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The Impact of Firm and Consumer Attributes

on Retail Pharmacy Strategy

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ABSRACT

Retail pharmacy have undergone substantial transformation over the past two decades. This is mostly brought on by internal and external stressors exacerbating competition within the retail pharmacy environment. With the rapid establishment and expansion of discount pharmacies, stricter legislations, complex consumer and market dynamics, community pharmacies are battling to survive in the pharmacy space they once dominated.

The objectives of the study were to determine how retail pharmacy and consumers interact to establish and maintain a competitive advantage and how attributes of the marketing mix influence consumer behaviour in a retail pharmacy space. For a greater understanding of the relationships between the various variables and how they interact and influence pharmacy strategy, structured survey questionnaires were used to collect data on the attributes of retail pharmacies and consumers. Data from 344 respondents were evaluated for reliability and normalcy using IBM's Statistical Package for Social Science (SPSS version 28), before being subjected to the appropriate inferential statistical analyses.

The study results indicate that males and females react differently to the marketing mix, suggesting a preference for various strategies used by retail pharmacies to attract and retain consumers. The results further indicate that respondents with medical healthcare are more responsive to a particular marketing mix than respondents without, implying that retail pharmacies are incorporating these parameters in the development of their strategies. Lastly, the data confirms the association between certain marketing mix and retail pharmacy types.

The research further indicates a strong correlation between the attributes of the marketing mix, however, the extent of this association varies between the attributes. The strongest correlation was identified between price and product, implying that pharmacy strategy prioritizes both factors. Additional findings points to a relationship between pharmacy and consumer attributes, the most evident of which being age and medical healthcare status. Price, promotion, and process are recognized as the key components of the marketing mix that pharmacies need to establish and retain a competitive advantage.

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1 INTRODUCTION

1.1 RESEARCH BACKGROUND

Statistics South Africa groups the sales from the country's retail trade segments into seven categories. The segmentation is largely based on the type of good(s) on offer from both a chain and independent perspective. Of the seven categories, pharmaceuticals and medical goods, cosmetics, and toiletries contributed about R16,6bn to South Africa's retail trade sales for 2022, 6.6% of total sales for that year, (Statssa, 2022). Registered pharmacies are listed by the South African Pharmacy Council (SAPC) in eight sectors, which are generally divided into two classes: private and public categories. Based on their primary duties, manufacturing, distributors, consultants, and institutions, registered pharmacies are further separated. Retail pharmacies make up 3 882 (70%) of the 5 549 registered pharmacies (as of February 10, 2023) among the eight sectors (SAPC, 2023). According to Gilbert (1998) and Smith (2019), retail pharmacies are the most prevalent kind of pharmacies. Their primary point of differentiation is accessibility, meaning that consumers seeking advice or medical services can go to them first.

Over the last 20 years, there have been substantial changes to retail pharmacies. Internal and external stressors appearing to be greatly accelerating these processes. Community and chain pharmacies are the two main categories of retail pharmacy. The accessibility and compact floor area of a community pharmacy, also referred to as an independent pharmacy, are its most important characteristics (Gilbert, 1998).

Community pharmacies are likely the first port of call for customers in need of medical attention and assistance on health issues due to their accessibility. The modest floor area frequently represents front shop and small-to medium-sized dispensary portions, with the occasional provision of specialised service. Chain pharmacies, sometimes called discount pharmacies, are distinguished by their expansive floor plans, and focus on providing high-demand consumables at reduced costs (Wessels & Luiz, 2018).

According to Grant (2018), 80% or more of community pharmacy sales are attributable to dispensaries. Discount pharmacies, on the other hand, prioritize the sale of front-shop products, which accounts for up to 70% of total pharmacy sales. Community pharmacy facilities'

principal responsibility is to support health-related services by dispensing prescription drugs and provide relevant medicinal and health advice (Smith, 2019). The past decade has seen a rise in competition in the retail pharmacy sector, mostly due to the rapid establishment and expansion of discount pharmacies. With increased legislation, market and consumer dynamics and complexities, discount pharmacies have and will continue to exploit and direct capital resources to better appreciate factors that influence consumer-sales relationship, with the key aim of understanding and exploiting consumer behaviour.

As discount pharmacies integrate aspects of consumer behaviour into both their marketing and operating strategies, community pharmacies are left in a very precarious position as they struggle to create or offer as much value as they once did. Thus, community pharmacies find it a challenge to gain clear insight and navigate through the healthcare and pharmaceutical industries, as well as the demands of the industries and how to satisfy them (Wessels & Luiz, 2018).

1.2 CONTEXT OF THE RESEARCH

The research is concerned with the pharmacy industry, with emphasis on the fierce and dynamic competition between community and discount pharmacies in attracting customers through the integration of both pharmacy and consumer attributes into their strategies.

To gain a deeper understanding of aspects related to consumer behaviour, the study aims to investigate and integrate the marketing mix, originally proposed by E. Jerome McCarthy as the 4 Ps in 1960 before expanding to the 7 Ps: product, price, promotion, place, packaging, positioning, and people, with the Nicosia model.

Given the increased competition in the retail pharmacy industry, the research will attempt to examine the marketing mix within the constraints of the Nicosia model to explain how discount pharmacies integrate aspects of consumer behaviour to gain market share in a dynamic and complex industry.

1.3 PROBLEM STATEMENT

The pharmaceutical industry is supported by over 5 500 pharmacies, spread across eight sectors. In 2021, the pharmaceutical industry was valued at about R83 billion, with a forecasted growth of more than 4% over the next five years (SAPC, 2023).

Given that community pharmacies' primary responsibilities in the past have consisted of providing medication and related advice, the emergence of discount pharmacies and the addition of new services has led to the development of a dynamic and competitive pharmacy industry (Comber, 2023). As a result of their inability to adapt to changing circumstances, community pharmacies have lost significant market share. This is partly driven by the impact of the political environment, the state of the economy, market trends, and technology (Nightengale, 2021). The author goes on to list the risks of inadequate or non-existent pharmacy marketing, none of which are more significant than the possibility that other pharmacies would take advantage of their advertising space and attract their current customers.

Retail pharmacies use a range of strategies to attract and retain consumers. However, not all of them are successful in achieving this (Sreedhara, 2013). To optimize customer value, a robust and relevant strategy must incorporate elements of the marketing mix and consumer behaviour. If this is not accomplished, there will be misalignment between consumer needs/requirements and pharmacy offerings, ultimately contributing to the systemic collapse of the pharmacy strategy.

Therefore, the central question the research will attempt to address is how discount pharmacies integrate aspects of consumer behaviour to gain market share in a dynamic and complex industry. The research aims to address the central question by attempting to better understand how aspects of marketing mix influence consumer behaviour in the context of retail pharmacy.

To address the key research question, the following three secondary questions will support the study from the viewpoint of the Nicosia model of consumer behaviour:

1. To what degree are the marketing mix attributes related to each other?
2. How much, if at all, are the attributes of the firm (discount and community pharmacies) related to those of the consumer?

3. Which key marketing mix attributes are most important in establishing and maintaining a competitive edge in pharmacies?

1.4 JUSTIFICATION FOR THE RESEARCH

This research will expand on previous understandings of consumer behaviour given the dynamic nature and fierce competition among retail pharmacies, despite the regulations imposed by the Health Professions Council of South Africa (HPCSA) and the South African Pharmacy Council (SAPC). Particularly, how attributes of retail pharmacies interact with those of consumers, influencing their behaviour (motivation and attitude) within the limitations of community and discount pharmacies.

By addressing the research questions, invaluable insight about retail pharmacy management will be gained. With specific focus on understanding the variables that contribute to the current level of complexity and competition in the pharmacy industry. Additionally, the study will highlight possible areas that community pharmacies can focus on more closely as they negotiate through such a dynamic and competitive environment.

The research is from a scholarly perspective, therefore the primary rationale is academic in nature. However, the study will also provide useful elements that might be applied in the retail pharmacy setting.

1.5 DELIMITATIONS OF THE RESEARCH

This research is conducted in a coal mining business, Overlooked Group, with operations around the Mpumalanga towns of Emalahleni, Middleburg, Hendrina, Bethal, Kriel, and Secunda. The investigation also included the company's headquarters, which is located at Menlyn Maine in Pretoria, Gauteng.

This implies that the respondents would likely be residing in one of the above-mentioned towns, therefore the respondents' feedback will be delimited to the dynamics and complexities associated with mining towns. The term "firm" refers to community and discount retail pharmacies, which are part of the private industry. As a result, the study is further limited to the

private pharmacy industry and does not include the institutional, hospital, or industrial pharmacy industries.

The study's interest is in the type and extent of relationships that exists between retail pharmacy attributes and the attributes of potential consumers, how all this is integrated with consumer behaviour and ultimately influencing purchase decisions. Cost analysis of products or services is outside the purview of this research study.

1.6 OPERATIONAL DEFINITIONS

The following operational phrases and definitions are used under the context of pharmaceutical retail pharmacy.

Community pharmacy - also known as independent pharmacy, is a healthcare facility generally owned by one or more individuals with the intention of providing pharmacy services to people in a local area (Nightengale, 2021) . The main role of a community pharmacy is to provide medicines and healthcare advice through a registered pharmacist. Such pharmacies must be licenced or registered with the State (Brooks, Doucette, Wan, & Klepser, 2008). Community pharmacy makes up one of the two types of pharmacies discussed in the study with the intention of differentiating its marketing and operational strategies from the alternative type.

Dispensing - medicine dispensing comprises the preparation and provision of medication to a patient. The process typically comprises steps to safeguard the medicinal and therapeutic usefulness of the medication for its proposed use. Dispensing should only be carried out by a trained, registered pharmacist and health care practitioner or someone under the supervision of either of the two (BCCNM, 2023). The study considers dispensing to be one of retail pharmacies' service offerings and as such, both influences and is influenced by consumer behaviour.

Discount pharmacy - also known as chain pharmacy, is a chain or number of healthcare facilities typically owned by several individuals with the intention of providing pharmacy services at a reduced rate to people in a particular area (Nind, Smith, Scahill, & Marra, 2022). The main role of a discount pharmacy is to provide medicines and healthcare advice through a registered pharmacist. Such pharmacies must be licenced or registered with the State (Brooks et

al., 2008). Discount pharmacy, the second type of pharmacy discussed in the study with the intention of comparing and differentiating its marketing and operational strategies.

Front-shop - that part of a retail pharmacy (both community and discount) where most of the non-medicinal products are displayed. These non-medicinal products may include but not limited to toiletries, cosmetics appliances, house cleaning detergents and even some non-prescription medicines such as multivitamins. In discount pharmacies, the front-shop is often larger in floor space compared to that of community pharmacies with the intention of supporting the necessary stock volume it requires to maintain its reduced or discounted price business model (Nind et al., 2022). Front-shop is large component of discount pharmacy, the study therefore recognizes it one of the key differentiators.

Over-the-counter - abbreviated as OTC and known as non-prescription medicines. Over-the-counter medicine refer to any medicine that can be purchased without a prescription. Such medications are generally safe and effective when taken according to the labelled directions from a pharmacist or health care provider (MedlinePlus, 2023). The study splits dispensing into two aspects, one of which is OTC, owing its name to how the medication is purchased, over-the-counter and without prescription. The study recognizes OTC services as one of attributes retail pharmacies use to influence consumer behaviour.

Prescription - prescription refers to a formal communication that a physician or registered health-care professional issues to a pharmacist, permitting them to dispense or distribute a specific medication to a specific patient. A pharmacist is not permitted to dispense certain medicines without a prescription (Davis, 2021). Prescription, the second aspect of dispensing considered in the study, is probably the key service offering of a community pharmacy.

Retail pharmacy - licensed or registered pharmacies acting as retail stores empowered to dispenses medications to the public at retail prices, in addition to providing general healthcare advice. They are typically classified as either community or discount pharmacies. Both handle

a diverse range of prescriptions and over-the-counter medications (Brooks et al., 2008). Considered in the study as the collective name for two types of pharmacies.

Consumer behaviour - the choices and decisions that individuals or families make when choosing, frequently purchasing, a good or service. It entails integrating psychological, social, and cultural factors that influence or dictate how customers engage with the market (Goodhope, 2013).

Model - a theoretical formulation of phenomena that are connected and have a substantial impact on how a particular problem is resolved; in this case, the buying process (Sampson, 1974).

Consumer/customer value - can be characterized as a consumer's/customer's strong preference for a certain subjectively assessed good or service and implies how much the customer/customer values the good or service. It considers the linked benefits and costs of factors like price, quality, and purpose, and as a result, directly affects consumer behaviour, a crucial phenomenon in the study (Paul & Jerry, 1996).

Marketing mix - a set of variables that fall under the company's control and are used to persuade customers to buy or use their goods or services. It lays the groundwork for a business model that initially prioritized product, price, place, and promotion before subsequently adding people, packaging, and process to create the 7 Ps that the company uses to accomplish its marketing goals in the target market (Paul & Jerry, 1996).

Single Exit Pricing (SEP) - refers to a clear price structure for all drugs and controlled substances sold to anyone other than the state in South Africa. Pharmaceutical wholesalers and distributors pay SEP a logistics fee for their services (Tshabalala-Msimang, 2023).

Hypercompetition - a strategy often employed by organizations to undermine the competitive edge that market leaders in their respective industries possess, it takes place quickly, requiring prompt decision-making (Kamkankaew, Phattararowa, Khumwongpin, & Limpiaongkhanan, 2022).

1.7 STRUCTURE OF THE PAPER

This research paper comprises five main chapters, sequentially structured and presented in the same order as shown. The chapters are outlined as below:

Chapter 1 - Introduction:

> In this chapter, a brief introduction on the research topic is provided, integrating an opening overview of the research paper, its context, and its key objectives. This chapter is subsequently divided into seven parts: Research Background, Context of the Research, Problem Statement, Justification of the Research, Delimitations of the Research, Operational Definitions and Structure of the Paper.

Chapter 2 - Literature Review:

> In this chapter, literature review presents relevant existing information in addition to secondary data related to the research topic. This chapter further critically explores and unpacks the research topic as it aims to lay the foundational knowledge in the research area.
>
> This chapter is divided into ten headings which are: Introduction, Retail Pharmacy, Single Exit Pricing in The Retail Pharmacy Industry, Consumer buying Behaviour, Models of Consumer Buying Behaviour, Hypotheses, Analytical Framework, Theoretical Framework, Conceptual Framework and Conclusion of Literature Review.

Chapter 3 - Research Methods and Methodology:

> This chapter discusses and describes the research design and the associated activities undertaken with the aim to illustrate and better understand the methodology adopted in conducting the research. In addition, the researcher offers a rationale and explanation for the key data collecting and study method choices.
>
> The chapter is divided into the following six sections: Introduction, Research Paradigm and Approach, Research Design, Population and Sample, Data Analysis Strategies and Interpretation, and Ethical Considerations.

Chapter 4 - Data Analysis and Discussion of Results:

In this chapter, results of the collected primary data are analysed using the appropriate statistical tools and interpreted before being reduced to a discussion with the aim of understanding what the data represents.

Chapter 5 - Conclusions and Recommendations:

This chapter aims to summarize the research findings with the purpose of drawing a conclusion from the research study. It further intends to clarify the restrictions and share recommendations aligned to the findings.

2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

This research subject's literature review focuses on themes relevant to the study of the interaction between businesses and consumers, as well as the subsequent activities that result in a purchase. The review is divided into three sections, the first includes a detailed overview of both community and discount pharmacies, followed by a review of the pharmacy industry's response to pricing regulation, and finally an evaluation of the different models of consumer behaviour that incorporate aspects that influence the behaviours that result in a purchase choice.

2.2 RETAIL PHARMACY

Brooks et al. (2008) broadly categorises retail pharmacy into two main groups, community pharmacy and discount pharmacy, with the main differentiator premised on their operating models.

2.2.1 COMMUNITY PHARMACY

Cavicchi and Vagnoni (2020) highlight the tremendous changes that have occurred in community pharmacy during the last 20 years. They ascribe these shifts to policy deregulation and liberalization. As a result, patient-centered services and the sale of healthcare-related products have gained importance over the distribution of pharmaceuticals, which was long thought to be their primary activity.

This type of pharmacy often concentrates on medicine dispensing as well as substantial healthcare counselling, and as such, dispensaries account for approximately 80 - 85% of all pharmacy sales (Grant, 2018). Each dispensary includes extra services such as personal consultation from a pharmacist, which is an important feature of most community pharmacies. Radford et al. (2009) underlined the significant effect prescriptions make on community pharmacy profitability in a study analysing community pharmacists' prescription sales and overall financial status. Prescription sales accounted for 80% of pharmacy earnings on average in the 401 community pharmacies studied. According to the survey, over half of the pharmacies

studied (roughly 200) indicated that prescription sales account for more than 90% of their retail business (Radford et al., 2009).

Cavicchi & Vagnoni (2020) highlight six main challenges currently facing community pharmacies; pricing competition for over-the-counter medications supporting discount pharmacies' bulk purchase strategy; entrance of new competitors, such as supermarket retailers, and the implementation of policies that favour discount pharmacies; increased competitiveness in complementary medicine, also known as generic medicine, which is often linked to more production at lower costs, raising the possibility of a flooding and disrupting market prices; community pharmacies' original position as dispensaries is changing to include professional services management as a result of health policy and associated cost-cutting strategies; the development of information technology, the re-organisation of the market, and the expansion of large retailers and supermarkets into non-traditional sectors.

The community pharmacy industry is currently undergoing intense hypercompetition (Singleton, 2013). According to Hitt et al. (2011), a hypercompetitive market can be seen when rivals engage in extremely fierce competition, and their actions and retaliations become more aggressive. Price-quality positioning is primarily responsible for the growing competitiveness in the pharmacy industry (Singleton, 2013).

Customers are less willing to pay for the additional benefits, services, expertise, and professional advice that community pharmacies offer. This, combined with the rise of discount pharmacies and their expanding market domination, is causing community pharmacies to experience decreasing profits and market share loss (Singleton, 2013).

Singleton (2013) goes on to suggest that community pharmacies are losing market share because their products and services are indistinguishable from those of their competitors, which include retail stores, supermarkets and even petrol stations. Essentially, the traditional approach that community pharmacies employ has been severely strained by the emergence of discount pharmacies, with their low-cost, low-benefit products that are more suited for the masses.

Wisniewski et al. (2020) did a study to determine the change in the number of community and discount pharmacies, as well as the factors that contributed to the change. The study included 27 nations from the Organization for Economic Cooperation and Development (OECD), with South Africa serving as one of their primary partners. The authors discovered that between 2005 and 2018, there was an inverse link between the two categories of pharmacies, the number of community pharmacies decreasing with the number of discount pharmacies increasing (Figure 1).

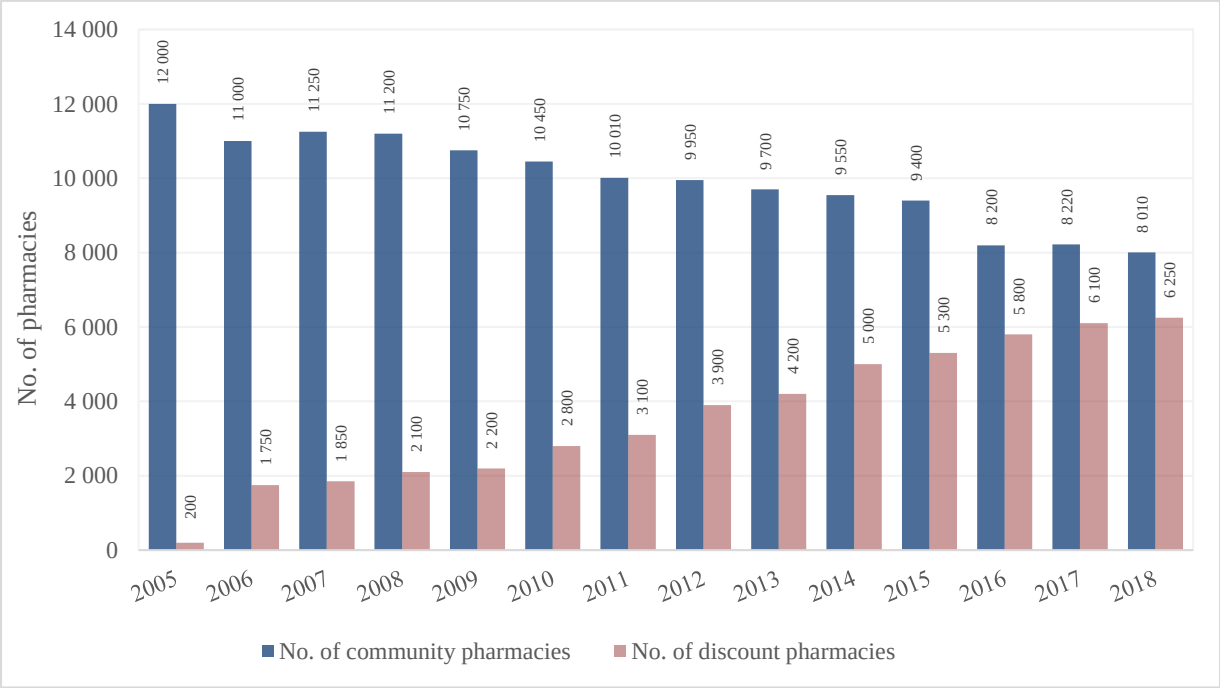


Figure 1: Changes in the number of community and discount pharmacies in the years 2005 - 2018, adopted from Wisniewski et al. (2020)

2.2.2 DISCOUNT PHARMACY

Grant (2018) states that discount pharmacies are a subset of retail pharmacies that specialize in non-dispensary product sales, with a much bigger front-shop floor area than the dispensary-dominated pharmacy. Discount pharmacies are thus driven by increased front-of-store goods sales volumes, necessitating their larger size.

This type of pharmacy has a significantly broader selection of front-of-store merchandise and is normally organized into four areas, namely beauty and personal care, health and nutrition, baby care, and other, which commonly includes items such as electronics and shoes. The word "discount" encapsulates its business model and competitive advantage. Discount pharmacies are renowned to draw customers not only because of their broad product offerings, but also because of their exceptional low-cost prices. These pharmacies are handled as low-cost suppliers, with a concentration on front-shop volume sales and the implementation of efficient and effective operating processes and procedures.

Nind et al., (2022) did research on the sales contribution of four prominent discount pharmacy organizations with the goal of determining which services contribute the most to their earnings. The pharmacy sector is dominated by two of South Africa's biggest cheap pharmacy businesses, Clicks and Dischem. Clicks operates 840 outlets and 673 pharmacies in five Southern African nations, with South Africa accounting for 95% of its revenue (Clicks, 2022). Dischem, Clicks' competitor, operates 203 pharmacies throughout South Africa, accounting for 98% of its business, with the remaining 2% being in Namibia and Botswana (Dischem, 2022).

There is a direct relationship between front-shop focus and sales contribution for the two largest South African chain pharmacy businesses. Clicks and Dischem both show consistency over the 5-year period, 2018-2022, with an average total sales contribution of 69.7% and 63.7%, respectively, Figure 2.

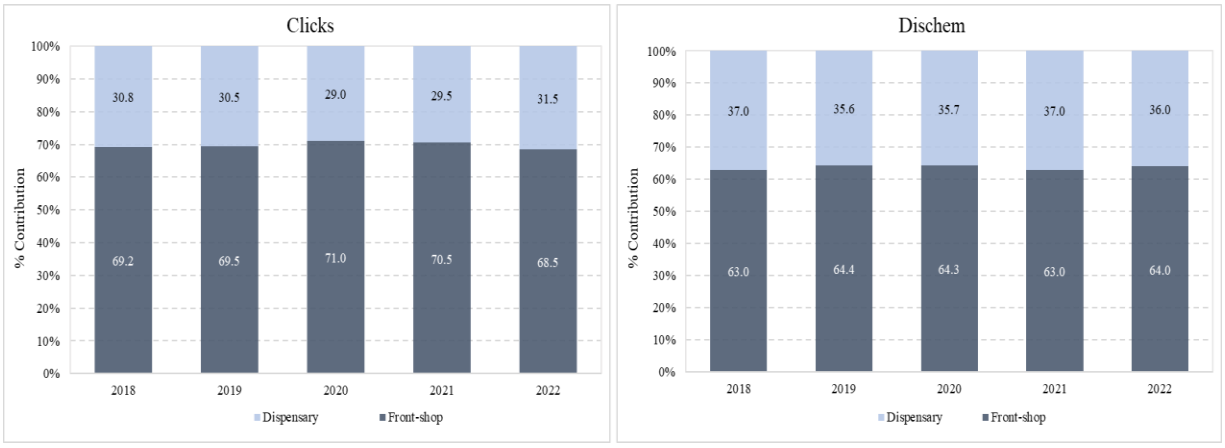


Figure 2: Percentage sales contribution over a 5-year period

2.3 SINGLE EXIT PRICING IN THE RETAIL PHARMACY INDUSTRY

In 2004, the introduction of medicine pricing rules in South Africa (SA) in the form of single exit pricing (SEP) established a mechanism to promote medicine price transparency and cut medicine prices and inflation. SEP's overarching goal was to promote access to medications by lowering the cost of both innovative and generic drugs and containing price rises. The impact of regulating medicine prices may have been underestimated as these price caps led to a general decline in South African community pharmacies' gross profit margins.

No matter the channel of purchase, the government (at ex-factory level) sets a SEP for all prescription medications. Discount pharmacies profit from cheaper costs due to cost distribution across multiple items and economies of scale, both of which increase productivity. Because of their wide range of products and services, discount pharmacies can drive down the cost of medications. The South African pharmacy market has evolved into a hypercompetitive market environment because of growing discount pharmacy market share at the expense of community pharmacies.

2.3.1 HYPERCOMPETITION IN THE PHARMACY INDUSTRY

Competitive dynamics is a phenomenon that is becoming more visible in many businesses, including those that were previously thought to be relatively stable. There has been a shift in competitive conditions in numerous industries, as evidenced by an increase in competitive activity, higher fluctuation in profitability, and a notable shift in market shares (Longin, 2018).

Richard D'Aveni coined the word "hypercompetition" in corporate strategy to characterize a constantly changing competitive environment where no move or advantage can last for too long. The new global digital economy is defined by hypercompetition. Not only is there more competition, but it's also more sophisticated and skilled. It is a situation where the rules governing competition are changing so quickly that only the fastest, most agile, and most adaptable companies will be able to survive. Hypercompetitive marketplaces are also characterized by a "quick-strike mentality" to disrupt, neutralize, or nullify market leaders' and major rivals' competitive advantage (D’Aveni, 1998).

A hypercompetitive market is frequently driven by new technology, new services, and dropping entry barriers, which dethrone market leaders and cause norms and rules to shift. This leads to near-chaotic competition, which confuses management and destroys established enterprises' key skills. While most businesses are caught off guard and lose their competitive advantage, some discover ways to enrich themselves via innovation and quick escalation of competition (D'Aveni, 1998).

2.3.2 FUNDAMENTAL DRIVING FORCES OF HYPERCOMPETITION

According to D'Aveni's definition of hypercompetition, a company's capacity to string together a series of fluctuating advantages is the sole source of truly lasting competitive advantage. Firms manage their dynamic strategic contacts with competitors through regular moves and counter-movements that preserve a relative strength in four areas (D'Aveni, 1998). Companies and industries do not choose hyper-competition; rather, it is compelled by variables such as intensive value-chain innovation, global consumers, new market savings, international cooperation, political openness, low entry barriers, and capital mobility (Hammoud & Abdallah, 2019).

D'Aveni (1998) identifies four well-known, key driving forces that have steered the disruption of global markets. For starters, people anticipate far more value from the things they purchase. They no longer feel that they received value for their money. They have three desires: more, faster, and their way. Products bearing reputable and well-known brand names are not exempt from pressure.

The second most important driving driver is technology. As a result of technology advances, almost every industry has witnessed paradigm shifts. For example, the power of modern microprocessors has caused the computer industry as a whole to "deconstruct." There is a new social order among computer makers as a result of the fact that personal computers are now more powerful than mainframes (Goeltz, 2014).

The third factor promoting hypercompetition is the decline in entrance barriers within and between industries. National barriers have been dismantled as a result of the collapse of communism and the integration of nations into regional economic blocs (Goeltz, 2014).

Hypercompetition is driven by four factors: the use of deep resources. Rivals regularly use Big Money, and sometimes Really Big Money, to organise deadly strikes. Firms used to compete one-on-one back in the day. They now compete with keiretsus, a term from Japanese that refers to an integrated system of organizations with strong relationships and mutual shareholding. Additionally, these keiretsus are a part of the informal zaibatsus, which are also of Japanese origin and feature groups of organizations from many industries that can cross-subsidize one another when difficulties arise, often with support from government (Goeltz, 2014).

2.3.3 FOUR ARENAS OF COMPETITION

Many organizations are concerned that they would fail to earn a profit in hypercompetitive markets due to increased levels of rivalry, instability, and unpredictability. They are concerned that hypercompetition would deteriorate into "perfect" competition with no winner (D'Aveni, 1998). In hypercompetition, a corporation can prevail by developing the ability to dynamically reposition itself into arenas, which is a difficult but not impossible move. Although a company cannot achieve long-term sustainable advantage, it can achieve long-term dominance in an industry if its actions are carried out well (D'Aveni, 1998).

Four competitive domains serve as the foundation for the quest of a superior position: price-quality, know-how/timing, stronghold creation/invasion, and huge pockets. The struggle in each arena corresponds to one of the four basic causes that drive hypercompetition. Additionally, since no advantage can last forever, the conflict is an effort to create a series of transient advantages that together constitute long-term dominance (Goeltz, 2014).

In the price-quality space, there is competition to provide customers with greater "value" in order to meet the flood of growing customer demands. In this game, competitors raise the stakes by moving up an escalation ladder through a number of competitive positions. They first offered a wide range of products ranging from low-cost, low-quality goods to high-cost, high-quality goods, and they engaged in fierce competition on price-quality ratios (D'Aveni, 1998).

In the second arena, businesses vie for short-term advantages in their expertise, technological foundation, or commercial acumen, as well as in how quickly they can apply this knowledge to the development of new products, services, and internal processes. Firms compete more fiercely when they copy one another, discover their rivals' trade secrets, and outperform them. Similar to the price-quality arena, the know-how arena exhibits patterns of competitive movement and an escalation ladder (D'Aveni, 1998).

Firms compete in the third arena to develop strongholds around geographic or product marketplaces by erecting entry barriers. As previously mentioned in the driving forces section, creative hypercompetitors, use the fundamental forces of hypercompetition to overcome these barriers and enter markets. Then, when the defence tries to protect its area and might even invade the attacker's stronghold, the conflict intensifies (D'Aveni, 1998).

Firms battle for the deepest pockets in the fourth arena of competition. Using antitrust rules, small businesses attempt to offset the advantage of large corporations. Should that not work, they can decide to reduce their activities to the extent of becoming merely a fly on an elephant's back. However, even with the fly's great speed and agility, this stance can be disastrous. So many small businesses form alliances. Additionally, by expanding outside of their field, smaller businesses can reframe how big they are in comparison to their rivals and increase their financial power (D'Aveni, 1998).

2.4 CONSUMER BUYING BEHAVIOUR

Most of the recent marketing literature has focused on consumer behaviour. To convince a customer to select a company's product line, significant expenditures are spent in the areas of product design, packaging, quality distinction, advertising, sales promotion, and other related areas. Complexity of the customer makes it seem difficult to instantly ascertain the needs and desires of the consumer, which makes the firm's work even more difficult. A broad range of elements, including personal values, peer perspectives, social and economic status, cultural affinities, and other ambient influences, influence the consumer's decision-making (Goodhope, 2013).

To gain customers, companies must thus effectively demonstrate how distinctive their product offers are. While it is obviously the firm's responsibility to investigate and identify the complexity in a customer to better serve them, the consumer would consciously seek to choose between a firm's offering and another.

Organizations use a range of measures for gauging customer response to their brands, services, and motivational advertising. Among them, customer behaviour models are the most well-known. The models aim to provide a visual and diagrammatic representation of the stages that a consumer, their surroundings, and even the firm take prior to making a purchase decision.

According to Nicosia (1966), a consumer is an individual who, in order to satisfy their own or their family's requirements, wants, or preferences, purchases or has the means to obtain goods and services that are made available for purchase by marketing organisations. Human behaviour is the collection of activities that people engage in to improve their social, economic, and physical circumstances in line with their own personal ideals (Bush & Mosteller, 1985). In the integration of consumer and behaviour, Engel et al (1978) argues that the acts of individuals who actively use and get economic goods and services, as well as the decision-making processes that impact these activities, are referred to as consumer behaviour. Schiffman and Kanuk (1978) consider consumer behaviour as the acts that people do in search of, acquisition of, use of, and assessment of products, services, and concepts that will satisfy their needs. Consumer behaviour refers to any activity taken by individuals who consume and purchase goods and services to achieve measurable goals.

2.4.1 FACTORS INFLUENCING CONNSUMER BEHAVIOUR

Consumer behaviour is a complex and wide-ranging field of research. Understanding consumer behaviour and getting to know customers are not straightforward concepts, how consumers will act in each situation is essentially difficult to accurately predict. To influence consumer behaviour in a desirable way is the goal of all marketers. The outcome of this pursuit influences the success or failure of marketing campaigns and maybe the organisation itself. Jisana (2014) identifies four factors, personal, cultural, social, and psychological traits that significantly influence consumer behaviour.

2.4.1.1 PERSONAL FACTORS

The author provides several factors under "personal traits" that may have an impact on consumer behaviours that lead to purchasing decisions. Consumer life cycle and age may influence their purchasing behaviour, as customers are known to change the products and services they purchase over time. The various phases of the family life cycle, childhood, singledom, marriage, motherhood, etc., help marketers design products that are appropriate for each stage (Jisana, 2014). Purchasing behaviour of a consumer is frequently influenced by their employment (Jisana, 2014); this is apparent when contrasting careers in corporate settings with those in more casual work environments. While vocations from less corporate settings might only require semi-formal, smart trousers and shirts, or even tough labour clothes in low-level professions, corporate environments might require extremely formal work wear, such as business suits.

Consumer financial status has a direct impact on purchasing decisions as wealthy consumers typically have large savings and are therefore inclined to buy more expensive goods and services, while customers with limited finances frequently choose to buy within their means, that is, less expensive goods and services (Jisana, 2014).

Jisana (2014) notes that customers' way of life has a substantial influence on what they decide to purchase. The word "lifestyle" refers to a person's interactions with their surroundings and way of life in a community. It encompasses all of the customer's behaviour and pattern of interaction in the environment and is based on their interests, opinions, and other activities.

The fifth component under "personal traits" is personality, according to Jisana (2014). The author makes the case that a customer's personality differs depending on the individual, the time of year, and location. This significantly affects how consumers act when they shop. A person's personality is shaped by the combination of his or her actions under different circumstances, not by what they wear. Its many characteristics, including aggression, dominance, confidence, etc., can be used to predict how customers would behave while purchasing a particular product or service.

2.4.1.2 CULTURAL FACTORS

A community's culture is the set of core values, beliefs, aspirations, and behaviours that members of the community acquire from their families and other important institutions. To put it simply, culture is an essential part of any community and a major force behind personal desires and behaviours (Sampson, 1974).

Since the influence of culture on consumer behaviour differs from country to country, marketers need to exercise extreme caution when evaluating the cultures of different groups, areas, or even entire countries (Jisana, 2014).

The author differentiates culture into two groups, subculture, and social class. There are subcultures within every culture, such as those associated with different countries, racial groupings, faiths, or geographic areas. Marketers can make use of these groupings by segmenting the market into multiple small groups. Marketers might design products with the needs of a certain area in mind. The hierarchical division of society into groups, each signifying a specific social status or standing, is known as social class. Social class has a major influence on consumer behaviour, which includes buying patterns, lifestyles, media consumption patterns, activities, and interests (Jisana, 2014).

2.4.1.3 SOCIAL FACTORS

Customers' purchasing decisions are influenced by social factors as well. Important social factors include peer groups, family, roles, and status.

According to Jisana (2014), reference groups have an influence on customer's attitudes and behaviours, either directly or indirectly. Customers take up attitudes, concepts, and behaviours from these groups and modify them for their own purposes. The author goes on to say that because of their frequent encounters with the individual and their significance in the individual's life, family and close friends are regarded as the most significant reference groups in the individual's life. A person's secondary reference groups consist of their workplace, friends, neighbours, and other contacts.

Marketers are especially interested in how the roles and influences of the wife, husband, and kids affect family-influenced purchase decisions. Marketers will aim to target women in their advertising if they believe that a woman can influence a husband's decision to buy a particular product, and vice versa. It's critical to understand that the roles that buyers play in consumers' lives change along with them (Jisana, 2014).

Lastly, everyone in the society has a distinct role and status based on the groups, clubs, families, organizations, etc. to which they belong. The consumer's social role and status have an important influence on their behaviour and purchase decisions (Jisana, 2014).

2.4.1.4 PSYCHOLOGICAL FACTORS

According to Jisana (2014), there are four main psychological components that significantly influence the purchase behaviour of consumers. These include motivation, perception, beliefs, and attitudes.

The degree of motivation exhibited by customers also affects their purchase behaviour. Customers possess distinct requirements, encompassing physiological, biological, social, and other needs, which can collectively be categorised as motivation. There are several tasks that require attention, some of which are more urgent than others. Consequently, when a need becomes more pressing, it becomes a motivator and drives the individual to pursue fulfilment (Jisana, 2014).

Maslow's Theory of Motivation explains why people experience needs at particular stages of their life. Maslow developed a hierarchy of requirements for humans based on importance. They are prerequisites for self-actualization, esteem, safety, social connection, and physiology. One attempts to attend to their most urgent needs first. When that need is satisfied, it stops being a motivation, and the person will try to satisfy the next important need (Jisana, 2014).

Jisana (2014) defines perception as the process of selecting, organising, and interpreting information to produce a meaningful experience of the external environment. A person's viewpoint towards a certain product or service is determined by their beliefs about it.

Comparable things may not be purchased by people with the same needs due to variances in perception. Three separate perceptual processes exist: selective attention, selective distortion, and selective retention. Individuals who engage in selective attention concentrate on information that will benefit them or their immediate family. Contrarily, consumers are more likely to receive information in a way that confirms their preconceived beliefs and attitudes when it is selectively

skewed. Similar to selective retention, customers hold onto information they think will be helpful to them (Jisana, 2014).

Considering beliefs and attitude, Jisana (2014) notes that consumers view different products and services differently and have opinions on them. These concepts are appealing to marketers because they have the power to influence brand perception and sway consumer behaviour. Marketers can shape the attitudes and perceptions of their target audience by launching focused activities in this domain.

2.5 MODELS OF CONSUMER BUYING BEHAVIOUR

Consumer behaviour models allow for the classification of consumer types in consideration to their behaviours. While some models depict a particularly precise behaviour, such as consumer brand preference and purchasing patterns, others seek to cover a wide spectrum of consumer behaviours, making them significantly more comprehensive. Models are established for a variety of reasons, but the two main motives for most consumer models are to facilitate the collection of existing consumer behaviour knowledge and to aid in the development of a theory that guides consumer behaviour research.

This entails identifying the relevant variables, characterizing them, and outlining how they interact, or influence one another. Numerous consumer behaviour models exist, and they can be categorized into two groups according to more traditional and modern approaches to conducting consumer research.

2.5.1 TRADITIONAL CONSUMER MODELS

The first thorough consumer models were created by economists who wanted to comprehend how economic systems worked. The four models, economic, learning, psychoanalytic and sociological, can be used to explain the transitional models. These models continue to shape modern perceptions of customers, in part because they have experienced some reinvention (Paz & Vargas, 2023).

2.5.1.1 ECONOMIC MODEL

The primary principle of the economic model of consumer behaviour is that consumers make decisions based on their desire to maximize utility at the lowest costs. Thus, it is possible to predict customer behaviour using economic factors like the consumer's purchasing power and the price of comparable goods or services. A consumer may choose to buy a comparable product or service that is being offered at a lower price in order to maximize the benefits; with increasing purchasing power , they will be able to buy more of the goods or services already in their preference range (Paz & Vargas, 2023) .

There are several ways to look at the economic model's value from the perspective of behavioural science. One argument is that the model is tautological, meaning it can't be proven true or false. Because the model only shows the consumer behaving in his own best interest, it is thus not particularly informative.

A second perspective is that the model is normative rather than descriptive since it offers logical guidelines to consumers who desire to be "rational." Customers are more inclined to use economic theories sparingly than to apply them to every purchase they make. Therefore, a consumer may conduct an economic analysis while opting to buy a new house or car. However, they may not apply the economic principles when choosing between two inexpensive products.

A third perspective holds that since economic forces are present in all marketplaces, albeit to varying degrees, any thorough explanation of consumer behaviour must take them into account.

The conclusion is that economic variables by themselves are unable to account for all variances in the sales and purchasing process, and that the economic model overlooks the basics of how consumer preferences for brands, products and services are developed. The model therefore provides a helpful framework for evaluating a limited aspect of the consumer's psyche.

2.5.1.2 LEARNING MODEL

This model is predicated on the idea that consumer behaviour is determined by the need to satisfy both basic and learned desires. While shame and horror are seen as learnt requirements, clothing, food, and shelter are considered basic needs. As a result, a customer will typically buy goods or services that satisfy their needs and make them happy. When this need, say hunger, is satisfied, a consumer may choose to forego purchasing food in favour of purchasing a lovely piece of jewellery (Jisana, 2014).

This model does not offer an exhaustive description of consumer behaviour, as it leaves out crucial phenomena such as perception, subconscious influences, and interpersonal interactions. Nonetheless, the model aids in marketing by giving the marketer information about consumer behaviour and marketing strategies.

2.5.1.3 PSYCHOANALYTIC MODEL

The psychoanalytic approach considers the influence of the conscious and subconscious minds on consumer behaviour. The three levels of consciousness that Sigmund Freud identified are, the id, ego, and superego, all influence how individuals act and make decisions about what to purchase. A hidden symbol in a company's name or logo may influence a person's subconscious thinking and convince them to buy that product or service instead of an identical one from a different company (Sampson, 1974).

In practice, one way the model could work is by making it difficult for another person to understand an individual's behaviour since the individual is unable to make sense of their own actions. The model's most significant marketing conclusion, though, might be that consumers are driven by concerns about products and services that are both symbolic and economically useful. One might also consider the model's significance from the perspective of research. While direct observation and interviewing can be used to get deeper insights into attributes, for example age, gender and family wealth, these methods of research are insufficient for establishing the mental state, which is regarded to be profoundly "buried" within an individual.

2.5.1.4 SOCIOLOGICAL MODEL

The psychoanalytic approach considers the influence of the conscious and subconscious minds on consumer behaviour. The three levels of consciousness that Sigmund Freud identified are, the id, ego, and superego, all influence how individuals act and make decisions about what to purchase. A hidden symbol in a company's name or logo may influence a person's subconscious thinking and convince them to buy that product or service instead of an identical

one from a different company (Sampson, 1974).

This model can be challenged on the basis of its overly exaggerated modern viewpoints. For instance, many people aim to the social class directly above their current social class, and not everyone views the leisure class as a frame of reference. Furthermore, the more affluent members of society would like to "fit in" rather than "stand out" by spending less money on extravagant items.

2.5.2 CONTEMPORARY CONSUMER MODELS

Intentional, rational decision-making is valued more highly in modern theories of consumer behaviour than irrational impulses or feelings. The Engel-Kollat-Blackwell (EKB), Black Box, Hawkins Stern, Howard Sheth, Nicosia, Webster, and Wind models are examples of contemporary models.

2.5.2.1 ENGEL-KOLLAT-BLACKWELL (EKB) MODEL OF CONSUMER BEHAVIOUR

Before obtaining a good or service, consumers go through a five-stage decision-making process that is described by the Engel-Kollat-Blackwell consumer behaviour model. These stages include awareness, information processing, evaluation, and purchasing decision (Panwar et al., 2019).

During the awareness stage, customers read or see advertisements from companies and become conscious of their need, want, or interest in purchasing what they have just discovered. When a consumer reaches the information processing stage, they begin to consider how a product or service will fit into their needs, past experiences, and whether it will fulfil their present desires (Bush & Mosteller, 1985).

Consumers will assess the product they have located and possibilities from other companies to determine whether the original good or service is the greatest fit or whether there is an improved alternative. When a product or service offers better value than its competitors, a consumer will buy it during the purchasing decision stage. If the customer decides otherwise, the process can be stopped.

Finally, at the outcome analysis stage and after the purchase is completed, the consumer will assess if their experience was positive or unfavourable. The consumer will keep the product after a trial time and may elect to become repeat consumers, or they may express discontent and return to stage three (Bush & Mosteller, 1985).

The EKB model provides a comprehensive view on consumer behaviour, and more especially the impact of influences on the different stages of the decision-making process.

2.5.2.2 BLACK BOX MODEL OF CONSUMER BEHAVIOUR

The Black Box concept, sometimes referred to as the Stimulus-Response paradigm, holds that consumers are independent thinkers who analyse both internal and external information before making a purchase. The model identifies factors that lead consumers to purchase a product or service through a two-part phenomenon that consists of the characteristics of the consumer and their decision to purchase the product or service. It may appear complicated, yet it is a rather simple method. Consumers are exposed to outside stimuli from your business's marketing mix in addition to other outside stimuli, which they mentally process (black box). They decide by relating environmental cues to pre-existing knowledge, such as personal beliefs and desires (Reeves, Wesley, Logeshwari, & Mercy, 2023).

Consumers are essentially problem solvers who form opinions about your product based on how well it will satisfy their preexisting needs and beliefs. Because people only buy products after seeing how they relate to their experiences, this idea can help businesses that sell lifestyle items (Stankevich, 2017).

The back box model is too simplistic to describe every decision made by a consumer, even though it might assist explain some decisions. In actuality, people frequently base their decisions on illogical considerations as well. For instance, word-of-mouth recommendations from peers or friends may have a significant impact on certain consumers. Instead of choosing something because it has the highest objective worth, they can do so out of a herd mentality. Similar to this, a lot of people are resistant to change, which leads them to choose less-than-ideal products or services because it's more comfortable or known to them (Reeves et al., 2023).

2.5.2.3 HAWKINS STERN IMPULSE BUYING MODEL

Unlike the Learning Model and EKB, the Impulse Buying theory contends that decisions to buy are not necessarily the consequence of careful consideration. Typically, when we consider impulsive purchases, we picture ourselves grabbing a pack of gum or a candy bar just before we check out. Although Hawkins Stern classifies these as impulse purchases, they fall into four categories: escape, recommended, planned, and reminder purchases (Stankevich, 2017).

Escape purchase describes a customer's purchase of a product or service that wasn't on their list of items to buy or wasn't a regular purchase. These products/services have appealing visuals that draw customers in. Reminder impulsive purchases often occurs when a customer discovers a product through in-store circumstances, marketing campaigns, or even just simply being reminded that it's available, like an ice cream scoop placed thoughtfully in the grocery store's freezer department. When a customer discovers a product or service via an online algorithm, an advertisement, or a salesperson's recommendation in-store, it's known as a suggested purchase. Finally, a planned purchase, which is viewed as the opposite of an impulse purchase, occurs when a customer knows they want a particular item but will only buy it if there is a discount involved (Stankevich, 2017).

Many firms can use the Hawkins Stern Model because there are no limitations on what a customer with this buying habit can't buy. By paying attention to product displays, creating AI algorithms for online shopping, or putting items on sale to draw planned purchase impulse shoppers, you may create a personalised consumer experience.

2.5.2.4 HOWARD SHETH MODEL OF BUYING BEHAVIOUR

According to the Howard Sheth consumer behaviour model, the buyer's journey is a highly rational and rigorous decision-making process. Customers in this model put on a "problem-solving" hat at every point of the journey, with diverse circumstances impacting the path of the journey. The model offers a comprehensive way to integrate the influences of psychology,

multiple social media platforms, and marketing strategies on consumer decision into a logical flow of information processing (Santos & Goncalves, 2021).

The Howard-Sheth model, clearly distinguishes between three distinct stages or degrees of decision-making, often referred to as the levels of learning. More precisely, extensive, limited, and routinized problem-solving.

In extensive problem-solving, customers are unaware of the brands, products or services that are available to them at this point. They're actively looking for a solution to a problem. Limited problem-solving suggests that, now that customers have more knowledge, they are taking their time and weighing their options. Routine problem-solving implies that consumers are fully aware of their options and as well as their preferred brands. As a result, customers know where to go every time they want to make a purchase (Bush & Mosteller, 1985).

The Howard-Sheth model is valuable because it makes an attempt to categorise and identify key variables that could influence how consumers behave. Because it attempts to explain the complexity of consumer behaviour, the model is also seen as having a dynamic quality. The consumer is described as actively searching the environment for information and using past experiences to form assumptions that serve as a guide for making decisions. The model is criticised for its hypothetical constructions, which are not operationally described in clear terms, making the specific interrelationships in the model somewhat speculative (Bush & Mosteller, 1985).

2.5.2.5 NICOSIA MODEL

The Nicosia model depicts the interaction between customer attributes, consumer decision-making processes, and a business' marketing communications, as well as customer feedback to the firm. The model comprises four “fields”:

The properties in field one indicates the firm and the attributes of the consumer. In this field, the following queries are posed and addressed: How does your marketing messaging appear? What impression does that messaging provide your customers? Are they inclined to believe what you're saying? The latter is impacted by the character and experience of the consumer. The second field, search, and assessment are where the consumer starts comparing brands based on the messaging of the organisation; this is similar to the "limited problem-solving" stage of the Howard Sheth model (Panwar, Anand, Ali, & Singal, 2019).

Following the consumer's persuasion to choose the company as their retailer or supplier, the customer will indicate their purchase preference in field three. Finally, the customer will determine whether to respond to future communications at this point, while the company will decide whether to keep using the same messaging in field four, which represents feedback (Panwar et al., 2019).

The unproven assumptions that the customer has no prior knowledge or experience with the product or service, together with an inadequate awareness of field two, the impacts and interrelationships among the consumer qualities, are limitations of the Nicosia model. A further limiting point is that, for repetitive decisions (considered to be a large part of customer purchases), the operation of the model is imprecise (Panwar et al., 2019).

The Nicosia model has not been revised to reflect advancements, the lack of elaboration and empirical evidence are a further area of criticism. In summary, the Nicosia model indicates the belief that, despite its shortcomings, it makes an explicit effort to include the organization's marketing initiatives within a model of customer behaviour (Panwar et al., 2019).

2.5.2.6 WEBSTER AND WIND MODEL OF ORGANIZATIONAL BUYING BEHAVIOUR

The Webster and Wind Model is a business-to-business (B2B) purchasing behaviour model that explains the four factors, environmental, organizational, buying centre, and individual variables, that influence an organization's decision to make a purchase (Panwar et al., 2019).

Any external factors that could influence a purchase choice are referred to as environmental variables. Examples include supplier relationships, consumer demands, and competition pressure. More general factors like politics, culture, and technology are also important. Organizational factors are internal components, such as the organization's objectives and assessment criteria, that may have an influence on a purchase decision. The questions of who has final say over purchases, who may sign contracts, and who controls the purchasing process are all part of the buying centre variables. Lastly, the individual variables pertain to the prospect's educational background, level of experience, goals, and desires, as well as their demographic and psychographic characteristics at the organization.

After accounting for all these aspects, B2B firms can map out a predictable buyer's path for their target consumers.

2.5.3 ADOPTED CONSUMER MODEL

Firms integrate two or more consumer models in developing strategies to best achieve business goals and objectives, assuring an extended approach that impacts and attracts maximum customers. The Nicosia Model will be adopted in the research because it portrays a situation in which a firm is preparing messages to convey to customers, and consumers' responses will influence the firm's subsequent actions.

The Nicosia Model further business above all else and customers second. It argues that consumers' decisions to buy are influenced by the company's marketing messages. Although the idea is intriguing since it provides businesses with total control. However, it's unwise to overlook the customer's internal variables that influence a purchase decision. Even if a smart and most successful marketing content ever, is presented, a customer's intrinsic characteristics may have greater sway in some cases than others.

The Nicosia model's Field One (Figure 3) addresses both firm and consumer factors and how they interact to influence a purchasing decision. In addition to assessing the firm's marketing environment and communication activities that influence customer attitudes, the competitive environment, and the characteristics of the target market, the study will also evaluate the attributes and relationships associated with field one of the model. Aspects that are appropriate for understanding customer-company interactions and business strategies.

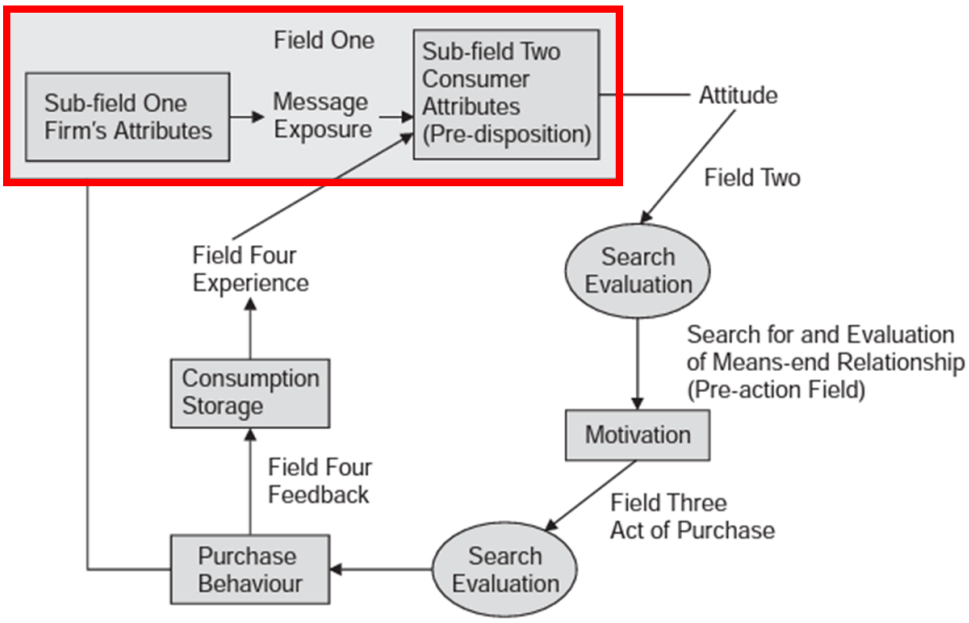


Figure 3: Nicosia Model extracted from (Jisana, 2014)

2.6 HYPOTHESES

Hypotheses serves as declarations of the researcher's expectation or prediction about the relationship between the variables under examination. Hypotheses are the projected answers to the researchers' queries, which specify the study subjects and inquire as to how the concepts might be related (Anupama, 2020).

In exploring the mutual interaction that exists between pharmacies and consumers, as well as the different strategies these firms employ to keep their competitive edge in a hypercompetitive environment, three hypotheses will be addressed, each comprising several independent and dependent variables.

- Hypothesis 1 - Males and females respond differently to the marketing mix.
- Hypothesis 2 - Marketing mix equally influence both medical and non-medical aid holders.
- Hypothesis 3 - Certain marketing mix are associated with certain pharmacy types.

2.7 ANALYTICAL FRAMEWORK

The Nicosia Model's Field One is further broken into subfields as presented in Figure 3 above with the goal of distinguishing attributes associated with firms from those related to consumers The first subfield represents the firm's marketing message to the consumer in the form of advertising and other forms of promotion, which serve as inputs to the second subfield. Within Field One of the Nicosia Model, the analytical framework will be systemically examined. The analytical framework is based on a review of the key characteristics of pharmacy companies and their clients, as well as their interaction and the outcomes.

2.8 THEORETICAL FRAMEWORK

The theoretical framework assumes that relationships exist between subfield one and subfield two of the Nicosia Model's primary field one. The following objective and research question have been developed to analyse these interactions and their influence on one another:

- **Problem**: While retail pharmacies are differentiated based on their operational focus approach, the pharmacy environment continue to be under great strain, with hypercompetition particularly affecting community pharmacies. The adoption of consumer behavioural models by discount and community pharmacies is therefore necessary to attract customers, acquire and retain a competitive edge, albeit to varying degrees.

- **Objective**: To determine how elements of the marketing mix influence consumer behaviour in the retail pharmacy environment, as well as how retail pharmacy and customer attributes interact with one another to establish and maintain a competitive edge.

- **Research question**: How much of an impact does the marketing mix have on the behaviour of consumers?

Thus, the purpose of this study is to obtain a more thorough understanding of how aspects of the marketing mix affect consumer behaviour in the context of retail pharmacies. The following

supporting questions will help to address the main research question by examining the study from the perspective of the Nicosia model of consumer behaviour:

1. To what degree are the marketing mix attributes related to each other?
2. How much, if at all, are the attributes of the firm (discount and community pharmacies) related to those of the consumer?
3. Which key marketing mix attributes are most important in establishing and maintaining a competitive edge in pharmacies?

2.9 CONCEPTUAL FRAMEWORK

Figure 4 shows the conceptual framework for Field One of the Nicosia Model The conceptual framework (Figure 4) is built on field one of the Nicosia Model, where a firm's attributes, represented by the market mix "7Ps," may or may not be transformed by various technology breakthroughs. The impact of a firm's attribute on consumers may vary depending on the influences of technology and consumer propensity as they are encouraged to purchase.

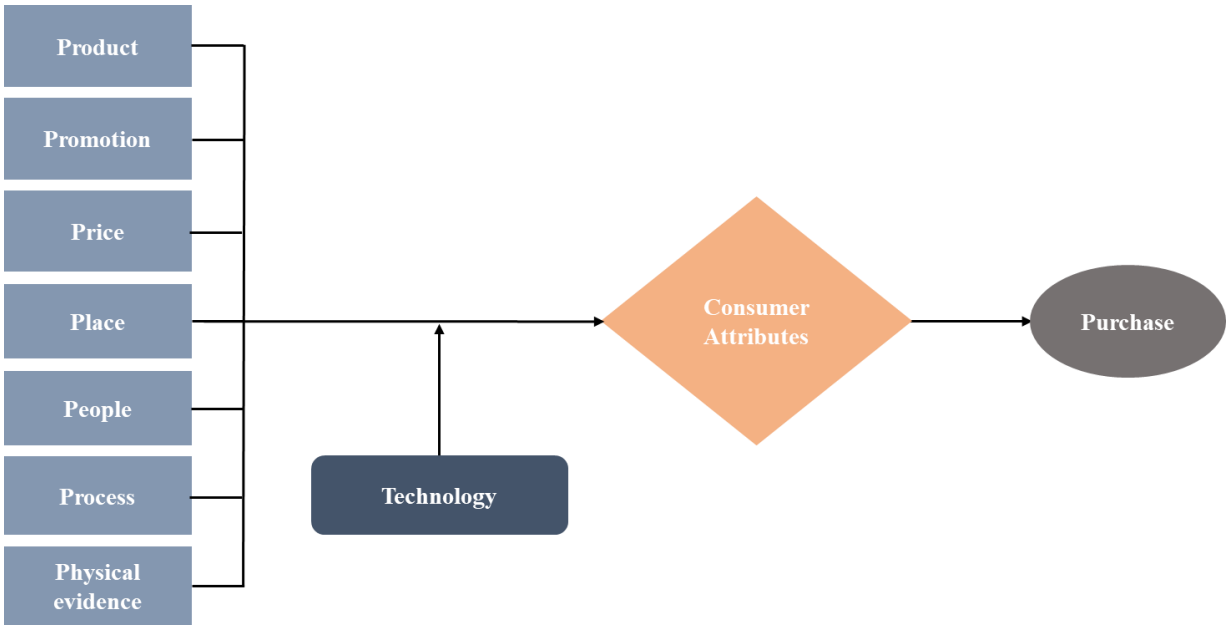


Figure 4: Conceptual Framework for Field One of Nicosia Model

2.10 CONCLUSION OF LITERATURE REVIEW

The literature clearly differentiates two types of retail pharmacies, based on their operational focus approach. Furthermore, two major aspects, hypercompetition and consumer behaviour, each characterized by multiple elements, are selected as the main concepts to guide the research investigation.

To support and enhance effective communication efforts, the two key elements have been further examined. Marketers must understand consumers, their purchase habits, and the kind of media they like. By thoroughly analysing consumer behaviour models, marketers may grasp how the concept of consumer behaviour affects the growth of marketing communication strategy. Using such models, they can estimate the information needed to classify and choose target audiences. These models also help with novel marketing techniques such as position and market segmentation, which divide the entire market into sub-groups of consumers.

3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research approach and data collection technique utilised to formulate the answers to the research questions will be examined in this chapter. It also seeks to determine the extent to which firm and consumer attributes influence retail pharmacy strategy and, as a result, consumer purchase. The data is analysed using descriptive and quantitative empirical methods of evaluation.

According to Asenahabi (2019), research is a well-structured study or investigation into a topic with the aim of establishing facts and innovating logical conclusions. With multiple sources of information available, social science researchers must rely on systematic ways to discover social facts. The author also notes that a suitable research technique must be used in combination with appropriate data collection and analysis technology in order to satisfy the information requirements of any study or research project.

3.2 RESEARCH PARADIGM AND APPROACH

According to Rehman & Alharthi, (2016), a research paradigm comprises fundamental presumptions regarding the methodology and the perspectives of the researcher, not just on the study topic, but also on the world. It is expected that the research design and methodology used would be influenced by these assumptions. Therefore, the research paradigm is crucial in defining and directing the entire research work.

Creswell (2009) highlights that research designs are classified into three types: quantitative, mixed, and qualitative methodologies (Table 1). To provide appropriate approaches for preparing and satisfying the requirements associated with the research, and in order to effectively understand and apply the data collected from all respondents, a quantitative research methodology will be adopted.

Given the nature of the data that will be obtained from respondents, quantitative research is ideal for addressing questions about phenomena by collecting numerical data and applying

statistical, mathematical, and computational techniques. The strength in this type of research is in its capacity to produce reliable, quantifiable data that may be extrapolated to a large population.

Table 1: Quantitative, Mixed and Qualitative Methods (Creswell J. , 2009)

Quantitative Methods →	Mixed Methods	← Qualitative Methods
• Pre-determined • Instrument based questions • Performance data, attitude data, observational data and consensus data • Statistical analysis • Statistical interpretation	• Both pre-determined and emerging methods • Both open-and closed-end questions • Multiple forms of data drawing from all possibilities • Statistical and text analysis • Across databases interpretation	• Emerging methods • Open-ended questions • Interview data, observed data, documented data and audio-visual data • Text and image analysis • Themes, patterns interpretation

In consideration of the theories already in existence on the attributes of firms and customers, their interactions, and how these affect purchasing decisions, three hypotheses have been developed and will be put to the test. To establish a framework for the research to evaluate these theories, factual data will be gathered. Thus, rather than relying on views or concepts to support the hypotheses, the investigation will apply a positivist scientific approach to confirm or disprove them.

This strategy assures that the circular process is completed, with theory being the initiator and contributor to literature after testing (***theory*** → ***hypotheses*** → ***integrating*** → ***variables*** → ***testing*** → ***theory***) (Park & Konge, 2019).

Other factors that contribute to the positivist scientific approach's acceptance include (Creswell J. , 2009):

- The approach is predicated on the evaluation of dependent variables, or outcomes, which are unaffected by outside factors.
- To lessen bias, dualism is incorporated, which is the division of the researcher and participants in relation to study design and data collection.
- It considers effect size, a quantitative statistic that, when expressed in standardised units, enables cross-study comparisons, and illustrates the impact and influence of mediation and moderation.

- It facilitates the examination and assessment of functional relationships, the relationship between independent and dependent variables, and additional elements that are emphasised in the conceptual framework. Relationships are often quantified as impacts, either direct or indirect.

3.3 RESEARCH DESIGN

Table 1 above presents the key characteristics of a quantitative approach. The benefit of this strategy is that it collects a wide range of data, which facilitates a comprehensive understanding of the research challenges and the ways in which customer and pharmacy attributes interact and influence consumer purchasing decisions.

A structured questionnaire was employed in the quantitative analysis study design to collect numerical data for descriptive and inferential statistics. This analysis may provide a general explanation of sample trends from which the researcher may deduce information about the population, since the sample population, employees of a mining company, may be viewed as typical of the population residing in Mpumalanga's mining towns (Creswell J. , 2017).

Using actual data and statistical analysis from quantitative research during the study process has some advantages (Creswell J. , 2017).

- Data can be tested and checked - detailed experimental planning and the ability to replicate tests and results consistently are prerequisites for doing quantitative research. Consequently, the gathered information is less contested and more reliable.

- Subjecting data to straightforward analysis - the types of conclusions you draw from collecting quantitative data can assist you in determining which statistical analyses to perform. Your data interpretation and findings presentation will be simpler and less prone to subjectivity and inaccuracy as a result.

But the emphasis on statistics in quantitative research may also be constricting, which has a variety of drawbacks (Creswell J. , 2017).

- False focus on numbers - because of this possible limitation, researchers pursuing quantitative research in search of precise, statistical association may overlook more important concepts and relationships. If you solely focus on the numbers, you run the risk of missing out on unexpected or big-picture information that could benefit your organization.

- Difficulty setting up a research model - in quantitative research, formulating a hypothesis and developing a model for data gathering and analysis are essential stages. Errors in execution, researcher bias, or setup could render all your results invalid. It might be subjective even to formulate a hypothesis, especially if you know in advance what you intend to establish or refute in relation to a certain question.

- Data can be misleading - since quantitative research is based on numbers, many think it is more reliable or scientific than qualitative, observational research. However, there is a chance that both kinds of research will be erroneous and biassed. Prejudices and attitudes of the researcher are equally likely to impact quantitative approaches to data collection. Compared to qualitative research, the effects of this bias are felt sooner in the quantitative research process.

3.4 POPULATION AND SAMPLE

3.4.1 POPULATION

The population under investigation for this quantitative study consists of workers from Overlooked Group, a coal mining firm that operates in the towns of Emalahleni, Middleburg, Hendrina, Bethal, Kriel, and Secunda in Mpumalanga. The company employs about 3,500 workers, of whom 2,560 have access to corporate email.

3.4.2 SAMPLE AND SAMPLING METHOD

The population with access to company email consists of both males and females from semi-skilled to highly skilled executive levels across a range of job profiles. A structured and empirical self-administered questionnaire will be generated in Typeform, an online service

specialising in online surveys, and the questionnaire link mailed to Overlooked employees. Results will be retrieved by the researcher and subjected to quantitative analysis.

3.4.3 THE RESEARCH INSTRUMENT

The acquired primary data will be subjected to quantitative consumer behaviour data analysis. In so doing, the researcher will gain the inherent benefit of examining and synthesising pristine data. All data is gathered via a Typeforms-created, empirical, and structured self-administered questionnaire (Annexure 1).

3.4.4 PROCEDURE FOR DATA COLLECTION

WBS ethical clearance will be subjected to the submission of all supporting ethical clearance documentation. Thereafter, data collection will follow. The data required will be retrieved directly from Typeforms, in Excel format.

3.5 DATA ANALYSIS STRATEGIES AND INTERPRETATION

The quantitative data from the survey will be evaluated using parametric methods. More thorough analysis of statistics, including inferential statistics, will be used once the complete dataset has been better understood.

This kind of statistics uses data from a carefully chosen sample to draw conclusions or utilise inductive reasoning about a broader group of people. The research study will use three inferential statistics in consideration of the research design and sample characteristics: T-testing, wherein hypothesis testing is used to analyse complete populations or evaluate associations between variables using samples, through comparing the "means" of two groups and to identify and characterise the relationships between a set of independent and dependent variables; ANOVA analysis is adopted to investigate the dependent variables associated to the controlled independent variables, while Person rank correlation is applied to determine and quantify the magnitude and orientation of the linear relationship between variables (Kaur et al., 2018).

The IBM Statistical Package for Social Science (SPSS) (version 28) programme will be used in conjunction with Microsoft Office Excel to examine the gathered data. Descriptive analysis, reliability and validity and inferential analysis will all be supported by the SPSS programme.

3.5.1 POSSIBLE LIMITATIONS AND CHALLENGES OF THE STUDY

The research will be constrained by the sample size. The information will only be gathered from Overlooked Group personnel, which places a geographical restriction on the five mining towns and its Head Office in Pretoria.

3.5.2 QUALITY ASSURANCE

Given the study is based on primary data and employs a quantitative research approach, the data synthesis used to inform generalisation and inference of concepts and viewpoints will be highly valid and reliable.

3.5.3 EXTERNAL VALIDITY OR TRANSFERABILITY

In general, pharmacies fall into one of two categories: community or discount, each with specific attributes and a functional model. Additionally, consumer and pharmacy attributes are at play. The research study intends to investigate these attributes, their relationships, and how they affect purchasing decisions. To establish these attributes and their associated correlations, the amount of the data as well as the range of the data collection are crucial, allowing for a high level of generalisation and referral.

3.5.4 INTERNAL VALIDITY OR CREDIBILITY

The attributes of retail pharmacy environment that affect consumers' decisions regarding purchase will be explored in detail by the research study. These attributes may or may not be specific to the research. However, the findings will also consider existing research, ensuring reinforcement in terms of cause-and-effect supporting data.

3.5.5 RELIABILITY OR DEPENDABILITY

The basic nature of the data obtained, the use of primary data, and the analysis and synthesis of the data using a quantitative research approach are all geared towards delivering results that are as unbiased and clear-cut as possible. The research and results are therefore not only representable but also reproducible, indicating a high level of reliability.

3.6 ETHICAL CONSIDERATIONS

With the goal of evaluating the information and attributes that influence customer decisions, the research study is influenced by data collected from surveys. No further ethical considerations or confidentiality agreements are applicable to the research investigation, excluding adherence to WBS guidelines.

4 DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

The purpose of this chapter is to present, evaluate, and go over the study questionnaire's findings. It will start with a thorough data analysis that offers an interpretation of the findings as well as graphical and numerical data representations that provide insight on the investigation's outcomes. There is also a presentation of the thorough analysis and a discussion of the results obtained from surveys given to the Overlooked population. SPSS version 28.0 is used to evaluate the data gathered from the replies.

4.2 RESPONSE RATE

Of the 3,500 people employed by Overlooked Group, 73% of the of the entire population (2,560) have access to corporate email, which is a requirement for conducting the survey. The total number of respondents that completed the questionnaires was 344, this equates to 13% of the planned population (Table 2).

Table 2: Questionnaire response rate

Source of population	Population	Planned Population	Planned Poluation %	Achieved Sample	Response Rate
Overlooked Group	3 500	2 560	73%	344	13%

Many research investigations have demonstrated that estimates can be obtained with high accuracy by sampling a tiny portion of the population (McDaniel & Gates, 2010). But according to Kent (2007), even only to compute basic percentages for every variable, a minimum sample size of roughly 100 is required for any type of quantitative analysis. For most research, sample sizes larger than 30 and smaller than 500 are suitable, according to Sekaran (2000). Considering the aim and objectives of the study, the sample size of 344 respondents is thought to be sufficient.

4.3 DESCRIPTIVE STATISTICS

The descriptive statistics based on the respondents' biographical data are introduced in this section. Welman, Kruger, and Mitchell (2005) define descriptive statistics as the process of arranging, simplifying, and describing quantitative data. Figures 5 - 12 and Tables 3 - 6 provide a summary of the demographic data, which includes attributes like gender, age, place of residence, and employment level, among other attributes.

4.3.1 BIOGRAPHICAL ANALYSIS

4.3.1.1 GENDER AND AGE GROUP OF RESPONDENTS

The respondents' age group and gender distribution are shown in Figures 5 and 6. According to the overall pattern, there are more female respondents than male respondents (57% vs 43%). Age-wise, 38.4% and 32.3% of the respondents, or 45-54 and 35-44 years, respectively, constitute the two age groups that represent 71.7% of all respondents. The age groups with the lowest responder contributions are the upper (near retirees) and lower (young semi-skilled to skilled and young graduates), respectively, being 55-64 and 18-24 years old, consistent with the Mine Health and Safety Inspectorate Annual Report (DMRE, 2022).

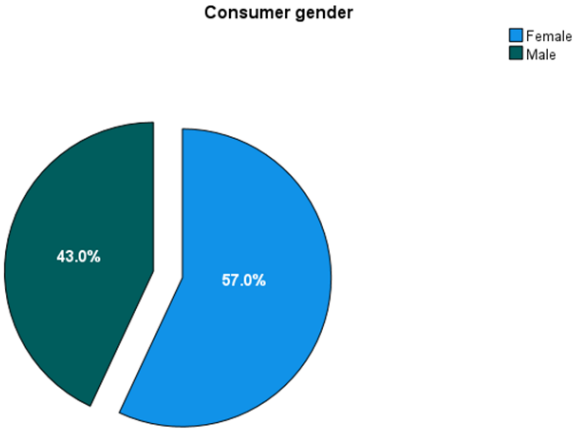


Figure 5: Respondents' gender

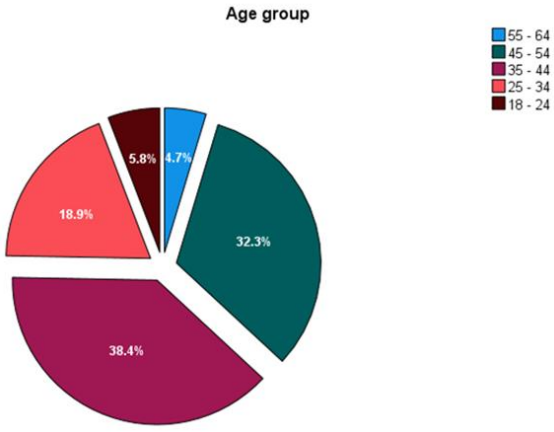


Figure 6: Respondents' age

4.3.1.2 CROSS TABULATION OF THE RESPONDENTS' GENDER AND AGE GROUP

One tool for data summarising is cross tabulation. In order to create an appropriate report, cross tabulation enables one to identify and consolidate specific columns and rows of data without influencing the integrity or changing the fundamental data. Instead, it makes it possible to separate the data and see it from other perspectives (Mazzocchi, 2008).

Table 3 below displays the cross-tabulation of age groups and gender. According to this table, the most common age group among respondents, comprising 38.4% of the sample, is 35 - 44 years old. There are more female respondents in this age range than male respondents, with 21.8% of the respondents being female and 16.6% being male. Cross-tabulated data also shows that female respondents continue to represent the majority among the remaining four age groups.

Table 3: Cross tabulation of respondents' gender and age group

			Age group					Total
			55 - 64	45 - 54	35 - 44	25 - 34	18 - 24	
Consumer gender	Female	Count	10	61	75	38	12	196
		% of Total	2,9%	17,7%	21,8%	11,0%	3,5%	57,0%
	Male	Count	6	50	57	27	8	148
		% of Total	1,7%	14,5%	16,6%	7,8%	2,3%	43,0%
Total		Count	16	111	132	65	20	344
		% of Total	**4,7%**	**32,3%**	**38,4%**	**18,9%**	**5,8%**	**100,0%**

4.3.1.3 JOB LEVEL OF RESPONDENTS

Figure 7 below represents the respondents'occupational levels. Middle Management accouts for 28.8% of the total respondents with Staff and Senior Management each constituting 20.3% of responses. Of the remaining respondents, 17.3% are Senior Staff, 12.5% are First-line Management, and 0.9% are Executives.

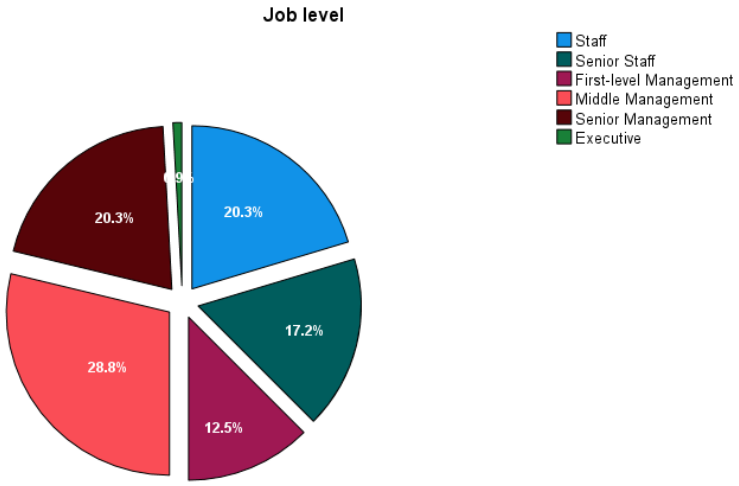


Figure 7: Respondents' job level

4.3.1.4 JOB LEVEL OF RESPONDENTS IN RELATION TO THEIR AGE GROUPS

Figures 8 and 9 illustrate the respondent's breakdown and percentage distribution by age group and job level. According to Figure 8, the data indicates that Middle Management and Staff levels have the highest contribution of respondents who are between the ages of 35 and 44 and 45 and 54.

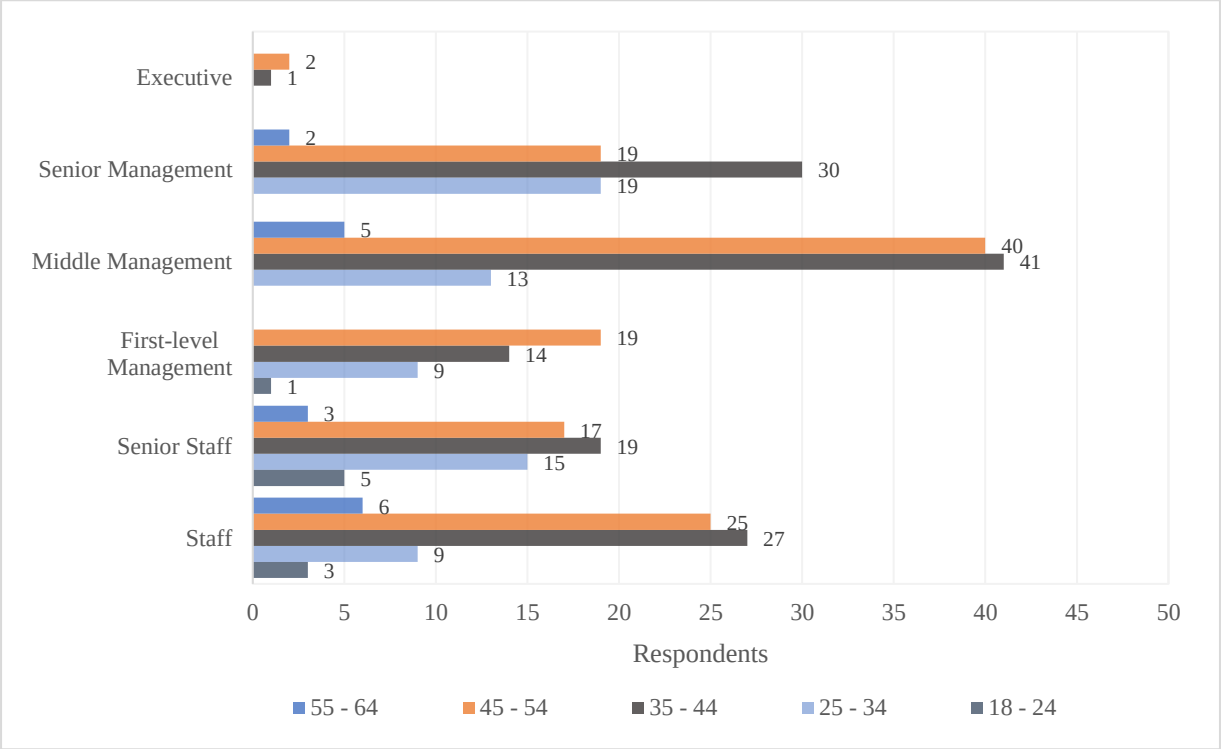


Figure 8: Job level contribution per age group

Four of the five employment levels exhibit a percentage distribution between 27.1% and 42.9% when the job level percentage is compared within the same set of age groups. It is noteworthy, therefore, that a sizable portion (66.7%) of the 45-54 age group contributes to the Executive job level, with the three responses in this level attributing to the skewness.

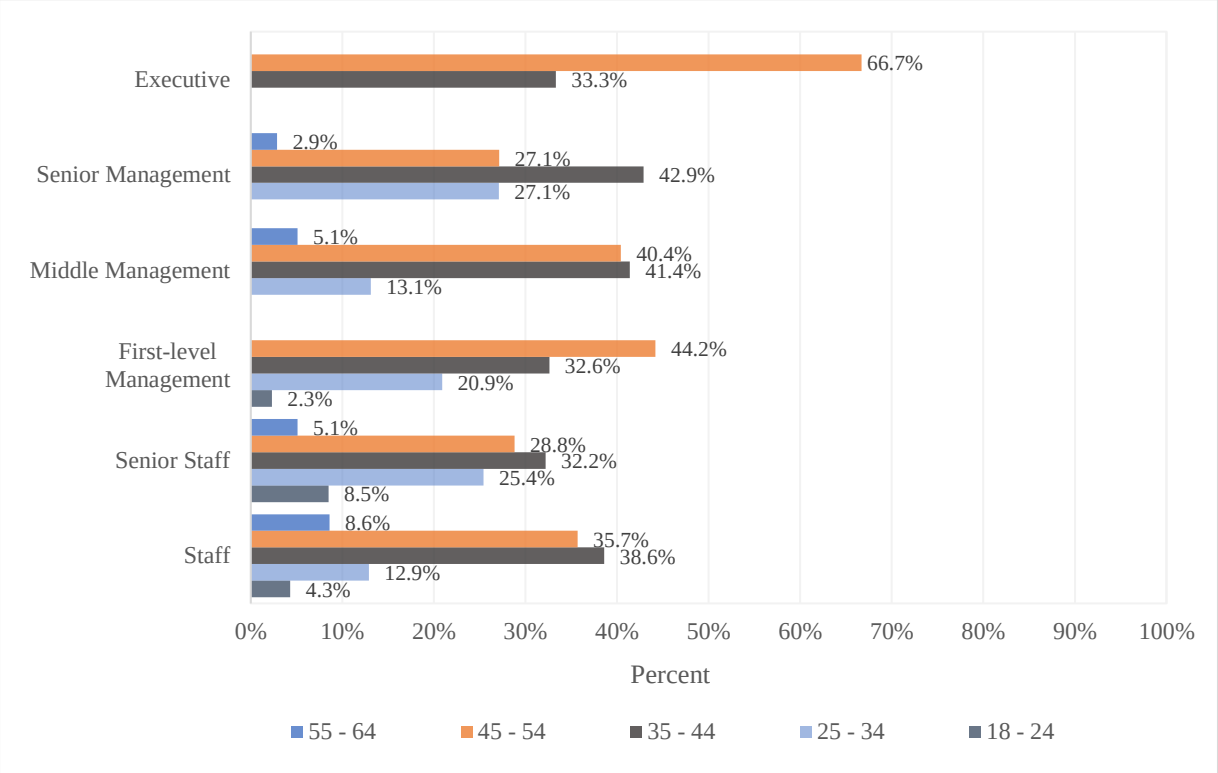


Figure 9: Job level percentage per age group

4.3.1.5 MARITAL AND MEDICAL AID STATUS OF RESPONDENTS

Figure 11, which represents the respondents' marital status, shows that more than half (52.0%) of the respondents are married, while 38.4% report being single. The remaining respondents comprises the divorced (6.1%), widowed (1.2%), and those who prefer not to say (1.2%) of the population.

In Figure 12 shows the respondents' medical aid status, 88.7% of the respondents are listed as having medical aid. The policy requirement of Overlooked Group, which mandate that its employees participate in a medical aid system, is the reason for the high number.

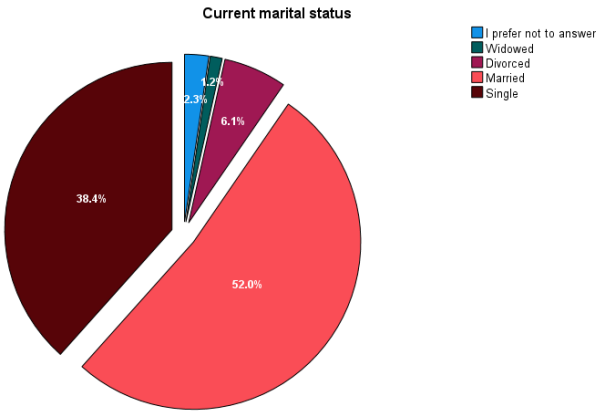


Figure 10: Respondents' marital status

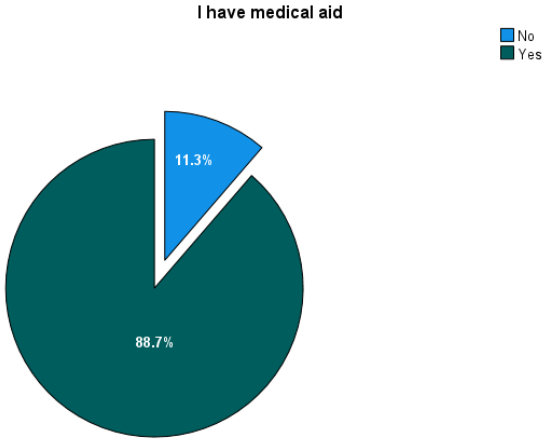


Figure 11: Respondents' medical aid status

4.3.1.6 CROSS TABULATION OF THE RESPONDENTS' MARITAL AND MEDICAL AID STATUS

The cross-tabulation of medical aid and marital status is shown in Table 4 below. The table shows that of the 88.7% of respondents who have access to medical healthcare, 45.6% of them are also married, this is compared to the 34.6% of the single respondents who have access to medical healthcare. The higher proportion of married respondents with medical healthcare may suggest that married respondents prioritise the health needs of their household or families.

Table 4: Cross tabulation of respondents' marital and medical aid status

			I have medical aid		Total
			No	Yes	
Current marital status	I prefer not to answer	Count	0	8	8
		% of Total	0,0%	2,3%	2,3%
	Widowed	Count	1	3	4
		% of Total	0,3%	0,9%	1,2%
	Divorced	Count	3	18	21
		% of Total	0,9%	5,2%	6,1%
	Married	Count	22	157	179
		% of Total	6,4%	45,6%	52,0%
	Single	Count	13	119	132
		% of Total	3,8%	34,6%	38,4%
Total		**Count**	**39**	**305**	**344**
		% of Total	**11,3%**	**88,7%**	**100,0%**

4.3.1.7 RESPONDENTS' PLACE OF RESIDENCE

According to Figure 11, which depicts the respondents' residences, more than half (52.6%) of the respondents do not live in any of the municipalities that surround the Overlooked operations. This suggests that a sizable portion of the respondents either live in Gauteng and commute to the operations or are based at the company's head office in Pretoria. The largest of the five towns on the list, Emamalheni, is home to 16.9% of the respondents; Kriel, where the majority of the Overlooked operations are centred, comes in second at 14.2%.

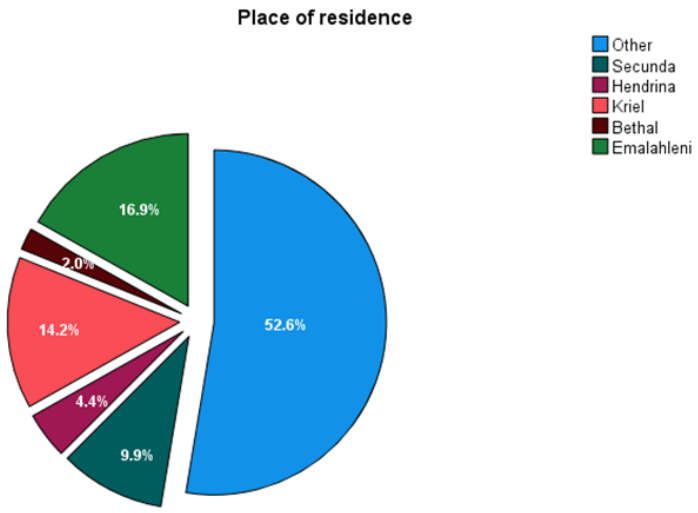


Figure 12: Respondents' place of residence

4.3.1.8 CROSS TABULATION OF THE RESPONDENTS' JOB LEVEL AND PLACE OF RESIDENCE

Table 5 below displays the cross-tabulation of job level and medical aid status. According to the table, 88.7% of the respondents belong to a medical aid scheme, of which 45.6% of them are married. Of the single respondents, 34.6% claim to belong to a medical aid scheme. The high percentage of married respondents belonging to a medical aid scheme compared to those that are single maybe be an indication that married respondents are more focus primarily on their family health needs.

Table 5: Cross tabulation of respondents' job level and medical aid status

			I have medical aid		Total
			No	Yes	
Job level	Staff	Count	20	50	70
		% of Total	5,8%	14,5%	20,3%
	Senior Staff	Count	3	56	59
		% of Total	0,9%	16,3%	17,2%
	First-level Management	Count	0	43	43
		% of Total	0,0%	12,5%	12,5%
	Middle Management	Count	4	95	99
		% of Total	1,2%	27,6%	28,8%
	Senior Management	Count	12	58	70
		% of Total	3,5%	16,9%	20,3%
	Executive	Count	0	3	3
		% of Total	0,0%	0,9%	0,9%
Total		**Count**	**39**	**305**	**344**
		% of Total	**11,3%**	**88,7%**	**100,0%**

4.3.1.9 CROSS TABULATION OF THE RESPONDENTS' JOB LEVEL AND PLACE OF RESIDENCE

The cross-tabulation of employment level and residential location is shown in Table 6 below. The data shows that 52.6% of the respondents live somewhere other than the company's active operating area. Respondents from Middle Management, Staff, and Senior Management make up 14.5%, 12.2%, and 11.0% of the total 52.6%, respectively. The 181 respondents that make up the "other" category are probably not all based at company's head office in Pretoria. Consequently, it may be inferred that a significant percentage of the respondents who travel live outside of the five designated towns and commute over long distances to the Overlooked operations.

Table 6: Cross tabulation of respondents' job level and place of residence

			Place of residence						Total
			Other	Secunda	Hendrina	Kriel	Bethal	Emalahleni	
Job level	Staff	Count	42	4	3	14	1	6	70
		% of Total	12,2%	1,2%	0,9%	4,1%	0,3%	1,7%	20,3%
	Senior Staff	Count	32	6	2	5	1	13	59
		% of Total	9,3%	1,7%	0,6%	1,5%	0,3%	3,8%	17,2%
	First-level Management	Count	18	5	2	5	2	11	43
		% of Total	5,2%	1,5%	0,6%	1,5%	0,6%	3,2%	12,5%
		Count	50	13	4	15	1	16	99

	Middle Management	**% of Total**	14,5%	3,8%	1,2%	4,4%	0,3%	4,7%	28,8%
	Senior Management	**Count**	38	5	4	10	2	11	70
		% of Total	11,0%	1,5%	1,2%	2,9%	0,6%	3,2%	20,3%
	Executive	**Count**	1	1	0	0	0	1	3
		% of Total	0,3%	0,3%	0,0%	0,0%	0,0%	0,3%	0,9%
Total		**Count**	**181**	**34**	**15**	**49**	**7**	**58**	**344**
		% of Total	**52,6%**	**9,9%**	**4,4%**	**14,2%**	**2,0%**	**16,9%**	**100,0%**

4.4 RELIABILITY

Accuracy and precision are two qualities of good measurements. A measure's consistency and repeatability are its indicators of reliability (Zikmund & Babin, 2007). According to Kent (2007), reliability is the degree to which applying a scale consistently produces results when measurements are made again.

Cronbach's alpha was used by the researcher to evaluate the overall results' reliability. A set of items, or variables, are evaluated for how well it measures a single uni-dimensional latent construct using Cronbach's alpha. A multidimensional structure in data typically results in a low Cronbach's alpha. In technical terms, Cronbach's alpha is a coefficient of reliability rather than a statistical test (Kent, 2007).

Multiple measurements are taken on the same subjects in order to determine reliability. A reliability coefficient of 0.700 or higher is regarded as "acceptable", as shown in Table 7 below (Kent, 2007).

Table 7: Reliability coefficient table, (Kent, 2007)

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.900$	Excellent
$0.800 \leq \alpha < 0.900$	Good
$0.700 \leq \alpha < 0.800$	Acceptable
$0.600 \leq \alpha < 0.700$	Questionable
$0.500 \leq \alpha < 0.600$	Poor
$\alpha < 0.500$	Unacceptable

The questionnaire consists of 25 statements, wherein statements 1 - 7 are meant to assess respondents' biographical data. In order to gather information about the research topic,

statements 8 - 25 are presented in the form of a 5-point Likert scale with five answer options. If respondents prefer not to respond from the extreme choices in the research design, they can select a neutral answer option.

Most frequently employed to quantify internal consistency (also known as "reliability") is Cronbach's alpha. It is most frequently employed when you want to find out if a scale made up of multiple Likert items in a survey or questionnaire is reliable (Kent, 2007). In view of this, reliability measure is conducted on the 5-point Likert scale statements, 8 - 25, 18 statements in total.

The Cronbach's alpha reliability for the statements on the 5-point Likert scale is shown in Table 8 below. According to the table, the total reliability score of the 18 statements is 0.698, which is marginally lower than the 0.700 requirement for an "acceptable" measure thus implying a questionable internal consistency.

Table 8: Reliability coefficient for the 18 statements

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.698	.697	18

A reliability evaluation would need to be carried out with statement 8 excluded to obtain an "acceptable" or better (0.700 or greater) internal consistency, according to the Cronbach's Alpha if item deleted column in Table 9, statistics for reliability coefficient.

Table 9: Statistics for reliability coefficient

Item-Total Statistics						
Statements		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
S8	I only purchase medications at a pharmacy	60,56	51,500	0,047	0,259	0,706
S9	I often see medication advertisement on TV or various social media platforms	61,28	48,999	0,214	0,290	0,693
S10	I make use of online pharmacy platforms to purchase medication	62,81	50,109	0,121	0,233	0,702
S11	I often look for medication that I've seen being advertised on TV or social media platforms	62,31	48,592	0,197	0,287	0,696
S12	The pharmacy stocks a wide range of medication for particular conditions	60,70	49,652	0,252	0,201	0,690
S13	I am satisfied with the pharmacy customer service support	60,74	51,049	0,162	0,450	0,696
S14	I believe I get value for money with medication purchases	61,08	45,416	0,536	0,525	0,662
S15	I am happy with pharmacy processes, i.e. queuing, issuing of tickets and calling of issued numbers	60,98	50,023	0,168	0,309	0,696
S16	I make use of in-store consultation and clinic services	61,47	45,655	0,318	0,372	0,682
S17	I easily find what I'm looking for without having to ask a floor assistant or at the counter	61,40	48,690	0,234	0,195	0,691
S18	I also purchase other items other than medications at a pharmacy	60,76	45,545	0,476	0,489	0,666
S19	I believe I get value for money with non-medication purchases	61,15	46,471	0,354	0,491	0,678
S20	I take advantage of promotional products and bulk purchases	61,01	44,367	0,443	0,508	0,666
S21	I participate in available rewards systems to save costs	60,79	45,919	0,362	0,511	0,677
S22	I would like the pharmacy to cater for more than just my medicinal and personal care needs	61,17	45,027	0,417	0,372	0,670
S23	I prefer to make cash purchases rather than use medical aid	61,85	45,921	0,280	0,386	0,688
S24	I prefer original medicine brands over generic brands	61,10	49,535	0,131	0,240	0,703
S25	I recommend my pharmacy to family and friends	60,99	48,385	0,333	0,370	0,683

With the exclusion of statement 8, the updated Cronbach's alpha reliability score for all 17 statements is 0.706, which is slightly higher than the 0.700 requirement for an "acceptable" measure. Therefore, the 5-point Likert scale research questionnaire has an acceptable internal consistency with statement 8 removed.

Statement 8 was left out of the reliability measure, which means it will be left out of all subsequent analyses as well.

Table 10: Reliability coefficient for the 17 statements

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.706	.705	17

4.5 NORMALITY

Normality (N) tests are used in statistics to evaluate whether a set of data is well-modelled by a normal distribution and to estimate the likelihood that a random variable underlying the data set will follow a normal distribution. The normal distribution, sometimes referred to as the Gaussian distribution, is a symmetric probability distribution about the median that implies to data close to the median occur more often than data from farther away. The normal distribution is represented graphically as a "bell curve" (Ghasemi & Zahediasl, 2012).

Testing the normality of continuous data can be done in a number of ways; the most widely used ones are the Shapiro-Wilk, Kolmogorov-Smirnov, skewness, kurtosis, histogram, box plot, probability-probability (P-P), and quantile-quantile (Q-Q) plots (Ghasemi & Zahediasl, 2012).

To test for normality, the research will make use of Kolmogorov-Smirnov, skewness, kurtosis, Q-Q plots, and histogram.

4.5.1 DATA CLASSIFICATION

The research statements have been divided into groups based on which best fit the marketing mix to connect the data with the marketing mix (7Ps). To reduce the number of variables and improve convenience in terms of managing, aligning, or resizing, analysing, and interpreting the data, the 24 research statements, which took into account the omission that was disclosed during the reliability test, have been divided into three main consumer groups (Table 11). The primary criteria used for classification are the statements' primary purposes and intentions. The three main consumer groups are Consumer composition, consumer preference and consumer proposition.

Table 11: Consumer group classification

Market Mix	Group	Statements	
People	Consumer Composition	S1	Consumer gender
		S2	Age group
		S3	Place of residence
		S4	Current marital status
		S5	Job level
		S6	Place medication is often purchased
		S7	I have medical aid
Products and Price	Consumer Preference	S11	I often look for medication that I've seen being advertised on TV or social media platforms
		S14	I believe I get value for money with medication purchases
		S19	I believe I get value for money with non-medication purchases
		S23	I prefer to make cash purchases rather than use medical aid
		S24	I prefer original medicine brands over generic brands
Promotion, Place and Process	Consumer Value Proposition	S9	I often see medication advertisement on TV or various social media platforms
		S10	I make use of online pharmacy platforms to purchase medication
		S12	The pharmacy stocks a wide range of medication for particular conditions
		S13	I am satisfied with the pharmacy customer service support
		S15	I am happy with pharmacy processes, i.e. queuing, issuing of tickets and calling of issued numbers
		S16	I make use of in-store consultation and clinic services
		S17	I easily find what I'm looking for without having to ask a floor assistant or at the counter
		S18	I also purchase other items other than medications at a pharmacy
		S20	I take advantage of promotional products and bulk purchases
		S21	I participate in available rewards systems to save costs
		S22	I would like the pharmacy to cater for more than just my medicinal and personal care needs
		S25	I recommend my pharmacy to family and friends

4.5.1.1 CONSUMER COMPOSITION

The term "customer composition" describes the personal details of the customer, such as their gender, age, occupation or job title, work history, educational background, and place of residence, to name a few. Gaining a deeper comprehension of the characteristics and composition of the research participants requires this information (Narwani & Mazumder, 2010)

People are classified under consumer composition in relations to the marketing mix and comprises seven research statements (Table 11).

4.5.1.2 CONSUMER PREFERENCE

Consumer preferences are the assessments and decisions that customers make on the goods and services that are accessible to them, taking into account many aspects like cost, convenience, quality, and individual preferences. They influence what suppliers create and put on the market, as well as what is in demand. Each consumer has their own unique preferences, which are

determined by a variety of factors including culture, education, and personal interests (Ramachandran & Basariya, 2020).

Five research statements make up the category of consumer preference and comprises price and product in respect to the marketing mix (Table 11).

4.5.1.3 CONSUMER VALUE PROPOSITION

The complete benefits that a service or product provider promises a customer in exchange for the related payment is known as the consumer value proposition, or CVP. Service and good providers employ CVP to persuade a consumer to choose their goods or services over competing ones. Its goal is to persuade consumers that the products or services offered by a company are superior to those of rivals(Weinstein, 2018).

The consumer value proposition category consists of twelve research statements that address promotion, place, and process in relation to the marketing mix (Table 11).

4.5.2 KOLMOGOROV-SMIRNOV TEST

The null hypothesis that a collection of data is distributed normally is tested using the Kolmogorov-Smirnov test. To check for normalcy, test statistics from the Kolmogorov Smirnov test are used for data set greater than 100 and in combination with a degrees of freedom parameter. When using the Kolmogorov-Smirnov normality test for decision-making, data is considered normally distributed if the significance value (Sig.) is greater than 0.05. However, the research data is not normally distributed if the Sig. value is less than 0.05 (Drezner, Turel, & Zerom, 2008).

In comparison to the Sig. value (0.05 or greater) necessary for normality, a normality test on the three categories (Table 12) of consumer value proposition, customer preference, and consumer composition all reveal a Sig. value less than 0.001, meaning the data is not normally distributed.

Table 12: Kolmogorov-Smirnov test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Consumer_Value_Proposition_Median	.312	344	<.001	.819	344	<.001
Consumer_Preference_Median	.135	344	<.001	.957	344	<.001
Consumer_Composition_Median	.428	344	<.001	.649	344	<.001

a. Lilliefors Significance Correction

4.5.3 SKEWNESS AND KUTOSIS TEST

A metric for symmetry, or more accurately, the absence of symmetry, is called skewness. If a distribution or data set has the same appearance to the left and right of the centre point, it is said to be symmetric. Kurtosis is a statistical metric used to determine if data exhibit heavy or light tails in relation to a normal distribution (Mishra, et al., 2019)

The skewness and kurtosis normality check values are displayed in Table 13 below based on sample size. Since the research sample size is 344, the skewness and kurtosis values that are prescribed for sample sizes larger than 300 will be used to test for normality.

Table 13: Skewness and kurtosis normality check

Normality Check			
Test	Sample Size	N-Value	Comment
Skewness and Kurtosis	< 50	-1.96 and +1.96	Normally distributed
	50 < N <300	-3.29 and +3.29	
Skewness	> 300	-2 and +2	
Kurtosis		-7 and +7	

Table 14: Normality calculation

Consumer Group	Test	Statistic	Std. Error	N-Value
Consumer Value Proposition	Skewness	-0,019	0,131	**-0,143**
	Kurtosis	-0,124	0,262	**-0,475**
Consumer Preference	Skewness	0,341	0,131	**2,594**
	Kurtosis	-0,356	0,262	**-1,358**
Consumer Composition	Skewness	1,516	0,131	**11,532**
	Kurtosis	3,979	0,262	**15,172**

The determined normality z-values for the three customer groups are shown in Table 14 above. By dividing skewness and kurtosis by the corresponding Standard Error, one can determine the z-value. Upon reviewing Table 13, it can be shown that the data associated to the Consumer Value Proposition exhibits a normal distribution. The z-values for both skewness (-0.143) and kurtosis (-0475) normality suggest that the data falls within the -2 and +2 range and the -7 and +7 range, respectively.

When considering the lower and upper ranges, the Consumer Preference group (Table 14) exhibits skewness (2.594) and kurtosis (-1.358), which respectively indicate a non-normal distribution and a normal distribution. The conflicting findings point to an inconclusive outcome.

For Consumer Composition group (Table 14), skewness (11.532) and kurtosis (15.172) both point to a non-normal distribution as they both fall outside the z-value range of -7 and +7.

Table 15: Normality results

Normality Test				
Test	**Consumer Group**	**Sample Size**	**N-Value**	**Comment**
Skewness	Consumer Value Proposition	344	-0,143	Normally distributed
	Consumer Preference		2,594	Non normally distributed
	Consumer Composition		11,532	Non normally distributed
Kurtosis	Consumer Value Proposition	344	-0,475	Normally distributed
	Consumer Preference		-1,358	Normally distributed
	Consumer Composition		15,172	Non normally distributed

4.5.4 GRAPHICAL TEST

The Q-Q plot is the most often used graphical tool for evaluating normality. These graphs display the observed data in relation to a normal distribution's expected quantiles. Normally distributed data shows as approximately a straight line on a Q-Q plot, though the endpoints of the plot frequently begin to veer off course. (Loy, Follett, & Hofmann, 2015).

The histogram, which also a useful instrument for determining if a frequency distribution looks to have a normal distribution, is the second most often used graphical tool for evaluating normality. Bars in a properly distributed histogram roughly resemble a bell or hill form that is symmetrical (Mishra, et al., 2019).

4.5.4.1 Q-Q PLOT TEST

Q-Q plots for consumer groups for composition, preference, and proposition are shown in Figures 13 through 15. The Q-Q plot line is where most of the data points in each of the three plots fall, suggesting that the data are normally distributed. Additionally, the consumer proposition data (Figure 15) show that the uniform distribution fits the data the best as it is closest to the Q-Q plot line. With a data point that deviates somewhat from the Q-Q plot line, consumer preference (Figure 14) indicates the second-best uniform distribution fit. The consumer composition data (Figure 14), which represents the third best match in terms of uniform distribution, shows a typical veering from the data point towards the end of the Q-Q plot line.

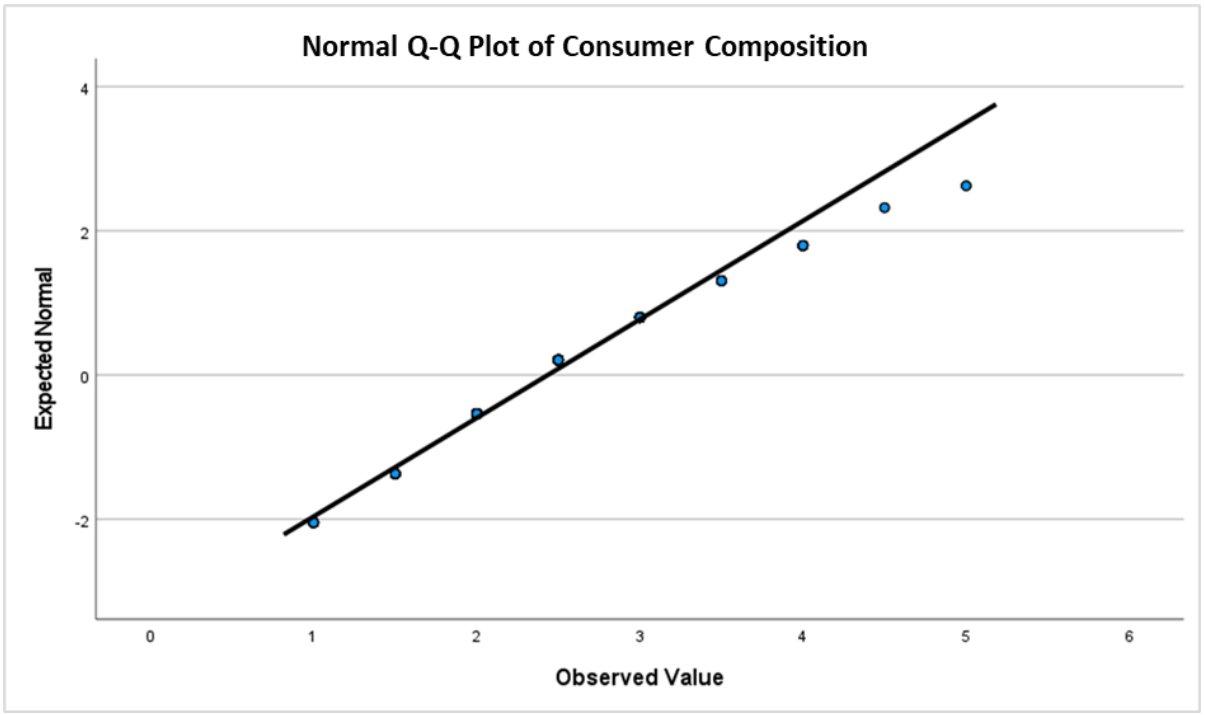


Figure 13: Consumer proposition Q-Q plot

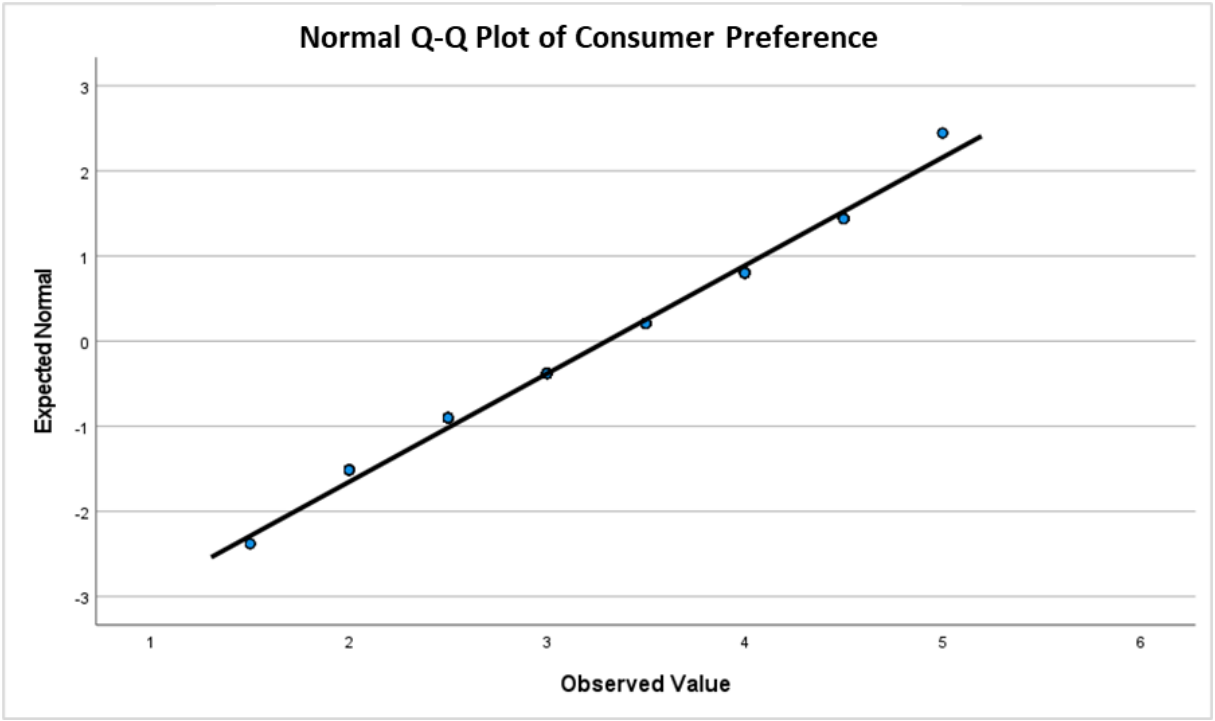


Figure 14: Consumer preference Q-Q plot

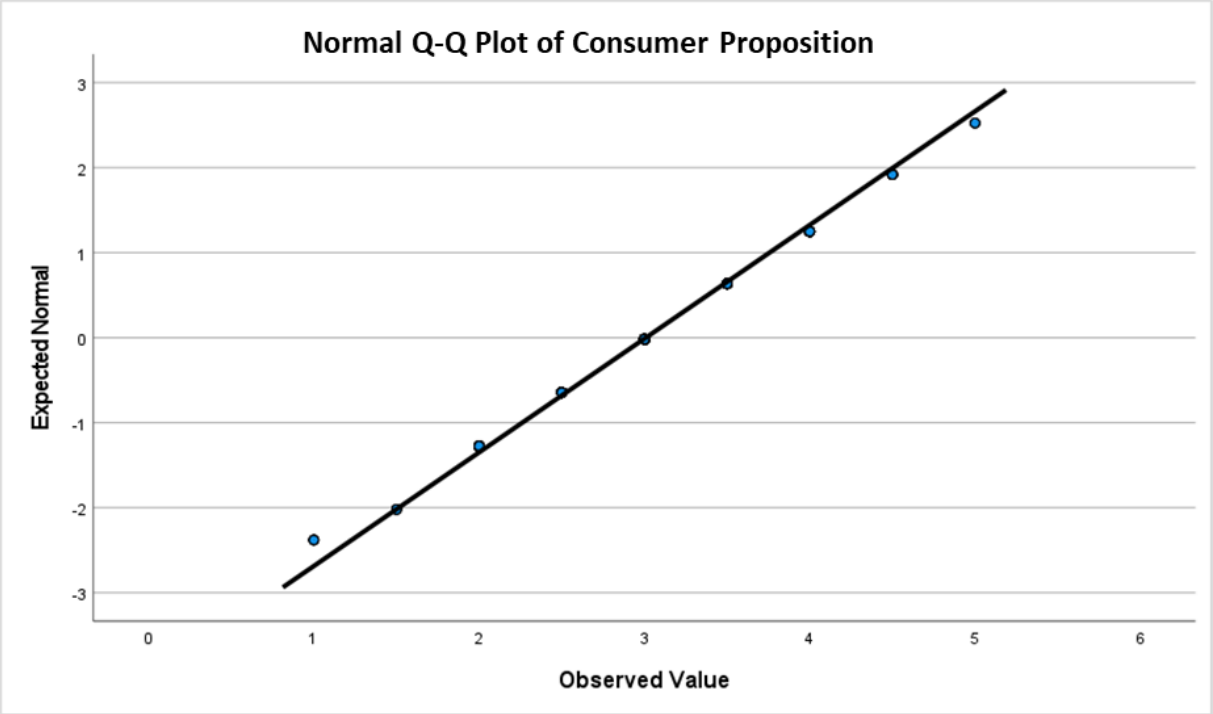


Figure 15: Consumer value proposition Q-Q plot

4.5.4.2 HISTOGRAM TEST

Figures 16 to 18 display composition, preference, and proposition histograms for consumer groups. A normal distribution should ideally have a symmetric histogram around the distribution mean. All three of the consumer group distributions exhibit symmetry around the distribution mean, which is 2.15 for the composition, 2.76 for the preference, and 3.88 for the proposition. Additionally, it appears that the distribution of all three consumer groups is positively skewed, skewed to the right, based on their histograms.

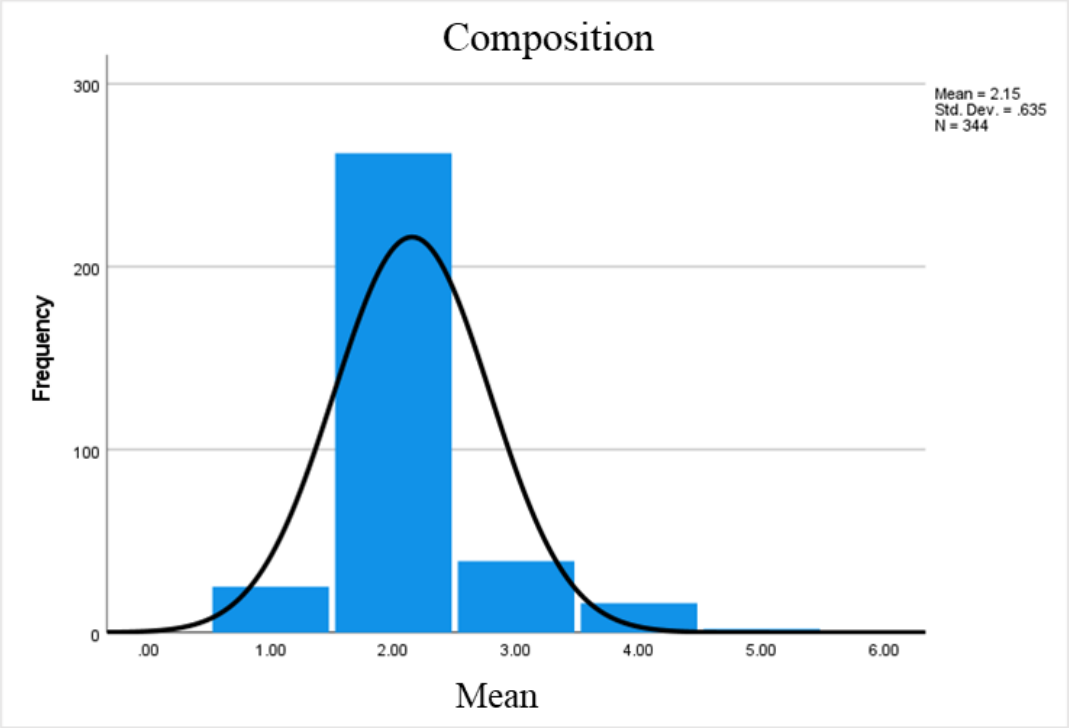


Figure 16: Consumer composition histogram

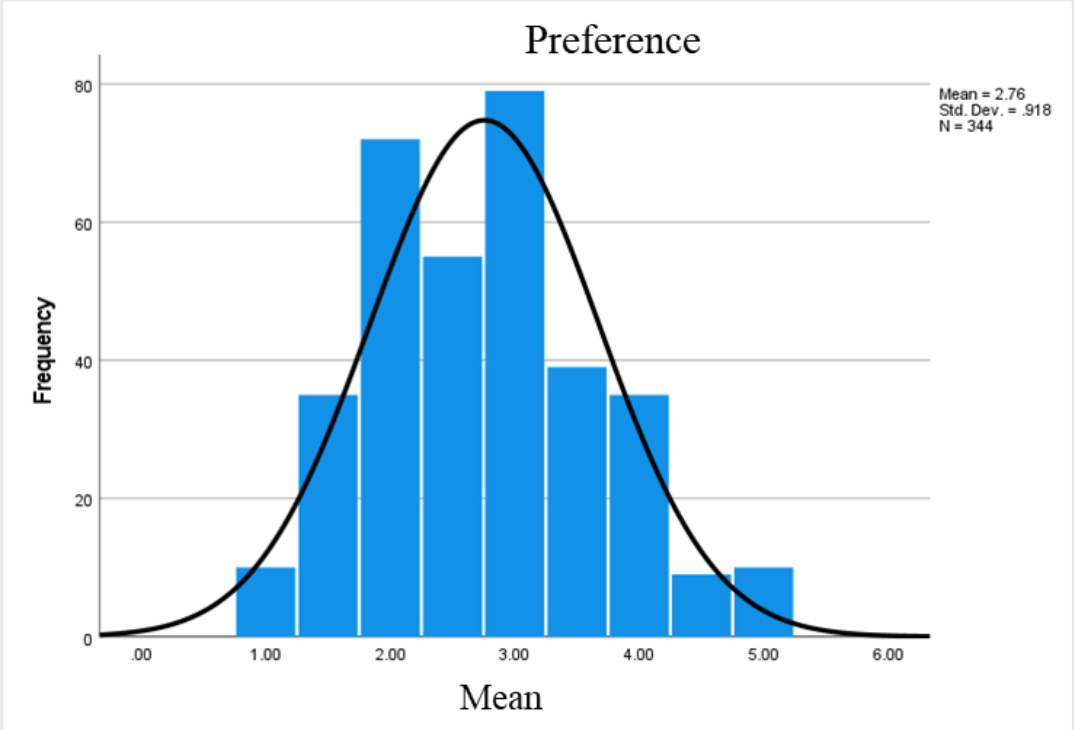


Figure 17: Consumer preference histogram

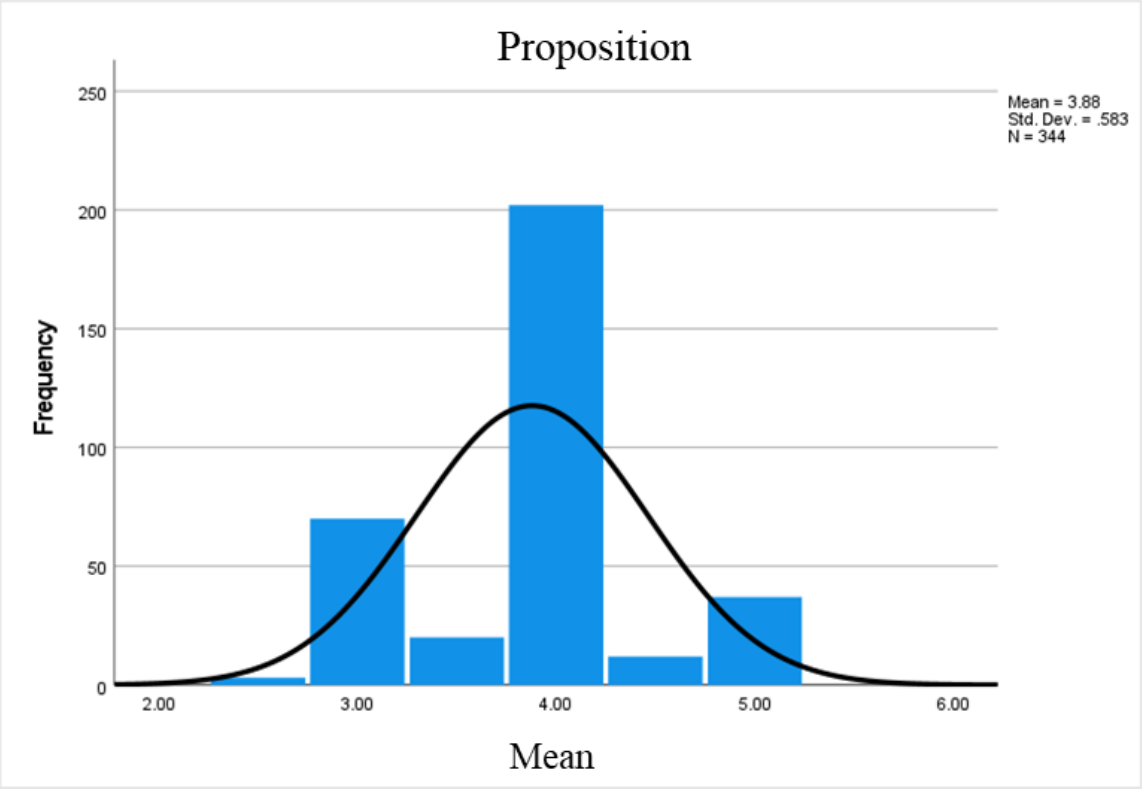


Figure 18: Consumer value proposition histogram

4.5.5 NORMALITY SUMMARY

Test statistics generated by the Kolmogorov Smirnov test are used to assess normalcy. A Sig. value < 0.001 is found for 344 data points in the research results for the Kolmogorov Smirnov statistic, which takes values for the three customer groups. This is below the significance level of 0.05 or higher needed to verify normalcy. Consequently, there is substantial evidence from the data for each of the three customer groups to refute the null hypothesis that the variable represented by the data has a normal distribution.

Even if the results of the Kolmogorov Smirnov test are aligned, there are discrepancies in the skewness and kurtosis tests for the three customer groups. For data from the consumer proposition group, normality is confirmed for skewness and kurtosis. For the consumer composition group, however, the null hypothesis is rejected for both skewness and kurtosis. Finally, the skewness and kurtosis values for the consumer preference group contradict one another, making the normalcy test inconclusive.

Upon examining the graphical test, it is evident from both Q-Q plots and histograms for each of the three consumer groups that the data exhibits a normal distribution pattern. Thus, the graphical test results confirm the normalcy null hypothesis.

4.5.5.1 NORMALITY SUMMARY - KOLMOGOROV SMIRNOV

While the Kolmogorov Smirnov test can indicate whether a variable's distribution deviates statistically significantly from a normal distribution, one must use caution in extrapolating these results. The sensitivity of the Kolmogorov-Smirnov test is quite high and tends to rise with larger sample sizes. It may indicate the difference between distributions when testing under the null hypothesis alone, but it is insensitive to the extent of the difference (Greenland, et al., 2016).

The amount of observations will have a considerable impact on significance, so for very large sample sizes, as this one may be, only a minor deviation from normalcy will be considered significant, whereas for small sample sizes, very huge deviations will be necessary to reject the null hypothesis (Greenland, et al., 2016).

For this reason, it's unclear if this test truly provides a sign of normalcy. Although a Sig. value less than 0.05 would result in the null hypothesis being rejected, it provides no information regarding the severity of the effect. Put otherwise, the test shows that a difference exists, but it doesn't say how much of a difference there is. As a result, it may have statistical significance but not practical significance. Therefore, the results of the Kolmogorov Smirnov test cannot be the only method applied to verify normalcy.

4.5.5.2 NORMALITY SUMMARY - SKEWNESS AND KURTOSIS

The z-test, which is computed by dividing the skewness values or excess kurtosis by their standard errors, is used for the normality test utilising skewness and kurtosis. As sample sizes increase, standard errors tend to decrease, but in small samples, the null hypothesis of a normal distribution is more likely to be accepted than necessary. Z-tests under the null hypothesis of a normal distribution tend to be more easily rejected in large samples with distributions that may not significantly deviate from normality (Kim, 2013).

Seeing that both skewness and kurtosis are sensitive to sample size, the approach cannot be the only way to test for normalcy because of the inconsistent test findings.

4.5.5.3 NORMALITY SUMMARY - GRAPHICAL TEST

One benefit of graphic interpretation is that it can be used to evaluate normality in circumstances where numerical testing may be over or under sensitive. While graphical approaches for normalcy assessment require a great deal of skill to prevent incorrect interpretations (Das & Rahmatullah, 2016).

Aside from the graphical component of Q-Q plots, the test does not require equal sample sizes and can test for multiple distributional characteristics at once, including scale and location shifts, symmetry changes, and outlier detection (Mishra, et al., 2019).

We are not given a very good idea of the true distribution when the normal probability plot raises doubts about the validity of the normality assumption. On the other hand, a histogram of the fit data can give a better idea of the distribution's form. When working with big data sets (more than 100 observations), histograms can be helpful in identifying any odd findings (outliers) or gaps in the data. They can also provide important elements of the distribution of the data in a convenient format (Mishra, et al., 2019).

4.5.5.4 NORMALITY SUMMARY - CONCLUSION

Considering the limitations and discrepancies related to the Kolmogorov Smirnov, skewness, and kurtosis, the study will apply the graphical testing approach to validate the null hypothesis of normalcy. Furthermore, the capacity of graphical test to use and graphically illustrate data offers this method more confidence in testing for normalcy. As a result, the null hypothesis on the normalcy of the consumer composition, preference, and value proposition groups is confirmed. Therefore, the study data is suitable for inferential analysis using parametric statistical methods.

4.6 INFERENTIAL STATISTICS

Inferential statistics is the process of using sample data to make inferences about populations. It enables us to draw conclusions from data from a subset of samples of the full set. These inferences use sample statistics as a foundation for more general findings, and they are based on the principles of evidence (Farren, 2014). According to Kent (2007), even though the independent variables that influence the dependent variables are not directly measured, inferential statistics, also referred to as factor analysis, is used to investigate the patterns of relationships among several dependent variables to learn more about the nature of the independent variables.

Based on a set of data, inferential statistics supports in conclusion-making and prediction-making. It is carried out with a variety of approaches, procedures, and analysis types. The T-test, sometimes referred to as hypothesis testing, regression analysis, confidence intervals, Pearson rank correlation, chi-square test, and ANOVA analysis are a few of the most significant forms of inferential statistics analyses (Farren, 2014). To answer the research questions and hypotheses, the study will use of the following approaches: T-test, Pearson rank correlation, and chi-square test.

4.6.1 COMPOSITING OF VARIABLES

In consideration to the 5-point Likert scale statements, reliability results, and the marketing mix (7Ps), fifteen statements have been composited into five of the seven marketing mix attributes. Table 16 presents the composited variables: Product, Promotion, Price, Place and Process, comprising three, four, three, two and three variables respectively.

The intent of the compositing is to allow for detailed investigation of inferential statistics employing the four techniques described in Section 4.6. The composing was informed by the investigation of potential correlations between biographical attributes and the chosen marketing mix, including those that exist with the marketing mix itself.

Statement 25 of the questionnaire has no relationship, either direct or indirect, to any of the marketing mix, it was not included in the composition. Moreover, only five of the seven marketing mix criteria could be satisfied by the statements that were generated for the

questionnaire. Consequently, the other marketing mix attributes, People and Physical evidence, are not included in any inferential analysis.

Table 16: Composited variables

Market Mix	Statements	
Product	S12	The pharmacy stocks a wide range of medication for particular conditions
	S18	I also purchase other items other than medications at a pharmacy
	S22	I would like the pharmacy to cater for more than just my medicinal and personal care needs
Promotion	S9	I often see medication advertisement on TV or various social media platforms
	S11	I often look for medication that I've seen being advertised on TV or social media platforms
	S20	I take advantage of promotional products and bulk purchases
	S21	I participate in available rewards systems to save costs
Price	S14	I believe I get value for money with medication purchases
	S19	I believe I get value for money with non-medication purchases
	S23	I prefer to make cash purchases rather than use medical aid
Place	S10	I make use of online pharmacy platforms to purchase medication
	S17	I easily find what I'm looking for without having to ask a floor assistant or at the counter
Process	S13	I am satisfied with the pharmacy customer service support
	S15	I am happy with pharmacy processes, i.e. queuing, issuing of tickets and calling of issued numbers
	S16	I make use of in-store consultation and clinic services

4.6.2 T-TEST: HYPOTHESIS TESTING

To compare complete populations or evaluate the correlations between variables using samples, hypothesis testing is utilised. To make reliable conclusions, predictions or hypotheses are put to the test using statistical tests. In statistics, the t-test is a test for testing hypotheses. Three basic data variables are needed to calculate a t-test: the number of data values, the standard deviation of each group, and the difference between the mean values from each data set. There are dependent and independent t-tests (Kim T. , 2015).

A t-test result is deemed statistically significant if the stated p-value is less than 0.05. A p-value of more than 0.05 indicates that the outcome is not significant. Therefore, the difference between two variables is greater for higher t-score values; conversely, the greater the similarity between the two variables, the lower the t-value (Kim T. , 2015).

4.6.2.1 CONSUMER GENDER AND THE MARKETING MIX

The study employed an independent samples t-test to evaluate potential associations between consumer gender and the five marketing mix attributes. Table 17 shows that there is a minor difference in the mean grade point average for 344 participants based on gender (196 females and 148 men).

The t-test results are shown in Table 18. The Levene's test reveals F-values of 0.004, 1.855, 0.404, 2.418, and 0.214 for each of the five-product mix, product, promotion, price, place, and process attributes. This suggests that the variances for each of the five marketing mixes are approximately the same for the two groups (male and female), indicating that the distributions for the five-marketing mix in females and males have similar shapes.

Table 17: Group statistics for consumer gender

Group Statistics					
Consumer gender		N	Mean	Std. Deviation	Std. Error Mean
Market_Mix_Product	Female	196	3,93	0,62	0,04
	Male	148	3,98	0,61	0,05
Market_Mix_Promotion	Female	196	3,45	0,67	0,05
	Male	148	3,54	0,62	0,05
Market_Mix_Price	Female	196	3,44	0,75	0,05
	Male	148	3,52	0,73	0,06
Market_Mix_Place	Female	196	2,68	0,68	0,05
	Male	148	2,78	0,76	0,06
Market_Mix_Process	Female	196	3,76	0,53	0,04
	Male	148	3,78	0,51	0,04

All five-marketing mix p-values (Sig. values) are significantly higher than the critical value of 0.05 (0.95, 0.17, 0.56, 0.12, and 0.64, respectively). Consequently, the null hypothesis is confirmed. The significant degree of consistency in Table 18's Standard Deviations for the five-marketing mix for males and females further support the supposition that variances are approximately equal.

Table 18: Independent sample test - consumer gender

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Significance Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Market_Mix_Product	Equal variances assumed	0,00	0,95	-0,78	342,00	0,44	-0,05	0,07	-0,18	0,08
	Equal variances not assumed			-0,78	318,69	0,43	-0,05	0,07	-0,18	0,08
Market_Mix_Promotion	Equal variances assumed	1,86	0,17	-1,27	342,00	0,21	-0,09	0,07	-0,23	0,05
	Equal variances not assumed			-1,28	327,07	0,20	-0,09	0,07	-0,23	0,05
Market_Mix_Price	Equal variances assumed	0,40	0,53	-1,03	342,00	0,30	-0,08	0,08	-0,24	0,08
	Equal variances not assumed			-1,04	322,29	0,30	-0,08	0,08	-0,24	0,07
Market_Mix_Place	Equal variances assumed	2,42	0,12	-1,28	342,00	0,20	-0,10	0,08	-0,25	0,05
	Equal variances not assumed			-1,26	296,18	0,21	-0,10	0,08	-0,26	0,06
Market_Mix_Process	Equal variances assumed	0,22	0,64	-0,38	342,00	0,71	-0,02	0,06	-0,13	0,09
	Equal variances not assumed			-0,38	323,39	0,71	-0,02	0,06	-0,13	0,09

The t- test statistics for equality of means suggests p-value of 0.44, 0.21, 0.30, 0.20 and 0.71, for each of the five-product mix, product, promotion, price, place, and process attributes. Compared to critical value of 0.05, the calculated p-value is significantly higher. Therefore, the null hypothesis, that states the mean score between the groups (females and males) is not significantly different for all the five-marketing mix, is accepted.

4.6.2.2 MEDICAL AID STATUS AND THE MARKETING MIX

An independent samples t-test was applied in the analysis to assess possible correlations between the five marketing mix attributes and the medical aid status of the respondents. Based on their medical aid status, Table 19 reveals significant differences in the mean grade point average for 344 participants, 305 respondents have access to a health care, compared to the 39 respondents who are not.

Table 20 displays the results of the t-test. For each of the five product mix attributes, product, promotion, price, place, and process, the Levene's test yields F-values of 13.272, 3.279, 0.768, 3.006, and 8.961 respectively. The distributions for the five-marketing mix are for the respondents who have medical aid and those who don't have similar shapes, suggesting that the variances for each of the five marketing mixes are approximately the same for the two groups.

Table 19: Group statistics for medical aid status

Group Statistics					
I have medical aid		N	Mean	Std. Deviation	Std. Error Mean
Market_Mix_Product	No	39	4,26	0,35	0,06
	Yes	305	3,91	0,63	0,04
Market_Mix_Promotion	No	39	3,60	0,76	0,12
	Yes	305	3,47	0,63	0,04
Market_Mix_Price	No	39	3,79	0,64	0,10
	Yes	305	3,43	0,74	0,04
Market_Mix_Place	No	39	2,74	0,55	0,09
	Yes	305	2,72	0,74	0,04
Market_Mix_Process	No	39	3,74	0,38	0,06
	Yes	305	3,77	0,54	0,03

The critical value of 0.05 is exceeded by three of the five marketing mix p-values (Sig. values) (0.07, 0.35, and 0.08 for promotion, price, and place, respectively). The null hypothesis holds for these marketing mix. Moreover, the hypothesis that variances are approximately similar is supported by the reasonably consistent Standard Deviation (Table 19) for the three-marketing mix for the two groups.

The marketing mixes for both the product and the process show that the p-values are less than the critical 0.05 value (both computed at 0.00). Therefore, the null hypothesis is rejected for both marketing mixes. The significant variation in the Standard Deviation for each marketing mix further supports the rejection (Table 19). Consequently, it appears that the variances are not similar based on the p-values and Standard Deviations for the two-marketing mix.

Table 20: Independent sample test - medical aid status

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Significance	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Two-Sided p			Lower	Upper
Market_Mix_Product	Equal variances assumed	13,272	0,00	3,40	342,00	0,00	0,35	0,10	0,15	0,55
	Equal variances not assumed			5,24	73,90	0,00	0,35	0,07	0,22	0,48
Market_Mix_Promotion	Equal variances assumed	3,279	0,07	1,19	342,00	0,24	0,13	0,11	-0,09	0,35
	Equal variances not assumed			1,04	45,05	0,31	0,13	0,13	-0,12	0,39
Market_Mix_Price	Equal variances assumed	0,768	0,38	2,84	342,00	0,00	0,35	0,12	0,11	0,60
	Equal variances not assumed			3,20	52,21	0,00	0,35	0,11	0,13	0,58
Market_Mix_Place	Equal variances assumed	3,006	0,08	0,16	342,00	0,88	0,02	0,12	-0,22	0,26
	Equal variances not assumed			0,19	57,21	0,85	0,02	0,10	-0,18	0,21
Market_Mix_Process	Equal variances assumed	8,961	0,00	-0,44	342,00	0,66	-0,04	0,09	-0,21	0,14
	Equal variances not assumed			-0,57	59,82	0,57	-0,04	0,07	-0,17	0,10

P-values of 0.00, 0.24, 0.00, 0.88, and 0.71 are suggested by the t-test statistics for equality of means for each of the five attributes: product, place, price, promotion, product mix, and process. The computed p-value for the promotion, place, and process marketing mixes is significantly higher than the critical value of 0.05. As a result, the null hypothesis, which asserts that there is not a significant difference in the mean score between those with and without medical aid, is accepted. This applies only for the marketing mixes of promotion, location, and process, though.

The p-values for the product and price (both at 0.00) are lower than the critical value of 0.05, implying a rejection of the null hypothesis. There is therefore no relationship between respondents' medical aid status and both product and price.

4.6.2.3 PREFERED PURCHASE LOCATION AND THE MARKETING MIX

The research employed an independent samples t-test to evaluate potential associations between the respondents' preferred pharmacy type and the five marketing mix attributes. Table 21 shows statistically significant variations in the mean grade point average for 344 participants: 305 respondents said they preferred discount pharmacies, while 39 respondents said they preferred community pharmacies.

Table 21: Group statistics for preferred pharmacy type

Group Statistics					
Place medication is often purchased		N	Mean	Std. Deviation	Std. Error
Market_Mix_Product	Community Pharmacy	39	3,77	0,42	0,07
	Discount Pharmacy	305	3,98	0,63	0,04
Market_Mix_Promotion	Community Pharmacy	39	3,09	0,71	0,11
	Discount Pharmacy	305	3,54	0,62	0,04
Market_Mix_Price	Community Pharmacy	39	3,20	0,80	0,13
	Discount Pharmacy	305	3,51	0,73	0,04
Market_Mix_Place	Community Pharmacy	39	2,65	0,61	0,10
	Discount Pharmacy	305	2,74	0,73	0,04
Market_Mix_Process	Community Pharmacy	39	3,60	0,57	0,09
	Discount Pharmacy	305	3,79	0,51	0,03

The t-test results are shown in Table 22. The results of the Levene's test show that the five product mix attributes, product, promotion, price, place, and process, have respective F-values of 2.900, 6.447, 1.879, 4.589, and 2.188. It is suggested that the variances for each of the five marketing mixes are approximately equal for the two groups based on the similar shapes of the distributions for the respondents who prefer purchase medication from community pharmacies and those who do not.

Table 22: Independent sample test - pharmacy type preference

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Significance Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Market_Mix_Product	Equal variances assumed	2,900	0,09	-2,01	342,00	0,05	-0,21	0,10	-0,41	0,00
	Equal variances not assumed			-2,74	62,49	0,01	-0,21	0,08	-0,36	-0,06
Market_Mix_Promotion	Equal variances assumed	6,447	0,01	-4,14	342,00	0,00	-0,45	0,11	-0,66	-0,23
	Equal variances not assumed			-3,76	45,88	0,00	-0,45	0,12	-0,69	-0,21
Market_Mix_Price	Equal variances assumed	1,879	0,17	-2,49	342,00	0,01	-0,31	0,13	-0,56	-0,07
	Equal variances not assumed			-2,31	46,35	0,03	-0,31	0,13	-0,58	-0,04
Market_Mix_Place	Equal variances assumed	4,589	0,03	-0,67	342,00	0,50	-0,08	0,12	-0,32	0,16
	Equal variances not assumed			-0,78	53,09	0,44	-0,08	0,11	-0,29	0,13
Market_Mix_Process	Equal variances assumed	2,188	0,14	-2,19	342,00	0,03	-0,19	0,09	-0,37	-0,02
	Equal variances not assumed			-2,00	46,02	0,05	-0,19	0,10	-0,39	0,00

Two of the five marketing mix p-values, 0.05 and 0.50 for product and place, respectively, equals or higher that the critical value of 0.05. In this case, the null hypothesis is confirmed. However, the marketing mixes for price, process, and promotion indicate that the p-values (0.00, 0.01, and 0.03, respectively) are below the critical 0.05 value. For these marketing mixes, the null hypothesis is thus rejected.

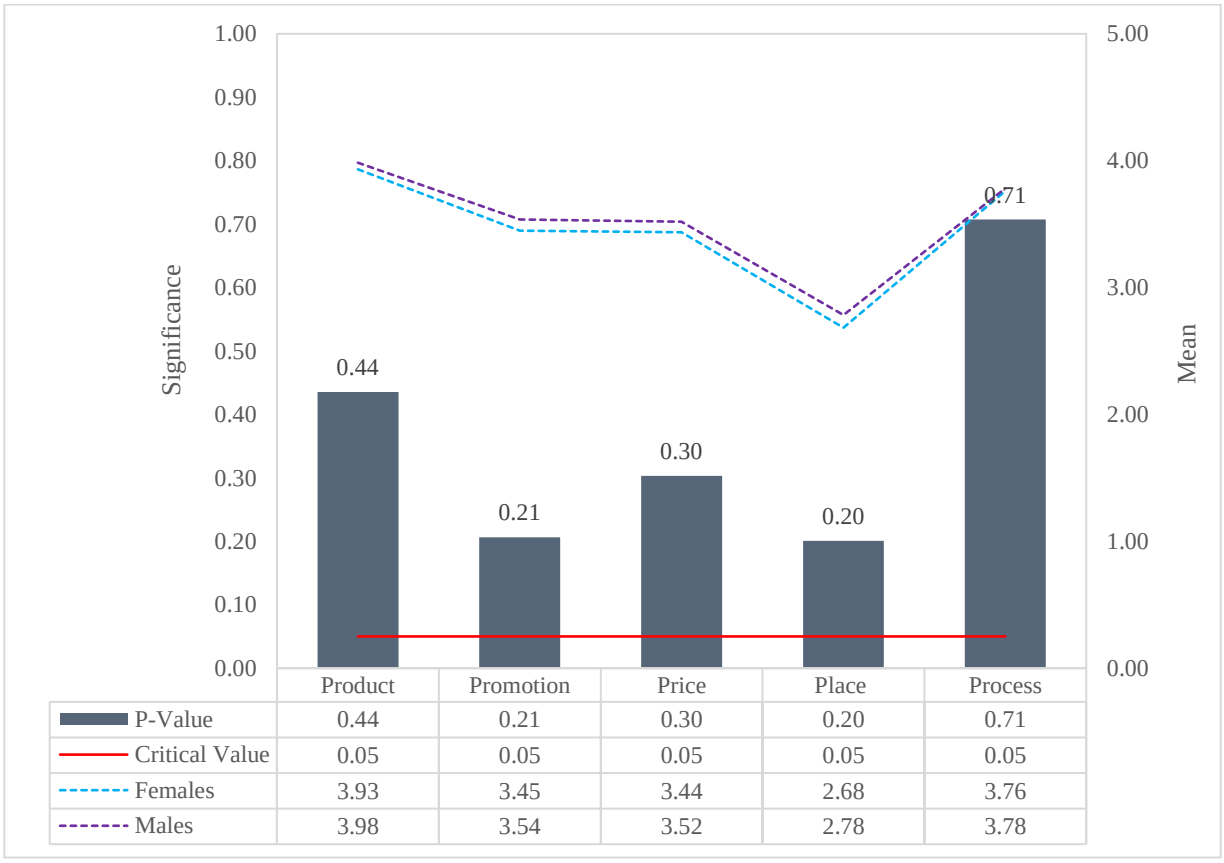
4.6.2.4 HYPOTHESIS TESTING SUMMARY

The findings of the hypothesis tests are summarised in this section taking the three research hypotheses into consideration. Hypothesis testing has been done on the marketing mix, product, promotion, price, place, and process to ascertain any relationships that may exist between respondent gender, medical aid status, and preferred pharmacy type. To test each of the three hypotheses, the possibility that a sample statistic may have been chosen if the population parameter assumptions were correct will be ascertained.

4.6.2.4.1 HYPOTHESIS 1

The findings of the hypothesis testing for the relationship between consumer gender and the associated marketing mix, product, promotion, price, place, and procedure are shown graphically in Figure 19 below. According to the study's first hypothesis, male and female respond to the marketing mix in different ways. Therefore, if the p-value for every marketing mix is greater than the critical value of 0.05, it will confirm that there is a relationship

between consumer gender and the marketing mix. However, if the p-value for the same range of marketing mix is less than the critical value, the study will reject the existence of a relationship between consumer gender and marketing mix. Additionally, the study will evaluate the Mean value for both males and females within each marketing mix to determine the degree to which the genders influence the mix. In other words, the more the mean values diverge, the more the response from female and male will deviate from the marketing mix. The closer the mean values are to each other, the more similar the responses from each group will be.



	Product	Promotion	Price	Place	Process
P-Value	0.44	0.21	0.30	0.20	0.71
Critical Value	0.05	0.05	0.05	0.05	0.05
Females	3.93	3.45	3.44	2.68	3.76
Males	3.98	3.54	3.52	2.78	3.78

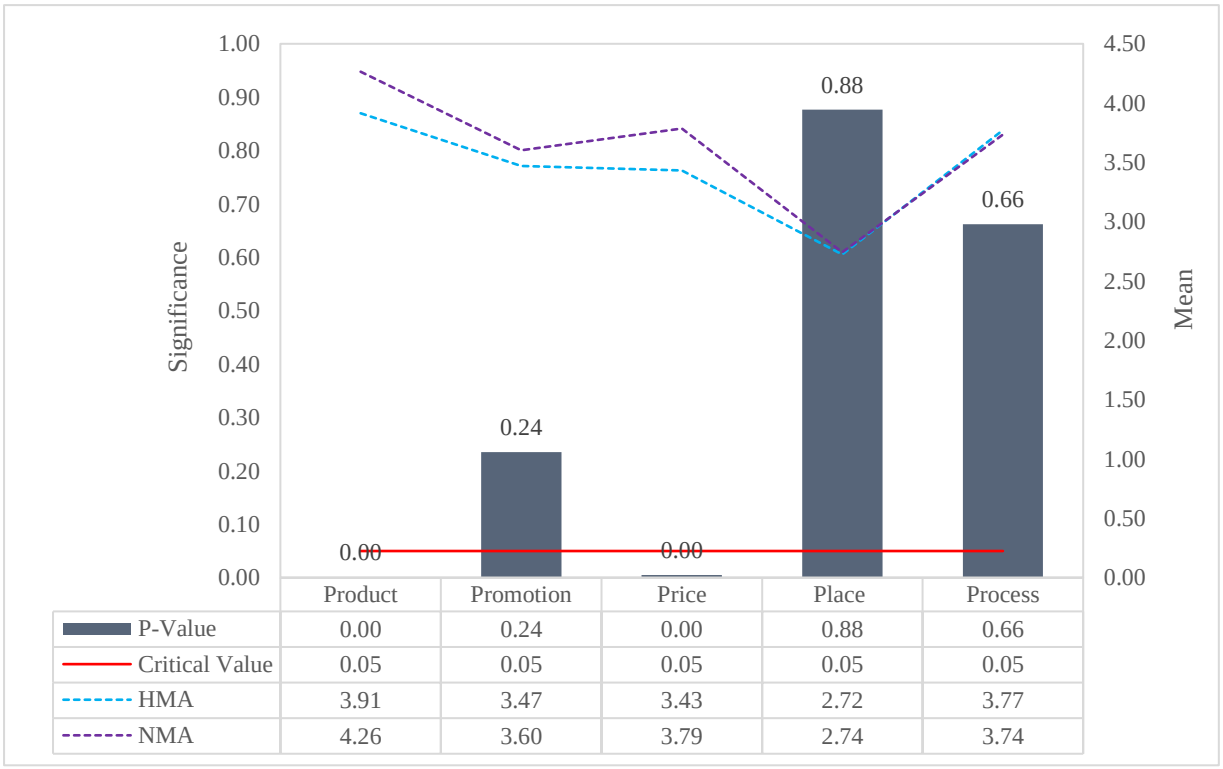
Figure 19: T-test significance summary - consumer gender

The results from Figure 19 strongly suggest the existence of a relationship between gender and the marketing mix, as the p-value is greater than 0.05 for all marketing mix. It should be mentioned that the degree to which gender and marketing mix are related varies depending on the marketing mix. Additionally, there is a strong similarity between the Mean values for males and females, suggesting that the responses within each marketing mix are similar.

As a result, the null hypothesis, stating males and females respond differently to the marketing mix, is rejected.

4.6.2.4.2 HYPOTHESIS 2

The findings of the hypothesis testing for the relationship between medical aid status and the associated marketing mix, product, promotion, price, place, and process are shown graphically in Figure 20 below. According to the hypothesis 2, marketing mix equally influence both medical and non-medical aid holders.



	Product	Promotion	Price	Place	Process
P-Value	0.00	0.24	0.00	0.88	0.66
Critical Value	0.05	0.05	0.05	0.05	0.05
HMA	3.91	3.47	3.43	2.72	3.77
NMA	4.26	3.60	3.79	2.74	3.74

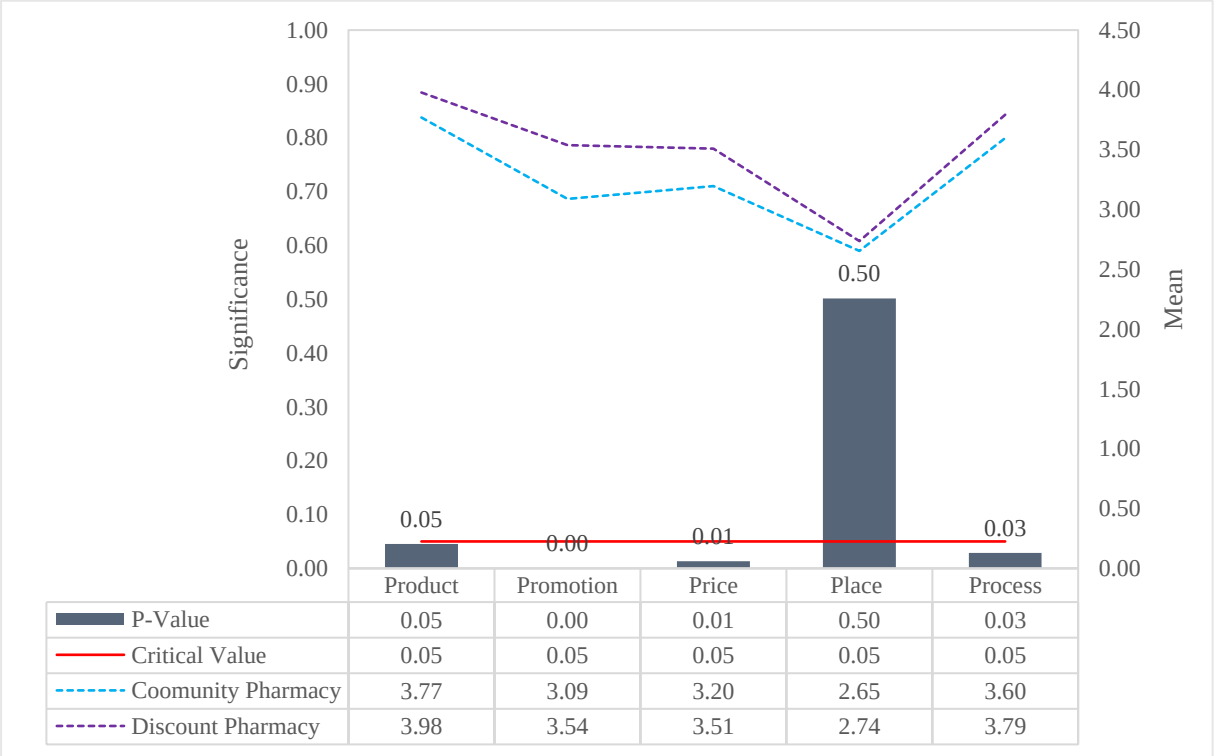
Figure 20: T-test significance summary - medical aid status

Out of the five marketing mix attributes, medical aid status has a relationship to promotion, place, and process attributes, Figure 20. This is indicated by higher p-values (0.24, 0.88, and 0.66, respectively) in comparison to the critical value. However, the p-values are less than 0.05 for the marketing mix, product, and price, suggesting there is no relationship. Therefore, the marketing mix's promotion, place, and process attributes are the only ones that are influenced by those who have medical aid (HMA) and those who do not have medical aid (NMA). HMA and NMA have no effect on the attributes of the product or price. At this point, it is incorrect to assume that respondents with and without health care are equally influenced by the marketing mix.

Moreover, apart from the place and process marketing mix attributes, the Mean values for respondents who have medical and those who did not imply a distinct response. This suggests a distinct impact from the marketing mix. As a result, the null hypothesis, that the marketing mix influences respondents with medical aid and without medical aid equally, is rejected.

4.6.2.4.3 HYPOTHESIS 3

Figure 21 below provides a graphic representation of the results of the hypothesis testing for the association between pharmacy types and marketing mix attributes. The third hypothesis states that certain marketing mixes are associated to specific types of pharmacies.



	Product	Promotion	Price	Place	Process
P-Value	0.05	0.00	0.01	0.50	0.03
Critical Value	0.05	0.05	0.05	0.05	0.05
Coomunity Pharmacy	3.77	3.09	3.20	2.65	3.60
Discount Pharmacy	3.98	3.54	3.51	2.74	3.79

Figure 21: T-test significance summary - pharmacy type preference

From the five marketing mix attributes, pharmacy types have a relationship with both product and place (Figure 21), a p-value that is equal to or greater than the critical value of 0.05 (0.05 and 0.50, respectively) indicates this. There appears to be no correlation between pharmacy types and the three marketing mix attributes, as indicated by the p-values for the promotion, price, and process attributes being less than 0.05. At this point, it is reasonable to presume that, to varied degrees, particular pharmacy types are related with specific marketing mixes.

Moreover, apart from the place marketing mix attribute, the Mean values for community and discount pharmacy are different in varying degrees. This suggests a distinct difference in associated between certain marketing mix attributes and pharmacy types. As a result, the null hypothesis, that certain marketing mix attributes are associated with certain pharmacy types, is accepted.

4.6.3 PEARSON RANK CORRELATION

Since it gauges the strength of a linear relationship between two variables, the Pearson rank correlation coefficient can be used to assess if there is a high correlation between them. For the measurement, a value of -1 denotes a total negative linear correlation, a value of 0 denotes no relationship, and a value of + 1 denotes a total positive correlation (Schober, Boer, & Schwarte, 2018).

To respond to research study Question 1: To what degree are the marketing mix attributes related to each other? To assess the degree of relationship between the five marketing mix attributes, a Pearson rank correlation analysis was performed.

Table 23 presents the findings of the evaluation of Pearson rank correlation. Every marketing mix attribute has a positive Pearson rank correlation coefficient that is greater than 0, meaning that all measures show a complete positive correlation. This suggests that there is a direct correlation between the attributes of the marketing mix.

The two sets of marketing mix attributes with the highest or strongest correlation are: Product and price, with a correlation coefficient of 0.559 and product and promotion with a correlation coefficient of 0.493. Price, product, and promotion are key to a business model. A pricing model is a crucial component of any marketing plan since it directly affects supply and demand in addition to the profit margins. A product that is sold for less will draw in more customers, and supply must rise to keep up with demand. Furthermore, marketers have more money to promote a product if its margins are large. However, there is less money available for a marketing plan if a product has smaller margins (Khoso, Ahmed, & Ahmed, 2014).

With a correlation coefficient of 0.140 for promotion and place and 0.166 for product and place, respectively, these two sets of marketing mix attributes have the lowest or weakest correlation.

The location of product manufacturing and distribution channel planning and decision-making is the place attribute of the marketing mix. The choices made in this stage have a direct impact on the kinds of communications used to inform the intended audience about a product. The complete process of obtaining a product from the manufacturer and putting it in the hands of the customer is included in place in the marketing mix. Furthermore, the position in the marketing mix guarantees that the product is in the appropriate place at the right time, it has a significant impact on the distribution and flow of goods. Customers are likely to look elsewhere for what they need or want if products are not properly placed (Murshid, Halim, & Osman, 2014).

The two marketing mix attributes with the lowest correlation, in contrast to Murshid et al. (2014), imply a weak correlation even though they also reveal a direct relationship. This clearly indicates that there may be a misalignment in the marketing mix's prioritization.

Table 23: Pearson rank correlation for marketing mix attributes

Correlations

		Market_Mix_Product	Market_Mix_Promotion	Market_Mix_Price	Market_Mix_Place	Market_Mix_Process
Market_Mix_Product	Pearson Correlation	1,000				
	Sig. (2-tailed)					
	N	344				
Market_Mix_Promotion	Pearson Correlation	.493**	1,000			
	Sig. (2-tailed)	0,000				
	N	344	344			
Market_Mix_Price	Pearson Correlation	.559**	.352**	1,000		
	Sig. (2-tailed)	0,000	0,000			
	N	344	344	344		
Market_Mix_Place	Pearson Correlation	.166**	.140**	.256**	1,000	
	Sig. (2-tailed)	0,002	0,010	0,000		
	N	344	344	344	344	
Market_Mix_Process	Pearson Correlation	.387**	.237**	.438**	.179**	1,000
	Sig. (2-tailed)	0,000	0,000	0,000	0,001	
	N	344	344	344	344	344

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

Therefore, considering research Question 1: To what degree are the marketing mix attributes related to each other? There is a clear correlation between the attributes of the marketing mix. This positive relationship does, however, vary in strength, with some attributes of the marketing mix showing a far larger connection than others. The relationships may not be as strong as the research suggests for certain elements of the marketing mix, but for others, they are not unexpected.

4.6.4 CHI-SQUARE TEST

To compare actual findings with predictions, the study utilised the chi-square test. The objective of this test is to ascertain whether a difference between observed and expected data is due to chance or indicates a connection between the variables you are studying. The test evaluates the p-value, or the likelihood of finding data that, if the null hypothesis is true, is as extreme or more extreme than a collection of data. In a Chi-square test, your null hypothesis is rejected if the chi-square computed p-value is higher than the chi-square critical value (0.05). However, you "fail to reject", accept the null hypothesis if the chi-square computed p-value is smaller than the chi-square critical value (0.05) (Ugoni & Walker, 2014).

To answer Questions 2 and 3 of the study, the chi-square test is used in the research to ascertain whether there is a correlation between the biographical characteristics (gender, age group, medical aid, and marital status) and each of the study statements. A statement of statistical significance is necessary when reporting chi-square test results using the conventional method. The test statistic yields a p-value. A significant outcome is indicated by "$p < 0.05$". In table 24, these values are indicated in red.

Except for three research statements, every study statement under gender has a p-value > 0.05. Each of these claims had its corresponding null hypothesis accepted. With a mean of 0.46, the p-values for the accepted null hypotheses vary from 0.08 to 0.87. The null hypotheses associated with statements S20, S21, and S23 are rejected because their corresponding p-values are less than 0.05. Their p-values in this instance have a mean of 0.02 and vary from 0.00 to 0.04.

The p-value for each of the study statements, S9 through S25, is more than 0.05 when evaluating the relationship between age group and the statements. Each of these statements had its corresponding null hypothesis accepted. With a mean of 0.63, the assessed p-values vary from 0.24 to 0.94.

When evaluating the medical aid status, seven statements had p-values more than 0.05. The null hypotheses are accepted for these statements with a mean of 0.24 and p-values ranging from 0.11 to 0.40. The subsequent 10 statements all imply p-values less than 0.05, which indicates

that the corresponding null hypotheses have been rejected. The p-values for these claims have a mean of 0.01 and range from 0.00 to 0.04.

Finally, with regards to the relationship between the research statements and marital status. A p-value > 0.05 is shown in all but two statements; the range is 0.07 to 0.90, with a mean of 0.52. Each of these statements had its corresponding null hypothesis accepted. The two statements, S12 and S13, with p-values less than 0.05, display p-value range of 0.01 to 0.04 with a mean of 0.02. Each of these statements' null assumptions is disproved.

In conclusion, the research's Questions 2 and 3 cover the assessment of consumer attributes in respect to community and discount pharmacies as well as the key pharmacy attributes required to maintain a competitive edge.

In terms of Question 2: How much, if at all, are the attributes of both discount and community pharmacies related to those of the consumer? Chi-square tests analyse the relationship between the study statements and consumer attributes to answer this question. The findings indicate that the four consumer attributes, gender, age, marital status, and, to a lesser extent, medical aid status, have a relationship with the pharmacy attributes. Particularly, age, which indicated a significant association with every research statement, suggesting a direct relationship with the pharmacy attributes. Even though the data do not support a relationship with some of the statements, there is still an association between consumer gender and marital status with the pharmacy attributes.

In terms of Question 3: Which key marketing mix attributes are most important in establishing and maintaining a competitive edge in pharmacies? In consideration to Tables 11, 16 and 24, Consumer group classification, Composited variables, and Chi-square test results, price, promotion, and process are the key marketing mix attributes pharmacies need to establish and maintain a competitive edge.

Table 24: Chi-square test results

Chi-Square Tests					
Statements		Significance (p-value)			
		Gender	Age group	Medical aid status	Marital status
S9	I often see medication advertisement on TV or various social media platforms	0,64	0,76	0,12	0,74
S10	I make use of online pharmacy platforms to purchase medication	0,18	0,45	0,11	0,07
S11	I often look for medication that I've seen being advertised on TV or social media platforms	0,26	0,60	0,00	0,11
S12	The pharmacy stocks a wide range of medication for particular conditions	0,75	0,75	0,20	0,01
S13	I am satisfied with the pharmacy customer service support	0,17	0,42	0,24	0,04
S14	I believe I get value for money with medication purchases	0,87	0,49	0,02	0,13
S15	I am happy with pharmacy processes, i.e. queuing, issuing of tickets and calling of issued numbers	0,82	0,24	0,00	0,86
S16	I make use of in-store consultation and clinic services	0,26	0,80	0,00	0,33
S17	I easily find what I'm looking for without having to ask a floor assistant or at the counter	0,54	0,56	0,38	0,82
S18	I also purchase other items other than medications at a pharmacy	0,62	0,41	0,04	0,33
S19	I believe I get value for money with non-medication purchases	0,20	0,36	0,02	0,89
S20	I take advantage of promotional products and bulk purchases	0,04	0,84	0,21	0,90
S21	I participate in available rewards systems to save costs	0,02	0,55	0,01	0,62
S22	I would like the pharmacy to cater for more than just my medicinal and personal care needs	0,37	0,84	0,01	0,53
S23	I prefer to make cash purchases rather than use medical aid	0,00	0,72	0,00	0,21
S24	I prefer original medicine brands over generic brands	0,08	0,94	0,01	0,71
S25	I recommend my pharmacy to family and friends	0,61	0,89	0,40	0,55

5 CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The analysis and discussion of the 344 replies using both descriptive and inferential statistics were the primary focus of Chapter 4. The focus of this chapter is to consolidate the findings and outcomes with respect to the research objectives. The chapter also addresses the limitations associated with the study and offers key recommendations to improve future studies on pharmacy and consumer attribute evaluation on pharmacy strategy.

5.2 RESEARCH PROBLEM, OBJECTIVE AND QUESTIONS

In Sections 1.3 and 2.8, the research problem, objective, main and secondary questions were highlighted. The operational emphasis approach of retail pharmacies sets them apart from one another. The pharmacy industry is still quite competitive, and community pharmacies are especially vulnerable to it. Discount and community pharmacies must, therefore, implement consumer behaviour models to draw customers to gain and retain a competitive advantage, albeit to differing degrees.

The study was to investigate the ways in which retail pharmacy and customer attributes interact to create and preserve a competitive advantage, as well as how attributes of the marketing mix affect consumer behaviour in the retail pharmacy setting. To better understand the concepts associated with both marketing and consumer attributes, a core question was posed which was further reduced into three secondary questions. Finally, to better appreciate the scope of the study, hypotheses were developed with a view of using statistical analysis to investigate them.

5.2.1 RESEARCH PROBLEM, OBJECTIVE AND QUESTIONS

5.2.1.1 DISCRIPTIVE ANALYSIS

SPSS version 28.0 was used to statistically analyse the data from 344 respondents. To determine the biographical attributes of the respondents, descriptive analysis was used. Females and males represented 57.0% and 43.0% of the respondents respectively with the age groups 45-54 and 35-

44 accounting for 38.4% and 32.3% of the respondents, together they account for over 71.0% of the total group. In terms of job levels, middle management represented 28.3% of the respondents with staff and senior management each accounting for 20.3%.

Of all the respondents, 88.7% had access to healthcare, with the majority being either married (52.0%) or single (38.4%). Married respondents appear to prioritise family healthcare more than single respondents, as evidenced by the fact that 45.6% of married respondents have access to medical care compared to 34.6% of single respondents.

An overwhelming 52.6% of the respondents reside outside the main towns surrounding the Overlooked operations. Most respondents (those who live outside of close towns) commute to the operations in Mpumalanga from towns or cities in a neighbouring province, most likely Gauteng, according to data from place of residence combined with job level profiles.

5.2.1.2 RELIABILITY ANALYSIS

The reliability test results for the eighteen statements showed a questionable Cronbach's Alpha coefficient, less than 0.700 but greater than 0.600. Statement eight was subsequently deleted, resulting in a Cronbach's Alpha of 0.706, which is greater than 0.700, thereby giving an acceptable level of reliability.

5.2.1.3 NORMALITY ANALYSIS

To limit the number of variables and improve data convenience, the respondents' data was reclassified into three primary groups for the purpose of normalcy analysis. Several tests for normalcy were conducted, including skewness and kurtosis, graphical tests (Q-Q plots and histograms), Kolmogorov-Smirnov, and skewness. Given its minimal tendency to be impacted by sample size, visual capacity, graphical test was selected as the best indicator of normalcy among the four techniques.

The three main groups' histograms and Q-Q plots provided convincing evidence of normalcy. As a result, subsequent data was subjected to parametric statistical methods.

5.2.1.4 HYPOTHESES TESTING

In assessing Hypothesis 1: Males and females respond differently to the marketing mix. The questionnaire responses were composited to match the existing marketing mix, in this case, five existing marketing mix. T-test was used to compare the significant values (p-value) of the five marketing mix attributes to the critical value of 0.05. For every marketing mix, the Mean values for males and females were further compared. The high degree of similarity in the male and female Mean values, along with the resulting p-values for each marketing mix, being larger than 0.05, necessitated the null hypothesis to be rejected.

When assessing Hypothesis 2: Marketing mix equally influence both medical and non-medical aid holders. Similar evaluation methods were used, however, they considered consumer attributes associated with medical aid status. In the same manner, the null hypothesis was rejected considering the p-values and ensuing Mean values for respondents with and without medical healthcare in relation to the marketing mix.

When evaluating Hypothesis 3: Certain marketing mix are associated with certain pharmacy types. The association between pharmacy types and the marketing mix was established by applying the t-test. There may or may not be a relationship depending on the marketing mix; for some, the p-value suggests a relationship. Nonetheless, there is generally, and to a lesser degree, an association between some marketing mix attributes and pharmacy types. Furthermore, for every marketing mix, there are different Mean values linked to each type of pharmacy necessitating an acceptance of the null hypothesis.

5.2.1.5 RESEARCH QUESTIONS

In addressing the research questions, Pearson rank correlation and chi-square test were applied. For questions 1: To what degree are the marketing mix attributes related to each other? A strong correlation was evident between the marketing mix attributes as indicated by the Pearson rank correlation. According to the study, there was significant correlation between price and product, suggesting that pharmacies prioritize both attributes when it comes to attracting and retaining customers. The evaluation also indicated that, of the marketing mix attributes, promotion and product had the lowest correlation. On the other hand, the research indicates that certain marketing mix elements are not given much priority.

Research questions 2 and 3 were evaluated using the chi-square test. Regarding question 2: How much, if at all, are the attributes of the firm (discount and community pharmacies) related to those of the consumer? The findings indicated a relationship between pharmacy and consumer attributes (gender, age, marital and medical aid status). When comparing pharmacy to customer attributes like age and medical aid status, the relationship between the two is more obvious.

The third and last question: Which key marketing mix attributes are most important in establishing and maintaining a competitive edge in pharmacies? In combination of consumer group classification, composited consumer variable and the chi-square test, price, promotion, and process are identified as the key marketing mix attributes pharmacies need to establish and maintain a competitive edge.

5.3 RESEARCH LIMITATIONS

Limitations associated with the study are:

- Towns outside of the current Overlooked operations accounted for more than half of the respondents. It is also known that community pharmacies outnumber discount pharmacies in small mining towns, such as those mentioned in the questionnaire option. As such, the acquired information is a skewed representation of the population of the towns that surround the Overlooked operations.
- The research was limited to the two main types of pharmacies, discount, and community. However, medication, particularly non-prescription, can also be purchase in convenient stores and stores in filling stations. These facilities are not catered for in the research and as a result, don't form part of the study data and subsequent discussion.

5.4 RECOMMENDATION

Acquired data must be particular, not only to the type of pharmacy or consumer attributes, but also to the area. This is so, to provide a comprehensive understanding and appreciation of the interaction and impact of these factors on retail pharmacy strategy. Considering the findings, the following suggestions are made:

- Research questionnaires (statements and questions) should be clear and specific in their structure. Unless the research targets a specific or set on certain marketing mix attributes, consideration should be given to all marketing mix attributes. Access to relevant and versatile data is essential, particularly in the synthesis phase.
- Studies on pharmacy practice often employ a broad variety of quantitative methodologies. These approaches are commonly used in published pharmacy practice literature to evaluate pharmacy safety, appropriateness of medicine use, pharmacy and consumer attributes, and appropriateness and quality of prescribing. They involve direct observation, analysis of pre-existing datasets, or self-report. There is a dearth of qualitative research in the same fields. This type of study methodology focuses on people's views and feelings. Qualitative analysis is therefore essential for extracting meaningful insights from textual material, understanding its complex context, and identifying minute patterns and themes. Therefore, it maybe be valuable to adopt a mix method approach when conducting research where company and customer attributes are concerned.
- Those with access to company email received the research questionnaire. The selected method to acquire research data eliminated 940 employees, a little under a third of the total population, from potential participation in the study. It would be beneficial to include another survey medium, such as SMS or WhatsApp, to broaden the population and potential response size. Alternative survey channels' ease of use and simplicity could result in a larger respondent sample size.

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7 ANNEXURE

7.1 Annexure 1

1 What is your gender?

- A Male
- B Female
- C Other

2 What is your age group?

Type or select an option

- 18 - 24
- 24 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 and older

3 In which town do you currently live?

Type or select an option

- Emalahleni
- Bethal
- Kriel
- Hendrina
- Secunda
- Other

4→ What is your current marital status?

- A Single
- B Married
- C Divorced
- D Widowed
- E I prefer not to answer

5→ What is your job level?

Type or select an option

- Executive
- Senior Management
- Middle Management
- First-level Management
- Senior Staff
- Staff

6→ Where do you often purchase your medication?

- A Community Pharmacy, e.g. Privately owned pharmacies
- B Discount Pharmacy, e.g. Clicks, Dischem & Medirite

7→ I have medical aid

- Y Yes
- N No

8→ I only purchase medications at a pharmacy

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

9→ I often see medication advertisement on TV or various social media platforms

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

10→ I make use of online pharmacy platforms to purchase medication

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

11→ I often look for medication that I've seen being advertised on TV or social media platforms

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

12 → The pharmacy stocks a wide range of medication for particular conditions

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

13 → I am satisfied with the pharmacy customer service support

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

14 → I believe I get value for money with medication purchases

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

15 I am happy with pharmacy processes, i.e. queuing, issuing of tickets and calling of issued numbers

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

16 I make use of in-store consultation and clinic services

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

17 I easily find what I'm looking for without having to ask a floor assistant or at the counter

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

18→ I also purchase other items other than medications at a pharmacy

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

19→ I believe I get value for money with non-medication purchases

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

20→ I take advantage of promotional products and bulk purchases

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

21→ I participate in available rewards systems to save costs

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

22 I would like the pharmacy to cater for more than just my medicinal and personal care needs

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

23 I prefer to make cash purchases rather than use medical aid

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

24 I prefer original medicine brands over generic brands

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree

25 I recommend my pharmacy to family and friends

Type or select an option

- Strongly Agree
- Agree
- Undecided/Neutral
- Disagree
- Strongly Disagree