected the small influence option, and 17.6% (119 respondents) specified that it does not influence their need to purchase.

Most respondents (82.4%) revealed that a positive comment or opinion of a family member influences their need to purchase personal motor vehicle insurance to some extent. This shows the important role of a family member's positive comment or opinion in the consumer thought process which influences their purchase decision process. The literature (see Chapter 4, Section 4.3.2.1) also provides evidence that a family member's comment or opinion is a factor from the sociocultural environment that influences the need to purchase either positively or negatively.

6.5.2.2 A negative comment or opinion of a family member

The respondents were asked to specify the extent of influence 'A negative comment or opinion of a family member' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.24 and Table 18.2 in Appendix C.

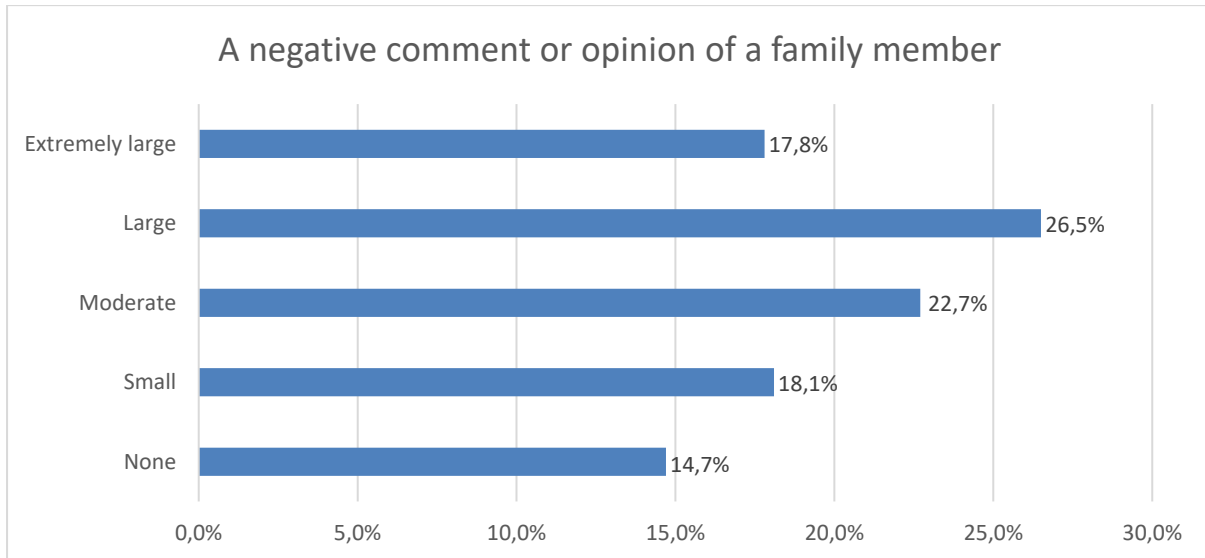


Figure 6.24: A negative comment or opinion of a family member (n=678)

Source: Researcher's own compilation

As depicted above, 26.5% of the respondents (180 respondents) revealed that a negative comment or opinion of a family member has a large influence on their need to purchase, and 17.8% of the respondents (121 respondents) indicated that it has an extremely large influence. The respondents who specified that it has a moderate influence make up 22.7% of the respondents (154 respondents), while 18.1% of the respondents (123 respondents) indicated a small influence, and only 14.7% of the respondents (100 respondents) specified that it does not influence their need to purchase.

Interestingly, most respondents (85.3%) revealed that a negative comment or opinion of a family member influences their need to purchase personal motor vehicle insurance to some extent. Therefore, a family member's negative comment or opinion has a slightly higher influence than a family member's positive comment or opinion (as indicated in Section 6.5.2.1 above) on respondents' need to purchase personal motor vehicle insurance. It is interesting to note that a negative comment

or opinion from a family member plays a bigger role in the individuals' thought process which influences their purchase decision process.

6.5.2.3 The positive opinion of a reference person or group used as a basis of comparison

The respondents were asked to indicate the extent of influence 'The positive opinion of a reference person or group used as a basis of comparison' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.25 and Table 18.3 in Appendix C.

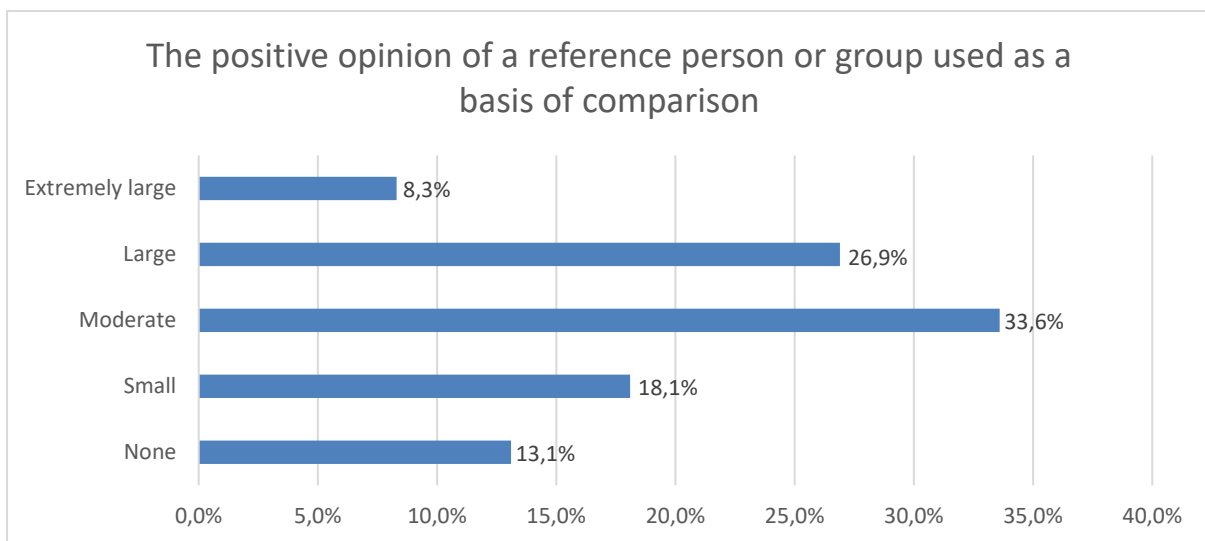


Figure 6.25: The positive opinion of a reference person or group used as a basis of comparison (n=678)

Source: Researcher's own compilation

As illustrated above, 33.6% of the respondents (228 respondents) specified that the positive opinion of a reference person or group used as a basis of comparison has a moderate influence on their need to purchase. Of the respondents, 26.9% (182 respondents) revealed that it has a large influence, while only 8.3% of the respondents (56 respondents) indicated that it has an extremely large influence. The respondents who indicated that it has a small influence make up 18.1% of the respondents (123 respondents), and 13.1% of the respondents (89 respondents) specified that it does not influence their need to purchase.

Even though more than half of the respondents (51.7%) specified that a positive opinion of a reference person or group used as a basis of comparison has a mild influence on their need to purchase, the majority of respondents (86.9%) revealed that it influences their need to purchase personal motor vehicle insurance to some extent. This finding confirms that a positive opinion of a reference group can be used as a basis of comparison, which will have an impact on their opinion about motor vehicle insurance. This positive opinion gained from the reference groups influences their need to purchase. The literature (see Chapter 4, Section 4.3.2.2), also states that the opinion (positive or negative) of reference groups is a factor from the sociocultural environment that influences the need to purchase.

6.5.2.4 The negative opinion of a reference person or group used as a basis of comparison

The respondents were requested to specify the extent of influence ‘The negative opinion of a reference person or group used as a basis of comparison’ has on their need to purchase personal motor vehicle insurance. This element’s descriptive findings are illustrated in Figure 6.26 and Table 18.4 in Appendix C.

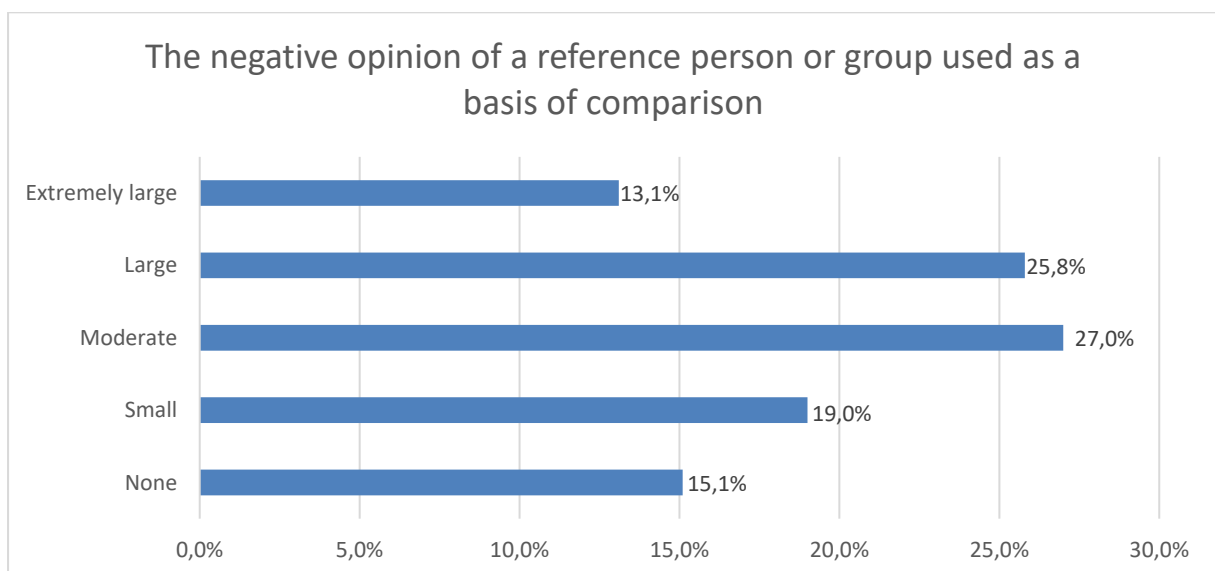


Figure 6.26: The negative opinion of a reference person or group used as a basis of comparison (n=678)

Source: Researcher’s own compilation

Figure 6.26 shows that 27% of the respondents (183 respondents) indicated that the negative opinion of a reference person or group used as a basis of comparison has a

moderate influence on their need to purchase, while 25.8% of the respondents (175 respondents) revealed that it has a large influence, and 13.1% of respondents (89 respondents) specified that it has an extremely large influence on their need to purchase. The respondents who indicated that it has a small influence represent 19% of the respondents (129 respondents), while 15.1% of the respondents (102 respondents) specified that it does not influence their need to purchase.

The majority of respondents (84.9%) revealed that a negative opinion of a reference person or group used as a basis of comparison influences their need to purchase personal motor vehicle insurance to some extent. Therefore, it can be drawn from this finding that the positive opinion of a reference person or group used as a basis of comparison (as indicated in Figure 6.25) has a slightly higher influence on the respondents' need to purchase. It is noteworthy for insurance companies to realise that respondents feel that the positive opinion from a reference group plays a slightly bigger role than the negative opinion from a reference group in their decision to purchase personal motor vehicle insurance. Positive word-of-mouth is thus an extremely important aspect to consider when trying to influence consumers to purchase personal motor-vehicle insurance.

6.5.2.5 Positive comments from non-commercial sources

The respondents were asked to indicate the extent of influence 'Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.27 and Table 18.5 in Appendix C.

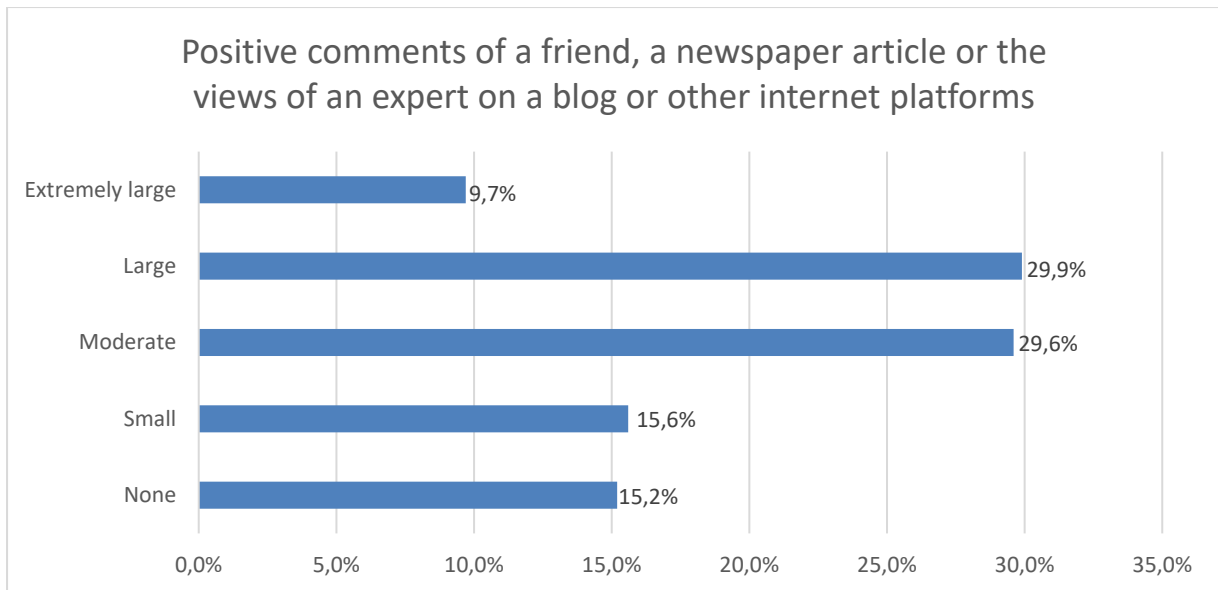


Figure 6.27: Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms (n=678)

Source: Researcher's own compilation

As depicted above, 29.9% of the respondents (203 respondents) indicated that the positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms have a large influence on their need to purchase. Only 9.7% of the respondents (66 respondents) revealed that it as an extremely large influence. The respondents who specified that it has a moderate influence make up 29.6% of the respondents (200 respondents), while 15.6% of the respondents (106 respondents) indicated that it has a small influence, and 15.2% of the respondents (103 respondents) specified that it does not influence their need to purchase.

It is interesting to note that most respondents (84.8%) indicated that positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms influence their need to purchase personal motor vehicle insurance to some extent. This just shows the influence positive word-of-mouth from non-commercial sources can have on the individuals' decision to purchase personal motor vehicle insurance. Insurance companies can therefore create positive conversations about their brands and different offerings. Furthermore, the literature (see Chapter 4, Section 4.3.2.3), states that positive or negative comments (personal words and recommendations) from trusted friends and other customers

are viewed to be credible during the decision to purchase personal motor vehicle insurance.

6.5.2.6 Negative comments from non-commercial sources

The respondents were asked to specify the extent of influence ‘Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms’ have on the need to purchase personal motor vehicle insurance. This element’s descriptive findings are illustrated in Figure 6.28 and Table 18.6 in Appendix C.

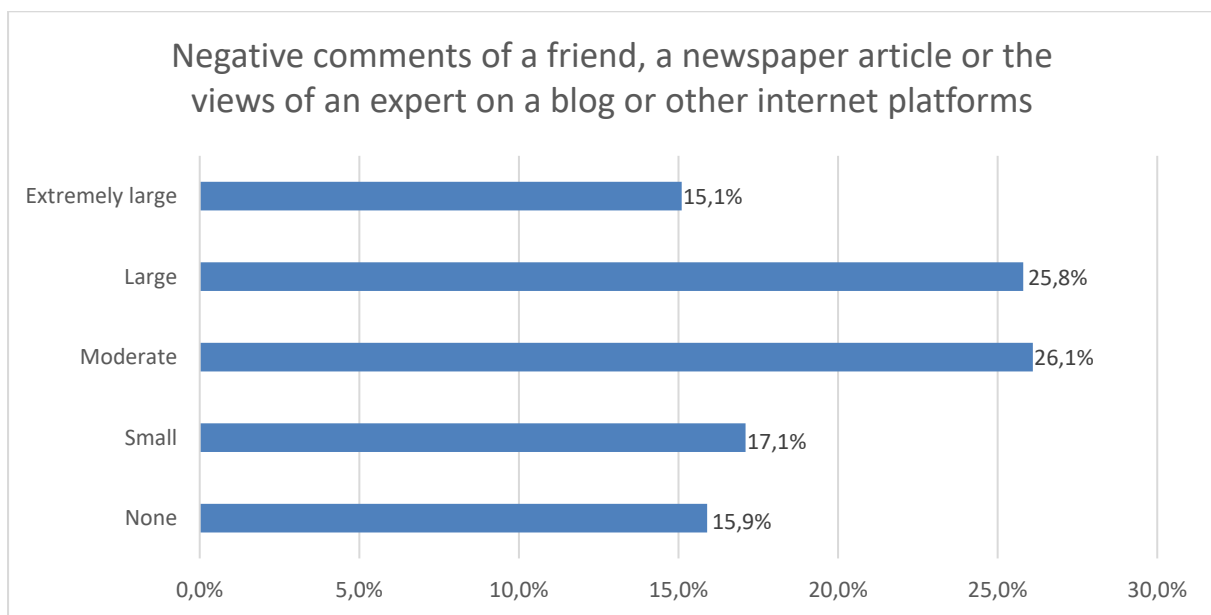


Figure 6.28: Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms (n=678)

Source: Researcher’s own compilation

The figure above shows that 26.1% of the respondents (177 respondents) revealed that the negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms have a moderate influence on their need to purchase, while 25.8% of the respondents (175 respondents) specified that it has a large influence, and only 15.1% of the respondents (102 respondents) indicated that it has an extremely large influence. The respondents who felt that it had a small influence represent 17.1% of the respondents (116 respondents), and 15.9% of the respondents (108 respondents) specified that it does not influence their purchasing need.

The majority of respondents (84.1%) specified that the negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms influence their need to purchase personal motor vehicle insurance to some extent. Thus, indicating that the negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet have a bigger influence on the participants need to purchase than the positive comments. There is a very small difference between the negative and positive influence of comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms, but the positive influence remains important. This finding gives insurance companies more reason to create positive conversations about their brands and different offerings.

6.5.2.7 The positive opinions of individuals in the same social class

The respondents were required to specify the extent of influence 'The positive opinions of individuals in the same social class as you' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are depicted in Figure 6.29 and Table 18.7 in Appendix C.

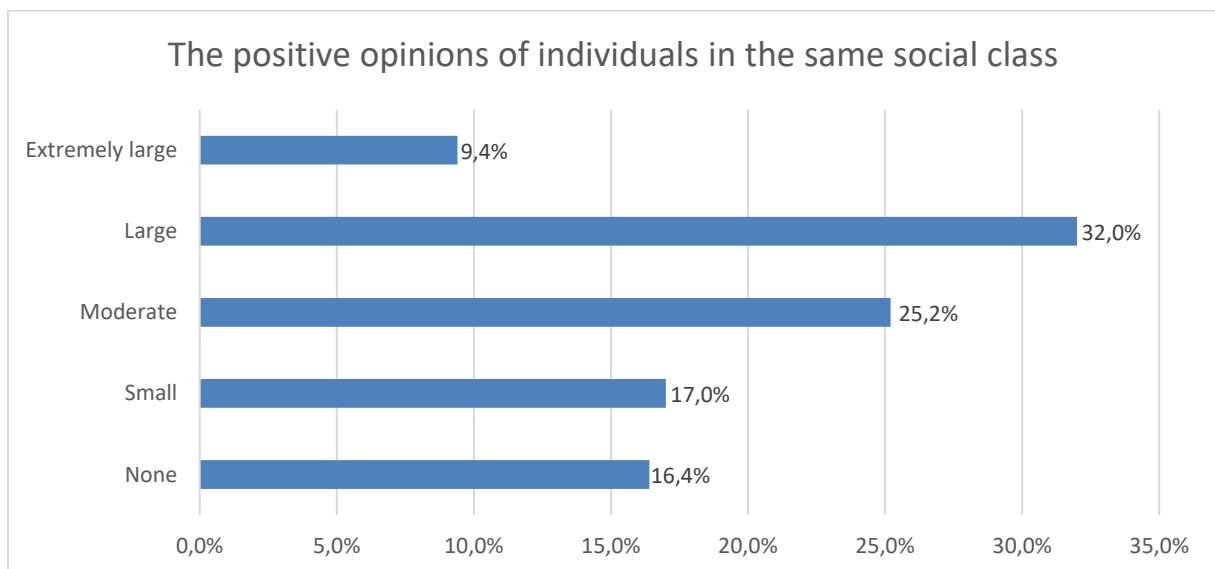


Figure 6.29: The positive opinions of individuals in the same social class (n=678)

Source: Researcher's own compilation

As illustrated above, 32% of the respondents (217 respondents) specified that the positive opinions of individuals in the same social class have a large influence on their

need to purchase, while only 9.4% of the respondents (64 respondents) indicated that it has an extremely large influence. The respondents who indicated that it has a moderate influence make up 25.2% of the total (171 respondents), while 17% of the respondents (115 respondents) revealed that it has a small influence, and 16.4% of the respondents (111) specified that it does not influence their need to purchase.

The majority of respondents (83.6%) revealed that that the positive opinions of individuals in the same social class influence their purchasing need to some extent. This finding illustrates the importance of positive opinions from individuals with the same values and interests as the personal motor vehicle consumers and potential consumers. From the literature (see Chapter 4, Section 4.3.2.4), it is also clear that the opinion (whether it be positive or negative) of members in the consumer's social class is a factor from the sociocultural environment that influences the need to purchase.

6.5.2.8 The negative opinions of individuals in the same social class

The respondents were asked to indicate the extent of influence 'The negative opinions of individuals in the same social class as you' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.30 and Table 18.8 in Appendix C.

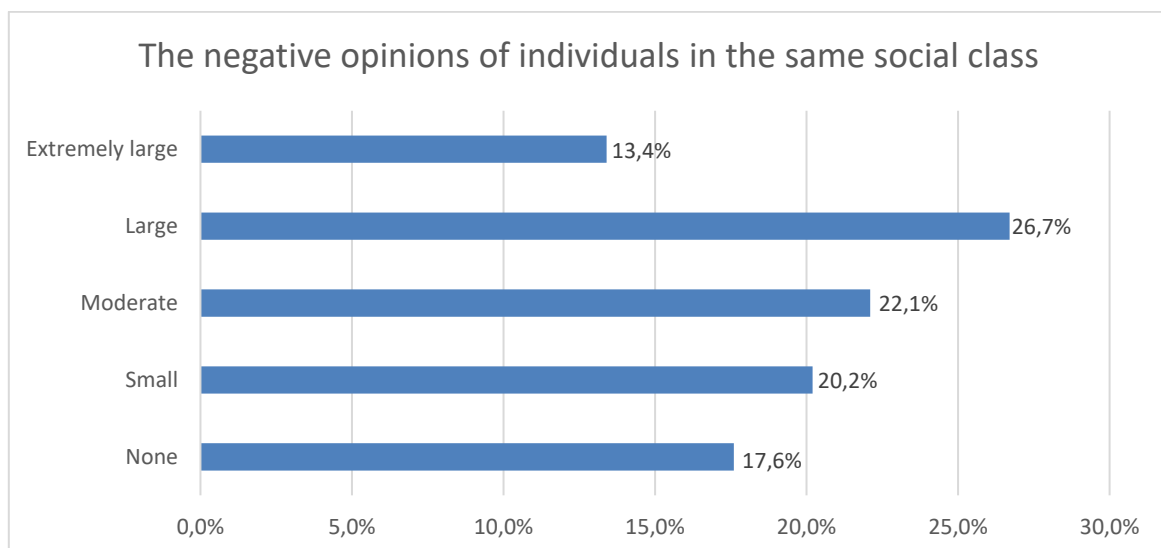


Figure 6.30: The negative opinions of individuals in the same social class (n=678)

Source: Researcher's own compilation

As shown in the figure above, 26.7% of the respondents (181 respondents) indicated that the negative opinions of individuals in the same social class have a large influence on their need to purchase, while only 13.4% of the respondents (91 respondents) revealed that it has an extremely large influence. Of the respondents, 22.1% (150 respondents) specified that it has a moderate influence, 20.2% of the respondents (137 respondents) indicated that it has a small influence, and 17.6% of the respondents (119 respondents) revealed that it does not influence their need to purchase.

The majority of respondents (82.4%) specified that the negative opinions of individuals in the same social class influence their need to purchase personal motor vehicle insurance to some extent. Therefore, it is evident that the positive opinions of individuals (in Figure 6.29) in the same social class have a slightly higher influence on the respondents' need to purchase personal motor vehicle insurance. This finding is significant for insurance companies as this will give them a good reason to create positive conversations about their brands and different offerings, so that the positive opinions can be shared amongst individuals in the same social class.

6.5.2.9 Cultural and subcultural factors

The respondents were requested to indicate the extent of influence 'Cultural and subcultural factors, such as language preference, beliefs and values' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are presented in Figure 6.31 and Table 18.9 in Appendix C.

The figure below shows that 24.4% of the respondents (165 respondents) indicated that the cultural and subcultural factors do not influence their need to purchase. The respondents who specified that it has a small influence make up 20.8% of the respondents (141 respondents), 22.7% of the respondents (154 respondents) revealed that it has a moderate influence, while 21.5% of the respondents (146 respondents) indicated that it has a large influence, and only 10.6% of the respondents (72 respondents) specified that it has an extremely large influence on their need to purchase.

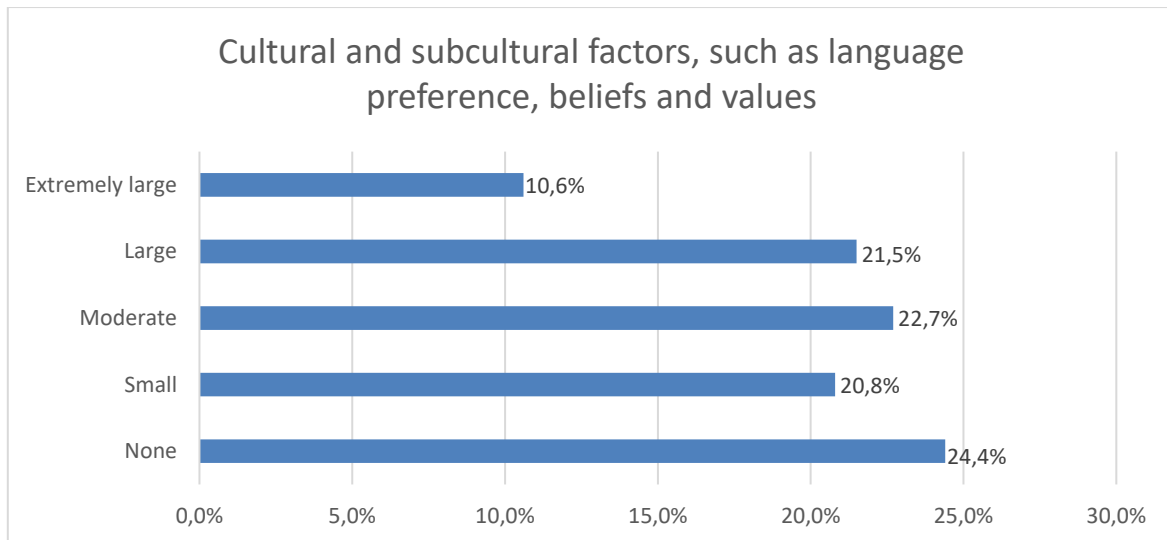


Figure 6.31: Cultural and subcultural factors (n=678)

Source: Researcher's own compilation

The majority of respondents (75.6%) specified that cultural and subcultural factors influence their purchasing need to some extent. As stated in the literature (see Chapter 4, Section 4.3.2.5), a consumer's culture is the basic contributing factor of what he/she wants and how he/she behaves, and subcultures include population groups, native language, religion and racial groups. It is interesting that this finding also shows that the cultural and subcultural factors do in fact influence the respondents' need to purchase. The cultural and subcultural factors are not something that can be controlled by insurance companies, but it is important to spot the cultural shifts in order to offer policies that are wanted by consumers and potential consumers.

The influence of communication sources (which are the mechanisms that deliver the marketing mix and sociocultural influences to the consumers) on the need to purchase personal motor insurance (which is the first step of the decision-making process) is discussed in the following paragraphs.

6.5.3 Communication sources

6.5.3.1 Traditional advertisements about motor vehicle insurance

The respondents were asked to specify the extent of influence 'Traditional advertisements about motor vehicle insurance (Such as TV and radio advertisements)'

have on their need to purchase personal motor vehicle insurance. This element's descriptive findings are presented in Figure 6.32 and Table 19.1 in Appendix C.

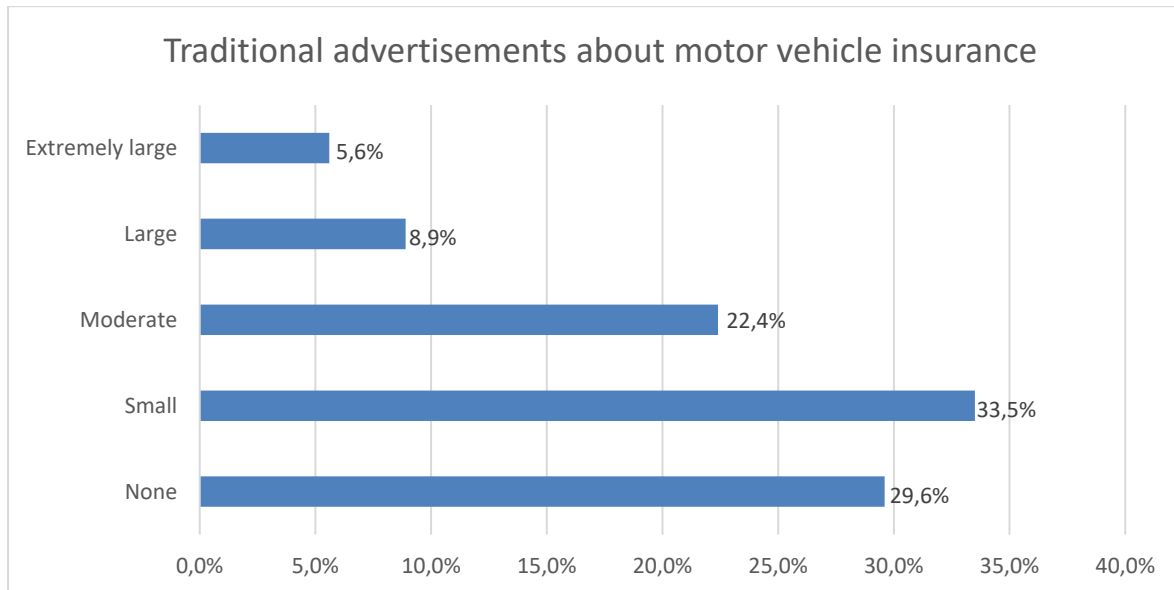


Figure 6.32: Traditional advertisements about motor vehicle insurance (n=678)

Source: Researcher's own compilation

As illustrated above, 33.5% of the respondents (227 respondents) revealed that traditional advertisements about motor vehicle insurance have a small influence on their need to purchase, and 29.6% of the respondents (201 respondents) indicated that it does not influence their need to purchase. The respondents who specified that it has a moderate influence on their decision make up 22.4% of the respondents (152 respondents), while 8.9% of the respondents (60 respondents) indicated that it has a large influence. Only 5.6% of the respondents (38 respondents) specified that it has an extremely large influence on their purchasing need.

More than half of the respondents (55.9%) specified that traditional advertisements about motor vehicle insurance have a mild influence on their need to purchase personal motor vehicle insurance. Considering that 29.6% of respondents indicated that it does not influence their decision to purchase at all, it appears that traditional advertisements do not influence the respondents' purchasing need to a large extent. The literature reviewed in Chapter 4, Section 4.3.3.1, states that more companies are shifting towards digital marketing and online advertising is the focus. This finding reveals that respondents do not view traditional advertising as an important

influencing mechanism when it comes to the decision to purchase personal motor vehicle insurance.

6.5.3.2 Online advertisements about motor vehicle insurance

The respondents were required to specify the extent of influence 'Online advertisements about motor vehicle insurance (Such as Video advertisements and banner ads on websites)' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are depicted in Figure 6.33 and Table 19.2 in Appendix C.

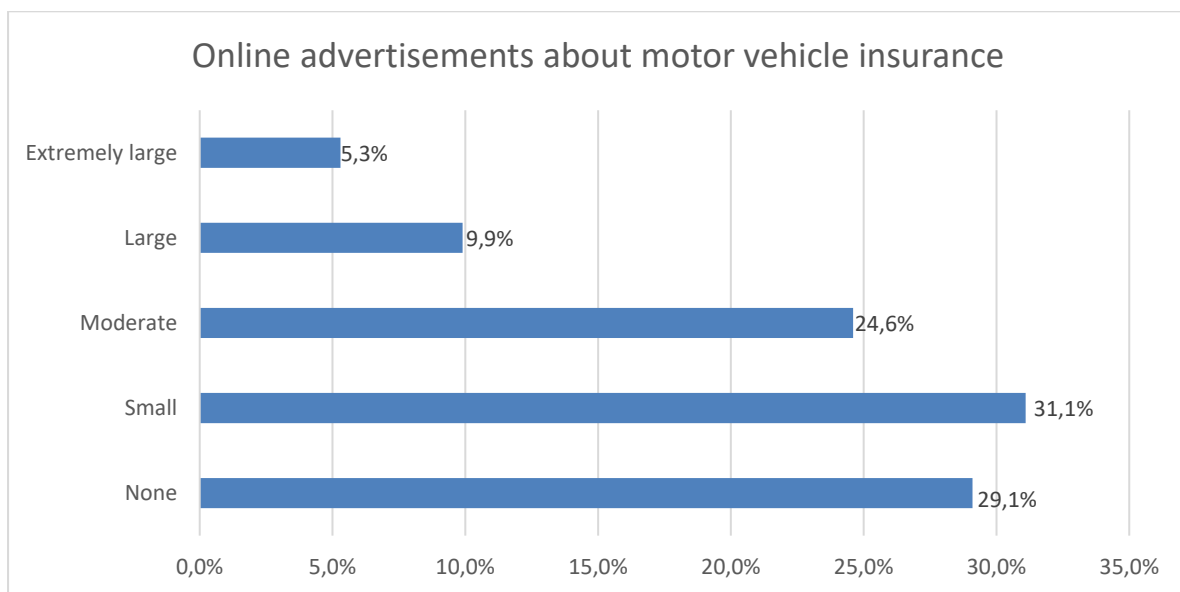


Figure 6.33: Online advertisements about motor vehicle insurance (n=678)

Source: Researcher's own compilation

Figure 6.33 reveals that 31.1% of the respondents (211 respondents) specified that online advertisements about motor vehicle insurance have a small influence on their need to purchase, and 29.1% of respondents (197 respondents) indicated that it does not influence their need to purchase. The respondents who specified that it has a moderate influence on their need represent 24.6% of the respondents (167 respondents), while 9.9% of the respondents (67 respondents) indicated that it has a large influence. Only 5.3% of the respondents (36 respondents) specified that it has an extremely large influence on their purchasing needs.

More than half of the respondents (55.7%) specified that online advertisements about motor vehicle insurance have a mild influence on their need to purchase personal motor vehicle insurance. Interestingly, 29.1% of the respondents indicated that it does not influence their need to purchase at all. Still, it appears that online advertisements do not influence the respondents' purchasing needs to a large extent. This is an interesting finding, since the literature reviewed in Chapter 4, Section 4.3.3.1, states that more companies are shifting towards digital marketing and online advertising is the focus. Insurance companies will have to investigate whether the shift to digital marketing is going to be beneficial in terms of advertising motor vehicle insurance.

6.5.3.3 Buzz agent

The respondents were requested to indicate the extent of influence 'Any person that is a source of a product referral (buzz agent, see Chapter 4 in Section 4.1.2) and tells you about motor vehicle insurance' has on the need to purchase personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.34 and Table 19.3 in Appendix C.

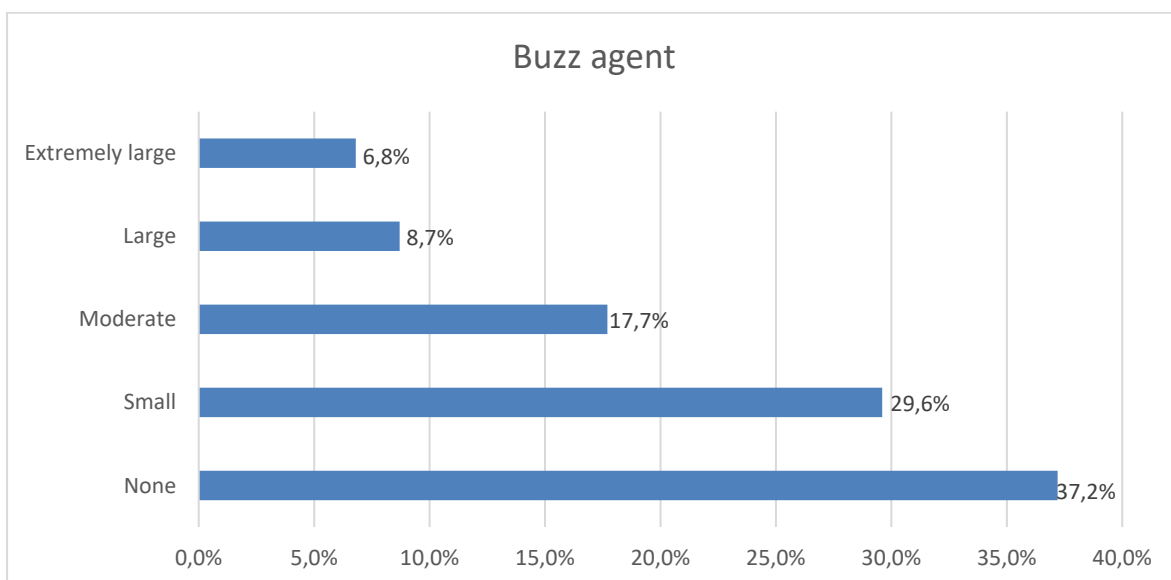


Figure 6.34: Buzz agent (n=678)

Source: Researcher's own compilation

As shown above, 37.2% of the respondents (252 respondents) indicated that buzz agents do not influence their purchasing needs. The respondents who specified that it

has a small influence represent 29.6% of the respondents (201 respondents), 17.7% of the respondents (120 respondents) revealed that it has a moderate influence, while 8.7% of the respondents (59 respondents) indicated that it has a large influence, and only 6.8% of the respondents (46 respondents) specified that it has an extremely large influence on their need to purchase.

It is interesting to note that most respondents (66.8%) specified that buzz agents have a small or no influence on their need to purchase personal motor vehicle insurance. However, 62.8% of respondents indicated that buzz agents influence their need to purchase personal motor vehicle insurance to some extent. Therefore, there are more respondents who feel that buzz agents do not influence their need to purchase to a large extent. Although it appears that buzz agents are not important, short-term insurance companies may not be using buzz agents enough. They can thus increase the use of buzz agents to try and attract more consumers. This is a finding which has implications for the marketing communication strategies of insurance companies, as marketing efforts can serve as an effective tool to generate buzz among individuals in the market (see Chapter 4, Section 4.3.3.2). Insurance companies can benefit from buzz among consumers and potential consumers about motor vehicle insurance as this can drive traffic toward their companies and service offerings.

6.5.3.4 Customised messages that insurance companies communicate

The respondents were asked to indicate the extent of influence 'Customised messages that insurance companies communicate to you about motor vehicle insurance' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are presented in Figure 6.35 and Table 19.4 in Appendix C.

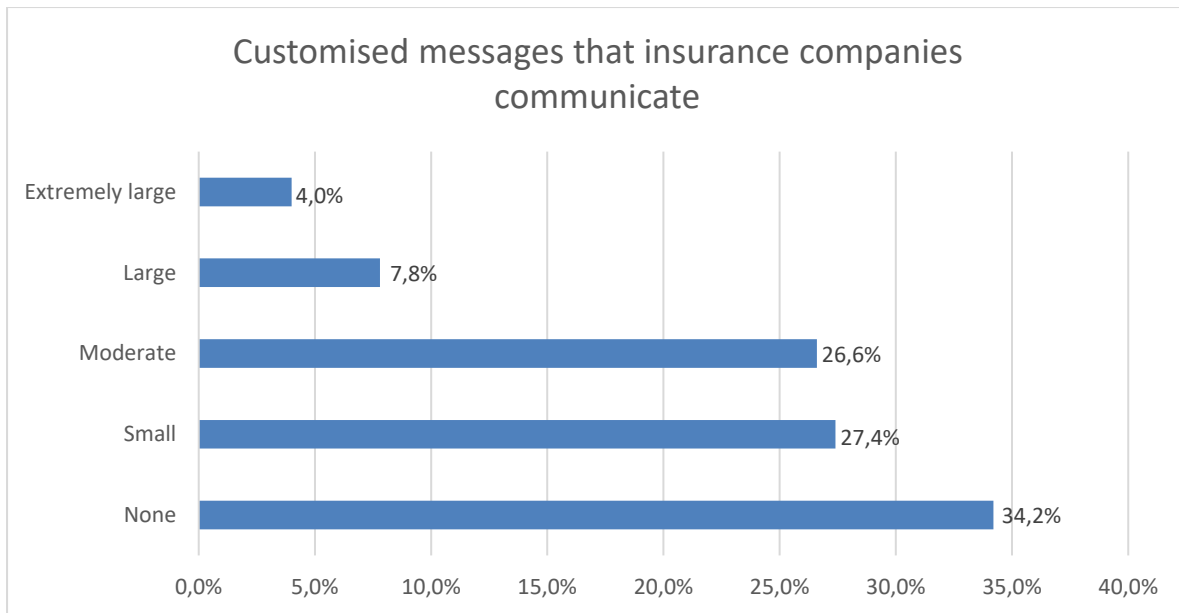


Figure 6.35: Customised messages that insurance companies communicate (n=678)

Source: Researcher's own compilation

As illustrated above, 34.2% of the respondents (232 respondents) specified that customised messages that insurance companies communicate do not influence their need to purchase. The respondents who indicated that it has a small influence represent 27.4% of the respondents (186 respondents), 26.6% of the respondents (180 respondents) revealed that it has a moderate influence, while 7.8% of the respondents (53 respondents) indicated that it has a large influence, and only 4% of the respondents (27 respondents) specified that it has an extremely large influence on their need to purchase.

It is interesting to note that most respondents (65.8%) indicated that the customised messages that insurance companies communicate influence their need to purchase personal motor vehicle insurance to some extent. This finding reveals that customised messages that insurance companies communicate influence the respondents' purchasing need. Taking into consideration that customised messages communicated to consumers and potential consumers fall under the direct marketing efforts of insurance companies, this finding has implications for insurance companies' marketing communication strategies. As stated in the literature (Chapter 4, Section 4.3.3.3), there is a distinct move toward personalised marketing within the motor vehicle insurance market as this allows insurers to build a better

relationship with consumers. Seeing that the customised messages do influence respondents' need to purchase in this study, it is advisable that the customised messages short-term insurance companies communicate should be personalised to build better relationships with consumers.

6.5.3.5 Paid-for social media efforts

The respondents were asked to specify the extent of influence 'Paid-for social media efforts (such as Facebook advertisement campaigns) by insurance companies about motor vehicle insurance' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are presented in Figure 6.36 and Table 19.5 in Appendix C.

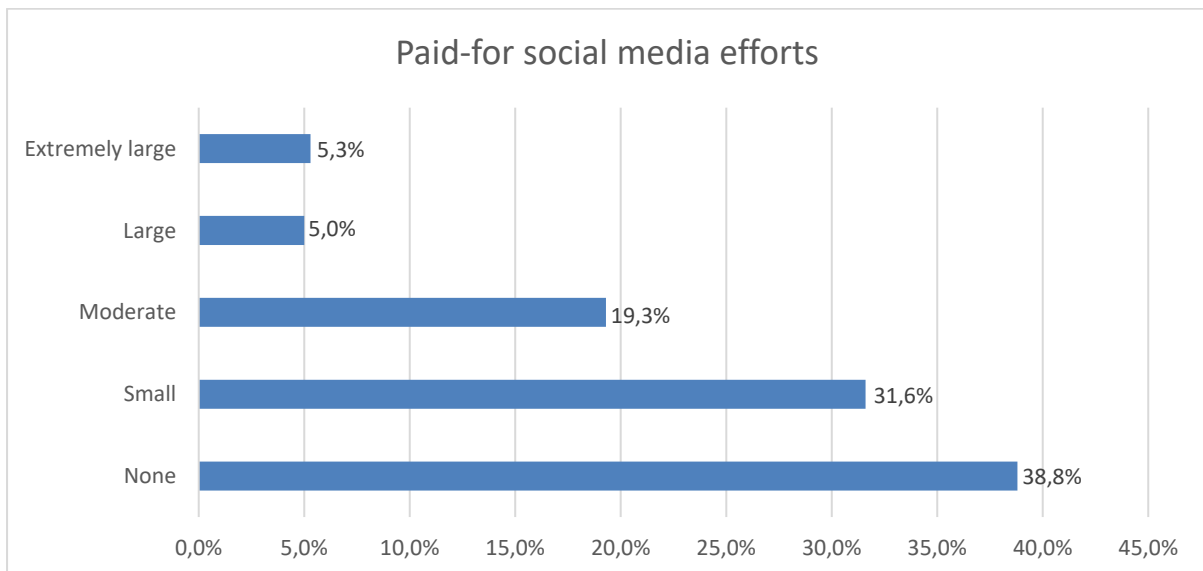


Figure 6.36: Paid-for social media efforts (n=678)

Source: Researcher's own compilation

Figure 6.36 shows that 38.8% of the respondents (263 respondents) specified that paid-for social media efforts do not influence their purchasing need. The respondents who indicated that it has a small influence represent 31.6% of the respondents (214 respondents), while 19.3% of the respondents (131 respondents) revealed that it has a moderate influence, only 5% of the respondents (34 respondents) indicated that it has a large influence, and 5.3% of the respondents (36 respondents) specified that it has an extremely large influence on their need to purchase.

It is essential to highlight that most respondents (70.4%) indicated that paid-for social media efforts by insurance companies have a small or no influence on their need to purchase personal motor vehicle insurance. However, 61.2% of the respondents revealed that it influences their need to purchase personal motor vehicle insurance to some extent. It appears that paid-for social media efforts by insurance companies do not influence the respondents' purchasing needs to a large extent, which is contradictory to what has been reviewed in the literature (see Chapter 4, Section 4.3.3.4). This finding has implications for the marketing communications strategies of insurance companies. Insurance companies can investigate whether social media influences will be beneficial to persuade consumers and potential consumers to purchase personal motor vehicle insurance.

6.5.3.6 User-generated social media posts

The respondents were requested to stipulate the extent of influence 'Word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance' have on the need to purchase personal motor vehicle insurance. This element's descriptive findings are depicted in Figure 6.37 and Table 19.6 in Appendix C.

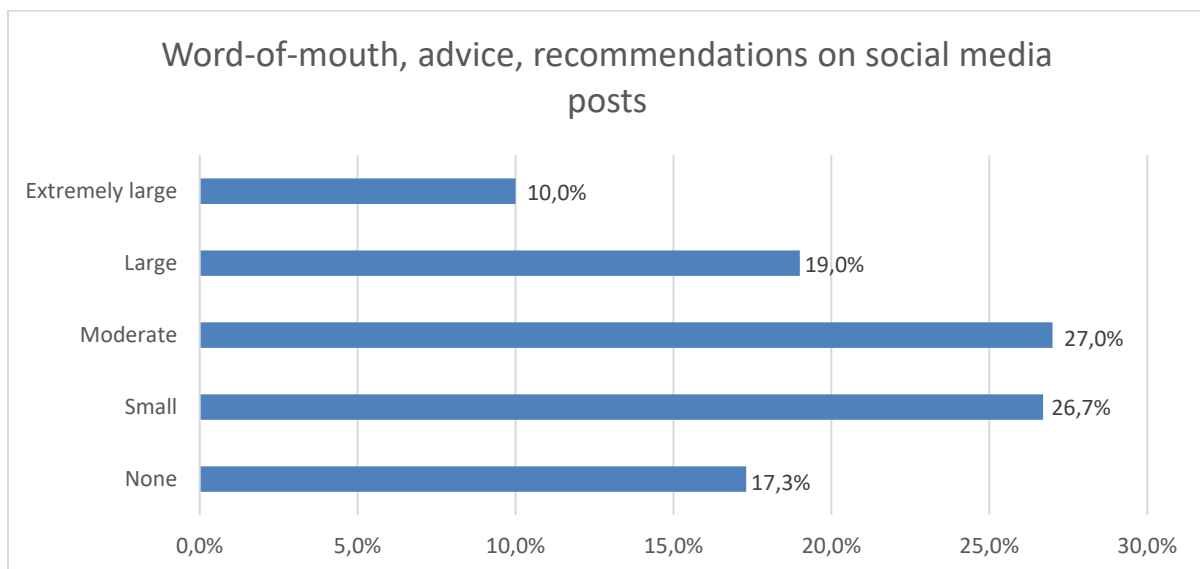


Figure 6.37: Word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance (n=678)

Source: Researcher's own compilation

Figure 6.37 shows that 27% of the respondents (183 respondents) indicated that word-of-mouth, advice, and recommendations on social media posts about motor vehicle

insurance have a moderate influence on their need to purchase. Of the respondents, 26.7% (181 respondents) specified that it has a small influence, and 17.3% of the respondents (117 respondents) revealed that it does not influence their purchasing needs. The respondents who identified that it has a large influence make up 19% of the respondents (129 respondents), while only 10% of the respondents (68 respondents) stipulated that it has an extremely large influence on their purchasing needs.

Interestingly, just over half of the respondents (53.7%) stipulated that word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance have a mild influence on their need to purchase personal motor vehicle insurance. One would have expected that user-generated social media posts would have a much larger influence on the need to purchase motor vehicle insurance, since the literature (see Chapter 4, Section 4.3.3.5) suggests that user-generated content on social media is changing the way consumers purchase products and services.

The section below presents and discusses the descriptive findings related to the internal influences.

6.6 PROCESS STAGE: INTERNAL INFLUENCES

The item 'Internal influences' was measured by looking at the psychological attributes' elements. Questions were included on each of these elements (motivation, perception, learning, personality and attitude) relating to the influence of psychological attributes on the need recognition (which is the first step of the decision-making process). The scale used for the 'psychological attributes' construct elements was a 5-point Likert-type scale where (1) was no influence, (2) small influence, (3) moderate influence, (4) large influence and (5) extremely large influence. The descriptive statistics for each of the elements relating to psychological attributes are presented below.

6.6.1 Psychological attributes: Motivation to purchase personal motor vehicle insurance

The respondents were requested to specify the level of agreement 'Your motivation to purchase personal motor vehicle insurance' has on the need recognition for personal

motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.38 and Table 20.1 in Appendix C.

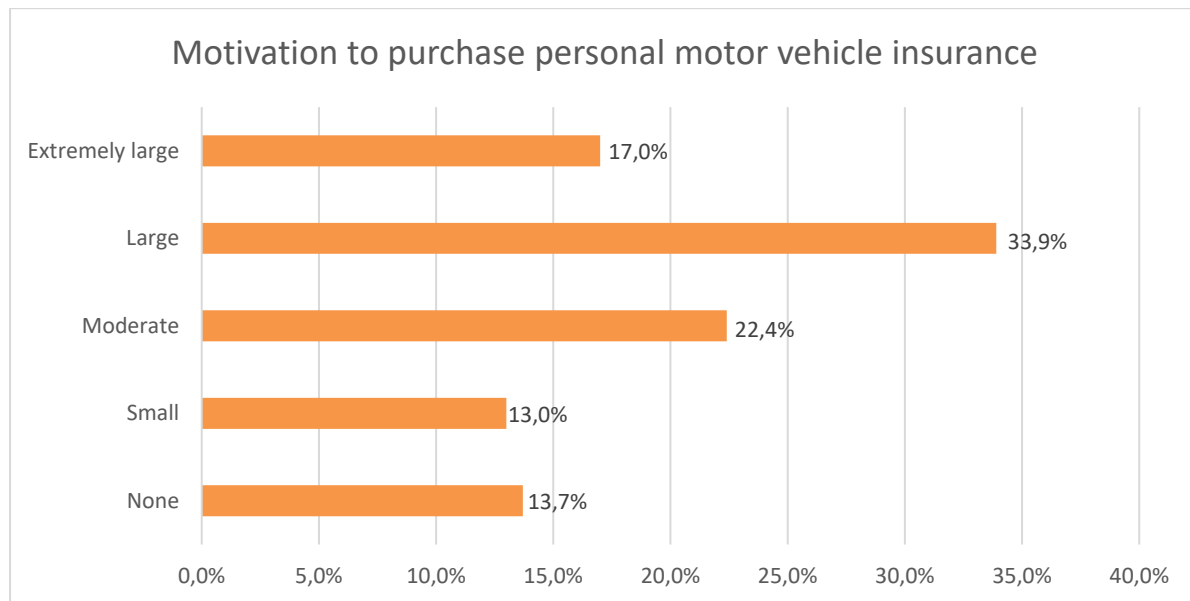


Figure 6.38: Motivation to purchase personal motor vehicle insurance (n=678)

Source: Researcher's own compilation

As revealed in the figure above, 33% of the respondents (230 respondents) indicated that the motivation to purchase personal motor vehicle insurance has a large influence on their need recognition for personal motor vehicle insurance, and 17% of the respondents (115 respondents) specified it has an extremely large influence. The respondents who selected the moderate influence option make up 22.4% of the respondents (152 respondents), while 13% of the respondents (88 respondents) specified it has a small influence, and 13.7% of the respondents (93 respondents) revealed that it has no influence.

Interestingly, more than half of the respondents (50.9%) specified that the motivation to purchase personal motor vehicle insurance largely influences their need recognition for personal motor vehicle insurance. As explained in the literature (see Chapter 4 in Section 4.4.1.1), the motivation of consumers to purchase insurance is determined by two main factors, namely risk expectation and risk sensitivity. It is interesting to note that more than half of the respondents in this study feel that their risk expectation and risk sensitivity motivate their need to purchase motor vehicle

insurance. Insurance companies can develop strategies to convince more individuals to purchase motor vehicle insurance.

6.6.2 Psychological attributes: Perception about motor vehicle insurance

The respondents were required to indicate the level of agreement 'Your perception about motor vehicle insurance' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are depicted in Figure 6.39 and Table 20.2 in Appendix C.

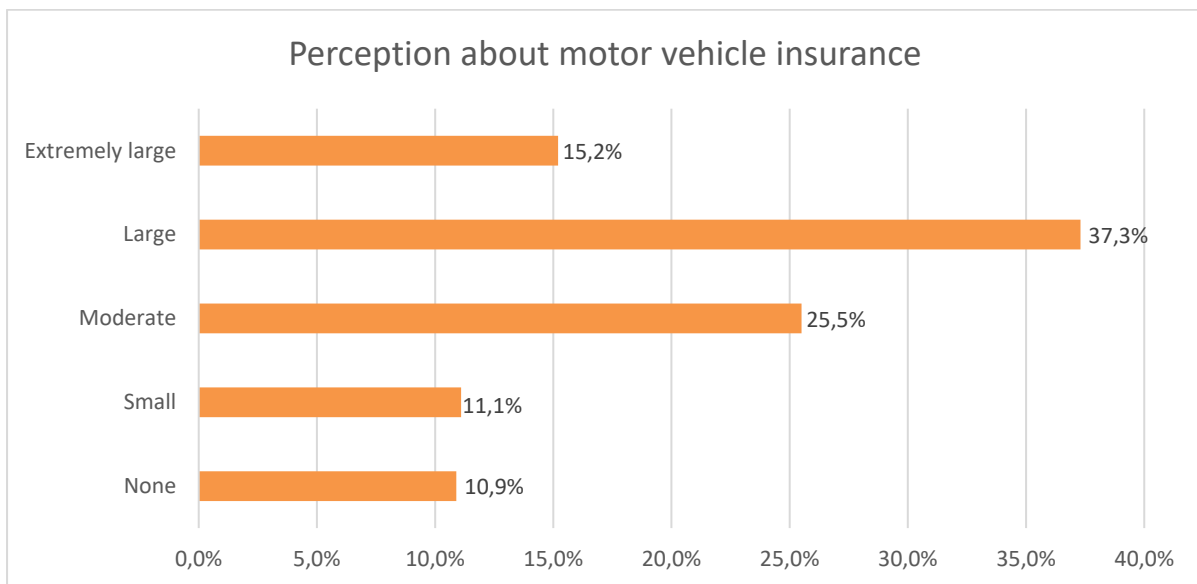


Figure 6.39: Perception about motor vehicle insurance (n=678)

Source: Researcher's own compilation

The figure above shows that 37.3% (253 respondents) of the respondents specified that their perception about purchasing personal motor vehicle insurance has a large influence on their need recognition for personal motor vehicle insurance, while 15.2% of the respondents (103 respondents) indicated that it has an extremely large influence. The respondents who revealed that it has a moderate influence option make up 25.5% of the respondents (173 respondents), 11.1% of the respondents (75 respondents) specified it has a small influence and 10.9% of the respondents (74 respondents) indicated that it has no influence.

It is essential to highlight that more than half of the respondents (52.5%) specified that the perception about personal motor vehicle insurance has an important influence on their need recognition for personal motor vehicle insurance. This finding shows that how individuals act during the decision-making process is affected by their perception of motor vehicle insurance. The respondents' perception of motor vehicle insurance also plays a role in consumer satisfaction. Consumer satisfaction relates to the consumer's perception of the personal motor vehicle policy's (financial service) performance compared to the consumer's expectations (see literature in Chapter 3, Section 3.2.1.2).

6.6.3 Psychological attributes: Perception about a certain insurance company

The respondents were asked to indicate the level of agreement 'Your perception about a certain insurance company' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are presented in Figure 6.40 and Table 20.3 in Appendix C.

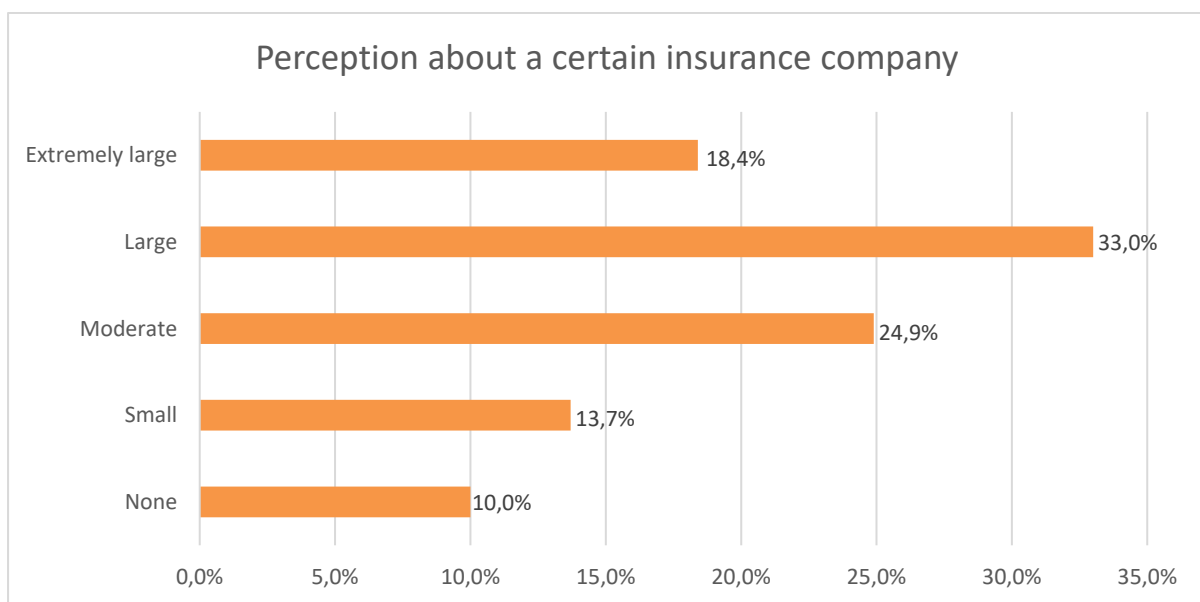


Figure 6.40: Perception about a certain insurance company (n=678)

Source: Researcher's own compilation

As illustrated in the figure above, 33% of the respondents (224 respondents) indicated that their perception about a certain insurance company has a large influence on need recognition for personal motor vehicle insurance, and 18.4% of the respondents (125

respondents) specified that it has an extremely large influence. The respondents who revealed that it has a moderate influence make up 24.9% of the respondents (169 respondents), 13.7% of the respondents (92 respondents) specified it has a small influence and 10% of the respondents (68 respondents) indicated that it has no influence.

More than half of the respondents (51.4%) specified that the perception about a certain insurance company has an important influence on their need recognition for personal motor vehicle insurance. As indicated above, consumer satisfaction during a previous purchase affects the consumers' perceptions. Therefore, insurance companies must ensure that consumers are satisfied with the purchase at the specific insurance company, as this plays a role in forming their perception about the specific company and this perception influence their need to purchase personal motor vehicle insurance.

6.6.4 Psychological attributes: Learning

The respondents were requested to indicate the level of agreement 'The process of how you purchase and consume information, as well as the experience gained' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are provided in Figure 6.41 and Table 20.4 in Appendix C.

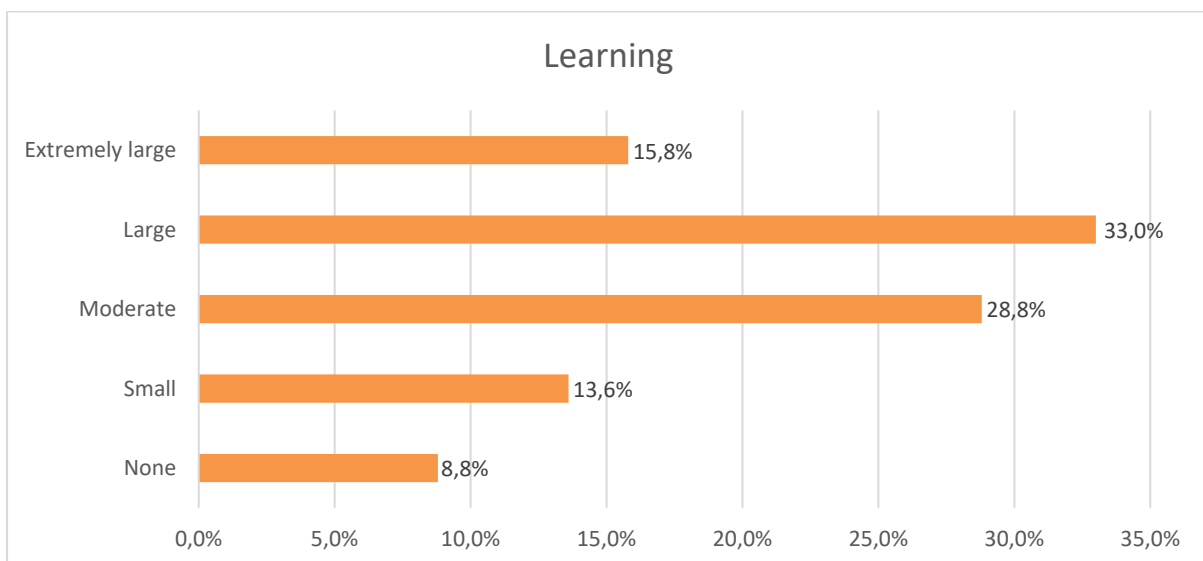


Figure 6.41: Learning (n=678)

Source: Researcher's own compilation

The figure above shows that 33% of the respondents (224 respondents) specified that their process of how they purchase and consume information and the experience gained have a large influence on need recognition for personal motor vehicle insurance, while 15.8% of the respondents (107 respondents) revealed that it has an extremely large influence. The respondents who indicated it has a moderate influence make up 28.8% of the respondents (195 respondents), 13.6% of the respondents (92 respondents) specified it has a small influence, and 8.8% of the respondents (60 respondents) indicated that it has no influence.

The majority of respondents (92.2%) indicated that how they purchase and consume information and the experience gained have an influence (to some extent) on their need recognition for personal motor vehicle insurance. Therefore, the learning/experiences gained from previous motor vehicle insurance purchases does influence consumers' future purchase decisions. This finding corresponds with the literature (Chapter 4 in Section 4.4.1.3) that states the process of how consumers purchase and consume information, as well as the experience gained (learning) is an individual factor that has an impact on the consumer's need recognition, which is the first step of the decision-making process.

6.6.5 Psychological attributes: Personality

The respondents were asked to specify the level of agreement 'Your personality (specific qualities, attributes, traits)' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are depicted in Figure 6.42 and Table 20.5 in Appendix C.

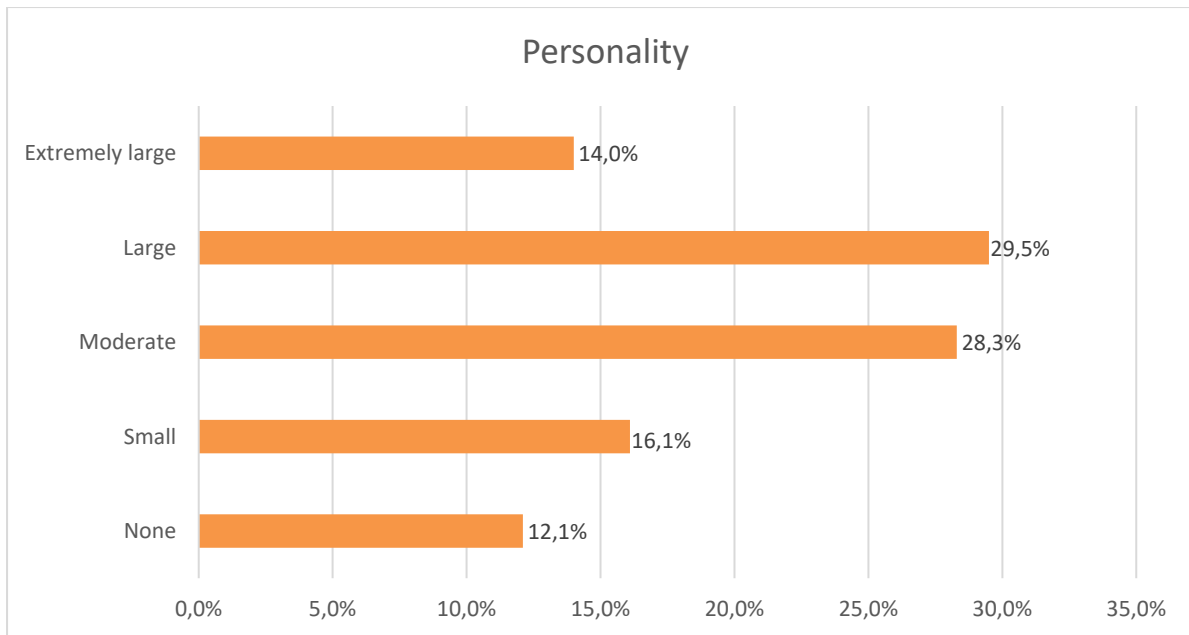


Figure 6.42: Personality (n=678)

Source: Researcher's own compilation

As depicted above, 29.5% of the respondents (200 respondents) indicated that their personality has a large influence on their need recognition for personal motor vehicle insurance, while 14% of the respondents (95 respondents) revealed that it has an extremely large influence. The respondents who indicated it has a moderate influence make up 28.3% of the respondents (192 respondents), while 16.1% of the respondents (109 respondents) specified it has a small influence, and 12.1% of the respondents (82 respondents) indicated that it does not influence their need recognition.

The majority of respondents (87.9%) specified that their personality influences their need recognition for personal motor vehicle insurance to some extent. As discussed in Chapter 4 (Section 4.4.1.4), the individual's personality is an individual factor that impacts the persons' need recognition, which is the first step of the decision-making process. Therefore, this finding is consistent with the literature reviewed and insurance companies can regard consumer and potential consumer personalities as useful when they analyse the consumer behaviour for certain policies or brand choices.

6.6.6 Psychological attributes: Attitude towards motor vehicle insurance

The respondents were required to indicate the level of agreement 'Your attitude towards motor vehicle insurance' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are illustrated in Figure 6.43 and Table 20.6 in Appendix C.

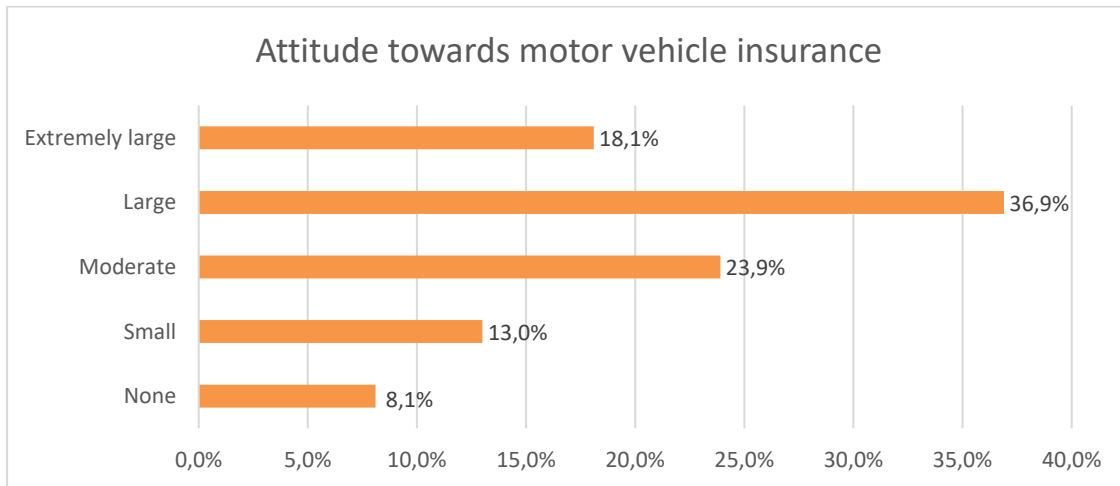


Figure 6.43: Attitude towards motor vehicle insurance (n=678)

Source: Researcher's own compilation

As illustrated above, 36.9% of the respondents (250 respondents) indicated that their attitude towards motor vehicle insurance has a large influence on their need recognition for personal motor vehicle insurance, and 18.1% of the respondents (123 respondents) revealed that it has an extremely large influence. The respondents who indicated it has a moderate influence make up 23.9% of the respondents (162 respondents), while 13% of the respondents (88 respondents) specified it has a small influence, and 8.1% of the respondents (55 respondents) indicated that it does not influence their need recognition.

It is important to note that more than half of the respondents (55%) indicated that their attitude towards motor vehicle insurance largely influences their need recognition for personal motor vehicle insurance. Furthermore, most respondents (91.9%) specified that their attitude towards motor vehicle insurance has an influence (to some extent) on their need recognition for personal motor vehicle insurance. Only 8.1% of the respondents indicated that it does not influence their

need recognition and decision at all. Taking into consideration that attitudes are formed from past purchase experiences (see Chapter 4, Section 4.4.1.5), insurance companies have to ensure that positive attitudes are formed regarding motor vehicle insurance as this will influence the individuals' decision to purchase.

6.6.7 Psychological attributes: Attitude towards a certain short-term insurance company

The respondents were asked to indicate the level of agreement 'Your attitude towards a certain insurance company' has on the need recognition for personal motor vehicle insurance. This element's descriptive findings are provided in Figure 6.44 and Table 20.7 in Appendix C.

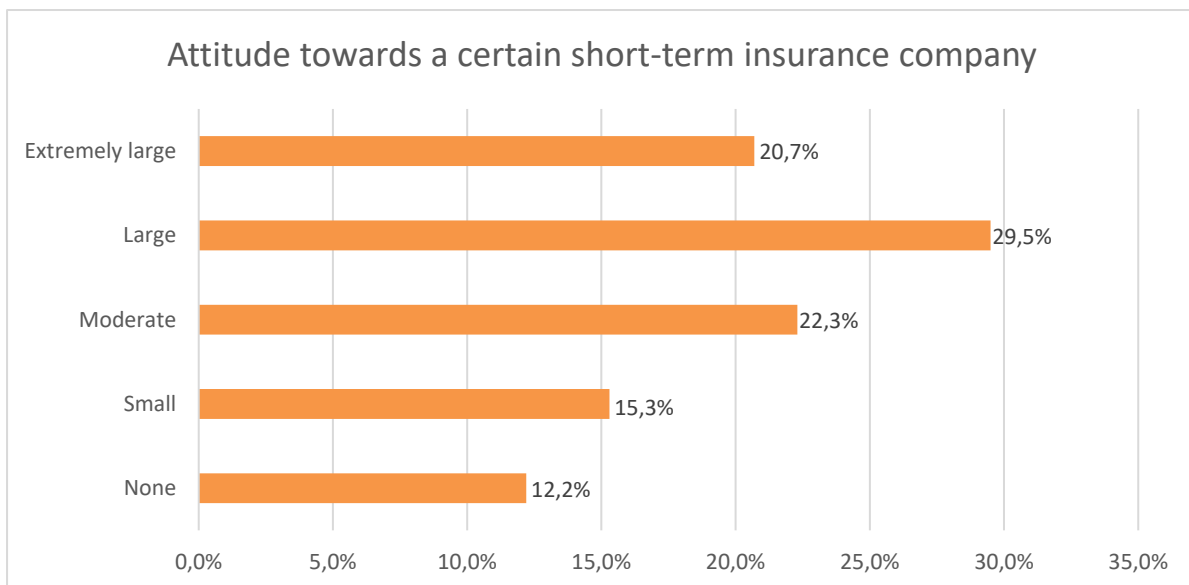


Figure 6.44: Attitude towards a certain insurance company (n=678)

Source: Researcher's own compilation

The figure above shows that 29.5% of the respondents (200 respondents) indicated that their attitude towards a certain insurance company has a large influence on their need recognition for personal motor vehicle insurance, while 20.7% of the respondents (140 respondents) revealed that it has an extremely large influence. The respondents who indicated that it has a moderate influence make up 22.3% of the respondents (151 respondents), while 15.3% of the respondents (104 respondents) specified it has a small influence, and 12.2% of the respondents (83 respondents) indicated that it does not influence their need recognition.

More than half of the respondents (50.2%) indicated that their attitude towards a certain insurance company largely influences their need recognition for personal motor vehicle insurance. The majority of respondents (87.8%) specified that their attitude towards a certain insurance company influences their need recognition for personal motor vehicle insurance to some extent. Only 12.2% of the respondents indicated that it does not influence their need recognition and decision at all. Looking at the previous finding (see Section 6.6.6 above), it appears that the attitude about motor vehicle insurance plays a slightly bigger role in the respondents' need to purchase than the attitude towards motor vehicle insurance. However, it is still important that insurance companies ensure that positive attitudes are formed regarding their short-term insurance company as this will also influence the individuals' decision to purchase motor vehicle insurance.

The next section presents and discusses the descriptive findings related to the decision-making process.

6.7 PROCESS STAGE: DECISION-MAKING PROCESS

The item 'Decision-making process' was measured by looking at the decision-making process steps (as illustrated in Figure 4.1). Each of these constructs consists of various elements. The scale used for the 'decision-making process' construct elements was a 5-point Likert-type scale where (1) no extent, (2) some extent, (3) moderate extent, (4) large extent and (5) extreme extent. The descriptive statistics for each of the elements relating to decision-making are presented below.

6.7.1 Decision-making process (Pre-purchase search): Previous experiences

The respondents were requested to specify the extent of use of the following statement during the decision-making process: 'In your search for information, you think about previous experiences'. This element's descriptive findings are presented in Figure 6.45 and Table 21.1 in Appendix C.

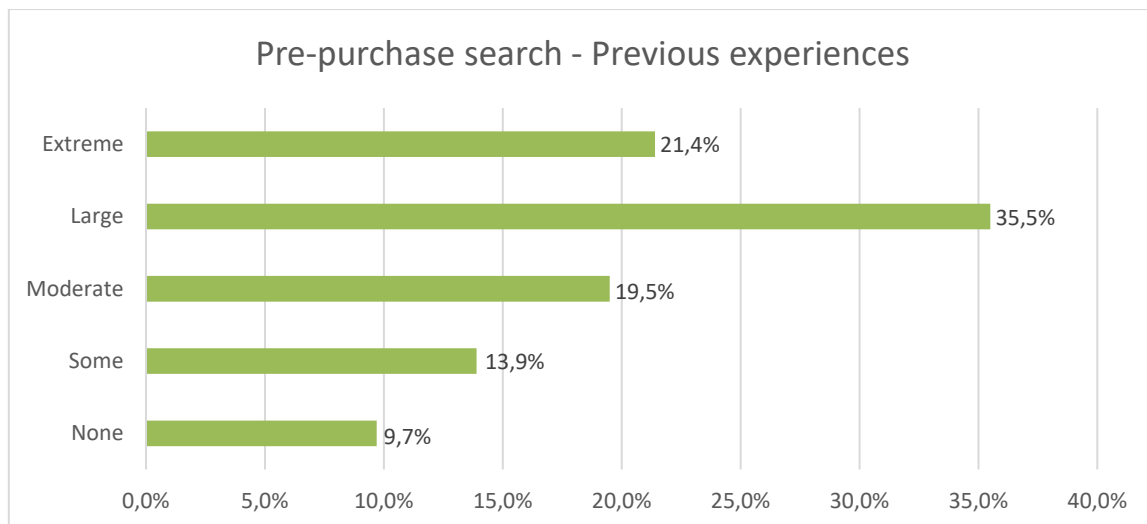


Figure 6.45: Pre-purchase search - Previous experiences (n=678)

Source: Researcher's own compilation

As shown in the figure above, 35.5% of the respondents (241 respondents) indicated that they use their previous experiences in the pre-purchase search to a large extent, while 21.4% of the respondents (145 respondents) use it to an extreme extent. The respondents who revealed that they use it to a moderate extent represent 19.5% of the respondents (132 respondents), while 13.9% of respondents (94 respondents) use it to some extent, and only 9.7% (66 respondents) of the respondents revealed that they use it to no extent.

Interestingly, more than half of the respondents (56.9%) indicated that they use their previous experiences in the pre-purchase search to a greater extent, and 90.3% of respondents specified that they use their previous experiences in the pre-purchase search to some extent. This finding agrees with the literature (see Chapter 4, Section 4.5) that states that individuals use their previous experiences to perform a pre-purchase search as part of the decision-making steps. Insurance companies can therefore deliver customer experiences that inspire loyalty and attract new consumers who are frustrated and dissatisfied with their current insurers.

6.7.2 Decision-making process (Pre-purchase search): Request quotations from more than one short-term insurance company

The respondents were requested to specify the extent of use of the following statement during the decision-making process: 'In your search for information, you request

quotations from more than one short-term insurance company'. This element's descriptive findings are depicted in Figure 6.46 and Table 21.2 in Appendix C.

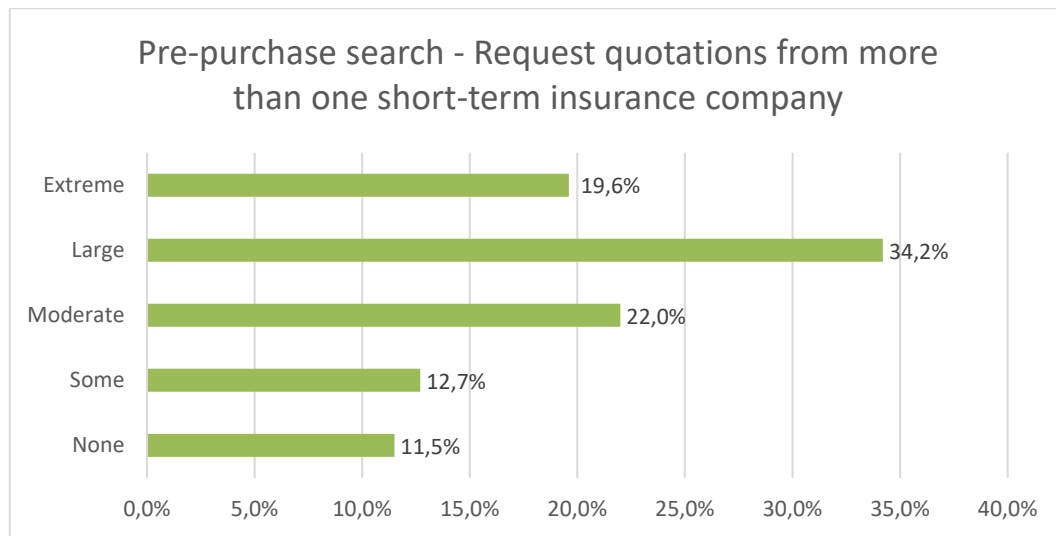


Figure 6.46: Pre-purchase search - Request quotations from more than one short-term insurance company (n=678)

Source: Researcher's own compilation

The figure above reveals that 34.2% of the respondents (232 respondents) indicated that they request quotations from more than one short-term insurance company in the pre-purchase search to a large extent, and 19.6% of respondents (133 respondents) use it to an extreme extent. The respondents who revealed that they use it to a moderate extent represent 22% of the respondents (149 respondents), while 12.7% of the respondents (86 respondents) use it to some extent, and only 11.5% (78 respondents) of the respondents specified that they use it to no extent.

The results highlight that more than half of the respondents (53.8%) indicated that they request quotations from more than one short-term insurance company to a greater extent. Most respondents (88.5%) specified that they requested quotations from more than one short-term insurance company in the pre-purchase search to some extent. As the information gathered from quotations is important in the decision-making process (see Chapter 4, Section 4.5), insurance companies must ensure that the quotation process is clear, informative, and flawless so that consumers and potential consumers can obtain all the necessary information before the alternatives are evaluated.

6.7.3 Decision-making process (Evaluation of alternatives): Compare the price of the different quotations

The respondents were requested to specify the extent of use of the following statement during the decision-making process: 'You compare the price of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle'.

This element's descriptive findings are illustrated in Figure 6.47 and Table 22.1 in Appendix C.

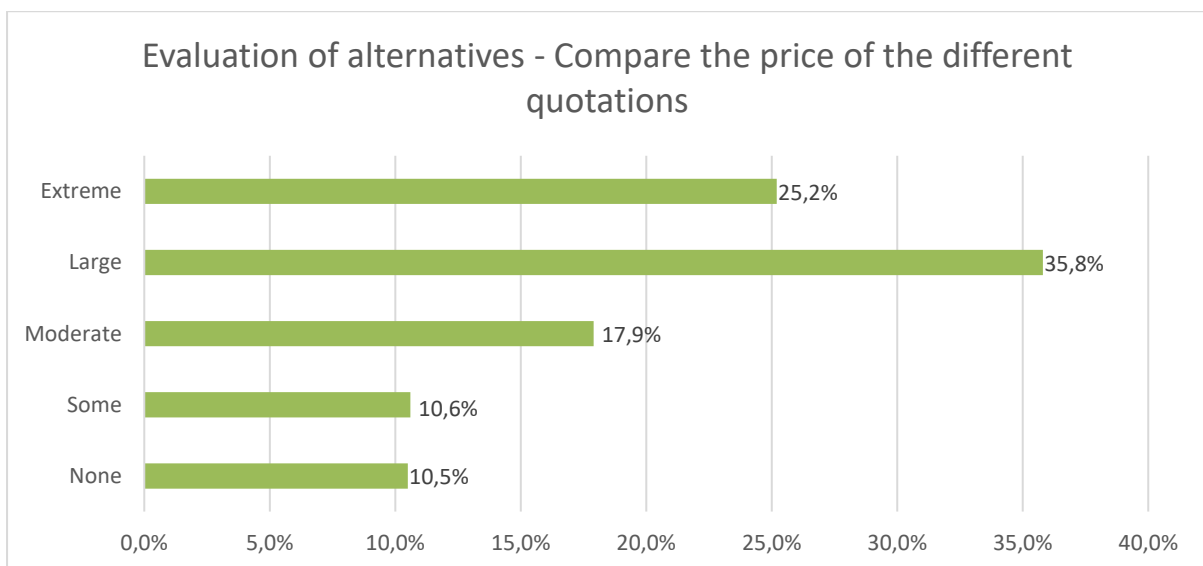


Figure 6.47: Evaluation of alternatives - Compare the price of the different quotations (n=678)

Source: Researcher's own compilation

Figure 6.47 illustrates that 35.8% of the respondents (243 respondents) specified that they compare the price of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle to a large extent, and 25.2% of the respondents (171 respondents) do it to an extreme extent. The respondents who revealed that they compare it to a moderate extent represent 17.9% of the respondents (121 respondents), while 10.6% of the respondents (72 respondents) compare it to some extent, and only 10.5% (71 respondents) of the respondents specified that they do it to no extent.

Interestingly, more than half of the respondents (61%) indicated that they compare the price of the different quotations to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent. Most respondents (89.5%)

specified that they compare the price of the different quotations to some extent. It can be gathered from this finding that individuals consider the price of each policy as important when choosing between the alternative brands (see Chapter 4, Section 4.5), therefore insurance companies can take steps to ensure that the most competitive prices are presented to the consumers and potential consumers.

6.7.4 Decision-making process (Evaluation of alternatives): Compare the quality/standard of the different quotations

The respondents were requested to specify the extent of use of the following statement during the decision-making process: 'You compare the quality of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle'.

This element's descriptive findings are presented in Figure 6.48 and Table 22.2 in Appendix C.

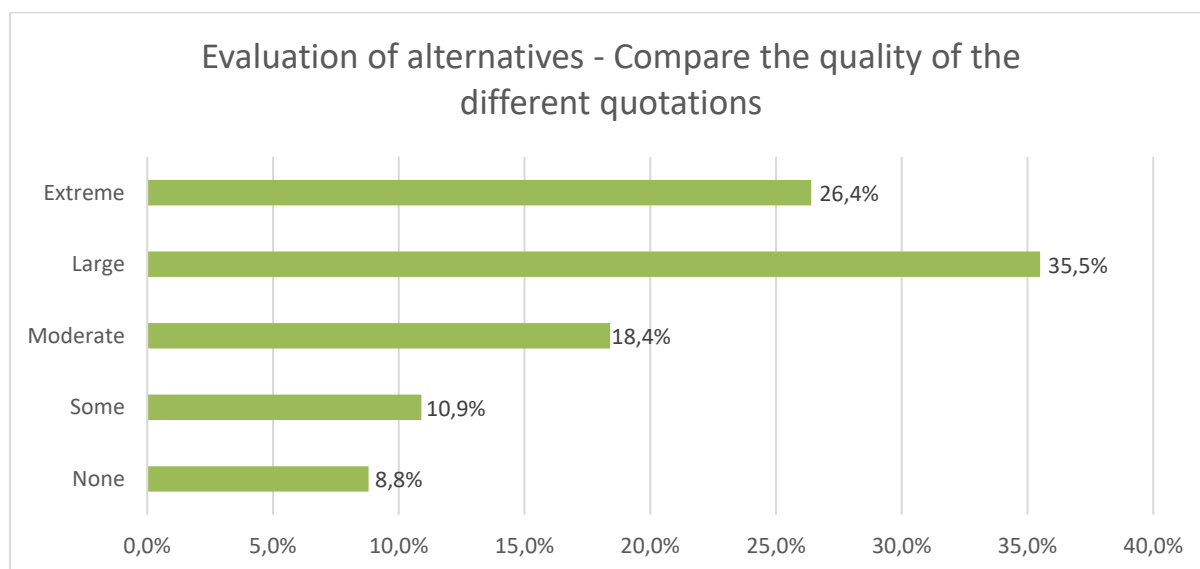


Figure 6.48: Evaluation of alternatives - Compare the quality of the different quotations (n=678)

Source: Researcher's own compilation

As presented in the figure above, 35.5% of the respondents (241 respondents) specified that they compare the quality of the different quotations to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a large extent, and 26.4% of the respondents (179 respondents) do it to an extreme extent. The respondents who indicated that they compare it to a moderate extent represent 18.4%

of the respondents (125 respondents), while 10.9% the respondents (73 respondents) compare it to some extent, and only 8.8% (60 respondents) of the respondents specified that they do it to no extent.

It is interesting to note that more than half of the respondents (61.9%) indicated that they compare the quality of the different quotations to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent, which is slightly more than the price criterion (61%) above. 91.2% of respondents specified that they compare the quality of the different quotations to some extent, which is also slightly more than the price criterion (89.5%) above. This finding demonstrates the importance of a quality/standard quotation that individuals require when evaluating the alternatives. Therefore, it is advisable that insurance companies ensure that they offer quotations of good quality and high standard, as it might influence the individuals' decision.

6.7.5 Decision-making process (Evaluation of alternatives): Compare the brand list

The respondents were requested to specify the extent of use of the following statement during the decision-making process: 'You compare the brand list (list of different companies) to measure if there is a policy that will contribute to your need satisfaction and lifestyle'. This element's descriptive findings are provided in Figure 6.49 on the next page and Table 22.3 in Appendix C.

As shown below, 27.6% of the respondents (187 respondents) specified that they compare the brand list to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a large extent, and 16.1% of the respondents (109 respondents) do it to an extreme extent. The respondents who indicated that they compare it to a moderate extent represent 24.5% of the respondents (166 respondents), while 17.6% of the respondents (119 respondents) compare it to some extent, and only 14.3% (97 respondents) of the respondents specified that they do it to no extent.

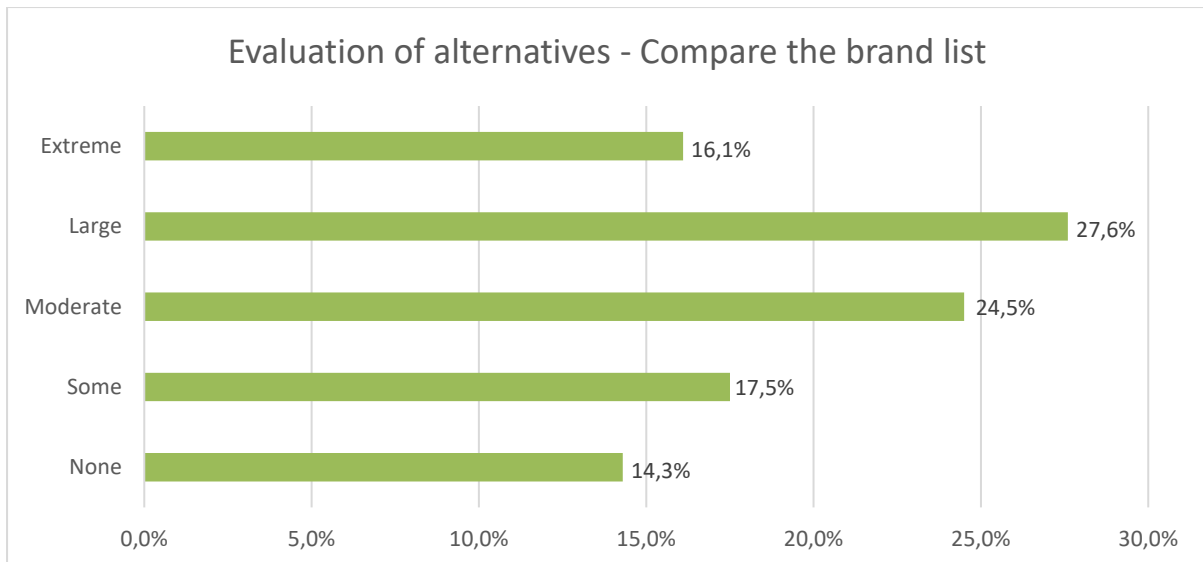


Figure 6.49: Evaluation of alternatives - Compare brand list (n=678)

Source: Researcher's own compilation

Of the respondents, 43.7% specified that they compare the brand list to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent, and 85.7% of respondents indicated that they compare the brand list to some extent. More than half of the respondents (56.3%) indicated that this criterion is used to a smaller or no extent, whereas the other two evaluation criteria findings discussed above (Sections 6.7.3 and 6.7.4) showed: price - 39% and quality – 38.1%. Even though most respondents indicated that they compare the brand list when evaluating the alternatives, it appears as if this criterion is least used to evaluate the alternatives. To summarise the last three findings about the criteria used to evaluate alternatives, the criterion most used is quality/standard, then price and the criterion least used is brand list.

6.8 CONCLUSION

This chapter presented and discussed the descriptive data analysis as it was conducted in this study. In the first section of this chapter, the demographic composition of respondents was provided, which provided a respondent and consumer demographic profile. An attempt was made to develop a description of the average personal motor vehicle insurance consumer and personal motor vehicle driver in South Africa. The findings of the respondents' insight on general personal motor vehicle insurance questions, internal and external influencing factors and decision-making process were presented and discussed.

Important conclusions that address the research purpose and research objectives specified in Chapter 1 of this research study were drawn. In the next chapter (Chapter 7), the proposed CPDFPMVI model (as presented in Chapter 4, Figure 4.1) will be tested.

CHAPTER 7: MODEL FIT ANALYSIS

7.1 INTRODUCTION

A quantitative research approach was followed to determine consumers (insured) and potential consumers (non-insured) purchasing decision-making process regarding personal motor vehicle insurance. This study aimed to develop a unique model that will assign a probability to each of the possible choices based on the purchase decision context. The descriptive findings presented in Chapter 6 and the inferential statistical analysis (reported in this chapter) are provided to address this study's primary and secondary research objectives, as specified in Table 7.1.

Table 7.1: Primary and secondary research objectives

Primary research objective
To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry.
Secondary research objectives
<ul style="list-style-type: none"> • To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa. • To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa. • To investigate the steps of the decision-making process for the personal motor vehicle insurance market in South Africa. • To assess the demographic variables that influence the individuals' need to purchase personal motor vehicle insurance in South Africa. • To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.

- To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

This chapter systematically presents and explains the process followed to develop the consumer purchasing decision model that illustrates the consumers' purchasing decisions in the South African personal motor vehicle insurance market. Figure 7.2 illustrates the conceptual CPDFPMVI model, as presented in Chapter 4. As provided in this chapter, the inferential statistics determine the model fit of the items listed in Figure 7.2.

The process underlying the model fit strategy consists of three phases, namely, the Exploratory Factor Analysis (EFA) phase, Confirmatory Factor Analysis (CFA) phase and the logistic regression phase. All these were, in essence, part of the process of informing the logistic regression model. Model fit was just one aspect that was considered as part of the assessment of the measurements. The model-building strategy utilised to achieve the final CPDFPMVI model was introduced in Section 5.11.2, and it is illustrated in Figure 7.1 below again for ease of reference purposes.

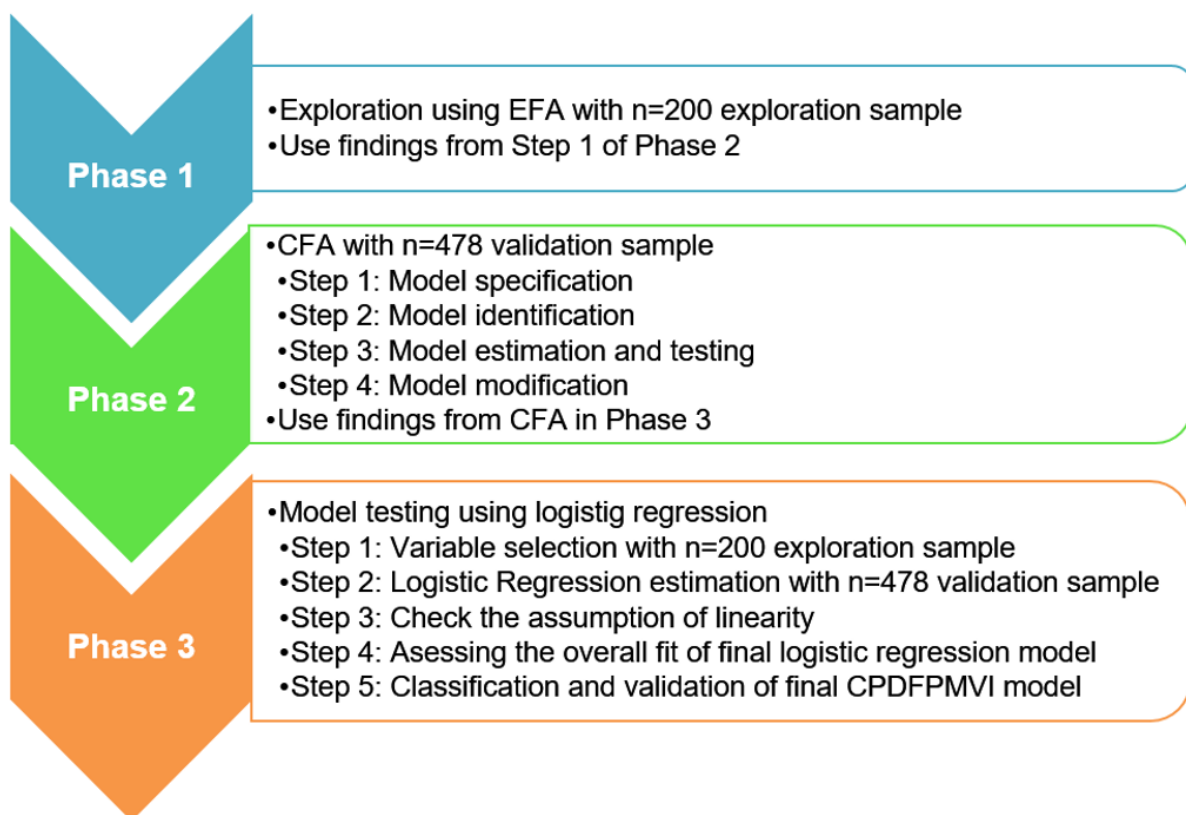


Figure 7.1: Model-building strategy to achieve CPDFPMVI model

Source: Developed by researcher

The steps followed (as illustrated in Figure 7.1) to achieve the final CPDFPMVI model are discussed in this chapter.

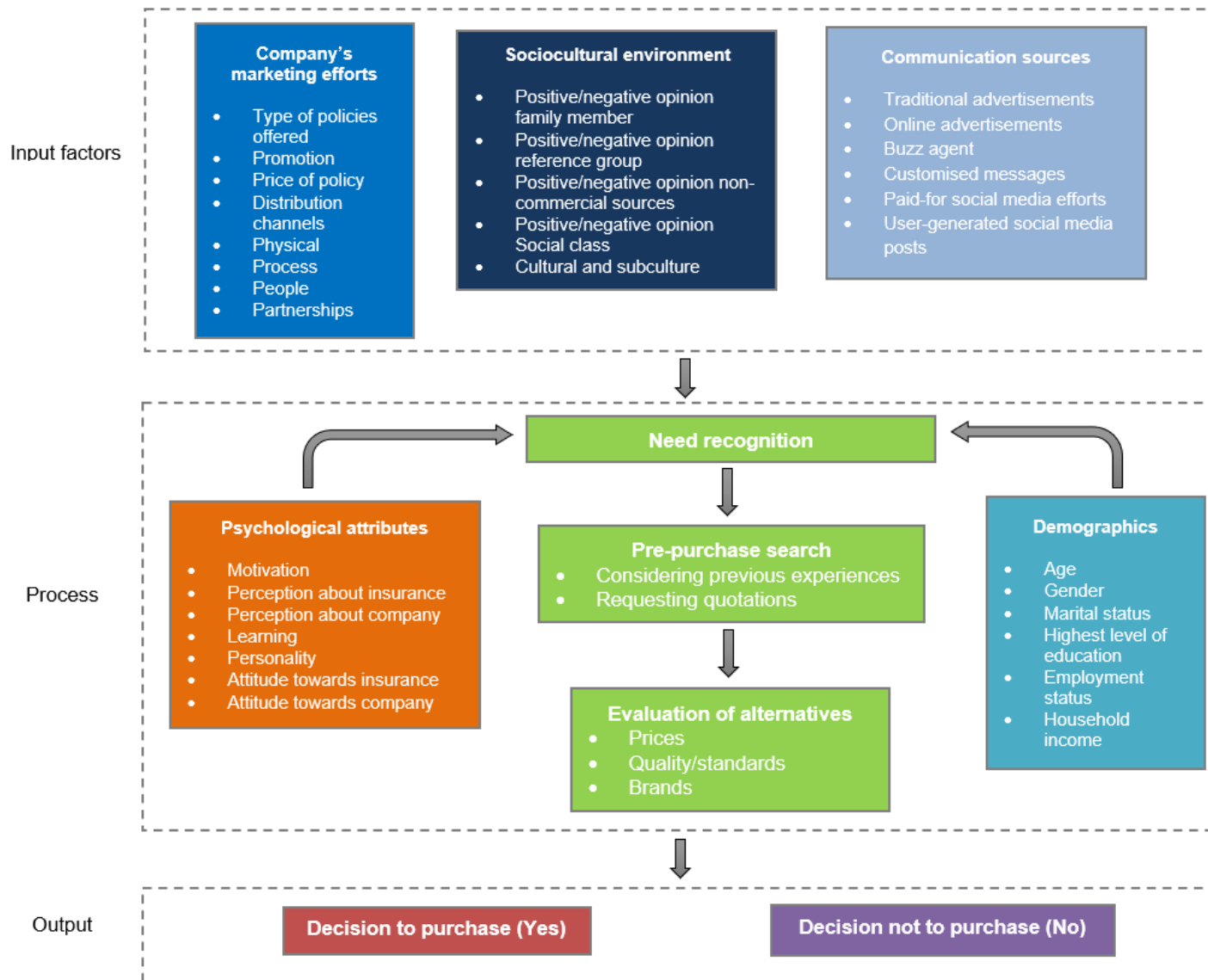


Figure 7.2: Conceptual CPDFPMVI model

7.2 PHASE 1: EXPLORATORY FACTOR ANALYSIS (EFA) WITH EXPLORATION SAMPLE (N=200)

EFA was introduced and defined in Section 5.11.2. The conceptual model in Figure 7.2 has not been tested before, and therefore, the EFA was considered ideal for exploring and estimating the factor structure of the current theoretical model. This statistical method served as being useful to explore the factor structure in previous consumer purchasing decision-making model-building research (Tendhar, Singh & Jones, 2017; Wang & Yu, 2017). It is recommended to have a sample of at least 200 and higher when there is a large number of variables and an expected number of factors (Hair *et al.*, 2019:132-133). Therefore, an EFA with a holdout sample of 200 was performed to explore the factor structure as Phase 1 of this study.

An EFA, using IBM SPSS (Version 27), was performed on the data obtained from the scales in the data collection instrument to achieve the following targets in terms of this specific exploration sample: (1) to establish the number of factors underlying the variation in and the correlation between the items; (2) to state the items that load onto certain factors; and (3) to identify items for possible exclusion to gain the best acceptable measurement model (Matsunaga, 2010:98). Furthermore, it is recommended to perform an EFA if the sample size allows it, especially if the purpose is to reveal factor structure (Hair *et al.*, 2019:134).

In terms of this study, the overall sample size was 678 and the n=200 exploration sample seems to be ideal as the conceptual CPDFPMVI model includes a large set of variables. The EFA method was used as Phase 1 of this study to uncover the underlying structure of the relatively large set of variables of the conceptual CPDFPMVI model. The demographic variables in the conceptual model could not be tested in this phase as factor analysis methods are used to measure constructs using a scale (items of a scale), and demographic variables are not items of a scales. Thus, the demographics of individuals will be tested for the first time in the variable selection step of Phase 3 (see Section 7.4.1).

An EFA was performed using principal component analysis for extraction and varimax for rotation. Before performing the factor analysis, the researcher first verified that the data were appropriate for factor analysis using two tests: the Kaiser-Meyer-Olkin (KMO) test and the Bartlett sphericity test. The KMO measure the sample adequacy if

it is 0.7 or above, and the Bartlett sphericity indicates that a significant correlation exists among variables to proceed if the p-value is below 0.001 (Stehlik-Barry & Babinec 2017:343; Hair *et al.*, 2019:136). The results of both tests indicated that factor analysis would be useful given that the KMO was 0.847 and Bartlett sphericity p-value was 0.00 (see Appendix D, Table D1).

The minimum factor loading criteria was set to 0.40, and taking into consideration that a sample size of 200 is needed for significance (Hair *et al.*, 2019:152). The communality of the scale, which indicates the amount of variance in each dimension (Hair *et al.*, 2019:155), was also assessed to ensure acceptable levels of explanation. The results show that all the communalities were over 0.40 (see Table D2 in Appendix D).

Using principal component analysis, the initial factor analysis extracted seven factors that were evident (Table D3 in Appendix D). All with an eigenvalue greater than one, indicating good discriminate validity. The seven factors identified explained 59.985% of the variance among the items in the study. Table 7.2 reveals the factor findings gained from the EFA and the discussion of the findings follow thereafter.

Table 7.2: Factor findings from EFA

Factor identified from EFA	Constructs	Items/variables
1	Psychological Attributes (PA)	11.1 - Motivation 11.2 - Perception about motor vehicle insurance 11.3 - Perception about a certain insurance company 11.4 - Learning 11.5 - Personality 11.6 - Attitude towards motor vehicle insurance 11.7 - Attitude towards a certain short-term insurance company
2	Marketing Efforts (ME)	8.1 - Type of policies offered 8.3 - Price of a policy 8.4 – Distribution channels 8.5 - Physical evidence 8.6 - Process

Factor identified from EFA	Constructs	Items/variables
		8.7 - People 8.8 - Partnerships
3	Pre-purchase search and evaluation of alternatives steps (Decision-making Process) (DP)	12.1- Pre-purchase search considering previous experiences 12.2 - Pre-purchase search requesting quotations 12.3 - Evaluate alternative prices 12.4 - Evaluate alternative quality/standards 12.5 - Evaluate alternative brands
4	Negative Sociocultural Environment (SE_N)	9.2 - Negative family member 9.4 - Negative reference person or group 9.6 - Negative non-commercial sources 9.8 - Negative social class
5	Communication Sources B (CS_B)	8.2 - Promotion 10.3 - Buzz agent 10.4 - Customised messages 10.5 - User-generated social media posts 10.6 - Paid-for social media efforts
6	Positive Sociocultural Environment (SE_P)	9.1 - Positive family member 9.3 - Positive reference person or group 9.5 - Positive non-commercial sources 9.7 - Positive social class 9.9 - Cultural and subcultural factors
7	Communication Sources A (CS_A)	10.1 - Traditional advertisements 10.2 - Online advertisements

The seven factors identified as part of the EFA are aligned with the theoretical proposition in the research. As indicated in Table 7.2 above, Factor 1 includes items 11.1 to 11.7, referring to the psychological attributes. Factor 2 gathers items 8.1, 8.3 to 8.8, which represent the marketing efforts. Factor 3 includes items 12.1 to 12.5, referring to the pre-purchase search and evaluation alternative steps in the decision-making process. Factor 4 includes items 9.2, 9.4, 9.6 and 9.8, which represent the negative sociocultural environment. Factor 5 gathers items 8.2, 10.3 to 10.6, referring to the communication sources. Factor 6 includes items 9.1, 9.3, 9.5, 9.7 and 9.9, which

relates to the positive sociocultural environment. Factor 7 gathers items 10.1 and 10.2, which represent the communication sources.

These seven factors identified were used in the next phase, called model specification, using the Confirmatory Factor Analysis (CFA) method. The next section explains Phase 2.

7.3 PHASE 2: CONFIRMATORY FACTOR ANALYSIS (CFA) WITH VALIDATION SAMPLE (N=478)

EFA is used to understand the theory better. In contrast, CFA is a type of structural equational modelling (SEM) method used to test how well a pre-specified measurement theory, composed of measured variables and factors, fits the reality as captured data (Hair *et al.*, 2019:660). As explained in Section 5.11.2, CFA is also broadly used to test the factor validity required in this step to ensure the model specification and identification. Previous studies found it beneficial to use CFA as the follow-up strategy on EFA (previous stage) to confirm the existence of a specific factor structure (Nayeem & Casidy, 2015:70). It is important to point out that theory should always be predominantly considered when making model improvements and modifications while using the CFA method (Hair *et al.*, 2019:679). Therefore, the theory was predominantly considered during every step of Phase 2.

CFA requires the use of multiple samples (Hair *et al.*, 2019:670). The initial exploration sample used in the EFA was the first sample set. An additional sample should be drawn for a CFA. The rule of thumb on minimum sample size for CFA is a minimum of 200, but this can also be too low for complex models (MacCallum & Austin in Kyriazos, 2018:2216). Furthermore, a holdout sample, also known as a validation sample, is recommended to ensure model validation (Hair *et al.*, 2019:579). Thus, a CFA with a validation sample of 478 was performed to determine a model fit. In the sections below, the steps taken during the CFA phase are outlined and discussed.

7.3.1 Model specification

As mentioned above, CFA was used to test the measurement model. To use CFA to test the measurement theory, the researcher must specify theoretically supported correspondence rules between indicators and constructs/latent variables (Hair *et al.*, 2019:670). Phase 1 (EFA) performed above provided insight into the structure of the

supported items, and it was helpful in proposing the measurement model. The model specification in CFA must be firmly grounded in existing theory and previous empirical research (Hahs-Vaughn, 2017:447).

Thus, the conceptual model (presented in Chapter 4) developed from existing theory, and the EFA (as explained in the previous section) ensured that the researcher had a firm substantive and empirical basis to guide the model specification of this CFA. In other words, the number of latent variables and the patterns on how each item loads onto certain factors was informed by the results of the EFA and the theoretical conceptualisation of the constructs as described in the literature review (see Chapters 2 to 4). The latent variables and indicators which explain each latent variable gained from the EFA are presented in Table 7.3.

Table 7.3: Model specification gained from EFA

Constructs/Latent variables	Indicators (Items from EFA)	Factor loadings gained from EFA (See Table D4, Appendix D)
Psychological Attributes (PA)	Motivation	0.690
	Perception about motor vehicle insurance	0.758
	Perception about a certain insurance company	0.715
	Learning	0.626
	Personality	0.684
	Attitude towards motor vehicle insurance	0.782
	Attitude towards a certain short-term insurance company	0.653
Marketing Efforts (ME)	Type of policies offered	0.620
	Price of a policy	0.602
	Distribution channels	0.644
	Physical evidence	0.479
	Process	0.711
	People	0.679
	Partnerships	0.512
Pre-purchase search and evaluation of alternatives steps (Decision-making Process) (DP)	Pre-purchase search considering previous experiences	0.514
	Pre-purchase search requesting quotations	0.814
	Evaluate alternative prices	0.811

Constructs/Latent variables	Indicators (Items from EFA)	Factor loadings gained from EFA (See Table D4, Appendix D)
	Evaluate alternative quality/standards	0.844
	Evaluate alternative brands	0.641
Negative Sociocultural Environment (SE_N)	Negative family member	0.798
	Negative reference person or group	0.859
	Negative non-commercial sources	0.722
	Negative social class	0.719
Communication Sources B (CS_B)	Promotion	0.510
	Buzz agent	0.761
	Customised messages	0.690
	User-generated social media posts	0.558
	Paid-for social media efforts	0.642
Positive Sociocultural Environment (SE_P)	Positive family member	0.628
	Positive reference person or group	0.604
	Positive non-commercial sources	0.634
	Positive social class	0.694
	Cultural and subcultural factors	0.446
Communication Sources A (CS_A)	Traditional advertisements	0.742
	Online advertisements	0.551

Source: Researcher's own compilation

Each factor and factor loadings gained from the EFA in Phase 1 was used together with the theoretical conceptualisation of constructs to generate the latent variables and the indicators as presented in the table above. Table 7.3 above, also provides the factor loadings. Each indicator has a loading, and this loading represents the effect each indicator has on each latent variable. The higher loadings indicate a greater influence, and the lower loadings indicate less influence.

Within the first latent variable (Psychological Attributes), the indicators scored relatively high, and it will influence the purchase decision in the following order: (1) Attitude towards motor vehicle insurance, (2) Perception about motor vehicle insurance, (3) Perception about a certain insurance company, (4) Motivation, (5)

Personality, (6) Attitude towards a certain short-term insurance company and (7) Learning.

The Marketing Efforts latent variable also scored relatively high, except for the physical evidence and partnerships indicators, which indicates that these two indicators have a lower influence on the purchase decision. Pre-purchase search considering previous experiences and evaluate alternative brands has a lower influence on the purchase decision than the other indicators in the Decision-making Process latent variable.

All the indicators in the Negative Sociocultural Environment latent variable indicate a high influence on the purchase decision. The two indicators, promotion and user-generated social media posts, reveal a lower influence on the purchase decision than the other indicators in the Communication Sources B latent variable.

In the Positive Sociocultural Environment latent variable, the Cultural and subcultural factors indicator has a very low loading, indicating a low influence on the purchase decision. All the other loadings are relatively high in this latent variable and can therefore be an indication that they have a strong influence on the purchase decision.

In the last latent variable, Communication Sources A, it is evident that online advertisements have a lower influence on the purchase decision than traditional advertisements. Once the model is specified, the model identification step is next, which is discussed below.

7.3.2 Model identification

Once the measurement model is specified, it can be identified. According to Gana and Broc (2019:100), there are two conditions for identifying a measurement model: a sufficient number of indicators for the latent variables and identifying the metric for the latent variable. Regarding the first condition, at least three indicators per latent variable is a general guideline (Hahs-Vaughn, 2017:449; Hair *et al.*, 2019:671). Even though it is a general guideline to have three indicators for each latent variable, in some instances where large sample sizes are in play, it is not uncommon to have fewer than three indicators per latent variable (Hair *et al.*, 2019:633).

The second condition relates to the metric for the latent variables and seeing that it is not measured, a latent variable has no metric. Therefore, the researcher must define the metric of this variable (Gana & Broc 2019:100). Latent variables can be scaled in

one of the following two ways: set the variance of the latent variable to 1.0, or set one parameter (factor loading) relating to the latent variable with an item that can be set to 1.00. This will allow the latent variable to capture the metric of the selected item (Hahs-Vaughn, 2017:449). Regardless of which option is used to select the scaling, the fit of the models will be identical, just as long each construct has a value specified (Hair *et al.*, 2019:672). In this study, option two was implemented as one factor loading of each latent variable was set as 1. The model estimation and testing are discussed below.

7.3.3 Model estimation and testing

After the model has been identified, the model must be estimated. Model estimation aims to select a fitting method that is subsequently minimised to obtain the parameter estimates/indices (Ramlall 2017:57). Multiple estimation methods are available for SEM models, but the commonly used method specifically for CFA models is Maximum Likelihood Estimation (MLE). MLE is a computer software generated method that calculates the parameter estimates that maximise the probability of the observed matrix sampled from the population (Hahs-Vaughn, 2017:449; Hair *et al.*, 2019:605). Therefore, the MLE method using Amos was employed when this CFA was performed.

A CFA generates critical information about the instrument's psychometric properties, which is the reliability and validity of the instrument. Numerous Chi-square tests can be used for the CFA test, namely CMIN (normed Chi-Squared/df), GFI (Goodness-of-fit), CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation).

To validate the relationships amongst latent variables and indicators, the model should present a reasonable fit. There are specific rules that a model has to adhere to, to get a model fit. Several factors can influence the model fit, namely, sample size, model complexity, estimation method, the amount and type of misspecification, and the type and normality of the data (Brown 2015:45). All these factors were covered in the sections above. Furthermore, there are several indices used to determine model fit. A short description of each of these indices and their threshold values are presented in Table 7.4.

Table 7.4: Measurements and thresholds to determine model fit

Measure	Index name	Description	Threshold values proposed and generally accepted
x²/P-value	Model Chi-square	Statistical assessment of overall fit and the discrepancy between the sample and fitted covariance matrices.	>0.05 With large sample sizes, this is not an index that is useful as it is rarely more than 0.05
CMIN/df	Normal chi-square, also known as normed chi-square	The minimum discrepancy divided by its degree of freedom.	Between 1 and 3 (measures less than 5 might still be acceptable)
(A)GFI	(Adjusted) Goodness of Fit Index.	A measure of fit between the hypothesised model and the observed covariance matrix. Measure the percentage of variances that are explained by the specified model structure. The adjusted index (AGFI) corrects the GFI, which is affected by the number of indicators of each latent variable.	GFI > 0.90 AGFI > 0.80 (a value close to 1 indicates a perfect fit)
NFI	Normed fit Index	NFI is a ratio of difference of the x ² value for the fitted model and the null model divided by the x ² value for the null model.	≥ 0.95 ≥ 0.90 (a value close to 1 indicates a good fit)
TLI	Tucker Lewis Index	TLI is similar to the NFI but varies because it compares the normed chi-square values for the null and specified model. It does take the model complexity into account to some degree.	≥ 0.95 ≥ 0.90 (a value close to 0.9 indicates a good fit)

Measure	Index name	Description	Threshold values proposed and generally accepted
CFI	Comparative Fit Index	Analyses the model fit by examining the discrepancy between the data and the hypothesised model.	>0.90 (1 indicates a very good fit)
RMSEA	Root Mean Square Error of Approximation	This measure better represents how well the model fits a population, not just a sample used for estimation. This measure explicitly tries to correct for both model and ample size by including both in its calculation. Values close to 0 represent a good fit.	<0.05 (indicates a close fit). A value of 0.0 indicates the exact fit of the model. A value of 0.08 or less indicates a reasonable error of approximation. Not higher than 1.
PCLOSE	<i>p</i> of Close Fit	Test that concludes if a model is a close fit. Calculated in conjunction with RMSEA, which should be greater than 0.05.	>0,05
(S)RMR	(Standardised) Root Mean Square Residual	The square root of the difference between the residuals of the sample covariance matrix and the hypothesised model. A rule of thumb is that an SRMR over 0.1 suggests a problem with the fit.	RMR<0.08 (some sources state that it should ideally be <0.05) SRMR <0.08 (value of 0.05 to 0.08 indicates a close fit)

Sources: Parry (n.d.); Awang (2012:56); Schumacker & Lomax (2016:112); Hair *et al.* (2019:642)

It is essential to highlight that it is not necessary to provide all of the values for reporting these indices. There is no universal agreement on the number of indices that should be reported on, but the minimal set would include CMIN/DF, TLI, CFI, RMSEA and SRMR (Jackson, Gillaspay & Purc-Stephenson, 2009:19; Bandalos & Finney, 2018:115). Therefore, these indices will be reported.

Once the model is correctly specified and estimated, the next step involves the testing/assessment of the accuracy of the measurement model. As discussed above, CFA was used to validate and confirm the latent variables, as explored and identified after the EFA (performed in Phase 1). The first default (baseline) model is presented in Figure 7.3.

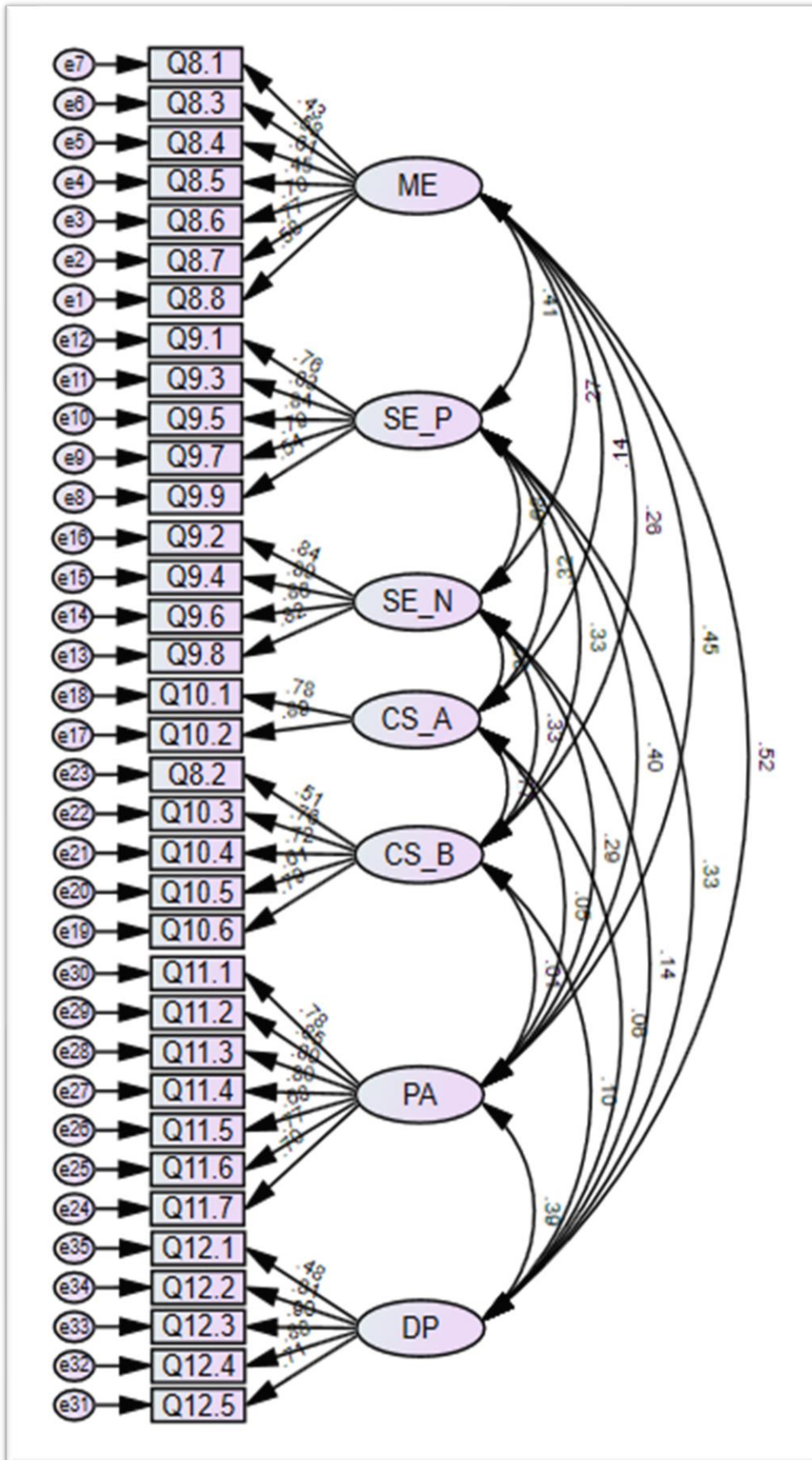


Figure 7.3: CFA baseline model for CPDFPMVI

As indicated in the Figure 7.3, the predictive model then tested the data fit between the following purchase decision elements:

- ME (refers to the marketing efforts by insurance companies that influence the need recognition) consists of:
 - Type of policies offered (e7)
 - Price of a policy (e6)
 - Distribution channels (e5)
 - Physical evidence (e4)
 - Process (e3)
 - People (e2)
 - Partnerships (e1)
- SE_P (refers to the positive sociocultural environment factors that influence the need recognition) consists of:
 - Positive family member (e12)
 - Positive reference person or group (e11)
 - Positive non-commercial sources (e10)
 - Positive social class (e9)
 - Cultural and subcultural factors (e8)
- SE_N (refers to the negative sociocultural environment factors that influence the need recognition) consists of:
 - Negative family member (e16)
 - Negative reference person or group (e15)
 - Negative non-commercial sources (e14)
 - Negative social class (e13)
- CS_A (refers to the communication sources group A that influence the need recognition) consists of:
 - Traditional advertisements (e18)
 - Online advertisements (e17)
- CS_B (refers to the communication sources group B that influence the need recognition) consists of:

- Promotion (e23)
 - Buzz agent (e22)
 - Customised messages (e21)
 - User-generated social media posts (e20)
 - Paid-for social media efforts (e19)
- PA (refers to the psychological attributes that influence the need recognition) consists of:
 - Motivation (e30)
 - Perception about motor vehicle insurance (e29)
 - Perception about a certain insurance company (e28)
 - Learning (e27)
 - Personality (e26)
 - Attitude towards motor vehicle insurance (e25)
 - Attitude towards a certain short-term insurance company (e24)
- DP (refers to the pre-purchase search and evaluation of alternatives steps in the decision process) consists of:
 - Pre-purchase search considering previous experiences (e35)
 - Pre-purchase search requesting quotations (e34)
 - Evaluate alternative prices (e33)
 - Evaluate alternative quality/standards (e32)
 - Evaluate alternative brands (e31)

The model fit was measured between the elements of a purchase decision process (latent variables) and the fit between the individual scales (indicators) that made up each purchase decision element. In this way, the model measured what it was set out to measure.

Table 7.5 presents the model fit statistics of the baseline CPDFPMVI model.

Table 7.5: Model fit statistics for CFA baseline CPDFPMVI model

	CMIN/DF	TLI	CFI	RMSEA	SRMR
Default model	3.737	0.83	0.85	0.076	0.079
Threshold values	<5	≥ 0.90	>0.90	<0.08	<0.08
Poor fit (PF)/ Acceptable fit (AF)	AF	PF	PF	PF	AF

The statistics presented in Table 7.5 reveal that the CPDFPMVI model gained from the EFA has a poor fit against the data. In addition, two of the values (in Table 7.5) fall outside the prescribed threshold as outlined in Table 7.4. Nevertheless, the above obtained values indicate that the reliability and validity of the model were evaluated. See Table 7.6, which presents these statistics.

Table 7.6: Reliability and validity of CFA baseline CPDFPMVI model

	CR	AVE	MSV	PA	ME	SE_P	SE_N	CS_A	CS_B	DP
Psychological Attributes (PA)	0.911	0.595	0.200	*0.771						
Marketing Efforts (ME)	0.791	0.360	0.272	0.447	*0.600					
Positive Sociocultural Environment (SE_P)	0.869	0.575	0.466	0.403	0.409	*0.758				
Negative Sociocultural Environment (SE_N)	0.913	0.724	0.466	0.288	0.271	0.683	*0.851			
Communication Sources A (CS_A)	0.821	0.697	0.587	0.054	0.143	0.321	0.302	*0.835		
Communication Sources B (CS_B)	0.811	0.467	0.587	0.005	0.262	0.333	0.331	0.766	*0.684	
Decision Process (DP)	0.876	0.595	0.272	0.393	0.522	0.326	0.142	0.063	0.102	*0.771

*square root (SQRT) of average variance extracted (AVE)

Table 7.6 provides the reliability and validity statistics generated for the baseline model. The reliability of a model is reported by considering the CR (Composite Reliability) value, which indicates the reliability and internal consistency of a latent variable (Hair *et al.*, 2019:763). The rule of thumb is that the CR value should be higher than 0.70 to indicate internal consistency, and in exploratory research, 0.60 to 0.70 is considered acceptable (Hair *et al.*, 2017:122). Thus, the baseline model demonstrates overall reliability with all the latent variables scoring more than the recommended 0.70.

Regarding the validity in CFA, three types of validity have to be determined. Firstly, construct validity, which is the main objective of CFA, deals with the measurement's accuracy. Once a good fit is established, the four additional components of construct validity should be evaluated (Hair *et al.*, 2019:675). These components include that it conforms to its conceptual definition, is unidimensional and meets the necessary levels of reliability (Hair *et al.*, 2019:162). All these components will be evaluated in Section 7.3.4 when a model fit is achieved.

Secondly, convergent validity assesses the extent to which a measure correlates positively with others (Civelek 2018:32). Therefore, the AVE (average variance extracted) value should be higher than 0.5 (Hair *et al.*, 2017:122). The AVE values in Figure 7.5 above indicate that two latent variables have a value larger than the 0.5 threshold. These latent variables are Marketing Efforts and Communication Sources_B. On that account, this baseline model does not meet the convergent validity criterion. However, it is important to note that the AVE values should preferably be higher than 0.05, but the context of the CR should also be taken into account.

Thirdly, discriminant validity refers to the extent to which a latent variable is distinct from other latent variables or indicators (Hair *et al.*, 2019:676). The Fornell and Larcker criterion can be used to assess discriminant validity, and this method compares the square root of the AVE with the correlation of latent variables. The square root of each construct's AVE should have a higher value than the correlations with other latent variables (Fornell & Larcker 1981; Hair *et al.*, 2019:761).

The baseline model has two discriminant validity concerns. Firstly, the square root of the AVE for Communication Sources_B is less than one of the correlations with other latent variables. Plus, the absolute value of the correlations with another factor and AVE for Communication Sources_B is less than the MSV (Maximum Shared

Variance). MSV is the the maximum amount of change that a construct can explain in another construct (Bhati, 2019:1785). Considering these values, it is evident that the baseline model does not hold acceptable internal reliability and validity.

To improve the model fit in terms of reliability and validity, some modifications were made, and a revised model was tested. The revised model is presented and discussed in the next section.

7.3.4 Model modification

The steps taken to improve the model fit in terms of reliability and validity were to:

1. Covary error terms that were part of the same factor. Only two indicators could be covaried, namely, Q11.1 (e30) and Q11.2 (e29).
2. Assess and remove indicators with significant standardised residual covariance. The following indicators were identified with high values regarding the standardised residual covariance: Q8.5 (e4), Q10.5 (e20), Q8.2 (e23), Q8.4 (e5) and Q8.8 (e1).
3. Remove the indicators with low loadings. For example, the Q8.1 (e7) and Q12.1 (e35) indicators had factor loadings less than 0.5.

The indicators identified in steps 1 and 2 above were removed after the researcher assessed whether it would impact the definition of the latent variable. The remaining indicators in each latent variable were sufficient, and it still explained each latent variable clearly. After making these modifications to the baseline model, a new revised model was generated. This model fit is presented in Figure 7.4.

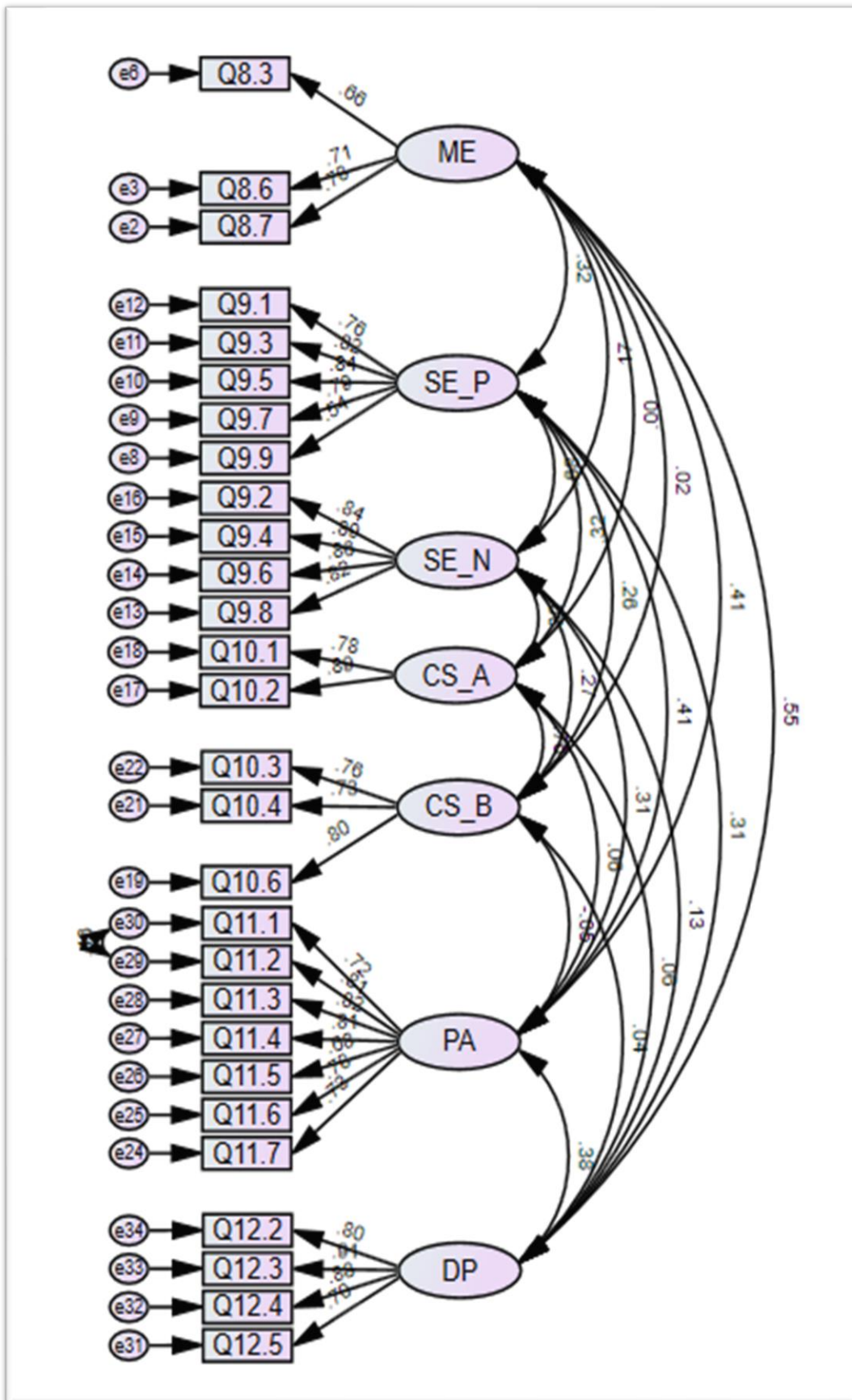


Figure 7.4: CFA revised model for CPDFPMVI

As shown in Figure 7.4, a few modifications were made to the baseline model to improve the model fit. The new revised model tested the data fit between the following purchase decision elements:

- ME (refers to the marketing efforts by insurance companies that influence the need recognition) consists of:
 - Price of a policy (e6)
 - Process (e3)
 - People (e2)
- SE_P (refers to the positive sociocultural environment factors that influence the need recognition) consists of:
 - Positive family member (e12)
 - Positive reference person or group (e11)
 - Positive non-commercial sources (e10)
 - Positive social class (e9)
 - Cultural and subcultural factors (e8)
- SE_N (refers to the negative sociocultural environment factors that influence the need recognition) consists of:
 - Negative family member (e16)
 - Negative reference person or group (e15)
 - Negative non-commercial sources (e14)
 - Negative social class (e13)
- CS_A (refers to the communication sources group A that influence the need recognition) consists of:
 - Traditional advertisements (e18)
 - Online advertisements (e17)
- CS_B (refers to the communication sources group B that influence the need recognition) consists of:
 - Buzz agent (e22)
 - Customised messages (e21)
 - Paid-for social media efforts (e19)

- PA (refers to the psychological attributes that influence the need recognition) consists of:
 - Motivation (e30)
 - Perception about motor vehicle insurance (e29)
 - Perception about a certain insurance company (e28)
 - Learning (e27)
 - Personality (e26)
 - Attitude towards motor vehicle insurance (e25)
 - Attitude towards a certain short-term insurance company (e24)

- DP (refers to the pre-purchase search and evaluation of alternatives steps in the decision process) consists of:
 - Pre-purchase search requesting quotations (e34)
 - Evaluate alternative prices (e33)
 - Evaluate alternative quality/standards (e32)
 - Evaluate alternative brands (e31)

The model fit indices of the revised CPDFPMVI model are given in Table 7.7 below.

Table 7.7: Model fit for CFA revised CPDFPMVI model

	CMIN/DF	TLI	CFI	RMSEA	SRMR
Default model	3.406	0.89	0.91	0.071	0.046
Threshold values	<5	≥ 0.90	>0.90	<0.08	<0.08
Poor fit (PF)/ Acceptable fit (AF)	AF	AF	AF	AF	AF

Taking the indices presented above into consideration, it is evident that the revised model is an acceptable fit with the data. In comparison to the threshold, most of the indices reported fall within the accepted norm. The TLI value is 0.89, just under the 0.9 threshold, but a TLI value close to 0.9 can still be deemed acceptable (Schumacker & Lomax, 2016:112).

Due to the reliability and validity concerns raised in the baseline model, it was necessary to confirm the revised model's reliability and validity. Table 7.8 on the next page reveals the reliability and validity results of the revised model. The revised CPDFPMVI model after the CFA model fit analysis is presented in Figure 7.5 below Table 7.8.

Table 7.8: Reliability and validity of the CFA revised CPDFPMVI model

	CR	AVE	MSV	PA	ME	SE_P	SE_N	CS_A	CS_B	DP
Psychological Attributes (PA)	0.908	0.586	0.170	*0.765						
Marketing Efforts (ME)	0.764	0.520	0.303	0.412	*0.721					
Positive Sociocultural Environment (SE_P)	0.869	0.575	0.466	0.406	0.322	*0.758				
Negative Sociocultural Environment (SE_N)	0.913	0.723	0.466	0.308	0.173	0.683	*0.850			
Communication Sources A (CS_A)	0.821	0.697	0.576	0.063	0.000	0.319	0.302	*0.835		
Communication Sources B (CS_B)	0.807	0.582	0.576	-0.048	0.022	0.263	0.270	0.759	*0.763	
Decision Process (DP)	0.897	0.687	0.303	0.377	0.550	0.314	0.132	0.060	0.038	*0.829

*square root (SQRT) of average variance extracted (AVE)

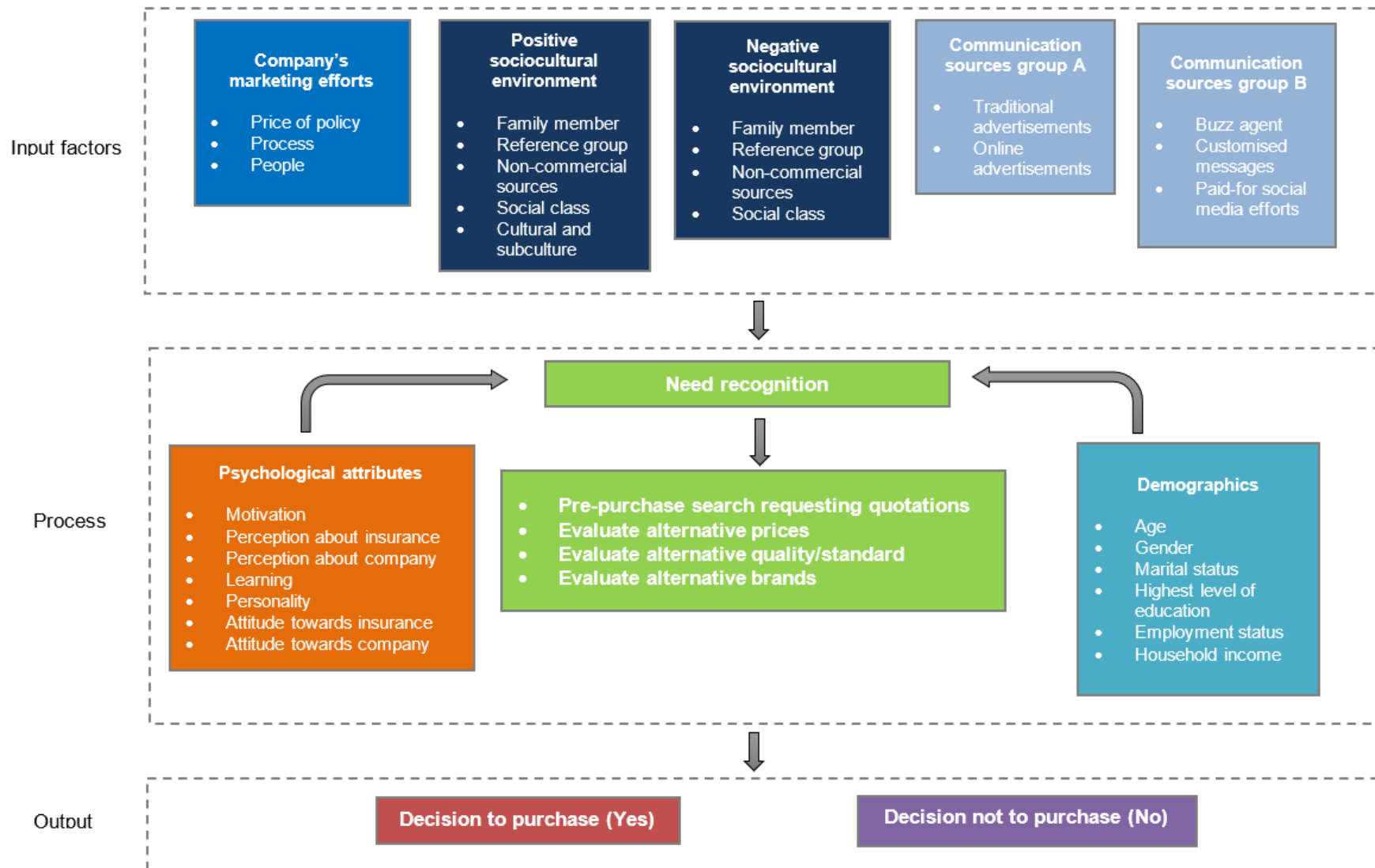


Figure 7.5: Revised CPDFPMVI model after CFA model fit analysis

Table 7.8 provides the reliability and validity of the revised model. As can be seen, there are no concerns and this revised model may be deemed acceptable. The revised model can therefore be considered as model fit. The revised CPDFPMVI model after the CFA model fit analysis is presented in Figure 7.5 on the previous page.

The modifications made to the baseline model were made after careful consideration, and none of the latent variable meanings changed. Hair *et al.* (2019:679) suggested that theory should always be predominantly considered when making model modifications. The model presented in Figure 7.5 can therefore be regarded as the acceptable model to use in Phase 3 of the study.

7.3.5 Interpretation of values in CFA revised CPDFPMVI model

Figure 7.5 is the acceptable model that will offer the means to calculate the summative scores. These scores will reflect the index values of the observed variables that represent each construct/latent variable. Table 7.9 shows these values.

Table 7.9: Index values of the observed variables that represent each construct/latent variable

Constructs/Latent variables	Observed variables	Index values gained from CFA
Marketing Efforts (ME)	Price of a policy	0.67
	Process	0.71
	People	0.78
Positive Sociocultural Environment (SE_P)	Positive family member	0.76
	Positive reference person or group	0.82
	Positive non-commercial sources	0.84
	Positive social class	0.79
	Cultural and subcultural factors	0.54
Negative Sociocultural Environment (SE_N)	Negative family member	0.84
	Negative reference person or group	0.89
	Negative non-commercial sources	0.86
	Negative social class	0.82
Communication Sources A (CS_A)	Traditional advertisements	0.78
	Online advertisements	0.89
Communication Sources B (CS_B)	Buzz agent	0.76
	Customised messages	0.73
	Paid-for social media efforts	0.80
Psychological attributes (PA)	Motivation	0.72
	Perception about motor vehicle insurance	0.81
	Perception about a certain insurance company	0.82
	Learning	0.81
	Personality	0.68
	Attitude towards motor vehicle insurance	0.78
	Attitude towards a certain short-term insurance company	0.73
Pre-purchase search and evaluation of alternatives steps (Decision-making Process) (DP)	Pre-purchase search requesting quotations	0.80
	Evaluate alternative prices	0.91
	Evaluate alternative quality/standards	0.88
	Evaluate alternative brands	0.70

As revealed in the table above, the index values of each observed variable explain the extent of influence each observed variable has on the construct/latent variable, which influences the purchase decision of personal motor vehicle consumers. The higher

values indicate a greater influence, and the lower values indicate less influence. Within the Marketing Efforts construct, the index values show that people have the greatest influence on the purchase decision, and policy price has a lower influence on the purchase decision.

All the index values in the Positive Sociocultural Environment construct are high, except for the cultural and subcultural factors, which indicate that this observable variable does not have such a big influence on the purchase decision as the other observable variables within this construct.

In the Negative Sociocultural Environment construct, all the index values are high, thus greatly influencing purchase decisions, especially the negative reference person or group variable with the highest index score. It is interesting to see that the index values of the Negative Sociocultural Environment's observable variables are all higher than the Positive Sociocultural Environment's variables. This indicates that the Negative Sociocultural Environment variables have a larger influence on the purchase decision than the Positive Sociocultural Environment variables.

Both index values of the Communication Sources A construct scored high, but it is evident that online advertisements have a slightly larger influence on the purchase decision than traditional advertisements. Paid-for social media efforts are revealed to have the largest influence in the Communication Sources B construct, with the other two observable constructs also scoring high.

The personality variable scored the lowest in the Psychological Attributes construct, which means that this variable has the least influence on the purchase decision. Perception about a certain insurance company has the highest index value in this construct, which indicates that this variable has the greatest influence on the purchase decision within the Psychological Attributes construct. All the other index values in this construct are high and indicate that they have a large influence on the purchase decision. The personality variable has the lowest index value, and therefore the assumption can be made that this variable has the lowest influence on the purchase decision within the Psychological Attributes construct.

Lastly, the observable variables in the Decision-making Process construct indicate high index values. The evaluate alternative prices variable has the greatest influence

on the purchase decision, and the evaluate alternative brands variable has the lowest influence within this construct.

In Phase 3, the next phase, the observed variables and constructs/latent variables (findings from Phase 2) will form the basis of the variable selection step of the logistic regression model-building strategy. This strategy is discussed in the next section.

7.4 PHASE 3: LOGISTIC REGRESSION MODEL-BUILDING STRATEGY

Logistic regression was introduced and defined in Section 5.11.2. Logistic regression is a widely used model-building strategy to investigate the independent effect of variables on dichotomous outcomes in consumer purchasing decision-making studies within the global insurance market (Huber *et al.*, 2015; Sin & Chee, 2017; Leiria, Matos & Rebelo, 2020). This logistic regression method has proved to be useful in similar studies. It, therefore, provided a reason to use it in the current study.

A sample size of over 400 is recommended to achieve the best results while using the logistic regression model-building strategy (Hair *et al.*, 2019:557). The overall sample in this study is over the recommended 400. Therefore, this model-building strategy is fitting. The steps followed in this logistic regression model-building strategy, using IBM SPSS (Version 27) for analysis, are discussed in the sections below.

7.4.1 Variable selection with n=200 exploration sample

The independent variables that impact the dependent variable have to be identified (Hair *et al.*, 2019:552). In this study, the dependent variables are the answers to Question 3 in the questionnaire (see Appendix A). This question was a dichotomous question, and it will be the outcome of this model. Respondents were asked to indicate whether they have personal motor vehicle insurance or not. The independent variables are the latent variables tested and accepted in Phase 2 (hereon referred to as the original variables). Also, certain demographic variables, as tested in the questionnaire, are included in the independent variables/covariances. Therefore, the covariances are listed below:

- Marketing Efforts (ME)
- Positive Sociocultural Environment (SE_P)

- Negative Sociocultural Environment (SE_N)
- Communication Sources A (CS_A)
- Communication Sources B (CS_B)
- Psychological Attributes (PA)
- Decision Process (DP)
- Age
- Gender
- Marital status
- Highest level of education
- Employment status
- Household income

Once the dependent variables and the covariances had been identified, a univariate analysis was performed to identify all the important covariances (Zhang, 2016:2). As mentioned at the beginning of this chapter, a holdout sample is recommended to ensure model exploration. Therefore, an exploration sample of 200 was used to conduct the univariate analysis to identify all the important covariances.

Specific tests were performed as part of the univariate analysis to identify the important covariances, namely, T-Test, Pearson Correlation, Chi-Square Tests, Kendall's tau-b and Phi.

The T-Test and Pearson Correlation were used to analyse the original variables (latent variables from CFA).

A *T-Test* is a two-independent samples test used to determine a significant difference between the means of two groups (Ross & Willson, 2017:17). The rule of thumb is that variables with a p-value less than 0.25 can be considered important to be included in the logistic regression (Canchola *et al.*, n.d.:1; Zhang, 2016:2).

The *Pearson Correlation* is utilised when the strength of the relationship between two continuous variables is explored (Pallant, 2016:122). If the correlation coefficient (r-value) indicates 0, there is no relationship between the two variables, but the r-value

can range from -1 to +1. The sign in front of the r-value indicates a positive or negative correlation (Saunders *et al.*, 2019:616).

The *Chi-Square Test* determines whether two categorical variables are independent or related (Aldrich, 2019:18). The main value a researcher should be interested in in this test is the Pearson Chi-Square value, which is significant (p-value) when it is less than 0.05 (Pallant, 2016:240).

Kendall's tau-b is used to test the degree of association between two ordinal variables (Saunders *et al.*, 2019:616).

The *Phi* test is used when comparing pairs of dichotomous variables, and where the strength of the association between two dichotomous variables is measured (Saunders *et al.*, 2019:612). For both Kendall's tau-b and Phi tests, the p-value should be less than 0.05.

Table 7.10 presents a summary the statistics of the univariate analysis to identify the important covariances.

Table 7.10: Univariate analysis summarised to identify the important covariances

Variable	Type	T-Test P-values	Chi-square P-values	r-value	P-value	Test	Include in baseline model
Original variables							
Marketing efforts	Interval	0.000		0.363	0.000		Yes
Positive sociocultural environment	Interval	0.179		0.098	0.168		Yes
Negative sociocultural environment	Interval	0.131		0.109	0.123		Yes
Communication sources A	Interval	0.000		-0.292	0.000		Yes
Communication sources B	Interval	0.000		-0.299	0.000		Yes
Psychological attributes	Interval	0.000		0.365	0.000		Yes
Decision process	Interval	0.001		0.231	0.001		Yes
Demographic variables							
Age	Interval	0.000		0.331	0.000	Pearson	Yes
Age regrouped	Ordinal		0.000	0.281	0.000	Kendall's tau-b	Yes
Gender	Nominal - Dichotomous		0.588	-0.048	0.494	Phi	No
Marital status regrouped	Nominal - Dichotomous		0.000	0.348	0.000	Phi	Yes

Variable	Type	T-Test P-values	Chi-square P-values	r-value	P-value	Test	Include in baseline model
Highest level of education	Ordinal			0.427	0.000	Kendall's tau-b	Yes
Highest level of education regrouped	Ordinal		0.000	0.446	0.000	Kendall's tau-b	Yes
Employment status regrouped	Ordinal		0.004				Yes
Household income	Ordinal			0.486	0.000	Kendall's tau-b	Yes
Household income regrouped	Ordinal		0.000	0.658	0.000	Kendall's tau-b	Yes

As indicated in the table above, the Positive Sociocultural Environment and Negative Sociocultural Environment variables' T-test shows that nothing distinguishes these two groups from one another. In other words, there is no relationship between these two variables and the dependent variables, due to the p-values indicating more than 0.05. However, the rule of thumb is that a p-value less than 0.25 can be regarded as important to be included in the logistic regression model (Canchola *et al.*, n.d.:1; Zhang, 2016:2). Therefore, these two variables can be included in the baseline logistic regression model.

In the demographic variables univariate analysis, a distinction was made between the original values and regrouped values. The values were regrouped, ensuring that each group is big enough, taking into consideration that the sample of 200 was used for this analysis. The marital status and employment status variables were presented only in the regrouped values as these two variables had cells with very low cell counts. The statistics presented in Table 7.10 above show that the gender demographic variable is not important to be included in the baseline logistic regression model.

At the hand of the statistics provided in the table above, it is clear that the underlying interrelationships between the covariances and the dependent variables were assessed. Therefore, gender was the only covariance that could not be included in the baseline logistic regression model. Step 2 of the logistic regression model-building strategy is discussed below.

7.4.2 Logistic regression estimation with n=478 validation sample

After the variables have been selected, the selected variables can be fitted in a multiple logistic regression model (Zhang, 2016:3). This step was performed, and the baseline model was generated in the IBM SPSS (Version 27) software. The baseline logistic regression model can now be assessed. Again, it is advised to use a holdout sample to ensure model validation. A holdout sample of 478 was used to conduct the logistic regression estimation, as logistic regression model building recommends that a sample size of more than 400 is used to support the estimation of the model (Hair *et al.*, 2019:555). Thus, the validation sample of 478 was sufficient for model estimation.

The following tests determined the overall fit of a logistic regression model: Omnibus Tests of Model Coefficients, Cox & Snell R Square and Nagelkerke R Square, Hosmer and Lemeshow Test, and Wald test (Pallants, 2016:196-198).

The *Omnibus Tests of Model Coefficients* shows the χ^2/P -value associated with the overall model (Keith, 2019:237). In other words, this test gives the researcher an overall indication of how well the model performs. The Sig. value (χ^2/P -value) should be less than 0.05 (Pallant, 2016:196).

The *Cox & Snell R-Square* and the *Nagelkerke R-Square* values indicate the amount of variation in the dependent variable explained by the model, where a value between 0 and 1 is accepted (Pallant, 2016:197).

The *Hosmer and Lemeshow Test* also provide the support that the model is worthwhile, and this value should be larger than 0.05 (Pallant, 2016:196). The statistics of the overall model fit for the baseline logistic regression model are presented in the tables below.

Table 7.11: Omnibus tests of Model Coefficients for baseline logistic regression model

		Chi-square	df	Sig. p-value
Step 1	Step	359.663	13	0.000
	Block	359.663	13	0.000
	Model	359.663	13	0.000

As can be seen in Table 7.11 above, all the p-values are less than 0.05. Therefore, the Omnibus Tests of Model Coefficients shows the researcher that the baseline model performs well overall.

Table 7.12: Cox & Snell R-Square and the Nagelkerke R-Square values for baseline logistic regression model

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R-Square
1	236.379	0.566	0.755

Table 7.12 above reveals that the Cox & Snell R-Square and the Nagelkerke R-Square values are between 0 and 1, and can therefore, be accepted. Higher values better explain the variation in the dependent variable of the model.

Table 7.13: Hosmer and Lemeshow Test for Baseline logistic regression model

Step	Chi-square	df	Sig. p-value
1	7.157	8	0.520

Table 7.13 above shows that the p-value in the Hosmer and Lemeshow test is more than 0.05, which supports that the model is worthwhile.

The classification table drawn from the statistics revealed that 89.6% could be predicted from this baseline logistic regression model (see Table D5 in Appendix D).

Lastly, the Variables in the Equation table provides the information about the contribution or importance of each of the predictor variables and the *Wald test* is used here (Pallant, 2016:198). The variables in the equation table for the baseline logistic regression model are presented in Table 7.14. The value of the statistic of each predictor is labelled in the Wald column. The Wald values that scored very low are indicated in red, and these covariances will be removed, as it suggests that they are unimportant predictive variables. The Sig. value (χ^2/P -value) should be less than 0.05. If there is a p-value that is more than 0.05, that variable does not significantly contribute to the predictive ability of the model (Pallant, 2016:198). Therefore, any variables with a p-value of more than 0.05 should be removed from the model.

Table 7.14: Variables in the Equation for baseline logistic regression model

	B	S.E.	Wald	df	Sig. p-value	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
Marketing efforts	0.710	0.219	10.490	1	0.001	2.033	1.323	3.123
Positive Sociocultural Environment	-0.967	0.265	13.358	1	0.000	0.380	0.226	0.638
Negative Sociocultural Environment	0.405	0.184	4.856	1	0.028	1.499	1.046	2.149
Communication Sources A	0.075	0.200	0.140	1	0.709	1.078	0.728	1.596
Communication Sources B	-0.953	0.246	15.009	1	0.000	0.385	0.238	0.624
Psychological Attributes	0.559	0.232	5.826	1	0.016	1.749	1.111	2.754
Decision Process	0.505	0.207	5.939	1	0.015	1.658	1.104	2.489
Age	0.053	0.015	13.321	1	0.000	1.055	1.025	1.086
Marital status	0.386	0.366	1.107	1	0.293	1.470	0.717	3.015
Highest level of education	1.118	0.244	21.060	1	0.000	3.058	1.897	4.928
Employment status			2.859	2	0.239			
Employment status(1)	-1.298	0.772	2.832	1	0.092	0.273	0.060	1.239
Employment status(2)	-0.392	0.508	0.594	1	0.441	0.676	0.250	1.830
Household income	1.556	0.285	29.868	1	0.000	4.740	2.713	8.283
Constant	-9.804	1.383	50.222	1	0.000	0.000		

The table above indicates the variables in the equation for the baseline logistic regression model. As discussed above, the p-values above 0.05 are variables that do not significantly contribute to the model's predictive ability. The p-values indicated in

red are more than 0.05. These covariances will be removed from the model as they do not significantly contribute to the model's predictive ability, and theoretically, it makes sense to remove them. The B values provided in the table above are the values used to calculate the probability of a case falling into a specific category. The positive or negative sign before the value indicates the direction of the relationship (Pallant, 2016:198). Thus, the negative values will decrease the probability of purchasing personal motor vehicle insurance, and positive values will increase the probability of purchasing personal motor vehicle insurance.

The other useful column in Table 7.14 is the Exp(B) column. These are the odds ratios (OR) for each independent variable (Pallant, 2016:198). The odds ratio refers to the change in odds of being in one of the outcome categories (yes or no purchase) when the value of a predictor increases by one unit (Tabachnick & Fidell, 2019:367). Therefore, the biggest drivers that explain variation of the decision to purchase are marketing efforts (2.033), highest level of education (3.058) and household income (4.740).

Furthermore, for each odds ratio Exp(B) indicated in the Variables in the Equation table, there is a 95% confidence interval (95% CI for EXP(B)) that gives a lower value and upper value. It indicates that if an infinite number of similar studies were undertaken and the estimates calculated, in 95% of cases, the true odds will be included (Pallant, 2016:199). The 95% CI for EXP(B) column in Table 7.14 indicates the lower and upper confidence levels for the baseline logistic regression model.

After the baseline logistic regression model overall fit analysis, the variables that did not appear statistically important were eliminated. Thus, the variables that will be used in the final logistic regression model are as follow:

- Marketing Efforts (ME)
- Positive Sociocultural Environment (SE_P)
- Negative Sociocultural Environment (SE_N)
- Communication Sources B (CS_B)
- Psychological Attributes (PA)
- Decision Process (DP)
- Age

- Highest level of education
- Household income

Before the final logistic regression model can be tested, the absence of multicollinearity should be determined, because logistic regression is sensitive to extremely high correlations between predictor variables (Tabachnick & Fidell, 2019:352). To establish multicollinearity problems, ‘collinearity diagnostics’ need to be performed via IBM SPSS (Version 27). These results are present in the Coefficients table, and the Collinearity Statistics column values are particularly important (Pallant, 2016:178).

Table 7.15 presents the Collinearity Statistics of the variables in the final logistic regression model.

Table 7.15: Collinearity Statistics for final logistic regression variables

Variables in final logistic regression model	Collinearity Statistics	
	Tolerance	VIF
Marketing Efforts (ME)	0.686	1.458
Positive Sociocultural Environment (SE_P)	0.511	1.957
Negative Sociocultural Environment (SE_N)	0.604	1.655
Communication Sources B (CS_B)	0.854	1.172
Psychological Attributes (PA)	0.700	1.429
Decision Process (DP)	0.655	1.527
Age	0.938	1.067
Highest level of education	0.597	1.674
Household income	0.554	1.805

The table above presents the variables and collinearity statistics. The two values indicated are tolerance and VIF. Tolerance is an indicator of how much of the variability of the independent is not explained by other independent variables in the model. If the tolerance value is less than 0.1, it shows that there is multicollinearity present.

VIF (Variance Inflation Factor) is the other value that is just the opposite of tolerance, and a value above ten would be a concern indicating multicollinearity (Pallant, 2016:178). As shown in the table above, none of the tolerance values are less than

0.1, and none of the VIF values are above 10. Therefore, the assumption can be made that there is no multicollinearity amongst the variables for the final logistic regression model. The next step in the logistic regression model-building strategy is discussed in the section below.

7.4.3 Check the assumption of linearity

A logistic regression assumes that a linear relationship exists between the continuous predictors (covariates) and the dependent variable (Tabachnick & Fidell, 2019:351). Therefore, covariates that have a non-linear relationship have to be removed from the logistic regression model. The Box-Tidwell procedure is the simplest way to test for non-linearity. The linearity assumption is tested by including the model interactions between the covariates and their logs (Hair *et al.*, 2019:556). Table 7.16 illustrates the variables in the equation to test the linearity assumption.

Table 7.16: Variables in the equation to test linearity assumption

Variables in final logistic regression model	Sig. p-value
Marketing Efforts (ME)	0.910
Positive Sociocultural Environment (SE_P)	0.423
Negative Sociocultural Environment (SE_N)	0.194
Communication Sources B (CS_B)	0.185
Psychological Attributes (PA)	0.571
Decision Process (DP)	0.591
Age	0.000
Highest level of education	0.000
Household income	0.000
ME by ME_In	0.818
SE_P by SE_P_In	0.680
SE_N by SE_N_In	0.282
CS_B by CS_B_In	0.439
PA by PA_In	0.417
DP by DP_In	0.811

The variables in the equation table above (see complete table in Table D6, Appendix D) indicated no significant interaction amongst the covariance's logs. The blue highlighted values indicate no significance, as all these p-values are higher than 0.05. Therefore, the assumption of linearity can be accepted.

Next, the overall model fit of the final logistic regression model can be assessed, which is discussed below.

7.4.4 Assessing the overall fit of final logistic regression model

Taking into consideration that there is no multicollinearity amongst the variables in the final logistic regression model and that the assumption of linearity can be accepted, the overall fit was assessed next. As discussed in Section 7.4.2 above, specific tests determine the overall fit of a logistic regression model. These tests are discussed below.

Firstly, the Omnibus Tests of Model Coefficients are presented in the table below.

Table 7.17: Omnibus Tests of Model Coefficients for final logistic regression model

		Chi-square	df	Sig. p-value
Step 1	Step	355.941	9	0.000
	Block	355.941	9	0.000
	Model	355.941	9	0.000

The table above indicates that all the p-values are less than 0.05. Thus, the Omnibus Tests of Model Coefficients shows that the final model performs well overall.

Secondly, the Cox & Snell R-Square and the Nagelkerke R-Square values are presented in Table 7.18 below.

Table 7.18: Cox & Snell R-Square and the Nagelkerke R-Square values for final logistic regression model

Step	-2 Log likelihood	Cox & Snell R-Square	Nagelkerke R-Square
1	240.100	0.562	0.750

Table 7.18 above reveals that the Cox & Snell R-Square and the Nagelkerke R-Square values are between 0 and 1, and can therefore, be accepted.

Thirdly, the Hosmer and Lemeshow test results are provided in the table below.

Table 7.19: Hosmer and Lemeshow Test for Baseline logistic regression model

Step	Chi-square	df	Sig. p-value
1	10.364	8	0.240

In the table above, the p-value in the Hosmer and Lemeshow test is more than 0.05, which supports that the model is worthwhile.

The classification table drawn from the statistics revealed that 88.9% could be predicted from this final logistic regression model (see Table 7.21 in Section 7.4.5).

Lastly, the information about the Wald test is available in the Variables in the Equation table. The Variables in the Equation table for the final logistic regression model are presented in Table 7.20. There are no Wald values that scored very low, and therefore all the covariances indicate that they are important predictive variables. The Sig. value (x^2/P -value) should be less than 0.05.

Table 7.20: Variables in the Equation for final logistic regression model

	B	S.E.	Wald	df	Sig. p-value	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
Marketing efforts	0.707	0.218	10.516	1	0.001	2.027	1.323	3.108
Positive Sociocultural Environment	-0.978	0.254	14.772	1	0.000	0.376	0.229	0.619
Negative Sociocultural Environment	0.423	0.181	5.464	1	0.019	1.526	1.071	2.176
Communication Sources B	-0.932	0.221	17.707	1	0.000	0.394	0.255	0.608
Psychological Attributes	0.568	0.226	6.308	1	0.012	1.765	1.133	2.749
Decision Process	0.478	0.204	5.484	1	0.019	1.612	1.081	2.405
Age	0.061	0.013	23.270	1	0.000	1.063	1.037	1.090
Highest level of education	1.108	0.236	22.011	1	0.000	3.028	1.906	4.810
Household income	1.570	0.271	33.697	1	0.000	4.808	2.830	8.171
Constant	-10.101	1.290	61.305	1	0.000	0.000		

As can be seen in the table above, there are no p-values more than 0.05. Thus, all the covariances are variables that significantly contribute to the predictive ability of this final model. The B values provided in the tables are the values that are used to calculate the probability of a case falling into a specific category. These values and their positive or negative relationship are presented in the table above. Only Positive Sociocultural Environment and Communication Sources B will decrease the probability of purchasing personal motor vehicle insurance. All the other B values are positive.

The other useful column in Table 7.20 is the Exp(B) column. The biggest drivers that affect the decision to purchase are still marketing efforts (2.027), highest level of education (3.028), and household income (4.808).

The strongest predictor of reporting that they have got insurance was Household income, recording an odds ratio of 4.808. This indicated that respondents who had personal motor vehicle insurance were over four times more likely to report higher levels of household income than those who did not have personal motor vehicle insurance, controlling for all other factors in the model.

The odds ratio of 0.376 for Positive Sociocultural Environment was less than 1, indicating that respondents who did not have personal motor vehicle insurance were less likely to report that positive opinions/comments from the sociocultural environment greatly influenced their need to purchase, than those who had personal motor vehicle insurance, controlling for other factors in the model.

Furthermore, the 95% CI for EXP(B) column in Table 7.20 indicates the final logistic regression model's lower and upper confidence levels. After the final logistic regression model overall fit analysis, all the covariances appear to be statistical important variables and should be included in the final CPDFPMVI model. The CPDFPMVI model classification and validation are provided below.

7.4.5 Classification and validation of the final CPDFPMVI model

The section above mentioned the classification of the CPDFPMVI model. However, a more detailed classification is required to understand how well the model can predict the correct category for each case (purchase or not purchase).

The model's *sensitivity* is the percentage of the group with the characteristic of interest (purchase) that has been accurately identified in the model. Whereas the model's *specificity* is the group without the characteristic (no purchase) that has been correctly identified (Pallant, 2016:197; Tabachnick & Fidell, 2019:372).

Then there is the positive and negative predictive value, which is also essential to discuss in the classification of the model. The *positive predictive value (PPV)* refers to the percentage of cases that has the characteristic (purchase personal motor vehicle insurance) and is actually observed in this group. On the other hand, the *negative predictive value (NPV)* is the percentage of cases that the model classifies as not having the characteristic (not purchasing personal motor vehicle insurance), and that is actually part of this group (Pallant, 2016:197).

Table 7.21 presents the classification table of the final CPDFPMVI model.

Table 7.21: Classification table of final CPDFPMVI model

		Predicted		Percentage correct
		Do you currently have motor vehicle insurance for your personal motor vehicle?		
		No purchase	Purchase	
Do you currently have motor vehicle insurance for your personal motor vehicle?	No purchase	179	24	88.2
	Purchase	24	204	89.5
Overall percentage		88.2	89.5	88.9

The colours in the table above indicate the important classifications for the final CPDFPMVI model. The final CPDFPMVI model predicts the following:

- **Sensitivity:** 89.5% of the group that purchase personal motor vehicle insurance has been accurately identified by the model (the true positives).
- **Specificity:** 88.2% of the group that do not purchase personal motor vehicle insurance is correctly identified (the true negatives).
- **PPV:** 89.5% of cases that the model classifies as purchasing personal motor vehicle insurance are actually observed in this group.
- **NPV:** 88.2% of cases predicted by the model that do not purchase personal motor vehicle insurance are actually observed not to purchase personal motor vehicle insurance.

Thus, this final CPDFPMVI model can predict 88.9% of the cases. Taking into consideration that the overall accuracy measure of 88.9% and the sensitivity and specificity are sufficiently large, it indicates predictive accuracy for each outcome group. Both the PPV and NPV values are above 80%, which provides reasonable levels of predictive ability for both positive and negative outcomes. The validation sample (n=478) used to perform this logistic regression, was particularly useful as it provides evidence of external validity. These outcomes conclude that the logistic regression model demonstrated sufficient external validity for complete acceptance of

the result, as was found with the overall model fit analysis of the final CPDFPMVI model.

The final CPDFPMVI model is presented in the figure below. The data obtained in this study ensured that the research objectives had been achieved. Table 7.22 summarises the outcome of the research objectives, and this table is presented after Figure 7.6.

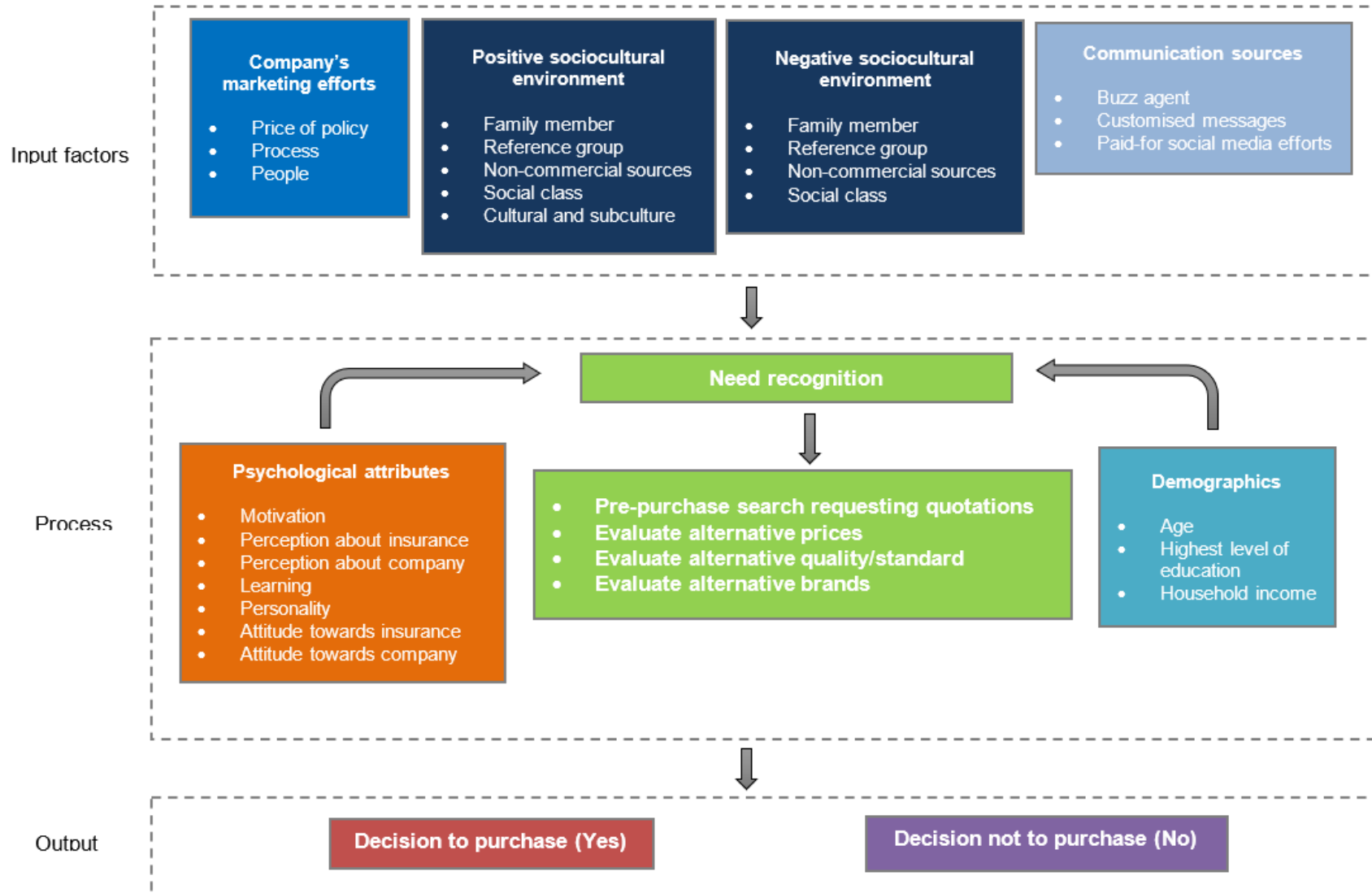


Figure 7.6: Final CPDFPMVI model

Table 7.22: Outcome of research objectives following logistic regression

Primary research objective			
<p>To develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry. As per the final logistic regression model: The final model for complete acceptance of results obtained in this study is depicted in Figure 7.6 above.</p>			
Secondary research objectives	As per EFA	As per CFA	Final CPDFPMVI model after logistic regression
<p>To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.</p>	<ul style="list-style-type: none"> ▪ Type of policies offered ▪ Price of a policy ▪ Distribution channels ▪ Physical evidence ▪ Process ▪ People ▪ Partnerships 	<ul style="list-style-type: none"> ▪ Price of a policy ▪ Process ▪ People 	<ul style="list-style-type: none"> ▪ Price of a policy ▪ Process ▪ People
<p>To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.</p>	<p><u>Positive sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Positive family member ▪ Positive reference person or group ▪ Positive non-commercial sources ▪ Positive social class ▪ Cultural and subcultural factors 	<p><u>Positive sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Positive family member ▪ Positive reference person or group ▪ Positive non-commercial sources ▪ Positive social class ▪ Cultural and subcultural factors 	<p><u>Positive sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Positive family member ▪ Positive reference person or group ▪ Positive non-commercial sources ▪ Positive social class ▪ Cultural and subcultural factors

Secondary research objectives	As per EFA	As per CFA	Final CPDFPMVI model after logistic regression
	<u>Negative sociocultural environment</u> <ul style="list-style-type: none"> ▪ Negative family member ▪ Negative reference person or group ▪ Negative non-commercial sources ▪ Negative social class 	<u>Negative sociocultural environment</u> <ul style="list-style-type: none"> ▪ Negative family member ▪ Negative reference person or group ▪ Negative non-commercial sources ▪ Negative social class 	<u>Negative sociocultural environment</u> <ul style="list-style-type: none"> ▪ Negative family member ▪ Negative reference person or group ▪ Negative non-commercial sources ▪ Negative social class
<p>To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.</p>	<u>Communication sources A</u> <ul style="list-style-type: none"> ▪ Traditional advertisements ▪ Online advertisements ▪ Promotion <u>Communication sources B</u> <ul style="list-style-type: none"> ▪ Buzz agent ▪ Customised messages ▪ User-generated social media posts ▪ Paid-for social media efforts 	<u>Communication sources A</u> <ul style="list-style-type: none"> ▪ Traditional advertisements ▪ Online advertisements ▪ Promotion <u>Communication sources B</u> <ul style="list-style-type: none"> ▪ Buzz agent ▪ Customised messages ▪ Paid-for social media efforts 	<u>Communication sources</u> <ul style="list-style-type: none"> ▪ Buzz agent ▪ Customised messages ▪ Paid-for social media efforts

Secondary research objectives	As per EFA	As per CFA	Final CPDFPMVI model after logistic regression
To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company 	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company 	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company
To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.	<ul style="list-style-type: none"> ▪ Pre-purchase search considering previous experiences ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative quality/standard ▪ Evaluate alternative brands 	<ul style="list-style-type: none"> ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative quality/standard ▪ Evaluate alternative brands 	<ul style="list-style-type: none"> ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative quality/standard ▪ Evaluate alternative brands
To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.			<ul style="list-style-type: none"> ▪ Age ▪ Highest level of education ▪ Household income

Secondary research objectives	As per EFA	As per CFA	Final CPDFPMVI model after logistic regression
To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.	Addressed in Chapter 6.	Addressed in Chapter 6.	Addressed in Chapter 6.
To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.	Addressed in Chapter 6.	Addressed in Chapter 6.	Addressed in Chapter 6.

As summarised in Figure 7.6 and Table 7.22 above, the research objectives of this study have been achieved.

7.5 CONCLUSION

This chapter discussed the process followed to build the final CPDFPMVI model. The model-building strategy that was followed consisted of three phases: the EFA phase, CFA phase, and logistic regression phase. Firstly, the EFA was used to explore and estimate the factor structure of the conceptual model, as presented in Figure 2.2. Secondly, the EFA results were used to perform a CFA, which tested how well a pre-specified measurement theory, composed of measured variables and factors, fits the reality as captured data. Thirdly, the CFA model fit findings were used in the logistic regression to describe the relationship between an outcome (dependent) variable and a set of independent (predictor or explanatory) variables.

These outcomes conclude that the logistic regression model demonstrated sufficient external validity for complete acceptance of the result, as was found with the overall model fit analysis of the final CPDFPMVI model. The final CPDFPMVI model was presented in this chapter (see Figure 7.6).

Important conclusions were drawn which addressed the research aim, objectives and overall purpose of the study as set out in Chapter 1.

Finally, in the last chapter (Chapter 8), the conclusions of this study will be summarised, the limitations will be discussed, and recommendations for future studies will be provided.

CHAPTER 8:

CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The goal of this chapter is to conclude this study, which aimed to develop a unique model that explains the purchase decision process of consumers (insureds) and potential consumers (non-insureds) in the South African personal motor vehicle insurance industry. Using a conceptual consumer purchase decision for personal motor vehicle insurance (CPDFPMVI) model obtained from the literature review, this research aimed to test the conceptual model and develop a final CPDFPMVI model by utilising a carefully selected model-building strategy as methodology.

This concluding chapter provides a brief overview of the research that has been conducted, and presents a summary of the objectives, and the research aim that was addressed during the research process. This chapter draws conclusions from the data analysis presented in Chapters 6 and 7. Furthermore, the primary and secondary objectives, as well as the research question of this study are addressed and concluded; after which, the recommendations for short-term insurance companies and for future research studies are provided. The limitations of this study will be highlighted, and lastly, this chapter and research are concluded.

8.2 OVERVIEW OF RESEARCH AIMS AND OBJECTIVES

The overall purpose of this study was to determine the purchase decision process of consumers (insureds) and potential consumers (non-insureds) regarding personal motor vehicle insurance. The aim was to better understand the consumer purchase decision process within the personal motor vehicle insurance industry of South Africa. Each influencing factor and step in the purchase decision process was explored to determine which specific items contribute to the consumer purchase decision process. This study aimed to answer the following main research question: Which factors influence the individuals' purchase decision in the South African personal motor vehicle insurance industry?

A CPDFPMVI conceptual model was proposed in Chapter 4 to achieve this overall purpose of the study. The conceptual model was developed by collecting relevant and

previous literature on various consumer decision-making process models, insurance as a financial service and the purchase behaviour of consumers. The conceptual model was tested by following three phases, namely the Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and the logistic regression. The following secondary objectives supported the primary objective of this study:

- To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.
- To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.
- To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.
- To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

The influences and steps in the consumer purchase decision process, as contained in the conceptual CPDFPMVI model, were generated after several consumer decision-making models that had been developed by scholars over the years had been evaluated. All the limitations and expansions of the various consumer decision-making models (see Chapter 3) were considered in the development of the conceptual CPDFPMVI model (presented and discussed in Chapter 4). Only the influences and steps up to the purchase decision were considered in the models that were reviewed. The aim of the study was to develop a model that explains the purchase decision process of personal motor vehicle consumers and potential consumers in South Africa.

The justification for including all the items in the conceptual CPDFPMVI model can be found in Table 5.7 in Chapter 5.

Consequently, this study's primary and secondary research objectives were addressed by designing a questionnaire that permitted the researcher to measure the purchase decision process for personal motor vehicle insurance consumers and potential consumers in South Africa. The particular methodology used to collect this data was discussed comprehensively in Chapter 5.

After the data had been collected, the descriptive statistical analysis (Chapter 6) and the model fit analysis (Chapter 7) were performed. The reflections and conclusions of the analysed data will be discussed in the following section. A summary of the demographic profile of respondents in this study is presented in Table 8.6 (see Section 8.3.6).

8.3 REFLECTIONS AND CONCLUSIONS: ADDRESSING THE RESEARCH OBJECTIVES

This section provides a reflection of each secondary objective and the primary objective of the study. The link between the literature and findings is provided. Conclusions in terms of the research objectives will be drawn based on the literature and empirical findings from the primary data analysis.

8.3.1 The company's marketing efforts

This secondary objective aimed to determine the marketing efforts the short-term insurance company performs, which influence the need to purchase personal motor vehicle insurance. Table 8.1 showcases the company's marketing efforts from the secondary and primary data and the conclusions applicable to this objective.

Table 8.1: Reflections and conclusions for Objective 1

Objective
To determine the company's marketing efforts that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
Findings from the literature
The marketing mix is viewed as the basic marketing toolkit that the marketing function in an organisation can use to implement its marketing plans. However, there is a distinct difference between the product marketing mix and the service marketing mix. Taking into consideration that personal motor vehicle insurance is a financial service, the service marketing mix is used to direct short-term insurance companies' marketing efforts (Section 3.2.1.4). As explained in Section 3.4, marketing efforts are external influencing factors that can impact an individual's purchase decision. Each marketing effort and how it can influence the purchase decision is discussed in Section 4.3.1. The marketing efforts that short-term insurance companies can perform are, for example, types of policies offered, promotions, price of policy, distribution channels, physical, process, people and partnerships.
Findings from primary data analysis
<ul style="list-style-type: none"> ▪ The descriptive findings showed Type of policy (74.2%), Promotion (65.9%) and Price of policy (61.7%) as the three marketing efforts that have the most influence on the need to purchase personal motor vehicle insurance. ▪ During the model fit analysis, the inferential findings of the CFA indicated that the three marketing efforts that influence the need to purchase personal motor vehicle insurance in South Arica are also Price of the policy, People and Process. However, the factor loadings revealed that People has the greatest influence, and Price of the policy has a lower influence on the purchase decision. ▪ The logistic regression findings indicate that these three marketing efforts will increase the probability of purchasing personal motor vehicle insurance.
Conclusions
<ul style="list-style-type: none"> ▪ The marketing effort elements in the final CPDFPMVI can therefore be identified in the following order, (1) People, (2) Process and (3) Price of the policy. These items will increase the probability of purchasing personal motor vehicle insurance. Respondents who had personal motor vehicle insurance were more likely to report a higher influence of marketing efforts elements than those who did not have personal motor vehicle insurance. Thus, marketing efforts by short-term insurance companies do, in fact, drive the decision to purchase personal motor vehicle insurance. ▪ The way in which employees in short-term insurance companies interact with the consumer is seen to be the most important marketing effort element amongst the respondents in this study. This finding has implications for the service delivery strategies of insurance companies, especially regarding how employees treat consumers while they deliver the service. ▪ The duration of the process to obtain a quotation is the marketing effort that has the second-largest influence on the need to purchase personal motor vehicle insurance. This finding has implications for the service delivery strategies of insurance companies.

- Price is the marketing effort that has the third most influence on the need to purchase personal motor vehicle insurance. This is a meaningful finding which has implications for the pricing strategies of insurance companies.

8.3.2 The sociocultural environment

The aim of this secondary research objective was to establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa. Table 8.2 highlights the literature and primary data together with the conclusions drawn for this objective.

Table 8.2: Reflections and conclusions for Objective 2

Objective
To establish the sociocultural environment factors that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
Findings from the literature
Sociocultural environment factors are external influences that could impact individuals' need to purchase. The sociocultural environment consists of family, reference groups, non-commercial sources, social class, and cultural and subcultural factors that can affect individuals' purchase decision process or that of potential consumers. Each one of these factors and how it can influence the purchase decision was discussed in Section 4.3.2. Each one of these sociocultural factors can have a positive or negative effect on the individuals' need to purchase personal motor vehicle insurance.
Findings from primary data analysis
<p><i>The descriptive findings indicated that:</i></p> <ul style="list-style-type: none"> ▪ A negative comment or opinion from a family member plays a more important role in the consumers' thought process than a positive comment or opinion from a family member, which influences the consumers' need to purchase personal motor vehicle insurance. ▪ The positive opinion of a reference person or group used as a basis of comparison has a slightly larger influence on the respondents' need to purchase than the negative opinion of a reference person or group used as a basis of comparison. ▪ The positive comments of a friend, a newspaper article, or an expert's views on a blog or other internet platforms have a slightly larger influence on the respondents' need to purchase than the negative comments of a friend, a newspaper article, or an expert's views on a blog or other internet platforms. ▪ The positive opinions of individuals in the same social class have a slightly larger influence on the respondents' need to purchase personal motor vehicle insurance than the negative opinions of individuals in the same social class. <p><i>The model fit analysis revealed that:</i></p> <ul style="list-style-type: none"> ▪ In the CFA, all the variables (Positive family member, Positive reference person or group, Positive non-commercial sources and Positive social class) in the Positive Sociocultural Environment construct index values are high, except for the Cultural and

subcultural factor, which indicates that it does not have such a big influence on the purchase decision as the other Positive Sociocultural Environment variables do (see Table 7.9).

- The CFA showed that all the index values (see Table 7.9) are high in the Negative Sociocultural Environment construct, thus greatly influencing purchase decisions, especially the Negative reference person or group variable with the highest index score.
- The logistic regression indicated that the Positive Sociocultural Environment variables would decrease the probability of purchasing personal motor vehicle insurance, whereas the Negative Sociocultural Environment variables would increase the probability of purchasing personal motor vehicle insurance.

Conclusions

- The descriptive findings show that more of the Positive Sociocultural Environment variables greatly influence the respondents' need to purchase personal motor vehicle insurance than the Negative Sociocultural Environment variables.
- After further analysis, the final model fit results indicate that the Negative Sociocultural Environment variables have a more important influence on the purchase decision than the Positive Sociocultural Environment variables. One would think that the negative opinion of a family member, reference person or group, non-commercial sources and members of the social class would negatively impact the consumers' need to purchase personal motor vehicle insurance. In fact, the final CPDFPMVI model predicts the opposite. The question regarding this construct in the questionnaire was an influence scale type of question, therefore, it measured the extent of influence of each statement. The statements in this question asked the positive or negative comments/opinions of a family member, a reference person/group, a friend, a newspaper article or the views of an expert on a blog or other internet platforms and individuals in the same social class in general, and not specifically for comments or opinions about motor vehicle insurance or short-term insurance companies. Thus, a general comment from a family member about the increase of stolen motor vehicles in the area can be regarded as a negative comment, but this comment will highlight the risk to a consumer and this can persuade the individual to rather purchase insurance in case his/her motor vehicle is also stolen. Whereas, a positive comment that there is a decrease in stolen motor vehicles in the area might let the individual feel that his/her risk is not too high, and that they therefore can take the chance not to purchase personal motor vehicle insurance. Taken that insurance is a grudge purchase, this construct revealed that that is exactly how consumers think when they purchase personal motor vehicle insurance. Therefore, this study found that Positive Sociocultural Environment variables decrease the probability of purchasing personal motor vehicle insurance, whereas the Negative Sociocultural Environment variables increase the probability of purchasing personal motor vehicle insurance. It is important to point out that these findings are based on the opinions of respondents. The opinions gathered in this study revealed that the Negative Sociocultural Environment variables have a more important influence on the purchase decision than the Positive Sociocultural Environment variables.
- Respondents who had personal motor vehicle insurance were more likely to report that negative opinions/comments from the sociocultural environment greatly influenced the need to purchase than those who did not have personal motor vehicle insurance. In contrast, respondents who did not have personal motor vehicle insurance were less likely to report that positive opinions/comments from the sociocultural environment greatly influenced their need to purchase than those who had personal motor vehicle insurance.

8.3.3 The communication sources

This secondary objective aimed to identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa. Table 8.3 draws attention to the literature and primary data, as well as the conclusions for this objective.

Table 8.3: Reflections and conclusions for Objective 3

Objective
To identify the communication sources that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
Findings from the literature
The communication sources refer to the mechanisms that deliver the company's marketing efforts and sociocultural influences to the market. The communication sources are advertising, buzz agents, customised messages, owned or paid-for social media and user-generated social media posts (as discussed in Section 4.3.3). A message received by an individual through a communication source can influence the need for personal motor vehicle insurance, or it can influence individuals not to buy.
Findings from primary data analysis
<p><i>The descriptive findings showed that:</i></p> <ul style="list-style-type: none"> ▪ Traditional and online advertisements do not influence the respondents' purchasing needs to a large extent. ▪ There were more respondents who felt that buzz agents do not influence their need to purchase to a large extent. ▪ Customised messages that insurance companies communicate have an influence on most respondents' purchasing needs. ▪ Just over half of the respondents stipulated that user-generated social media posts slightly influence their need to purchase personal motor vehicle insurance. ▪ Social media efforts by insurance companies do not influence the respondents' purchasing needs to a large extent. <p><i>The model fit analysis revealed that:</i></p> <ul style="list-style-type: none"> ▪ The CFA revealed that Online advertisements have a slightly higher influence than Traditional advertisements. However, the logistic regression model-building strategy indicates that these two communication sources did not contribute significantly to the model's predictive ability and they were removed. ▪ After the CFA, only Buzz agents, Customised messages and Paid-for social media efforts were deemed significant, with Paid-for social media efforts having the largest influence. ▪ The logistic regression revealed that these three communication sources (Paid-for social media efforts, Buzz agents and Customised messages) would decrease the probability of purchasing personal motor vehicle insurance.

Conclusions

- According to this model, Communication sources decrease the probability of purchasing personal motor vehicle insurance, which is an interesting finding as one would think that Customised messages and Paid-for social media efforts by short-term insurance companies would aim to increase individuals' purchase decisions. This question in the questionnaire also tested each statement's influence scale. The descriptive statistics revealed that two (Buzz agents and Paid-for social media efforts) out of the three Communication sources included in the final model do not influence the respondents' purchasing decisions to a large extent. This explains why the Communications sources identified in the final model decrease the probability of purchasing.
- One would have expected that user-generated social media posts would have a much more considerable influence on the need to purchase motor vehicle insurance. Social media is a commonly used platform where consumers express their experiences of products and services.
- Recent research found (discussed in Section 4.3.3) that word-of-mouth using user-generated social media is essential in the motor vehicle insurance market to enable individuals to talk about the company's motor vehicle insurance products. However, it is noteworthy that this study found that it does not influence the need to purchase personal motor vehicle insurance in South Africa to a large extent.
- Although it appears that buzz agents do not influence respondents' need to purchase to a large extent, short-term insurance companies may not be using buzz agents enough or correctly.
- Globally, customised messages are seen as an effective way of reaching motor vehicle insurance consumers (discussed in Section 4.3.3). This study's findings agree with the global findings that customised messages as an external factor influence the individual's need to purchase personal motor vehicle insurance in South Africa.
- Even though traditional and online advertising were not significant enough to be included in the final CPDFPMVI model, it is still crucial for brand awareness. When consumers see/hear a traditional or online advertisement, they will recall the brand and consider it when they are in the purchase decision-making process.
- Respondents who do not have personal motor vehicle insurance were less likely to report a large influence of communication sources than those who had personal motor vehicle insurance. In other words, communication sources by short-term insurance companies do, in fact, decrease the probability of making a decision to purchase personal motor vehicle insurance.

8.3.4 The psychological attributes

The aim of this secondary objective was to determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa. Table 8.4 presents the literature and primary data, as well as the conclusions drawn for this objective.

Table 8.4: Reflections and conclusions for Objective 4

Objective
To determine the individual's psychological attributes that influence the need recognition to purchase personal motor vehicle insurance in South Africa.
Findings from the literature
<ul style="list-style-type: none">▪ The motivation of individuals to purchase insurance is determined by two main factors, risk expectation and risk sensitivity, as discussed in Section 4.4.1.1.▪ The individuals' perception of a financial service, such as motor vehicle insurance, also plays a role in consumer satisfaction (see Section 4.4.1.2).▪ The process of how individuals purchase and consume information, and the experience gained (learning) is an individual factor that impacts the consumer's need recognition, which is the first step of the decision-making process (see Section 4.4.1.3).▪ Personality is the inner characteristics of an individual that impact the individual's need recognition to purchase a financial service, such as personal motor vehicle insurance (as discussed in Section 4.4.1.4).▪ As discussed in Section 4.4.1.5, attitudes regarding insurance and a specific insurance company are mainly formed from past purchase experiences.
Findings from primary data analysis
<p><i>The descriptive findings indicated that:</i></p> <ul style="list-style-type: none">▪ 50.9% of the respondents specified that the motivation to purchase personal motor vehicle insurance largely influences their need recognition for personal motor vehicle insurance.▪ 52.5% of the respondents specified that the perception about personal motor vehicle insurance largely influences their need recognition for personal motor vehicle insurance.▪ 51.4% of the respondents specified that the perception about a certain short-term insurance company largely influences their need recognition for personal motor vehicle insurance.▪ 48.8% of the respondents indicated that how they purchase and consume information and the experience gained largely influence their need recognition for personal motor vehicle insurance.▪ 43.5% of the respondents specified that their personality largely influences their need recognition for personal motor vehicle insurance.▪ 55% of the respondents indicated that their attitude towards motor vehicle insurance largely influences their need recognition for personal motor vehicle insurance.▪ 50.2% of the respondents indicated that their attitude towards a certain short-term insurance company largely influences their need recognition for personal motor vehicle insurance. <p><i>The model fit analysis showed that:</i></p> <ul style="list-style-type: none">▪ Based on the CFA, Personality has the least influence on the purchase decision, and Perception about a certain short-term insurance company has the greatest influence

on the need to purchase personal motor vehicle insurance. All the other items have a large influence on the purchase decision, as the index values are high.

- The logistic regression indicated that all five Psychological Attributes would increase the probability of purchasing personal motor vehicle insurance.
- Respondents who had personal motor vehicle insurance were more likely to report higher levels of agreement with the psychological attributes' influence on the need recognition than those who did not have personal motor vehicle insurance.

Conclusions

- More than half of the respondents in this study feel that their risk expectations and sensitivity motivate their need to purchase motor vehicle insurance.
- The findings show that the way a consumer acts during the decision-making process is affected by their perception of motor vehicle insurance and a certain short-term insurance company.
- The learning/experiences gained from previous motor vehicle insurance purchases do influence respondents' future purchase decisions.
- The findings revealed that most respondents feel that their attitude towards motor vehicle insurance does (to some extent) influence their need recognition for personal motor vehicle insurance.
- The findings confirmed that the attitude towards motor vehicle insurance plays a slightly bigger role than the attitude towards a certain short-term insurance company in the respondent's decision-making process.

8.3.5 The decision-making process

The secondary objective regarding the decision-making process aimed to investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa. Table 8.5 presents the reflections on and conclusions drawn for this secondary objective.

Table 8.5: Reflections and conclusions for Objective 5

Objective
To investigate the steps of the decision-making process for the personal motor vehicle insurance industry in South Africa.
Findings from the literature
<ul style="list-style-type: none"> ▪ As discussed in Section 4.5, the 'Pre-purchase' step in the decision-making process will typically be the step during which individuals think about previous experiences (internal search), request a few quotations of policies from different companies, and consider the price of each policy (external search). ▪ During the 'Evaluation of alternatives' step (see Section 4.5), individuals who have obtained information about a financial service will use the criteria to compare the different quotations, and measure if a product/policy will contribute to their need satisfaction. The criteria consist of three aspects, namely, price (price of the policy on quotation), quality (the standard of the quotation) and the brand list (list of different companies).

Findings from primary data analysis

The descriptive findings showed that:

- The descriptive findings revealed that both items under the Pre-purchase search step (considering previous experiences and request quotations) are used by respondents.
 - 56.9% of the respondents indicated that they use their previous experiences in the pre-purchase search to a greater extent.
 - 53.8% of the respondents indicated that they request quotations from more than one short-term insurance company to a greater extent.
- The Evaluation of alternatives criterion most used is quality/standard, followed by price, and the criterion least used is the brand list.
 - 61.9% of the respondents indicated that they compare the quality of the different quotations to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent.
 - 61% of the respondents indicated that they compare the price of the different quotations to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent.
 - 43.7% of the respondents specified that they compare the brand list to measure if there is a policy that will contribute to their need satisfaction and lifestyle to a greater extent.

The model fit analysis revealed that:

- The CFA indicated that the Pre-purchase search considering previous experiences' item had a low loading and was not acceptable for inclusion in the CPDFPMVI model.
- According to the CFA, the Evaluate alternative prices variable has the greatest influence on the purchase decision. The Evaluate alternative brands variable has the lowest influence on the purchase decision.
- The logistic regression indicated that all four Decision Process steps would increase the probability of purchasing personal motor vehicle insurance. Thus, respondents who had personal motor vehicle insurance were more likely to report a higher extent of use of the decision-making steps than those who did not have personal motor vehicle insurance.

Conclusions

- This study's findings confirm that individuals use their previous experiences to perform a pre-purchase search for personal motor vehicle insurance as part of the decision-making steps.
- Knowing that price is an external influence that influences the need to purchase personal motor vehicle insurance, it is noteworthy to find that the criterion that specifies that individuals consider the price of each policy has the greatest influence on their decision while choosing between the alternative brands. Thus, the findings in this study confirm the role price plays in selecting and choosing a short-term insurance company's motor vehicle insurance policy.

8.3.6 The demographic variables

This secondary objective aimed to assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa. Table 8.6 showcases the secondary and primary data, as well as the conclusions applicable to this objective.

Table 8.6: Reflections and conclusions for Objective 6

Objective
To assess the demographic variables that influence the individual's need to purchase personal motor vehicle insurance in South Africa.
Findings from the literature
<ul style="list-style-type: none"> ▪ Organisations often segment markets based on demographics as this information is widely available, and it can also relate to the individuals' purchase decisions (refer to Section 3.2.1.3 and 4.4.2). ▪ As discussed in Sections 3.2.1.3 and 4.4.2, the general demographic variables include age, gender, income, household size, education, ethnic background and family lifestyle.
Findings from primary data analysis
<p><i>A summary of the demographic profile of the respondents as per the descriptive statistics:</i></p> <ul style="list-style-type: none"> ▪ The largest group of respondents (25.7%) fell within the age category of 31-40 years. ▪ The largest population group in this study was White, comprising 60% of the respondents. ▪ 52.5% of the respondents were male, and the other 47.5% of the respondents were female. ▪ 55.6% of the respondents were married, the single category made up 23.2% of the respondents, 10.5% of the respondents were living with a partner but were not married, 7.1% of the respondents were divorced, and 3.6% of respondents were widowed. ▪ The three highest levels of education categories were: the Grade 12 category was made up of 25.7% of the respondents, the Bachelor's Degree category had 13.8% of the respondents and the Diploma category comprised 13.6% of the respondents. ▪ Most respondents (57.8%) were permanently employed on a full-time basis. ▪ The three provinces in which respondents mostly travel with their personal motor vehicles were Gauteng (43.4%), Western Cape (12.8%) and KwaZulu-Natal (10.9%). ▪ 75.8% of the respondents had a monthly household income of more than R6 000. ▪ 49.1% of the respondents earned more than R16 000 personal income per month. <p><i>The model fit analysis showed that:</i></p> <ul style="list-style-type: none"> ▪ Age, the Highest education level, and Household income significantly contributed to the CPDFPMVI model's predictive ability.

- All three of these demographic variables will increase the probability of purchasing personal motor vehicle insurance.

Conclusions

- These findings show that Age, the Highest level of education, and Household income indeed relate to and influence the purchase decision of personal motor vehicle insurance.
- The Household income and Highest level of education are also some of the biggest drivers that influence purchasing personal motor vehicle insurance, according to the CPDFPMVI model's predictive ability. It is interesting to note that household income and not personal income is a driver that influences the purchase decision, as the general questions revealed that most respondents pay for themselves. However, family finances can be divided, or most families might feel that all the income per month is seen as a collective income before the expenses are paid.
- The respondents that have personal motor vehicle insurance were more likely to report higher education levels than those who did not have personal motor vehicle insurance. The highest level of education could link up with insurance knowledge or literacy, which relates to the financial literacy that is the key to making informed purchase decisions.
- The respondents that have personal motor vehicle insurance were more likely to report higher household incomes than those who did not have personal motor vehicle insurance. Household income is the biggest driver that affects the purchase decision of personal motor vehicle insurance, which corresponds with the importance of price to consumers. Personal motor vehicle insurance is known to be a grudge purchase, and it can play a role because if consumers do not have enough disposable income to cover other monthly expenses, it will affect the purchase decision related to motor vehicle insurance.

8.3.7 Demographic profile of personal motor vehicle insurance consumers

This secondary objective deals with the demographic profile of respondents who purchase personal motor vehicle insurance in this study. Table 8.7 presents the reflections on and conclusions drawn for this secondary objective.

Table 8.7: Reflections and conclusions for Objective 7

Objective
To assess the consumer demographic profile within the South African personal motor vehicle insurance industry.
Findings from the literature
As discussed in Section 3.2.1.3, a general consumer profile can only be compiled after an organisation has segmented its market and categorised all the homogenous groups. A general consumer profile will allow the organisation to select a promising segment that has the potential to be targeted.
Findings from primary data analysis

The overall findings regarding the demographic profile of respondents that purchase personal motor vehicle insurance can be used to develop a description of the average personal motor vehicle insurance consumer in South Africa. The table below presents a description of the average personal motor vehicle insurance consumer.

Construct	Average personal motor vehicle consumer according to this study
Age	The average age is 50 years old.
Population group	Likely to be a white consumer.
Gender	Equal probability towards gender.
Marital status	Likely to be married.
Highest level of education	Likely to have a Post Higher Diploma (Masters or Doctoral Diploma) or higher education level.
Employment status	Likely to be permanently employed on a full-time basis.
Province mostly travelled with personal motor vehicle	Likely to travel most in Gauteng.
Household income	Likely to have a household income of more than R16 001.
Personal income	Likely to earn more than R16 001 personally.

Conclusions

Each short-term insurance company has a consumer profile that describes the demographics of their current consumers. Therefore, the consumer profile of every short-term insurance company will differ, but this description of the average personal motor vehicle insurance consumer provides insight into the different characteristics of consumers in South Africa that specifically purchase personal motor vehicle insurance.

8.3.8 Demographic profile of personal motor vehicle drivers

This secondary objective with regard to the demographic profile of respondents aimed to compile a general profile that describes the average personal motor vehicle driver that participated in this study. Table 8.8 presents the reflections on and conclusions drawn for this secondary objective.

Table 8.8: Reflections and conclusions for Objective 8

Objective
To compile a general demographic profile that describes the average personal motor vehicle driver in South Africa.

Findings from the literature

Organisations, such as short-term insurance companies, should segment their market according to demographics. This information guides them on how to target the audience/market (Section 3.2.1.3). Section 2.7.2.1 highlighted demographic findings in international and African studies. In South Africa, the Black African population group is the population group that owns the most motor vehicles, and a higher percentage of male drivers own a motor vehicle than females. The provinces with the highest number of registered motor vehicles are: (1) Gauteng, (2) Western cape, (3) KwaZulu-Natal and (4) Eastern Cape. No information could be obtained about the age, highest level of education, marital status, employment status, personal income and household income of drivers in South Africa.

Findings from primary data analysis

The overall findings regarding the demographic profile of respondents (see a summary of the demographic profile of respondents in Table 8.6 above) can be used to develop a description of the average personal motor vehicle driver. The table below presents a description of the average personal motor vehicle driver.

Construct	Average personal motor vehicle driver according to this study
Age	The average age is 45 years old.
Population group	Likely to be a white driver.
Gender	Likely to be a male driver.
Marital status	Likely to be married.
Highest level of education	Likely to have a Post-Matric Certificate (Grade 12) or higher education level.
Employment status	Likely to be permanently employed on a full-time basis.
Province mostly travelled with personal motor vehicle	Likely to travel most in Gauteng.
Household income	Likely to have a household income more than R6 001.
Personal income	Likely to earn more than R2 501 personally.

Conclusions

The findings of this study are not similar to the information available in the literature on previous studies in countries such as the US, the UK, Ghana, Qatar and Denmark. These demographic profile findings do not mirror the characteristics of South African motor vehicle drivers, taking into consideration that this study's respondents consisted of personal motor vehicle drivers and not all motor vehicle drivers. However, this description still provides insight into the different characteristics of the average personal motor vehicle driver.

8.3.9 The consumer purchase decision for personal motor vehicle insurance (CPDFPMVI) model

The primary objective of this study was to develop a model that explains the consumer purchase decision process in the South African personal motor vehicle insurance industry. To address and conclude this primary research objective, the final CPDFPMVI model, as presented in Chapter 7, will be discussed. In this section, specific attention will be given to the items that have been removed from the CFA baseline model and logistic regression baseline model. The final CPDFPMVI model is presented in Table 8.9.

Table 8.9: The CPDFPMVI model

Constructs	CPDFPMVI model after item structure was confirmed with the EFA	According to the final CPDFPMVI model
Company's marketing efforts	<ul style="list-style-type: none"> ▪ Type of policies offered ▪ Price of a policy ▪ Distribution channels ▪ Physical evidence ▪ Process ▪ People ▪ Partnerships 	<ul style="list-style-type: none"> ▪ Price of a policy ▪ Process ▪ People
Sociocultural environment factors	<p><u>Positive sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Positive family member ▪ Positive reference person or group ▪ Positive non-commercial sources ▪ Positive social class ▪ Cultural and subcultural factors <p><u>Negative sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Negative family member ▪ Negative reference person or group ▪ Negative non-commercial sources ▪ Negative social class 	<p><u>Positive sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Positive family member ▪ Positive reference person or group ▪ Positive non-commercial sources ▪ Positive social class ▪ Cultural and subcultural factors <p><u>Negative sociocultural environment</u></p> <ul style="list-style-type: none"> ▪ Negative family member ▪ Negative reference person or group ▪ Negative non-commercial sources ▪ Negative social class

Constructs	CPDFPMVI model after item structure was confirmed with the EFA	According to the final CPDFPMVI model
Communication sources	<p><u>Communication sources A</u></p> <ul style="list-style-type: none"> ▪ Traditional advertisements ▪ Online advertisements ▪ Promotion <p><u>Communication sources B</u></p> <ul style="list-style-type: none"> ▪ Buzz agent ▪ Customised messages ▪ User-generated social media posts ▪ Paid-for social media efforts 	<ul style="list-style-type: none"> ▪ Buzz agent ▪ Customised messages ▪ Paid-for social media efforts
Psychological attributes that influence the need recognition	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain short-term insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company 	<ul style="list-style-type: none"> ▪ Motivation ▪ Perception about motor vehicle insurance ▪ Perception about a certain short-term insurance company ▪ Learning ▪ Personality ▪ Attitude towards motor vehicle insurance ▪ Attitude towards a certain short-term insurance company
Decision-making process	<ul style="list-style-type: none"> ▪ Pre-purchase search considering previous experiences ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative qualities ▪ Evaluate alternative brands 	<ul style="list-style-type: none"> ▪ Pre-purchase search requesting quotations ▪ Evaluate alternative prices ▪ Evaluate alternative qualities ▪ Evaluate alternative brands
Demographic variables		<ul style="list-style-type: none"> ▪ Age ▪ Highest level of education ▪ Household income

The items in the final CPDFPMVI model are tabulated in the last column of Table 8.9 on the right, and are illustrated in Figure 8.1 below.

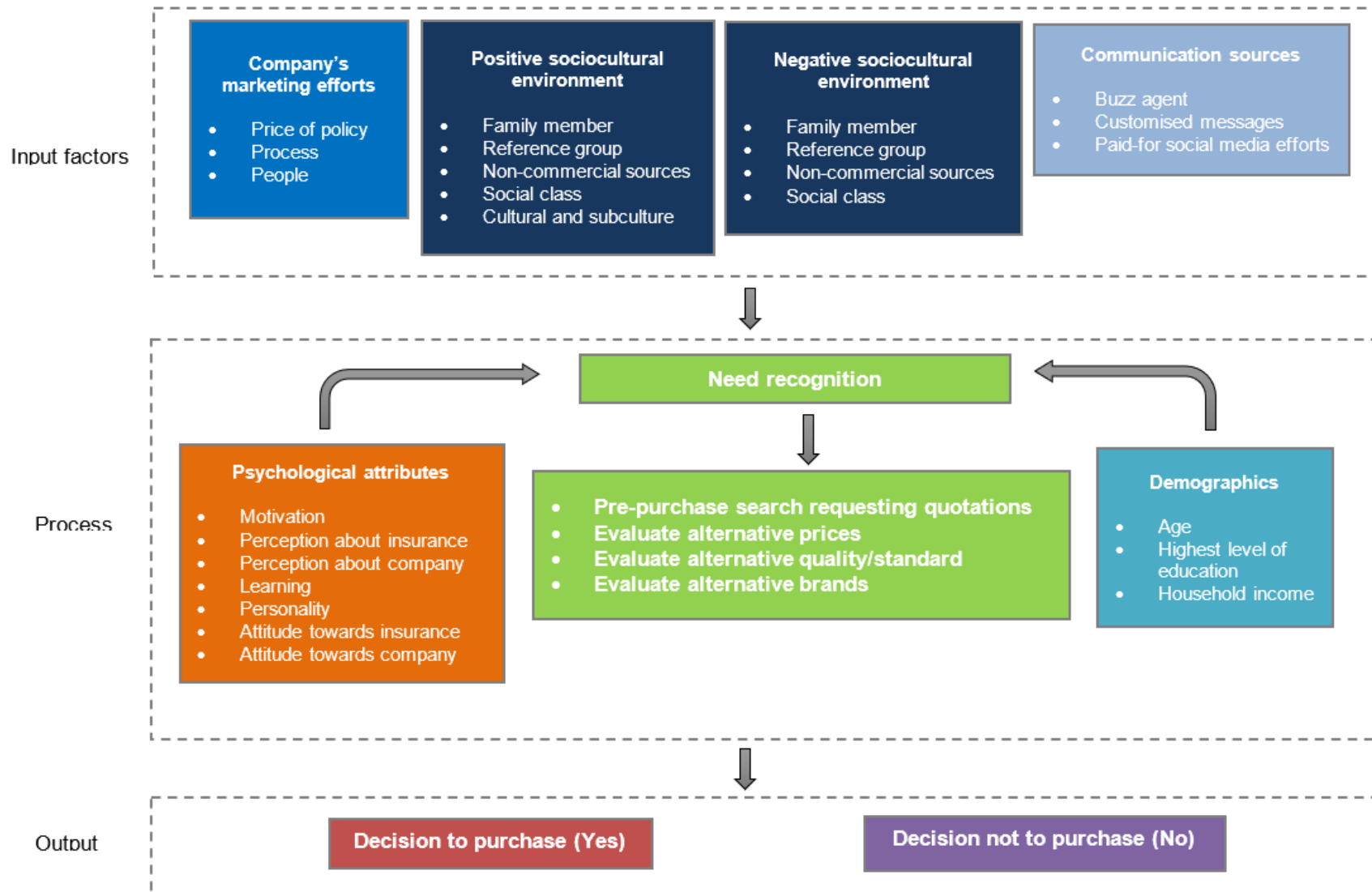


Figure 8.1: Final CPDFPMVI model

The findings from the data collected in this study indicated that the following items in Table 8.10 did not contribute to the final CPDFPMVI model.

Table 8.10: Items that were discarded from the final CPDFPMVI model

Constructs	Items removed
Company's marketing efforts	<ul style="list-style-type: none"> ▪ Type of policies offered ▪ Distribution channels ▪ Physical evidence ▪ Partnerships
Sociocultural environment factors	No items were discarded
Communication sources	<p><u>Communication sources A</u></p> <ul style="list-style-type: none"> ▪ Traditional advertisements ▪ Online advertisements ▪ Promotion <p><u>Communication sources B</u></p> <ul style="list-style-type: none"> ▪ User-generated social media posts
Psychological attributes that influence the need recognition	No items were discarded
Decision-making process	<ul style="list-style-type: none"> ▪ -Pre-purchase search considering previous experiences
Demographic variables	<ul style="list-style-type: none"> ▪ Marital status ▪ Employment status

It is recommended that further research be conducted to explore if these items would contribute to the purchase decision process if another population and/or other financial service is used.

The next section addresses the main research question.

8.4 ADDRESSING THE RESEARCH QUESTION

The research question was raised in Chapter 1. After this study's primary data collection and analysis phases, the researcher could address the main research question successfully. The final CPDFPMVI model was accepted by following a unique model-building strategy (explained in Section 7.1) in the model fit analysis. This final

CPDFPMVI model points out all the factors that influence the individuals' purchase decisions in the South African personal motor vehicle insurance industry. Table 8.9 and Figure 8.1 above indicate all the factors (internal and external) which influence the individuals' purchase decisions in the South African personal motor vehicle insurance industry. According to the final CPDFPMVI model, the items under the Company's marketing efforts, Sociocultural environment factors, Communication sources, Psychological attributes and Demographic variables influence the need recognition, and are all factors that influence the individuals' purchase decision in the South African personal motor vehicle insurance industry (see Table 8.9, according to the final CPDFPMVI model column and presented in Figure 8.1).

As explained in the literature review, there are distinct differences between the internal and external factors. The external factors that influence the purchase decision are the Company's marketing efforts, Sociocultural environment factors, and Communication sources. The internal factors are Psychological attributes and Demographic variables. The following section deliberates on this study's contribution to the body of knowledge.

8.5 CONTRIBUTION TO THE BODY OF KNOWLEDGE

This study has made a modest contribution to the knowledge exploring the evolving issue of individuals' purchase behaviour in insurance. In the present case, only the perceptions and opinions of motor vehicle drivers in South Africa were used to develop a CPDFPMVI model. However, during this research process, the study achieved some additional contributions by:

- Closing the gap in knowledge about motor vehicle insurance consumers in South Africa, specifically the personal motor vehicle insurance consumers. Thus far, very little literature has been available on South African motor vehicle drivers. Consequently, the researcher could find no literature that specifically focuses on the personal motor vehicle insurance consumers and potential consumers in South Africa. Therefore, in this study, an attempt was made to describe the average personal motor vehicle driver by analysing and interpreting the demographic data collected.

- Creating new understandings of the existing individual/internal factors that influence the individual's purchase decision of personal motor vehicle insurance, specifically.
- Merging the previously established marketing concepts from the literature on consumer behaviour in such a way that the purchase decision aspects can be viewed from the individual's perspective instead of from an organisational point of view.
- Merging the field of business management with specific reference to consumer behaviour and marketing by developing an acceptable CPDFPMVI model that explains the purchase decision process of personal motor vehicle insurance consumers in South Africa.
- Demonstrating originality by focusing on the personal motor vehicle insurance industry. The reason why a consumer purchases personal motor vehicle insurance is different from the reasons why consumers purchase motor vehicle insurance for business purposes. Most of the current purchase behaviour research and literature in insurance is based on medical and life insurance. While a few studies have been conducted on purchase behaviour for motor vehicle insurance, none are based in South Africa. Taking into consideration that motor vehicle insurance in South Africa is not compulsory as it is in most other countries, the individuals' need for personal motor vehicle insurance is determined by internal and external factors, as found in this study.
- Field-testing the newly developed CPDFPMVI conceptual model. Therefore, a unique consumer purchase decision model for the personal motor vehicle insurance industry contributes to the South African insurance knowledge.
- Formulating and using a unique model-building strategy as the methodology in the model fit analysis of this study to generate the accepted CPDFPMVI model can also be regarded as a contribution.

The following section briefly summarises the recommendations made to the short-term insurance companies in South Africa.

8.6 RECOMMENDATIONS FOR COMPANIES IN THE SHORT-TERM INSURANCE INDUSTRY

It is important for short-term insurance companies, specifically, to have insight into and understanding of the purchase behaviour amongst consumers and potential consumers in terms of personal motor vehicle insurance within South Africa. However, academics can also benefit from this understanding. Short-term insurance companies are the policymakers that offer and market motor vehicle insurance products to consumers and potential consumers. Therefore, these companies should consider the main recommendations as summarised in the paragraphs below.

Short-term insurance companies can benefit from trained and skilled employees who treat consumers acceptably and according to their satisfaction when a policy is sold or when a claim is lodged. Furthermore, a degree of automation during the quotation process will be highly productive in offering individuals in the market what they want, when they want it. Also, by incorporating pricing strategies that will still draw consumers even during these difficult financial times, can enable short-term insurance companies to be proactive in adapting to the changing market environment. In addition, cultural and subcultural factors are part of the market environment of short-term insurance companies. They cannot control it, but it is important to spot the cultural shifts to offer policies that individuals in the market want. Moreover, short-term insurance companies will have to investigate whether the shift to digital marketing will be beneficial in terms of advertising motor vehicle insurance, and the use of buzz agents can also be investigated.

Strategies can be developed to convince more individuals to purchase motor vehicle insurance and to change their perception regarding a certain short-term insurance company. Likewise, short-term insurance companies must ensure that consumers are satisfied with the purchase from these companies, as this might influence their future purchase decisions with that company. Additionally, short-term insurance companies can consider personalities as useful when analysing consumer behaviour in terms of certain policies or brand choices, and positive attitudes regarding motor vehicle insurance and the specific short-term insurance company should be formed.

Short-term insurance companies must ensure that the quotation process is straightforward, informative and flawless so that individuals in the market can obtain

all the necessary information before the alternatives are evaluated. This is especially important as the information gained from the quotations can be used to perform a pre-purchase search for more products at a later stage. Furthermore, short-term insurance companies should take the necessary steps to ensure that the most competitive prices are presented to the market. They should also ensure that good quality and high standard quotations providing sufficient information are offered, and that their brand can be distinguished from their competitors.

Considering that this study revealed that Age, Highest level of education, and Household income influence the purchase decision of individuals, short-term insurance companies must ensure that the market is segmented accordingly to fit the different motor vehicle insurance product offerings. Lastly, the demographic segmentation information available in each short-term insurance company can be used in marketing efforts to target the correct audience.

The following section presents the recommendations for future research.

8.7 RECOMMENDATIONS FOR FUTURE RESEARCH

The empirical findings of this study of the consumer purchase behaviour in the personal motor vehicle insurance industry of South Africa have introduced a new set of questions. As expected, new information comes to light as the research process unfolds, or researchers learn something new about the research topic. By answering this study's research question and objectives, potential research areas for future research were identified.

- This study was conducted at the beginning of the COVID-19 pandemic in South Africa. Therefore, a recommendation is that further research be conducted to determine what influence a cheaper policy price will have on personal motor vehicle consumers now that the COVID-19 pandemic has impacted the disposable income of consumers across the country.
- The brand awareness aspect of the marketing efforts can be further researched to establish if short-term insurance companies' marketing efforts play a role when individuals in the market recall brands when searching for information during the decision-making process.

- Further research can be conducted to determine what individuals in the market would like to see/hear in communication sources, like buzz agents, customised messages and paid-for social media efforts to increase the probability of purchasing personal motor vehicle insurance.
- Further research can be conducted on how the learning attribute contributes to future purchase decisions for insurance products.
- Further research can be conducted in the purchasing behaviour of another type of insurance such as medical or household insurance. For example, to establish if previous experiences in the Pre-purchase Search step influence consumers' purchase decisions, and to determine if age, highest level of education, and household income will also influence individuals' purchase decisions.
- It is recommended that further research be conducted to explore if the items discarded from the final CPDFPMVI model would contribute to the purchase decision process if another population and/or other financial service is used.
- The conceptual CPDFPMVI model presented in this study can be tested on different insurance products, and the possible differences can be investigated. In other words, future research can apply this study to other types of insurance.
- The post-purchase behaviour step in the purchase decision-making process can be investigated, since this was not covered in this research.
- Lastly, the theory of planned behaviour can be investigated to determine individuals' purchase intention towards motor vehicle insurance for personal use.

The limitations of this study are presented in the following section.

8.8 LIMITATIONS OF THE STUDY

This research was conducted after considering the quality requirements and thoroughness of the research design and methodologies. However, the following limitations need to be considered along with the findings.

- The low response rate can be regarded as a limitation. A larger sample would have been preferred, considering that the live motor vehicle population in South Africa is in the region of twelve to thirteen million. Some technical difficulties were experienced with the distribution of the survey, which the researcher had no control

over. The survey was first distributed to the AA database, and the researcher could only obtain the number of respondents much later than what was planned for at the beginning. The number of respondents who completed the survey from the AA database was not the number initially anticipated. Therefore, the researcher had to think of innovative ways on how to invite more individuals to the study. Hence, the extended period to complete the data-collection phase. The researcher used more than one sampling method (convenience and snowball sampling) via Facebook to increase the response rate, ensuring that the largest sample possible was invited to partake in the study. After all these attempts to invite respondents on Facebook, there was still a very low response rate. Then the researcher decided to distribute hard copy questionnaires in the different regions of the country by means of the snowball sampling method. A large number of hard copy questionnaires were not returned or could not be used due to incompleteness. For this reason, the study only reached a response rate of 678 responses that could be successfully used.

- Generalisability could be limited due to the sampling size and characteristics of the research sample, as well as the sampling methods used. Though the sample comprised of $n=678$, it was sufficient to perform statistical analysis that could lead to significant conclusions. However, a larger response rate would have guaranteed findings that could confidently be generalised. Furthermore, the characteristics of the research sample do not mirror the characteristics of drivers in South Africa. Finally, the sampling methods used in this study were not the researcher's first choice. The lack of complete contact details on, and accessibility constraints to the Road Traffic Management Cooperation (RTMC) database forced the researcher to follow non-probability sampling methods. Nevertheless, the findings still provide valuable new insight for future replication studies.
- The findings are based on data from one industry, namely, the personal motor vehicle insurance industry, which is only a part of the larger motor vehicle insurance industry of South Africa. The statistics currently available regarding the market penetration of motor vehicle insurance include all three motor vehicle insurance lines (personal, commercial and corporate business). As this study focused on the personal motor vehicle insurance line, the findings cannot be compared to the current statistics available.

These limitations do not prevent the study from contributing to the body of knowledge on the individuals' purchase behaviour in the personal motor vehicle insurance industry of South Africa. However, they do limit the extent to which the study can contribute. The limitations of this study may serve as future research direction for other research studies.

8.9 RESEARCH CONCLUSION

It is complex and challenging to gain an understanding of the market individuals' purchase decision process, as there are internal and external factors that could influence the purchase decision. This study aimed to determine the purchasing decision process of consumers and potential consumers regarding personal motor vehicle insurance in South Africa.

The motivation behind choosing this research topic was two-fold. Firstly, to develop a model that explains the consumer purchase decision process within the personal motor vehicle insurance industry of South Africa. Secondly, to contribute to practical relevant research by determining the factors that influence the individual's purchase decision in the South African personal motor vehicle insurance industry.

The research set out to expand the body of knowledge in terms of purchase behaviour, and made a contribution to the personal motor vehicle insurance industry of South Africa. A quantitative research approach was followed to gain an understanding of the individual's purchase decision process for personal motor vehicle insurance. This research confirmed the factors that influence the purchase decision of individuals in the South African personal motor vehicle insurance industry. This thesis has provided recommendations for short-term insurance companies in South Africa and future studies.

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APPENDIX A
- DATA COLLECTION INSTRUMENT -

Dear prospective participant,

You are invited to participate in a survey conducted by Ms Nadia van Huyssteen, under the supervision of Prof. Sharon Rudansky-Kloppers, a professor in the Department of Business Management, towards a PhD degree at the University of South Africa.

The survey you have received has been designed to study the reasons why South African consumers purchase (or do not purchase) personal motor vehicle insurance in South Africa. You were selected to participate in this survey because you are a registered or licensed motor vehicle owner and/or driver in South Africa. By completing this survey, you agree that the information you provide may be used for research purposes, including dissemination through peer-reviewed publications and conference proceedings.

It is anticipated that the information we gain from this survey will help us to understand the South African motor vehicle insurance market and the South African motorists' purchasing habits of personal motor vehicle insurance. You are, however, under no obligation to complete the survey and you can withdraw from the study prior to submitting the survey. The survey is developed to be anonymous, meaning that we will have no way of connecting the information that you provide to you personally. Consequently, you will not be able to withdraw from the study once you have clicked the send button based on the anonymous nature of the survey. If you choose to participate in this survey it will take up no more than 20 minutes of your time. You will not benefit from your participation as an individual, however, it is envisioned that the findings of this study will be used in a PhD dissertation. It could also be shared in conference presentations, the publication of academic articles and other communication. If you would like feedback regarding the results of this study you are more than welcome to contact the main researcher. We do not foresee that you will experience any negative consequences by completing the survey. The researcher(s) undertake to keep any information provided herein confidential, not to let it out of our possession and to report on the findings from the perspective of the participating group and not from the perspective of an individual.

The records will be kept for five years for audit purposes where after it will be permanently destroyed (electronic versions will be permanently deleted from the hard drive of the computer). You will not be reimbursed or receive any incentives for your participation in the survey.

The study fulfils all the requirements as set out in the Unisa Policy on Research Ethics and the research was reviewed and approved by the Department of Business Management Research Ethics Review Committee. A copy of the approval letter can be obtained from the researcher if you so wish. The primary researcher, Ms Nadia van Huyssteen, can be contacted during office hours at marxn@unisa.ac.za or 012 429 8014. The study leader, Prof Sharon Rudansky-Kloppers, can be contacted during office hours at rudans@unisa.ac.za or 012 429 8014. Should you have any questions regarding the ethical aspects of the study, you can contact the chairperson of the Department of Business Management Research Ethics Review Committee, at vissed@unisa.ac.za or 012 429 2113. Alternatively, you can report any serious unethical behaviour at the University's Toll Free Hotline 0800 86 96 93.

I agree to the recording of the online questionnaire and by clicking on "next" I am giving my consent to participate in this study.

Please answer all the questions by placing a tick in the specific block (there are no right or wrong answers).

Next

Q1. Do you drive a motor vehicle, which includes a motor car/sedan/hatchback/station wagon/SUV/single or double cab bakkie?

1 Yes	2 No
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➔ If you ticked **YES** please continue with **QUESTION 2** below.

➔ If you ticked **NO**, please stop completing the questionnaire. Thank you for completing the survey. Your assistance is appreciated.

Q2. Are you personally responsible for the decision to purchase your personal motor vehicle's insurance cover? *Please note that this is only for personally financed or owned motor vehicles.*

1 Yes	2 No
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➔ If you ticked **YES** please continue with **QUESTION 3** below.

➔ If you ticked **NO**, please stop completing the questionnaire. Thank you for completing the survey. Your assistance is appreciated.

Q3. Do you currently have motor vehicle insurance for your personal motor vehicle? *Please note that this is only for personally financed or owned motor vehicles.*

1 Yes	2 No
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➔ If you ticked **YES** please continue with **QUESTION 4** below, **SKIP QUESTION 7** and **CONTINUE** with **QUESTION 8**.

➔ If you ticked **NO**, please continue with **QUESTION 7**.

Q4. Which type of personal motor vehicle insurance policy do you currently have for your motor vehicle? (Only select one option)

Comprehensive	1
Third-party fire and theft	2
Third-party only	3
Pay As You Drive	4
Not certain	5

Q5. Who pays for the motor insurance on your personal motor vehicle? (Only select one option)

I pay for it myself	1
My family member pays for it	2
My employer pays for it as part of my employment package	3

Q6. Why do you currently have personal motor vehicle insurance? (Tick all the applicable options)

Not willing to take the chance that I cannot cover the costs when in an accident	
Replacement value of my motor vehicle is high	
Motor insurance is a necessity	
I know that I can benefit from having motor vehicle insurance	
I have motor vehicle insurance because my father/mother has/had it	
Due to the high crime rate in the country	
Other (please specify)	

Q7. Why do you currently **not** have personal motor vehicle insurance? (Tick all the applicable options)

Insurance companies refused coverage for personal motor vehicles	
I do not believe that I can benefit from having insurance	
I am dissatisfied with previous insurance policy or insurance company	
I do not need insurance	
I cannot afford insurance	
The replacement value of my motor vehicle is low	
I do not know what motor insurance is	
Other (please specify)	

Section A: External influences

Q8. Below are statements which relate to the **influence which marketing efforts by short-term insurance companies have on your need to purchase** personal motor vehicle insurance. Use the following scales to indicate the extent of the influence of each statement.

Statement		No influence	Small influence	Moderate influence	Large influence	Extremely large influence
Short-term insurance company's marketing efforts						
8.1	Type of personal motor vehicle insurance policies offered at a company.	1	2	3	4	5
8.2	Advertisements or promotional activities performed by a short-term insurance company.	1	2	3	4	5
8.3	Price of a policy.	1	2	3	4	5
8.4	Way in which you can purchase (through a broker/ask the company to call you back on their website/email the company directly) personal motor vehicle insurance.	1	2	3	4	5
8.5	The company's physical evidence efforts . For example, how building looks, employee uniforms and online physical presence.	1	2	3	4	5
8.6	The duration of the process to get a quotation.	1	2	3	4	5
8.7	The way in which the employees in the company interact with consumers.	1	2	3	4	5
8.8	Partnerships or associations with other companies that you trust.	1	2	3	4	5

Q9. Below are statements which relate to the effect that the **sociocultural environment has on your need to purchase** personal motor vehicle insurance. Use the following scales to indicate the extent of the influence of each statement.

Statement		No influence	Small influence	Moderate influence	Large influence	Extremely large influence
Sociocultural/non-commercial influences						
9.1	A positive comment or opinion of a family member.	1	2	3	4	5
9.2	A negative comment or opinion of a family member.	1	2	3	4	5
9.3	The positive opinion of a reference person or group used as a basis of comparison.	1	2	3	4	5
9.4	The negative opinion of a reference person or group used as a basis of comparison.	1	2	3	4	5
9.5	Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.	1	2	3	4	5
9.6	Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.	1	2	3	4	5
9.7	The positive opinions of individuals in the same social class as you.	1	2	3	4	5
9.8	The negative opinions of individuals in the same social class as you.	1	2	3	4	5
9.9	Cultural and subcultural factors , such as your language preference, beliefs and values.	1	2	3	4	5

Q10. Below are statements which relate to the **communication sources** (methods or platforms used to communicate a message) **that influence your need to purchase** personal motor vehicle insurance. Use the following scales to indicate the extent of the influence of each statement.

Statement		No influence	Small influence	Moderate influence	Large influence	Extremely large influence
Communication sources						
10.1	Traditional advertisements about motor vehicle insurance (Such as TV and radio advertisements).	1	2	3	4	5
10.2	Online advertisements about motor vehicle insurance (Such as Video advertisements and banner ads on websites).	1	2	3	4	5
10.3	Any person that is a source of a product referral (buzz agent) and tells you about motor vehicle insurance.	1	2	3	4	5
10.4	Customised messages that insurance companies communicate to you about motor vehicle insurance.	1	2	3	4	5
10.5	Word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance.	1	2	3	4	5
10.6	Paid-for social media efforts (Such as Facebook advertisement campaigns) by insurance companies about motor vehicle insurance.	1	2	3	4	5

Section B: Internal influences

Q11. Below are statements which relate to the **psychological attributes that have an influence on your need recognition** for personal motor vehicle insurance. Use the following scales to indicate your level of agreement with each statement.

Statement		No influence	Small influence	Moderate influence	Large influence	Extremely large influence
Psychological attributes that influence your desire to recognise a need for motor vehicle insurance						
11.1	Your motivation to purchase personal motor vehicle insurance.	1	2	3	4	5
11.2	Your perception about motor vehicle insurance.	1	2	3	4	5
11.3	Your perception about a certain insurance company.	1	2	3	4	5
11.4	The process of how you purchase and consume information , as well as the experience gained.	1	2	3	4	5
11.5	Your personality (specific qualities, attributes, traits).	1	2	3	4	5
11.6	Your attitude towards motor vehicle insurance.	1	2	3	4	5
11.7	Your attitude towards a certain short-term insurance company.	1	2	3	4	5

Section C: Decision-making process

Q12. Below are statements which relate to the **decision-making process to purchase** personal motor vehicle insurance. Use the following scales to indicate the extent to which you use the following in the decision-making process.

Statement		No Extent	Some Extent	Moderate Extent	Large Extent	Extreme Extent
Decision-making process						
12.1	In your search for information , you think about previous experiences.	1	2	3	4	5
12.2	In your search for information , you request quotations from more than one short-term insurance company.	1	2	3	4	5
12.3	You compare the price of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	1	2	3	4	5
12.4	You compare the quality of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	1	2	3	4	5
12.5	You compare the brand list (list of different companies) to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	1	2	3	4	5

Section D: Demographic profile

Q13. What is your age? *Please type your age on the space provided below.*

Q14. How would you describe yourself in terms of population group?

Asian	1
Black African	2
Coloured	3
Indian	4
White	5
Other (please specify)	6

Q15. What is your gender?

1	2
Male	Female

Q16. What is your marital status?

Single	1
Married	2
Living with partner, but not married	3
Divorced	4
Widowed	5

Q17. What is your highest level of education?

Less than Grade 12	1
Grade 12 (matric)	2
Post Matric Certificate	3
Higher Certificate	4
Diploma	5
Higher Diploma	6
Post Higher Diploma (Masters or Doctoral Diploma)	7
Bachelors Degree	8
Honours Degree	9
Master's Degree	10
Doctorate Degree	11
Other (please specify)	12

Q18. What is your employment status?

Student	1
Unemployed	2
Temporarily employed (including Fixed Term Contracts)	3
Permanently employed on a full-time basis	4
Permanently employed on a part-time basis	5
Retired	6

Q19. In which province do you travel the majority of time with your personal motor vehicle?

Gauteng province	1
Western Cape province	2
KwaZulu-Natal province	3
Northern Cape province	4
Free State province	5
Limpopo province	6
Mpumalanga province	7
Eastern Cape province	8
North West province	9

Q.20 Which of the following income categories best describe the **monthly income of your immediate family** from all sources (**including your income**), before tax and other deductions? (If some members of your immediate family have a weekly income, please estimate what this typically would be for a month).

R0 – R800	1
R801 – R1 200	2
R1 201 – R2 500	3
R2 501 – R6 000	4
R6 001– R16 000	5
R16 001 – R26 000	6
R26 001 – R36 000	7
R36 001 – R46 000	8
R46 001 – R56 000	9
R56 001 or more	10
Prefer not to say/Don't know/NA	99

Q21. Which of the following income categories best describe **your monthly personal income** from all sources, before tax and other deductions? (If you earn a weekly income, please estimate what this typically would be for a month).

R0 – R800	1
R801– R1 200	2
R1 201 – R2 500	3
R2 501 – R6 000	4
R6 001– R16 000	5

R16 001 – R26 000	6
R26 001 – R36 000	7
R36 001 – R46 000	8
R46 001 – R56 000	9
R56 001 or more	10
Prefer not to say/Don't know/NA	99

Thank you for completing the survey. Your assistance is appreciated.

APPENDIX B
- ETHICAL CLEARANCE CERTIFICATE -

UNISA DEPARTMENT OF BUSINESS MANAGEMENT RESEARCH ETHICS
REVIEW COMMITTEE

06 August 2019

Dear Nadia Van Huyssteen

ERC Reference #: 2019_CEMS_BM_085

Name: Nadia Van Huyssteen

Student #: 50842897

Staff#1983385

Decision: Ethics Approval
From 06 August 2019 to
05 August 2024

Researcher(s): Ms Nadia Van Huyssteen
E-mail address: marxn@unisa.ac.za
Telephone #: 0836043354

Supervisor (s): Prof Sharon Rudansky-Kloppers
E-mail: rudans@unisa.ac.za
Tel: (012) 429-4689

**DEVELOPING A CONSUMER DECISION-MAKING MODEL FOR THE SOUTH AFRICAN PERSONAL
MOTOR VEHICLE INSURANCE INDUSTRY.**

Qualification: PHD degree

Thank you for the application for research ethics clearance by the UNISA Department of Business Management Ethics Review Committee for the above-mentioned research. Ethics approval is granted for 5 years, from 06 August 2019 to 05 August 2024.

*The **low risk application** was **reviewed** by the Department of Business Management Ethics Review Committee on 24 July 2019 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision will be tabled at the next Committee meeting on 21 August 2019.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Department of Business Management Ethics Review Committee.



3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date (05 August 2024). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

*The reference number **2019_CEMS_BM_085** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,



Chairperson: Dr Dorothea Visser
Department of Business Management
E-mail: visserd@unisa.ac.za
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Executive Dean: Prof Thomas Mogale
Economic and Management Sciences
E-mail: mogalt@unisa.ac.za
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APPENDIX C
- FREQUENCY TABLES AND DESCRIPTIVE STATISTICS -

Table C1.1: Age categories (in years)

Age categories(in years)	Frequency	Valid Percent
18-30	128	18.90
31-40	174	25.70
41-50	134	19.70
51-60	128	18.90
over 60	114	16.80
Total	678	100

Table C1.2: Age mean (in years)

Age provided (in years)	Frequency	Valid Percent	Sum of years
18	6	0.9	108
19	3	0.4	57
20	3	0.4	60
21	6	0.9	126
22	3	0.4	66
23	3	0.4	69
24	4	0.6	96
25	5	0.7	125
26	8	1.2	208
27	14	2.1	378
28	12	1.8	336
29	17	2.5	493
30	44	6.5	1320
31	27	4.0	837
32	24	3.5	768
33	13	1.9	429
34	19	2.8	646

35	22	3.2	770
36	8	1.2	288
37	17	2.5	629
38	9	1.3	342
39	18	2.7	702
40	17	2.5	680
41	10	1.5	410
42	14	2.1	588
43	10	1.5	430
44	13	1.9	572
45	19	2.8	855
46	7	1.0	322
47	17	2.5	799
48	16	2.4	768
49	14	2.1	686
50	14	2.1	700
51	13	1.9	663
52	11	1.6	572
53	10	1.5	530
54	11	1.6	594
55	21	3.1	1155
56	17	2.5	952
57	8	1.2	456
58	11	1.6	638
59	11	1.6	649
60	15	2.2	900
61	8	1.2	488
62	8	1.2	496
63	10	1.5	630
64	5	0.7	320
65	7	1.0	455
66	6	0.9	396

67	6	0.9	402
68	4	0.6	272
69	8	1.2	552
70	4	0.6	280
71	8	1.2	568
72	4	0.6	288
73	5	0.7	365
74	6	0.9	444
75	4	0.6	300
76	4	0.6	304
77	2	0.3	154
78	2	0.3	156
79	3	0.4	237
80	2	0.3	160
83	1	0.1	83
85	1	0.1	85
87	2	0.3	174
88	3	0.4	264
91	1	0.1	91
Total	678	100.0	30736

Table C2: Population group

Population group	Frequency	Valid Percent
Asian	3	0.5
Black African	173	26.1
Coloured	58	8.8
Indian	28	4.2
White	397	60.0
Other	3	0.5
Total	662	100.0

Table C3: Gender

Gender	Frequency	Valid Percent
Male	356	52.5
Female	322	47.5
Total	678	100.0

Table C4: Marital status

Marital status	Frequency	Valid Percent
Single	157	23.2
Married	377	55.6
Living with partner, but not married	71	10.5
Divorced	48	7.1
Widowed	25	3.6
Total	678	100.0

Table C5: Highest level of education

Highest level of education	Frequency	Valid Percent
Less than Grade 12	45	6.7
Grade 12 (matric)	174	25.7
Post Matric Certificate	34	5.0
Higher Certificate	29	4.3
Diploma	92	13.6
Higher Diploma	51	7.5
Post Higher Diploma (Masters or Doctoral Diploma)	13	1.9
Bachelors Degree	93	13.8
Honours Degree	62	9.2
Master's Degree	60	8.9
Doctorate Degree	23	3.4
Total	676	100.0

Table C6: Employment status

Employment status	Frequency	Valid Percent
Student	17	2.5
Unemployed	42	6.2
Temporarily employed (including Fixed Term Contracts)	71	10.5
Permanently employed on a full-time basis	392	57.8
Permanently employed on a part-time basis	35	5.2
Retired	121	17.8
Total	678	100.0

Table C7: Province mostly traveled with personal motor vehicle

Province mostly traveled with personal motor vehicle	Frequency	Valid Percent
Gauteng	294	43.4
Western Cape	87	12.8
KwaZulu-Natal	74	10.9
Free State	69	10.2
North West	39	5.8
Eastern Cape	38	5.6
Mpumalanga	33	4.9
Limpopo	25	3.7
Northern Cape	19	2.8
Total	678	100.0

Table C8: Household income

Household income	Frequency	Valid Percent
R0 – R800	24	3.5
R801 – R1 200	8	1.2
R1 201 – R2 500	12	1.8
R2 501 – R6 000	44	6.5
R6 001– R16 000	145	21.4
R16 001 – R26 000	77	11.4
R26 001 – R36 000	68	10.0
R36 001 – R46 000	49	7.2
R46 001 – R56 000	41	6.0
R56 001 or more	134	19.8
Prefer not to say/Don't know/NA	76	11.2
Total	678	100.0

Table C9: Personal income

Personal income	Frequency	Valid Percent
R0 – R800	77	11.4
R801 – R1 200	22	3.2
R1 201 – R2 500	27	4.0
R2 501 – R6 000	54	8.0
R6 001– R16 000	102	15.0
R16 001 – R26 000	89	13.1
R26 001 – R36 000	78	11.5
R36 001 – R46 000	39	5.8
R46 001 – R56 000	42	6.2
R56 001 or more	85	12.5
Prefer not to say/Don't know/NA	63	9.3
Total	678	100.0

Table C10: Drive a motor vehicle

Drive a motor vehicle	Frequency	Valid Percent
No	1	0.1
Yes	705	99.9
Total	706	100.0

Table C11: Personally responsible for the decision to purchase personal motor vehicle insurance

Personally responsible for the decision to purchase personal motor vehicle insurance	Frequency	Valid Percent
No	27	3.8
Yes	678	96.2
Total	705	100.0

Table C12: Currently have/do not have personal motor vehicle insurance

Decision to purchase	Frequency	Valid Percent
Yes	379	55.9
No	299	44.1
Total	678	100.0

Table C13: Type of personal motor vehicle insurance

Type of personal motor vehicle insurance	Frequency	Percent	Valid Percent
Comprehensive	362	53.4	95.5
Third-party fire and theft	5	0.7	1.3
Third-party only	5	0.7	1.3
Pay As You Drive	1	0.1	0.3
Not certain	6	0.9	1.6
Total	379	55.9	100.0

Table C14: Payment party

Payment party	Frequency	Valid Percent
I pay for it myself	341	90.0
My family member pays for it	33	8.7
My employer pays for it as part of my employment package	5	1.3
Total	379	100.0

Table C15.1: Why you have insurance - Not willing to take the chance that I cannot cover the costs when in an accident

Not willing to take the chance that I cannot cover the costs when in an accident	Frequency	Valid Percent
Not selected	68	17.9
Selected	311	82.1
Total	379	100.0

Table C15.2: Why you have insurance - Replacement value of my motor vehicle is high

Replacement value of my motor vehicle is high	Frequency	Valid Percent
Not selected	206	54.4
Selected	173	45.6
Total	379	100.0

Table C15.3: Why you have insurance - Motor insurance is a necessity

Motor insurance is a necessity	Frequency	Valid Percent
Not selected	162	42.7
Selected	217	57.3
Total	379	100.0

Table C15.4: Why you have insurance - I know that I can benefit from having motor vehicle insurance

I know that I can benefit from having motor vehicle insurance	Frequency	Valid Percent
Not selected	275	72.6
Selected	104	27.4
Total	379	100.0

Table C15.5: Why you have insurance - I have motor vehicle insurance because my father/mother has/had it

I have motor vehicle insurance because my father/mother has/had it	Frequency	Valid Percent
Not selected	369	97.4
Selected	10	2.6
Total	379	100.0

Table C15.6: Why you have insurance - Due to the high crime rate in the country

Due to the high crime rate in the country	Frequency	Valid Percent
Not selected	229	60.4
Selected	150	39.6
Total	379	100.0

Table C15.7: Why you have insurance - Other

Other	Frequency	Valid Percent
Not selected	355	93.7
Selected	24	6.3
Total	379	100.0

Table C16.1: Why you do not have insurance - Insurance companies refused coverage for personal motor vehicle

Insurance companies refused coverage for personal motor vehicle	Frequency	Valid Percent
Not selected	276	92.3
Selected	23	7.7
Total	299	100.0

Table C16.2: Why you do not have insurance - I do not believe that I can benefit from having insurance

I do not believe that I can benefit from having insurance	Frequency	Valid Percent
Not selected	196	65.6
Selected	103	34.4
Total	299	100.0

Table C16.3: Why you do not have insurance - I am dissatisfied with previous insurance policy or insurance company

I am dissatisfied with previous insurance policy or insurance company	Frequency	Valid Percent
Not selected	260	87.0
Selected	39	13.0
Total	299	100.0

Table C16.4: Why you do not have insurance - I do not need insurance

I do not need insurance	Frequency	Valid Percent
Not selected	254	84.9
Selected	45	15.1
Total	299	100.0

Table C16.5: Why you do not have insurance - I cannot afford insurance

I cannot afford insurance	Frequency	Valid Percent
Not selected	125	41.8
Selected	174	58.2
Total	299	100.0

Table C16.6: Why you do not have insurance - The replacement value of my motor vehicle is low

The replacement value of my motor vehicle is low	Frequency	Valid Percent
Not selected	201	67.2
Selected	98	32.8
Total	299	100.0

Table C16.7: Why you do not have insurance - I do not know what motor insurance is

I do not know what motor insurance is	Frequency	Valid Percent
Not selected	273	91.3
Selected	26	8.7
Total	299	100.0

Table C16.8: Why you do not have insurance - Other

Other	Frequency	Valid Percent
Not selected	293	98.0
Selected	6	2.0
Total	299	100.0

Table C17.1: Company's marketing efforts - Type of personal motor vehicle insurance offered

Type of personal motor vehicle insurance offered	Frequency	Valid Percent
None	175	25.8
Small	124	18.3
Moderate	161	23.7
Large	149	22.0
Extremely large	69	10.2
Total	678	100.0

Table C17.2: Company's marketing efforts - Advertisements or promotional activities performed

Advertisements or promotional activities performed	Frequency	Valid Percent
None	231	34.1
Small	219	32.3
Moderate	140	20.6
Large	66	9.7
Extremely large	22	3.2
Total	678	100.0

Table C17.3: Company's marketing efforts - Price of a policy

Price of a policy	Frequency	Valid Percent
None	48	7.1
Small	75	11.1
Moderate	136	20.1
Large	240	35.4
Extremely large	179	26.4
Total	678	100.0

Table C17.4: Company's marketing efforts - Way in which personal motor vehicle insurance can be purchased

Way in which personal motor vehicle insurance can be purchased	Frequency	Valid Percent
None	119	17.6
Small	135	19.9
Moderate	188	27.7
Large	173	25.5
Extremely large	63	9.3
Total	678	100.0

Table C17.5: Company's marketing efforts - The company's physical evidence efforts

The company's physical evidence efforts	Frequency	Valid Percent
None	217	32.0
Small	162	23.9
Moderate	165	24.3
Large	98	14.5
Extremely large	36	5.3
Total	678	100.0

Table C17.6: Company's marketing efforts - The duration of the process to get a quotation

The duration of the process to get a quotation	Frequency	Valid Percent
None	78	11.5
Small	99	14.6
Moderate	153	22.6
Large	234	34.5
Extremely large	114	16.8
Total	678	100.0

Table C17.7: Company's marketing efforts - The way in which the employees in the company interact with consumers

The way in which the employees in the company interact with consumers	Frequency	Valid Percent
None	56	8.3
Small	70	10.3
Moderate	145	21.4
Large	230	33.9
Extremely large	177	26.1
Total	678	100.0

Table C17.8: Company’s marketing efforts - Partnerships or associations with other companies that consumers trust

Partnerships or associations	Frequency	Valid Percent
None	116	17.1
Small	141	20.8
Moderate	179	26.4
Large	172	25.4
Extremely large	70	10.3
Total	678	100.0

Table C18.1: Sociocultural environment - A positive comment or opinion of a family member

A positive comment or opinion of a family member	Frequency	Valid Percent
None	119	17.6
Small	108	15.9
Moderate	170	25.1
Large	201	29.6
Extremely large	80	11.8
Total	678	100.0

Table C18.2: Sociocultural environment - A negative comment or opinion of a family member

A negative comment or opinion of a family member	Frequency	Valid Percent
None	100	14.7
Small	123	18.1
Moderate	154	22.7
Large	180	26.5
Extremely large	121	17.8
Total	678	100.0

Table C18.3: Sociocultural environment - The positive opinion of a reference person or group used as a basis of comparison

The positive opinion of a reference person or group used as a basis of comparison	Frequency	Valid Percent
None	89	13.1
Small	123	18.1
Moderate	228	33.6
Large	182	26.8
Extremely large	56	8.3
Total	678	100.0

Table C18.4: Sociocultural environment - The negative opinion of a reference person or group used as a basis of comparison

The negative opinion of a reference person or group used as a basis of comparison	Frequency	Valid Percent
None	102	15.0
Small	129	19.0
Moderate	183	27.0
Large	175	25.8
Extremely large	89	13.1
Total	678	100.0

Table C18.5: Sociocultural environment - Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms

Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms	Frequency	Valid Percent
None	103	15.2
Small	106	15.6
Moderate	200	29.5
Large	203	29.9
Extremely large	66	9.7
Total	678	100.0

Table C18.6: Sociocultural environment - Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms

Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms	Frequency	Valid Percent
None	108	15.9
Small	116	17.1
Moderate	177	26.1
Large	175	25.8
Extremely large	102	15.0
Total	678	100.0

Table C18.7: Sociocultural environment - The positive opinions of individuals in the same social class

The positive opinions of individuals in the same social class	Frequency	Valid Percent
None	111	16.4
Small	115	17.0
Moderate	171	25.2
Large	217	32.0
Extremely large	64	9.4
Total	678	100.0

Table C18.8: Sociocultural environment - The negative opinions of individuals in the same social class

The negative opinions of individuals in the same social class	Frequency	Valid Percent
None	119	17.6
Small	137	20.2
Moderate	150	22.1
Large	181	26.7
Extremely large	91	13.4
Total	678	100.0

Table C18.9: Sociocultural environment - Cultural and subcultural factors

Cultural and subcultural factors	Frequency	Valid Percent
None	165	24.3
Small	141	20.8
Moderate	154	22.7
Large	146	21.5
Extremely large	72	10.6
Total	678	100.0

Table C19.1: Communication sources - Traditional advertisements about motor vehicle insurance

Traditional advertisements	Frequency	Valid Percent
None	201	29.6
Small	227	33.5
Moderate	152	22.4
Large	60	8.8
Extremely large	38	5.6
Total	678	100.0

Table C19.2: Communication sources - Online advertisements about motor vehicle insurance

Online advertisements	Frequency	Valid Percent
None	197	29.1
Small	211	31.1
Moderate	167	24.6
Large	67	9.9
Extremely large	36	5.3
Total	678	100.0

Table C19.3: Communication sources - Buzz agent

Buzz agent	Frequency	Valid Percent
None	252	37.2
Small	201	29.6
Moderate	120	17.7
Large	59	8.7
Extremely large	46	6.8
Total	678	100.0

Table C19.4: Communication sources - Customised messages that insurance companies communicate

Customised messages	Frequency	Valid Percent
None	232	34.2
Small	186	27.4
Moderate	180	26.5
Large	53	7.8
Extremely large	27	4.0
Total	678	100.0

Table C19.5: Communication sources – Paid-for social media efforts

Paid-for social media efforts	Frequency	Valid Percent
None	263	38.8
Small	214	31.6
Moderate	131	19.3
Large	34	5.0
Extremely large	36	5.3
Total	678	100.0

Table C19.6: Communication sources - Word-of-mouth, advice, recommendations on social media posts

Word-of-mouth, advice, recommendations on social media posts	Frequency	Valid Percent
None	117	17.3
Small	181	26.7
Moderate	183	27.0
Large	129	19.0
Extremely large	68	10.0
Total	678	100.0

Table C20.1: Psychological attributes - Motivation to purchase personal motor vehicle insurance

Motivation	Frequency	Valid Percent
None	93	13.7
Small	88	13.0
Moderate	152	22.4
Large	230	33.9
Extremely large	115	17.0
Total	678	100.0

Table C20.2: Psychological attributes - Perception about motor vehicle insurance

Perception about motor vehicle insurance	Frequency	Valid Percent
None	74	10.9
Small	75	11.1
Moderate	173	25.5
Large	253	37.3
Extremely large	103	15.2
Total	678	100.0

Table C20.3: Psychological attributes - Perception about a certain insurance company

Perception about a certain insurance company	Frequency	Valid Percent
None	68	10.0
Small	92	13.6
Moderate	169	24.9
Large	224	33.0
Extremely large	125	18.4
Total	678	100.0

Table C20.4: Psychological attributes - Learning

Learning	Frequency	Valid Percent
None	60	8.8
Small	92	13.6
Moderate	195	28.8
Large	224	33.0
Extremely large	107	15.8
Total	678	100.0

Table C20.5: Psychological attributes - Personality

Personality	Frequency	Valid Percent
None	82	12.1
Small	109	16.1
Moderate	192	28.3
Large	200	29.5
Extremely large	95	14.0
Total	678	100.0

Table C20.6: Psychological attributes - Attitude towards motor vehicle insurance

Attitude towards motor vehicle insurance	Frequency	Valid Percent
None	55	8.1
Small	88	13.0
Moderate	162	23.9
Large	250	36.9
Extremely large	123	18.1
Total	678	100.0

Table C20.7: Psychological attributes - Attitude towards a certain short-term insurance company

Attitude towards a certain short-term insurance company	Frequency	Valid Percent
None	83	12.2
Small	104	15.3
Moderate	151	22.3
Large	200	29.5
Extremely large	140	20.6
Total	678	100.0

Table C21.1: Pre-purchase search - Previous experiences

Previous experiences	Frequency	Valid Percent
None	66	9.7
Some	94	13.9
Moderate	132	19.5
Large	241	35.5
Extreme	145	21.4
Total	678	100.0

Table C21.2: Pre-purchase search - Request quotations from more than one short-term insurance company

Request quotations from more than one short-term insurance company	Frequency	Valid Percent
None	78	11.5
Some	86	12.7
Moderate	149	22.0
Large	232	34.2
Extreme	133	19.6
Total	678	100.0

Table C22.1: Evaluation of alternatives - Compare the price of the different quotations

Compare the price of the different quotations	Frequency	Valid Percent
None	71	10.5
Some	72	10.6
Moderate	121	17.8
Large	243	35.8
Extreme	171	25.2
Total	678	100.0

Table C22.2: Evaluation of alternatives - Compare the quality of the different quotations

Compare the quality of the different quotations	Frequency	Valid Percent
None	60	8.8
Some	73	10.8
Moderate	125	18.4
Large	241	35.5
Extreme	179	26.4
Total	678	100.0

Table C22.3: Evaluation of alternatives - Compare the brand list

Compare the brand list	Frequency	Valid Percent
None	97	14.3
Some	119	17.6
Moderate	166	24.5
Large	187	27.6
Extreme	109	16.1
Total	678	100.0

APPENDIX D
- TABLES AND INFERENCE STATISTICS -

Table D1: KMO and Bartlett's Test for EFA

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.847
Bartlett's Test of Sphericity	Approx. Chi-Square	4485.424
	df	595
	Sig.	0.000

Table D2: Communalities for EFA

Communalities		
	Initial	Extraction
8.1 [Accessed MARKETING EFFORTS] Type of personal motor vehicle insurance policies offered at a company.	0.533	0.462
8.2 [Accessed MARKETING EFFORTS] Advertisements or promotional activities performed by a short-term insurance company.	0.513	0.476
8.3 [Accessed MARKETING EFFORTS] Price of a policy.	0.546	0.490
8.4 [Accessed MARKETING EFFORTS] Way in which you can purchase personal motor vehicle insurance.	0.528	0.490
8.5 [Accessed MARKETING EFFORTS] The company's physical evidence efforts.	0.565	0.500
8.6 [Accessed MARKETING EFFORTS] The duration of the process to get a quotation.	0.625	0.630
8.7 [Accessed MARKETING EFFORTS] The way in which the employees in the company interact with consumers.	0.611	0.573
8.8 [Accessed MARKETING EFFORTS] Partnerships or associations with other companies that you trust.	0.534	0.441
9.1 [Accessed SOCIOCULTURAL] A positive comment or opinion of a family member.	0.704	0.653
9.2 [Accessed SOCIOCULTURAL] A negative comment or opinion of a family member.	0.701	0.687
9.3 [Accessed SOCIOCULTURAL] The positive opinion of a reference person or group used as a basis of comparison.	0.750	0.619

9.4 [Accessed SOCIOCULTURAL] The negative opinion of a reference person or group used as a basis of comparison.	0.833	0.801
9.5 [Accessed SOCIOCULTURAL] Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.	0.733	0.676
9.6 [Accessed SOCIOCULTURAL] Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.	0.759	0.657
9.7 [Accessed SOCIOCULTURAL] The positive opinions of individuals in the same social class as you.	0.786	0.748
9.8 [Accessed SOCIOCULTURAL] The negative opinions of individuals in the same social class as you.	0.764	0.651
9.9 [Accessed SOCIOCULTURAL] Cultural and subcultural factors, such as your language preference, beliefs and values.	0.466	0.396
10.1 [Accessed COMMUNICATION] Traditional advertisements about motor vehicle insurance.	0.649	0.761
10.2 [Accessed COMMUNICATION] Online advertisements about motor vehicle insurance.	0.645	0.596
10.3 [Accessed COMMUNICATION] Any person that is a source of a product referral (buzz agent) and tells you about motor vehicle insurance.	0.622	0.597
10.4 [Accessed COMMUNICATION] Customised messages that insurance companies communicate to you about motor vehicle insurance.	0.589	0.535
10.5 [Accessed COMMUNICATION] Word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance.	0.553	0.459
10.6 [Accessed COMMUNICATION] Paid-for social media efforts by insurance companies about motor vehicle insurance.	0.568	0.451
11.1 [Accessed PSYCHOLOGICAL] Your motivation to purchase personal motor vehicle insurance.	0.731	0.684
11.2 [Accessed PSYCHOLOGICAL] Your perception about motor vehicle insurance.	0.737	0.687
11.3 [Accessed PSYCHOLOGICAL] Your perception about a certain insurance company.	0.701	0.669
11.4 [Accessed PSYCHOLOGICAL] The process of how you purchase and consume information, as well as the experience gained.	0.682	0.618
11.5 [Accessed PSYCHOLOGICAL] Your personality (specific qualities, attributes, traits).	0.520	0.526

11.6 [Accessed PSYCHOLOGICAL] Your attitude towards motor vehicle insurance.	0.672	0.675
11.7 [Accessed PSYCHOLOGICAL] Your attitude towards a certain short-term insurance company.	0.599	0.501
12.1 [Accessed PRE-PURCHASE] [Accessed In your search for information, you think about previous experiences.	0.582	0.492
12.2 [Accessed PRE-PURCHASE] In your search for information, you request quotations from more than one short-term insurance company.	0.752	0.737
12.3 [Accessed ALTERNATIVES] You compare the price of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	0.749	0.756
12.4 [Accessed ALTERNATIVES] You compare the quality of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	0.778	0.802
12.5 [Accessed ALTERNATIVES] You compare the brand list (list of different companies) to measure if there is a policy that will contribute to your need satisfaction and lifestyle.	0.580	0.498

Table D3: Total Variance Explained for EFA

Total Variance Explained									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.540	30.115	30.115	10.152	29.005	29.005	4.315	12.327	12.327
2	3.584	10.241	40.357	3.184	9.096	38.102	3.513	10.037	22.364
3	3.146	8.988	49.344	2.799	7.996	46.098	3.353	9.580	31.944
4	2.056	5.875	55.220	1.703	4.866	50.964	3.172	9.062	41.007
5	1.967	5.620	60.840	1.546	4.416	55.380	3.044	8.696	49.703
6	1.239	3.540	64.380	0.873	2.494	57.874	2.430	6.943	56.645
7	1.109	3.169	67.549	0.739	2.112	59.986	1.169	3.340	59.986
8	0.953	2.722	70.271						
9	0.822	2.349	72.620						

10	0.761	2.174	74.794						
11	0.716	2.046	76.840						
12	0.704	2.010	78.851						
13	0.609	1.739	80.590						
14	0.590	1.686	82.276						
15	0.514	1.469	83.745						
16	0.495	1.414	85.159						
17	0.476	1.360	86.519						
18	0.462	1.320	87.839						
19	0.437	1.248	89.087						
20	0.423	1.208	90.295						
21	0.393	1.123	91.418						
22	0.339	0.967	92.386						
23	0.333	0.953	93.339						
24	0.329	0.940	94.279						
25	0.282	0.806	95.085						
26	0.267	0.762	95.847						
27	0.241	0.689	96.536						
28	0.233	0.666	97.202						
29	0.192	0.549	97.751						
30	0.173	0.495	98.246						
31	0.164	0.469	98.715						
32	0.141	0.402	99.117						
33	0.131	0.375	99.492						
34	0.098	0.280	99.772						
35	0.080	0.228	100.000						

Table D4: Rotated Factor Matrix^a for EFA

Rotated Factor Matrix ^a							
Items	Factor						
	1	2	3	4	5	6	7
8.1 [Accessed MARKETING EFFORTS] Type of personal motor vehicle insurance policies offered at a company.		0.620					
8.2 [Accessed MARKETING EFFORTS] Advertisements or promotional activities performed by a short-term insurance company.		0.416			0.473		
8.3 [Accessed MARKETING EFFORTS] Price of a policy.		0.602					
8.4 [Accessed MARKETING EFFORTS] Way in which you can purchase personal motor vehicle insurance.		0.644					
8.5 [Accessed MARKETING EFFORTS] The company's physical evidence efforts.		0.479			0.448		
8.6 [Accessed MARKETING EFFORTS] The duration of the process to get a quotation.		0.711					
8.7 [Accessed MARKETING EFFORTS] The way in which the employees in the company interact with consumers.		0.679					
8.8 [Accessed MARKETING EFFORTS] Partnerships or associations with other companies that you trust.		0.512					
9.1 [Accessed SOCIOCULTURAL] A positive comment or opinion of a family member.				0.300		0.628	
9.2 [Accessed SOCIOCULTURAL] A negative comment or opinion of a family member.				0.798			
9.3 [Accessed SOCIOCULTURAL] The positive opinion of a reference person or group used as a basis of comparison.				0.363		0.604	
9.4 [Accessed SOCIOCULTURAL] The negative opinion of a reference person or group used as a basis of comparison.				0.859			
9.5 [Accessed SOCIOCULTURAL] Positive comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.				0.314		0.634	

9.6 [Accessed SOCIOCULTURAL] Negative comments of a friend, a newspaper article or the views of an expert on a blog or other internet platforms.				0.722			
9.7 [Accessed SOCIOCULTURAL] The positive opinions of individuals in the same social class as you.						0.694	
9.8 [Accessed SOCIOCULTURAL] The negative opinions of individuals in the same social class as you.				0.719			
9.9 [Accessed SOCIOCULTURAL] Cultural and subcultural factors, such as your language preference, beliefs and values.						0.446	
10.1 [Accessed COMMUNICATION] Traditional advertisements about motor vehicle insurance.					0.397		0.742
10.2 [Accessed COMMUNICATION] Online advertisements about motor vehicle insurance.					0.510		0.551
10.3 [Accessed COMMUNICATION] Any person that is a source of a product referral (buzz agent) and tells you about motor vehicle insurance.					0.761		
10.4 [Accessed COMMUNICATION] Customised messages that insurance companies communicate to you about motor vehicle insurance.					0.690		
10.5 [Accessed COMMUNICATION] Word-of-mouth, advice, recommendations on social media posts about motor vehicle insurance.					0.558		
10.6 [Accessed COMMUNICATION] Paid-for social media efforts by insurance companies about motor vehicle insurance.					0.642		
11.1 [Accessed PSYCHOLOGICAL] Your motivation to purchase personal motor vehicle insurance.	0.690						
11.2 [Accessed PSYCHOLOGICAL] Your perception about motor vehicle insurance.	0.758						
11.3 [Accessed PSYCHOLOGICAL] Your perception about a certain insurance company.	0.715						
11.4 [Accessed PSYCHOLOGICAL] The process of how you purchase and consume information, as well as the experience gained.	0.626						
11.5 [Accessed PSYCHOLOGICAL] Your personality (specific qualities, attributes, traits).	0.684						

11.6 [Accessed PSYCHOLOGICAL] Your attitude towards motor vehicle insurance.	0.782						
11.7 [Accessed PSYCHOLOGICAL] Your attitude towards a certain short-term insurance company.	0.653						
12.1 [Accessed PRE-PURCHASE] [Accessed In your search for information, you think about previous experiences.	0.348		0.514				
12.2 [Accessed PRE-PURCHASE] In your search for information, you request quotations from more than one short-term insurance company.			0.814				
12.3 [Accessed ALTERNATIVES] You compare the price of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.			0.811				
12.4 [Accessed ALTERNATIVES] You compare the quality of the different quotations to measure if there is a policy that will contribute to your need satisfaction and lifestyle.			0.844				
12.5 [Accessed ALTERNATIVES] You compare the brand list (list of different companies) to measure if there is a policy that will contribute to your need satisfaction and lifestyle.			0.641				

a Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

Table D5: Classification Table for baseline LogReg model

Observed			Predicted		
			No purchase	Purchase	Percentage Correct
			Do you currently have motor vehicle insurance for your personal motor vehicle?		
			No purchase	Purchase	Percentage Correct
Step 1	Do you currently have motor vehicle insurance for your personal motor vehicle?	No purchase	181	22	89.2
		Purchase	23	205	89.9
	Overall Percentage				89.6

Table D6: Variables in the equation to test linearity assumption

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	ME	0.237	2.099	0.013	1	0.910	1.268
	SE_P	-1.920	2.395	0.643	1	0.423	0.147
	SE_N	2.401	1.851	1.684	1	0.194	11.039
	CS_B	-2.323	1.753	1.756	1	0.185	0.098
	PA	-1.269	2.241	0.321	1	0.571	0.281
	DP	0.945	1.757	0.289	1	0.591	2.572
	Age	0.061	0.013	23.064	1	0.000	1.063
	Highest level of education	1.156	0.246	22.117	1	0.000	3.177
	Household income	1.593	0.279	32.531	1	0.000	4.921
	ME by ME_In	0.225	0.978	0.053	1	0.818	1.253
	SE_P by SE_P_In	0.492	1.196	0.170	1	0.680	1.636
	SE_N by SE_N_In	-0.990	0.920	1.156	1	0.282	0.372
	CS_B by CS_B_In	0.737	0.953	0.598	1	0.439	2.090
	PA by PA_In	0.850	1.049	0.657	1	0.417	2.340
	DP by DP_In	-0.199	0.833	0.057	1	0.811	0.820
Constant	-7.423	3.646	4.145	1	0.042	0.001	

a. Variable(s) entered on step 1: ME, SE_P, SE_N, CS_B, PA, DP, 21. Age, 25. Highest level of education, 28. Household income, ME * ME_In , SE_P * SE_P_In , SE_N * SE_N_In , CS_B * CS_B_In , PA * PA_In , DP * DP_In .

APPENDIX E
- PROFESSIONAL EDITING CERTIFICATE -



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Independent Skills Development Facilitator

Dear Ms van Huyssteen

This letter is to record that I have completed a language edit of your thesis entitled, "A consumer purchase decision model for the South African personal motor vehicle insurance industry".

The edit that I carried out included the following:

- Spelling
- Grammar
- Vocabulary
- Punctuation
- Pronoun matches
- Word usage
- Sentence structure
- Correct acronyms (matching your supplied list)
- Captions and labels for figures and tables
- Spot checking of 10 references

The edit that I carried out excluded the following:

- Content
- Correctness or truth of information (unless obvious)
- Correctness/spelling of specific technical terms and words (unless obvious)
- Correctness/spelling of unfamiliar names and proper nouns (unless obvious)
- Correctness of specific formulae or symbols, or illustrations.

Yours sincerely

Retha Burger

22 January 2022