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# The Influence of 4Cs of marketing on purchase intention of Over-The-Counter medicine in tier one supermarkets in Nairobi County.

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**THE INFLUENCE OF 4Cs OF MARKETING ON PURCHASE INTENTION OF  
OVER-THE-COUNTER MEDICINE IN TIER ONE SUPERMARKETS IN NAIROBI  
COUNTY.**

**SUSAN WAMAITHA MURAYA**



**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN COMMERCE  
AT STRATHMORE UNIVERSITY.**

**STRATHMORE UNIVERSITY BUSINESS SCHOOL**

**APRIL 2024**

## DECLARATION

I declare that this research thesis is my original work and has not been presented for a master's degree in any other academic institution. To the best of my knowledge and belief, this dissertation contains no material previously published or written by another person except where due reference was made.

**SUSAN WAMAITHA MURAYA**

**MCOM/123951/2021**

Signature:



Date; 30<sup>th</sup> April 2024

### Supervisor Approval

This dissertation has been submitted for examination with my approval as the supervisor.

**DR. HELLEN OTIENO**

Signature:



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Date; 30<sup>th</sup> April 2024

## ABSTRACT

The Global over-the-counter market size is expected to grow by 7.09% annually according to Euromonitor International. Serving up to 50% of the demand in the region, Kenya has the largest over-the-counter pharmaceutical industry in Eastern and Southern Africa. To provide easier and more widespread access to pharmacy services, governments in many nations have deregulated the retail pharmacy sector. Due to this deregulation, new medicine distribution channels have been able to enter not only pharmacies but also supermarkets. This study's objectives aimed to assess how the elements of the 4Cs (customer, cost, convenience, and communication) of marketing can influence the purchase intention of over-the-counter medicine in Kenya, focusing on tier-one supermarket customers in Nairobi country. The study was anchored on the theory of Hawkins's impulse buying and the 4Cs of the marketing framework. A descriptive cross-sectional research design was used for the study using a quantitative method. The study adopted a non-probability sampling approach of convenience to select customers visiting the supermarket over-the-counter category with the permission of the supermarket's management. The sample size was 384 customers from tier-one supermarkets. A pilot test was administered to ensure the respondents understood the questionnaire. Questionnaires were issued to the customers and used for data collection as designed by the researcher. Descriptive and inferential statistical methods were used to analyze the data and establish if a relationship exists between the 4Cs elements and customer purchase intention. Correlation analysis and regression findings showed a positive and significant relationship between customer, convenience, and communication on Purchase Intention. These implied that as customer, convenience, and communication increase by a single unit, there is an increase by one unit in the purchase intention of OTC medicine in tier-one supermarkets. Conversely, the study found a negative and significant relationship between cost and Purchase intention. These implied that as cost is reduced by a single unit, the purchase intention increases by one unit in the purchase of over-the-counter medicine in tier-one supermarkets. Therefore, Marketing managers should use customer-oriented 4Cs of marketing approach to meet customer needs. Commercial managers in tier-one supermarkets need to share feedback with the marketing managers of over-the-counter medicine to give insights into what the customers need to influence a positive purchase intention. The study was limited to supermarket customers in Nairobi County only. Future researchers need to include the voices of the consumers purchasing their OTC medicines within the other non-urbanites regions for generalizability and get their feedback on how the elements of the 4Cs could influence their purchase intention.

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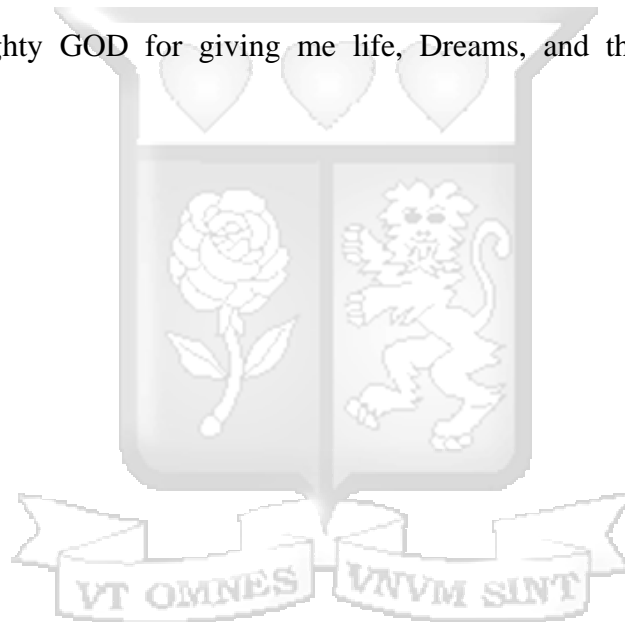
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## DEDICATION

I dedicate this Dissertation to my family, especially my parents Zachariah Muraya and Alice Muraya for bringing me into this world, and my husband Hezekiah Gitau for giving me a chance to study and instilling the importance of hard work and higher education. To Harley's director Nishil Haria and the Harleys fraternity for the support and for allowing me to study.

Above all my Almighty GOD for giving me life, Dreams, and the ability to read and understand.



# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Purchase intention is a decision-making that examines customer motivations for purchasing a specific product or service (Shah et al.,2012). The intention to buy a product may not lead to a purchase due to several factors that may determine the customer's decision to purchase such as lack of funds or preference (Talwar et al.,2021). A positive purchase intention encourages customers to make a purchase, whereas a negative purchase intention prevents customers from making a purchase (Zaman & Arslan, 2014). The use of marketing techniques can help marketers influence a positive purchase intention to an actual purchase (Patel et al ., 2017).

The need for marketing as a strategic instrument for business growth is made more apparent by the market's constant expansion and choices that influence customer purchase intentions (Jaafar,Lalp, & Naba 2012). Organizations functioning in various sectors such as the pharmaceutical industry can employ the marketing principles, for example, the 4Cs of marketing. The 4Cs represent; customers who buy goods and services, cost which is what customers are willing to pay to get the goods or services, convenience is the ease of the customer getting the products, and communication as actively informing the customers about the products (Londhe, 2014).

Previous studies on the OTC pharmaceutical industry in Kenya have focused on the 4 P's Marketing strategies that aim at marketing the services the retailer provides. Musalia (2019) studied the effectiveness of marketing mix strategies on sales volumes of OTC drugs using research-based multinational companies (MNCs) in Kenya. The study found that modifying the pricing element, place, product, promotion, and element by a single unit would lead to an increase in the sales volume of OTC medicines for MNCs in Kenya. However, the main critique surrounding the 4PS marketing mix is its internal orientation referring to claims that it lacks customer orientation. Kotler (2003) posits that marketers should think about customers' 4Cs before they start building 4P platforms. According to Mirzaei, Carter, and Schneider (2018), retailers of over-the-counter medications might modify components of the 4Cs to add value to the customer, and to change their behavior and intention to purchase.

Over-the-counter (OTC) medicines are drugs bought by patients without a doctor's prescription (Marathe et al., 2020). As a result of the deregulation of medications, OTC medicines are now more readily available in settings other than pharmacies, as supermarkets

have expanded their product lines to include brands that were previously only carried by pharmacies (Purpura et al., 2022). Finding effective marketing mix strategies that have a favourable influence on purchase intention would help meet the OTC medicine customers' needs and create a positive purchase intention (Patel et al., 2017). The current study focused on the 4Cs to address the customer-centred aspects of marketing.

### **1.1.1 The 4C's of Marketing**

The 4Cs marketing mix method is recommended to show the components of the marketing mix from the perspective of the customer rather than the provider (Shahhosseini, & Ardahaey, 2011). Therefore, the current study focused on the 4Cs of marketing to give attention to customer needs and wants.

According to Pour, Nazari, and Emami, (2013), a marketing mix is a group of components of marketing techniques and tactics that a business uses. They include place, product, price, and promotion commonly referred to as the 4 Ps (Danaei, & Akbari, 2014). Zipporah and Mberia (2014) argue that the marketing mix of the 4Ps has been seen as being overly product-focused by marketing professionals and has instead adopted the 4Cs of marketing (Customer Value, Customer Cost, Customer Convenience, and Customer Communication).

The 4Cs of marketing are a framework for a marketing strategy that emphasizes the viewpoint of the customer rather than emphasizing the organization's perspective (Jianting & Feng, 2012). Londhe, (2014) defines the 4Cs as a marketing approach that is customer-oriented compared to the 4Ps which is vendor or retailer-oriented. Ali, and Bhasin, (2019) suggest that the 4Cs of marketing characterize the customer as the primary focus. According to previous researchers, Nezakati, Ali, and MasoudiI (2013) the 4Cs place a greater emphasis on what customers want and need than the 4Ps do.

The success of any business is built on the customer as they are people or businesses that buy goods or services from other businesses. The 4Cs concept refers to making it easy for customers to obtain the goods and services they need (Junainah, 2021). Different scholars have defined the elements of the 4C's in different ways, but all are consistent in the emphasis on customer focus. The first element of the 4Cs is the customer.

Olson (2022) defines the customer as a person who deserves to receive products or services that meet their needs and wants using the 4Cs. The customer is the focal person who engages in a commercial interaction of the business (Becker & Jaakkola, 2020). The core principle of value marketing is to put the customer at the Center of the company instead of the company's

need to sell its products. Customer value is also thought to have an impact on purchasing intentions. A key idea in both business and marketing is customer value (Yrjölä et al., 2019). It is required to motivate the buying decision and hence businesses must add value for their customers. Kumar and Reinartz (2016) posit that customer value refers to customers' net evaluation of the advantages they believe an offering will provide based on the prices they are ready to pay to meet their demands. Porral (2017) defines customer value as a trade-off between perceived benefits and costs.

Murshid, Mohaidin, Nee, and Fernando, (2016) examined the role of physician-perceived value in mediating the relationship between marketing mix strategy and patient health outcomes in Yemen's pharmaceutical industry. The findings demonstrated that patient health outcomes were highly influenced by marketing mix strategy components, including product, price, promotion, and location. The findings also showed that marketing mix strategy, including price, place, and promotion, strongly influenced physicians' perceived value, whereas product had an insignificant effect. This current study intended to investigate the influence of customer perceived value measured as the degree to which the product benefits, service benefits, and supermarket image met the needs and wants of the customer.

Cost is defined as what the customers are willing to pay for a good or service (Jianting & Feng, 2012). In the 4Cs of marketing, the cost is defined as the total cost to satisfy customers' wants and needs (Akbar, Lawson, & Turner, 2022). This includes the transport, time, energy, and price costs that a customer incurs. Idris (2021) posits that price is part of the cost required to meet the needs or wants of the customers. Price is an important element for the products. Therefore, strategies in putting a price on products and services must be affordable, and the products and services provided shall also be equal to their value (Dhawan, & Kar, 2011). Pricing only accounts for a minor portion of a customer's total cost. Alagoz et al., (2013), measured time as the hours spent by a customer to get the products, and energy as transport cost paid or fuel necessary to bring them to purchase the products. This research was anchored on Alagoz et al., (2013) study on cost as time and energy the customer may be willing to pay to get their OTC medicines for internal cost reduction.

Convenience is the third C that refers to the ease of service delivery or the location of the product purchase. According to Idris (2021), convenience in terms of service location is among the factors that contribute to the success of a company in marketing. In addition, with

services such as delivery, consumers were more interested in buying the products as it saved them time (Barska, 2018). The study looked at convenience as the location of the retail store, accessibility of products in the retail store, check-out displays, and ease of reach of the products. Stanton (2017) suggested that business owners and customers needed to communicate to entice customers to use their products or services. Two-way communication between entrepreneurs and consumers may encourage them to exchange opinions and improve the service they provide (Zheng, Zhao & Stylianou, 2013).

Communication in the 4Cs refers to how customers interact with one another in a much more sophisticated communication environment by recommending products (Akbar et al, 2022). This study looked at how communication influenced purchase intention using screens set up on the shelves, personal selling by having advisors at the outlets explaining the usage of OTC medicine and visibility on prominent displays. The display can use a variety of cues, such as color, lighting, music, shelf talkers, information signs, and price tags, to gain the attention of customers (Behe, et al., 2013). However, little is known about what elements of merchandise displays attract customer attention and for how long. Communication was the C that linked all the tenets of the other 3Cs (customer, cost, and convenience). Out of the studies done on the 4Cs.

Gia and Dang (2021) assessed the potential factors that influence the current demand planning framework in the Vietnam FMCG industry based on the 4Cs concept. They found that the 4Cs marketing concept had a significant impact on the current demand of the Vietnam FMCG industry, especially on conversion and communal activation. Le (2021) conducted a study in the FMCG industry on factors affecting the green marketing elements influencing students' decisions to purchase food in the Co-opMart supermarket chain in Vietnam. He reported that four components made up the green marketing mix, of 4Cs; green commodity, green cost, green convenience, and green communication. The student's decision to buy food at Co-opMart supermarket was influenced by all these variables. Student interest in buying green items was most strongly influenced by cost, then by convenience, then by communication. Commodity had the smallest influence on the consumer's decision to buy green.

The relative importance of each of the 4Cs may vary depending on the specific product being considered, as well as the individual customer's preferences, needs, and situations (Khan,2014). For example, a customer may prioritize convenience when purchasing an OTC

medicine required urgently, but the cost may be the more important factor when purchasing OTC medicine not required urgently. Similarly, depending on the target audience and customer perceived values on the product benefits, service benefits, and the image of the supermarket as a provider of OTC medicine, a communication strategy's success may also change. This study adopted Londhe's (2014) concept of using a marketing approach that is more customer-oriented to influence the purchase intention of the OTC medicine customer.

### **1.1.2 Purchase Intention**

Purchase intention is the likelihood that customers intend to buy or be willing to buy a specific good or service in the future, a rise in purchase intention indicates an increase in the likelihood of making a purchase (Gillani, 2012). The term "purchase intention" refers to a consumer's propensity to acquire a particular product under specific circumstances. Mirabi, Akbariyeh, and Tahmasebifard,(2015) defined Purchase intention as a consumer's desire to purchase a good or service. Stated differently, purchasing intention contains an additional factor that the product's acquisition will follow evaluation by the consumer.

Purchase intention is a type of decision-making that examines a customer's rationale for selecting a specific brand (Shah et al., 2012). The six steps that a consumer goes through before deciding to acquire a product are brand recognition, knowledge, interest, preference, persuasion, and purchase (Kawa et al., 2013). A brand is typically a name and a symbol. It is a crucial instrument for fostering a favorable perception in the eyes of consumers (Eric, et al., 2012). Most of the earlier research examined the impact of brand image on consumer's intention to buy and revealed a strong correlation between these variables (Arslan & Altuna, 2010; Zeeshan 2013).

Purchase intention was considered in this study as the transactional intent measured as willingness to buy, brand choice, and outlet choice which leads to the customer conversion to the actual purchase. These factors were informed by the study done by Kawa et al., (2013). The rationale behind selecting these factors derived from the customer's willingness to purchase OTC medicine and information marketing techniques choices to be applied by the tier-one supermarkets (Moura & Barros, 2020).

There are arguments that purchase intention is not just the willingness to buy, but other factors such as customer perceived value, communication, and marketing mix can influence the decision. Moslehpour et al., (2022) conducted a study in China on the invigorating influence of relationship marketing on purchase intention. The results indicated that

relationship investment and communication significantly influenced satisfaction and purchase intention. These conclusions were drawn from customers in China and may not be entirely applicable to customers in other nations with distinct cultures.

Demirgüneş, (2015) reported that customer satisfaction might be linked to perceived value, which in turn influences behavioral intentions like willingness to pay (WTP). Perceived risk (PR) could also influence consumer behavior when dealing with potentially unfavorable and dangerous situations. The findings corroborate the hypothesized assumptions that there was a relationship between contentment with the product and WTP, which is a higher price. The findings also imply a relationship between perceived value characteristics and product satisfaction. The results also reveal the negative influence of PR on behavioral intention. Perceived value will be investigated as a predictor variable to purchase intention and its relationship.

Zheng, Zhao, and Stylianou (2013) employed the 4Cs of marketing as a tactic to persuade a customer to purchase at a supermarket. Based on this, the current study evaluated how each of the 4Cs affected consumers' intentions to purchase over-the-counter medication while in tier-one Kenyan supermarkets.

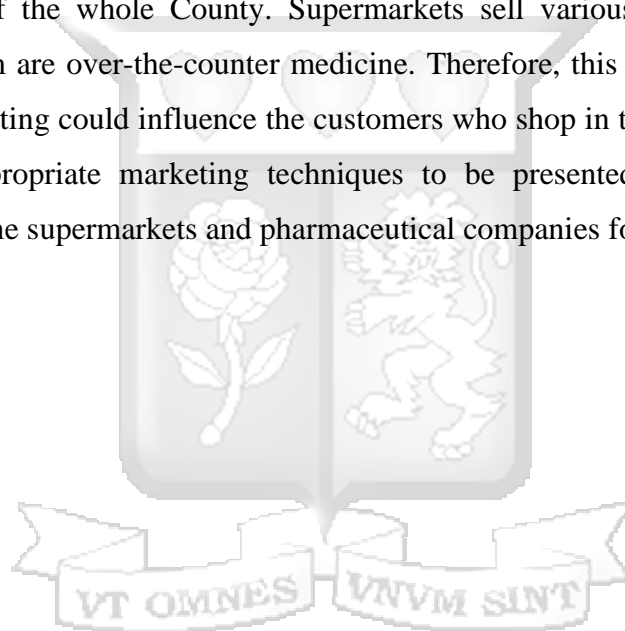
### **1.1.3 Tier One Supermarkets in Kenya**

As stated by the Pharmacy and Poison Board of Kenya, supermarkets are licensed to stock and sell over-the-counter medicines. The deregulation of OTC medicines has led to the availability of these medicines in new channels other than pharmacies. The new channels include the supermarkets. This trend has spread to developing markets such as Kenya (Maina, 2015). The city council of Nairobi 2016/17 is the licensing department that has categorized the supermarkets based on the nature of the business they operate, the area they occupy, and the location of the business. Supermarkets in Kenya are divided into different tiers; tier one with fifteen branches and above, tier two with five to fifteen branches, and tier three supermarkets with below five branches(Kenya Retail Guide, 2023).

According to a report by the Competition Authority of Kenya in 2017, middle-class consumers made up 58.46% of supermarket customers. The high-income earners were 32.31%supermarkets'kets target consumers, whereas those targeted low-income customers were just 9.23. This suggested that to capitalize on the expanding middle class, most supermarkets have set up a huge branch network.

The Kenya Retail Guide reported Naivas as the largest supermarket with over 97 branches in Kenya Quick Mart with 59 Chandarana Food Plus with 26, and Carrefour with 20 (Kenya Retail Guide, 2023). These four supermarkets fall under the tier one supermarket category according to the Competition Authority of Kenya classification based on the branch network. Ouma et al., (2013) noted that although the foregoing is the case, the market concentration has kept increasing and several independent supermarkets have also come up, with Nairobi accounting for many of the supermarket chains owing to its population. This is the reason why the research was based in Nairobi.

This research was based on the four tier-one supermarkets mentioned above since they have more than 15 branches distributed all over Nairobi County and this helped in giving representative data of the whole County. Supermarkets sell various food and household products, among them are over-the-counter medicine. Therefore, this study sought to assess how the 4Cs of marketing could influence the customers who shop in these supermarkets and give insights on appropriate marketing techniques to be presented to the PPB by the marketers from tier-one supermarkets and pharmaceutical companies for approval.



## 1.2 Statement of the Problem

Marketing managers globally use data on purchase intentions to make strategic decisions about their products and forecast sales (Morwitz, 2014). However, the evidence from empirical studies showing the correlation between customers' claimed intentions and their actual purchase behavior is not as obvious and does not always translate to sales (Talwar, et al.,2021). In Kenya, marketing managers are faced with challenges in crafting innovative marketing techniques due to changing consumer buying behavior (Nyamai, 2014). To establish a relationship with customers and gain an understanding of their purchase intention, marketers must move past the range of retailer-oriented tactics and instead concentrate on their target customers' needs and values to influence their purchase intentions to actual sales (Larsen, & Wright, 2020).

Hu, Zhang, and Yang, (2021) studied the factors which affect consumers' online purchase intention of OTC drugs. A total of 202 survey data were collected from offline consumers in China. This study was based on the theory of habitual purchase behavior. The results of the study found gender, income, education, and online shopping time highly influenced online drug purchase intention. It was Corroborative that the customer purchase intention could be influenced by other factors. For this reason, the study investigated the extent to which each of these factors influenced the purchase intention of OTC medicine in a brick-and-mortar store using the theory of impulse buying.

Koloba, (2020) in his study examined South African customers' purchasing intentions for environmentally friendly products using the theory of Planned Behaviour. The willingness to buy environmentally friendly goods was unaffected by attitudes and subjective norms. Contrary, Shimul, Cheah, and Khan (2022) in their study on purchase intention in South Africa found that consumers' purchasing intentions for green cosmetics were significantly positively impacted by the subjective norm. The findings implied that marketing professionals should work to increase consumer awareness and interest in green cosmetics. This is through an integrated marketing communication approach using campaigns and advertisements. The current study examined which element of advertising under the communication variable could be used to influence OTC customer purchase intention to actual purchase.

Nyamai (2014) examined the marketing tactics used by pharmaceutical companies in response to Kenyan consumers' shifting purchasing patterns. Data was gathered from 37 pharmaceutical companies' national managers, product managers, or equivalents. Data was analyzed using descriptive statistics such as mean and standard deviation. The findings were that pharmaceutical corporations had implemented tactics like distribution, positioning, branding, price, and marketing segmentation. However, according to Nyamai's (2014) report, competitiveness, resistance to change, and government regulation were the main problems facing pharmaceutical companies.

It was against this background that the current study sought to find ways of filling the gap in the marketing techniques that were customer-focused that would influence the OTC customer to buy while at the supermarket. These techniques could be tailored to their needs and not tactics to inform the marketing managers on what worked for their customers (Manafzadeh, & Ramezani, 2016). This was achieved by investigating how the 4Cs (Customer, Cost, Convenience, communication), could be used to influence their purchase intention of OTC medicine in Nairobi Kenya.

### **1.3 General objective**

The general objective of the study was to determine the influence of the 4'Cs of the marketing mix on customer purchase intention of OTC medicines in tier-one supermarkets in Nairobi County Kenya.

**The study was guided by the following specific objectives.**

- i. To determine the influence of customer-related factors on the purchase intention of OTC medicine in Tier One supermarkets.
- ii. To assess the effect of cost-related factors on the customer purchase intention of OTC medicine in Tier One supermarkets.
- iii. To determine the influence of convenience on customer purchase intention on OTC medicine in Tier One supermarkets.
- iv. To examine the influence of communication on the customer purchase intention of OTC medicine in Tier One supermarkets.

## **1.4 Research Questions**

The study resolved to answer the following questions:

- i. What influence do the customer-related factors have on the purchase intention of OTC medicine in Tier One supermarkets?
- ii. What is the effect of cost-related factors on the customer purchase intention of OTC Medicine in Tier One supermarkets?
- iii. What is the influence of convenience on the customer purchase intention of OTC medicine in Tier One supermarkets?
- iv. What is the influence of communication on the customer purchase intention of OTC medicine in Tier One supermarkets?

## **1.5 Scope of the Study**

The scope of this study was tier-one supermarkets Naivas, Quick Mart, Chandarana Food Plus, and Carrefour operating in Nairobi County. Nairobi was considered for the study because being the capital city, it comprised of most tier-one supermarkets that stock OTC medicine in Kenya. The respondents were limited to customers who shop in these supermarkets for their over-the-counter medicine. The study's conceptual scope focused on how the customer, cost, convenience, and communication influenced the purchase intention of over-the-counter medicine. The study's theoretical scope was grounded on Hawkins's stern impulse theory and the 4C's framework. The study was done within one month in May 2023. The study's methodological scope focused on descriptive cross-sectional research design with quantitative techniques being utilized in the study.

## **1.6 Significance of the Study**

The findings of this study will give marketing managers and supermarket retailers knowledge on how customer, cost, communication, and convenience influence the purchase intention of OTC medicine in supermarkets. This will help them to prepare focused marketing strategies by addressing the needs of OTC customers and influencing their purchase intention, using the greatest of the 4Cs to tailor these strategies.

The study made a great impact on the theory of impulse buying as it confirmed that the OTC customers could be influenced and purchase on impulse.

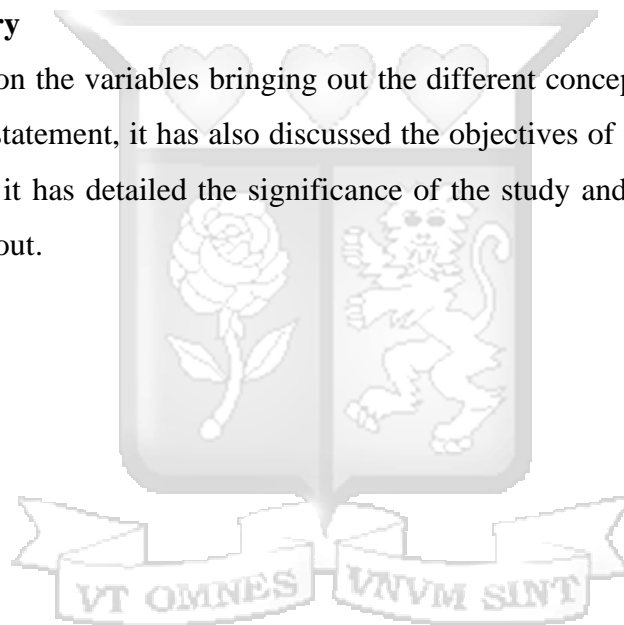
The study may also be important to the policy makers of the marketing society of Kenya in particular. It will provide knowledge on the influence of the 4Cs of marketing on the OTC

medicine purchase intention in tier-one supermarkets. The policy makers might be able to come up with new policies that will encourage marketing managers to adopt the 4Cs of marketing. This will help the marketing managers to influence the customer's purchase intention to actual purchase.

Academicians and scholars may find this research beneficial. It might add to the literature about customer purchase intention by analyzing the constructs of the customer, cost, communication, and convenience on the influence of customer's purchase intention on OTC medicine. The study might be a source of reference for future related studies by informing how the constructs of the 4C influence purchase intention. Further, gaps can be identified so that other studies closely related to this one can be conducted.

### **1.7 Chapter Summary**

This chapter focused on the variables bringing out the different concepts around them. It has detailed the problem statement, it has also discussed the objectives of the study, both general and specific. Further, it has detailed the significance of the study and the industry in which the study was carried out.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covers review of relevant empirical literature to the research. The literature review covered in terms of key variables identified from the objectives of the study including the influence of the 4Cs, customer, cost, convenience, and communication on purchase intention of OTC medicine. This section also outlines the theoretical framework, the conceptual framework, and the research gap.

#### **2.2 Theoretical Framework**

Scholars have developed several theories that explain the concepts of purchase intention and the 4Cs. A theory is an organized body of knowledge based on empirical data that may be applied to explain or predict phenomena (Saunders, 2016). The study was anchored on the Hawkins-Stern Impulse Buying behavior theory and the 4Cs framework.

##### **2.2.1 Hawkins Stern Impulse Buying Behavior**

This theory was proposed by Hawkin's Stern in 1962. It provided insightful information about several situations in which customers were more inclined to make impulsive purchases without prior planning (Pandey & Bhartiy,2019). The theory held that purchases were not always the result of rational thought. When purchasing conditions are favorable, the likelihood of impulse buying increases. When a buyer is influenced by an environmental stimulation that causes a quick need to buy the product, impulse buying first occurs and the customer responds by buying. Hence impulsive purchasing is connected to a customer's emotional side (Quintal, et al., 2017).

Customers' behaviors were characterized by impulse buying, which became a hub for significant marketing activities (Lee & Yi, 2008). Stern asserted that customers participated in impulsive buying behaviors when they were influenced by outside factors which triggered impulse buying tendencies. Husnain et al., (2019) reported that the possibility of impulse purchases increased when the environment was favorable for purchases and a customer's purchase intention was influenced. Similarly (Hung, 2008; Lee, 2008; Zhou & Wong, 2004) found impulse buyers were more likely to be influenced by stimuli such as physical surroundings than non-impulse buyers. Visual stimulation, merchandising effect, product features, pricing stimuli, and sound stimuli were identified as components of the physical surroundings that influenced participants' impulse buying.

The main objectives of this study were best met using this theory. According to this theory, many situations cause people to make impulsive purchases (Luo, 2005; Hofmann et al., 2008). Both the theory of motivation and Maslow's need theory, which presupposed that customers are financially responsible and rationally conscious in their purchasing decisions, were contested by this theory (Dutta & Mandal, 2018). It was thus of importance to the study as the author anticipated that an understanding of the 4Cs marketing variables and their impact on purchase allowed for higher ratings of purchase intention influence.

The proven validity of the theory of impulse buying behavior has resulted in its use in understanding, predicting, and motivating the customer's intention to buy without planning. The retail industry's overall sales have been reported to be significantly influenced by impulse purchases (Bellini et al., 2017). Hawkins Stern's model makes a great contribution by categorizing impulse buying behavior into pure impulse buying, reminder impulse buying, suggested impulse buying, and planned impulse buying (Shapiro et al., 2019). The categorization of impulse buying is listed below starting with pure impulse buying.

Pure impulse buying is a purchase that deviates from a person's typical shopping habits and may be motivated by an emotional appeal. As Dutta and Mandal (2018) stated, visuals or physical appearances are crucial in pure impulse purchasing. It establishes a strong emotional bond with the novelty goods buyer. In the context of the study, pure impulse buying informs the 4<sup>th</sup> C of communication where a customer may be influenced by a well-lit, prominent display. This could attract them to buy OTC medicine that had not been planned for when they visit a supermarket. This kind of impulse buying motivates the customer to buy due the appearance of the products on the display.

Reminder impulse buying occurs when customers see an item or recall an advertisement that leads them to believe that they truly require the item (Guan et al., 2022). With inventive creative messages and suitable use of technology in retail stores, impulse buying was regarded as relevant in the shopping environment (Muruganantham, & Bhakat, 2013). In the current study, reminder impulse buying informs the communication Variable. This could be using short video adverts detailing the use of OTC medicine. They act as a reminder to the customers of the need to stock up on their medicine cabinet at home resulting in reminder impulse buying. The third was the suggested impulse buying.

Suggested Impulse Buying begins when a buyer first sees a product and gets the need to buy it. The customer may not have the intention of purchase; however, when the product is

accessible and it has been made easy to reach it through convenience, impulse buying occurs (Stern, 1962; Dutta & Mandal, 2018). Suggested Impulse Buying informs convenience and cost variables. For instance, a customer may not have remembered to add some OTC medicine to their shopping list but when the ease of reach of the product has been made convenient, they will remember to buy it because of the positioning of the products in easily accessible areas. Moreover, when time spent to locate a product is reduced; for example, OTC medicine may be placed at the checkout displays suggesting to the customers that they need these products and resulting in a purchase on impulse due to convenience.

Planned impulse buying is partially planned, the shopper does not choose specific products or categories when engaging in planned impulsive buying. Additionally, they are chosen based on the many inside-the-store sales campaigns. As Stern (1962) stated, the factors that affect this type of impulsive buying are the cost and convenience of the product. In the context of the current study, planned impulse buying informed the cost variable. For instance, a customer may perceive value when the OTC medicine in supermarkets has a price discount or bonus and decides to buy without prior planning to purchase. This may be because of the cost-saving benefit at that moment.

The scope of impulse buying theory was limited to the constraint of rational customers who have self-control in their shopping. Some studies show that consumers with high levels of self-control are less likely to engage in impulse buying than consumers who do not, whereas consumers with low levels of self-control are more prone to non-rational purchasing; they make purchase decisions quickly which further increases their propensity for impulse buying (Peck, 2006). The theory informed three Cs (cost, communication, and convenience). To inform the study further on the customer variable, the 4C's framework was used.

### **2.2.2 The 4Cs Framework**

Lauterborn (1990) proposed a four Cs classification, which is a more consumer-oriented version of the four Ps that attempts to fit the movement from product or retailer-focused marketing to consumer-oriented marketing. Looking at the 4Cs elements; Firstly, the retailer should identify the target customer as a company that only sells what the customer wants and needs to buy. So, marketers should study customer wants and needs to attract them to purchase in terms of benefits. The study defined the customer based on their perceived values and therefore they should be known to the retailer for proper targeting. To evaluate each element of the 4Cs, the customer is the focus that drives the decision-making (Londhe, 2014).

Secondly, the price is only a part of the total cost to satisfy a want or a need. The total cost considers, for example, the cost of time in acquiring a good or a service which reflects the total cost of ownership (Khan,2014). According to Khan (2014), while examining cost, there are few things that should be considered such as; what will the customer's total, or real, cost be for obtaining your product or service? Will the cost of driving to your location significantly add to their expense? How will local, state, and federal taxes impact the total cost of the product or service? Many factors affect the cost, including but not limited to the customer's cost to change or implement the new product or service. Also, the customer's cost for not selecting a competitor's product or service which is the relative cost (Cravens & Piercy, 2006).

Thirdly, convenience Make it easy for customers to buy considering (Idris,2021). Kaura, Durga Prasad, and Sharma (2015) ask several questions on convenience; What barriers might the customer face when trying to locate or purchase your product or service? What are you going to do to reduce or remove these challenges? Whether in an online or brick-and-mortar store, Can the customer find what they are looking for? Can they move from product selection to checkout hustle-free? Are product descriptions detailed enough for the customer to make a purchasing decision? If a customer has a question during the purchasing process, what kind of customer support is offered? The 4C success starts with knowing the target customer and identifying their needs and wants. Then marketers can respond with products or services that are valuable.

Fourthly, communication is cooperative as the buyer creates a dialogue with the potential customers based on their needs and wants (Kotler,2016). Communication can include advertising, public relations, personal selling, viral advertising, and any form of communication between the organization and the consumer (Hu, 2012). Engaging with the customer through meaningful communication builds customer confidence that drives sales and customer recommendations to other potential customers.

The 4Cs framework was of pertinence to the study as it provided a better understanding of customer needs from the point of cost, convenience, and communication. Thus, indicating the influence of each of the variables of the 4Cs of marketing on the intention to buy of actual purchase of the OTC medicines. The conceptualizations entailed the various dimensions that served to shed light on the specific, measurable parameters that constituted the dimensions, hence shaping the data collection tool's construction used in the study. The framework was

relevant to the study as it explained the selection of the predictor variables (4Cs of marketing) and supported the examination of the variable's impact on the intention to purchase OTC medicine.

The 4Cs is not a scientific theory but a framework that focuses on customers, it does not consider the features of product marketing but leans towards the customer needs. The theory of impulse buying and the 4Cs framework informed all the study variables. The theory of impulse buying informed three variables; cost, convenience, and communication. On the other hand, the 4Cs framework informed the customer variable.

## **2.3 Empirical Review**

This section outlines the prevailing literature of the elements of the 4 Cs particularly customer, cost, communication, and convenience influence on the purchase intention of OTC medicine.

### **2.3.1 Customer-related factors and purchase intention**

The organization's core operations revolve around the customer orientation in understanding what they need and want. Customer focus is at the heart of the marketing concept. Extant literature indicates that understanding customer perceived value can help businesses tailor their marketing strategies and product offerings to better meet the needs and preferences of their customers (Fang,Weng,Dai, & Fang,2016).According to Wilson, Zeithaml et al., (2016), perceived value refers to a consumer's overall estimate of the usefulness of a good or service based on the impression they have of it.

Customer value is of the utmost importance in determining how consumers behave while making purchases (Hanaysha, 2018). It will be simpler for consumers to purchase a product if they see more benefits from doing so. The extent to which the organization understands its customers help attract a positive purchase intention (Chiu et al., 2014). According to Ahmad, Mohamed, and Hussain (2016), customer value has a significant impact on both actual purchases and purchase intentions.

Past studies have shown that customer-perceived value can influence purchase intention. Vemaraju and Bethapudi (2019) conducted a study in India on consumer's perceptions on the 4 Cs of marketing (Customer solution, Customer Cost, Convenience, and Communication) and their impact on retail format choice decisions in buying jeans.They found that out of the 4Cs of retail marketing attributes studied, 'Convenience and Cost' related attributes, differed significantly across the two retail formats (Departmental Store and

Shopping malls), while for ‘Communication and Customer solution’ no significant impact was found on customer’s retail format choice decisions in buying jeans. The previous study in India informed the current study on retail focus as it studied the customer as customer solution. The current study focused on the customer perceived value in Kenya and attempted to understand the customer perceived value when buying OTC medicine in tier one supermarkets. The study agrees with the findings of the previous study on the customer having a non-significant influence on purchase intention.

Grimmer and Hasan, (2019) aimed to evaluate the factors that influenced and barriers to customer purchase intentions for non-prescription medications in both supermarket and community pharmacy in England. These factors included trust and perceived risk. An in-store intercept survey of 402 supermarket and 310 community pharmacy customers was used to get the data. A confirmatory factor analysis was used to find differences in the motivators and deterrents of purchase intentions between these retail locations. The study established a link between community pharmacies' perceived competency, kindness, and ability to provide accurate information and consumers' inclination to purchase non-prescription drugs there. No other risk factors, besides time risk, were connected to purchase intentions in this context. On the other hand, there were perceived risks connected with buying over-the-counter medications in a supermarket setting, notably social and physical risks.

This study informed the current study to investigate the perceived value of supermarket service benefits and product benefit as an OTC medicine retailer in Kenya. Results from the previous study showed that there were perceived risks in buying OTC medicine from the supermarkets. In the current study, customers moderately agreed on the statement OTC medicine sold in the supermarkets has an acceptable standard of quality with a mean of 3.36 and a standard deviation of 1.26. On the statement the attendants in the supermarkets provide me with the information I need on OTC medicine had a mean of 3.09 and a standard deviation of 1.77. The statements were a representation of service benefits and brand image.

Oppong, Mensah and Addae, (2021) in a study on over-the-counter herbal market in South Africa, investigated the effects of brand image, trust, and credibility on value dimensions and, in turn, their function in enhancing repurchase intentions. Using a systematic sampling technique, information was gathered from 265 clients who made up the sample. A structural equation modelling approach was utilized to assess the study’s hypotheses. The study found

that brand image, trust, and credibility have a favourable impact on the value dimensions, strengthening consumers' inclinations to make another purchase. To strengthen repurchase intentions in the over-the-counter herbal market, the study advises managers to establish and utilize image, trust, credibility, and value dimensions. This is for them to gain faith in them, and their intention to buy. The current study was informed on brand image by Oppong, Mensah and Addae, (2021) study on the brand image and further looked at the customer perceived value and supermarket image on the influence of purchase intention in Kenya. The findings differed from the previous study as it found that customer factors were not significant in influencing purchase intention.

In the tourism industry, Kiage (2018) investigated the connection between visitors' future intentions and their perceptions of the value (PV) of creative tourism attractions in Kenya. The study targeted both domestic and foreign tourists visiting the Gede Ruins in Kenya's North Coast, excavation site. One hundred and eighty-six travelers who had eaten goods and engaged in tourist activities at departure locations were systematically sampled for the study. The findings indicated that PV was a valuable indicator to account for customer satisfaction and forecast visitors' intentions to visit creative tourist destinations in the future.

The study's conclusions shed light on how visitors viewed creative attractions and emphasized the significance of creative tourism management in creating a setting that encourages visitors to actively engage in the arts while visiting the location. Managers of creative tourism are advised to comprehend the motivations of visitors, their perceptions during consumption, and what they value after consumption and be able to predict their future intentions. These past findings from the tourism industry were key to the study as the researcher investigated the same variable in the pharmaceutical industry targeting OTC customers and found no significant relationship between the customer factors (perceived value) and the purchase intention. The results were not consistent with the tourism industry findings.

### **2.3.2 Cost-related Factors and Purchase Intention**

Costs refer to that which the customers must sacrifice to get the goods and services that they want. They include time and the energy to locate a product (Alagoz et al., 2013). The total cost of goods to the buyer, not only is the price but may also include factors like the distance a consumer must travel to reach your business, or the energy required for example fuel or transport cost to bring them there to purchase your goods. The value of the product to the

client, or lack thereof, can also be included in the cost (Lanaj, & Wang, 2016; Camilleri, 2019). Similarly, Ricks and Mardanov (2012) studied the effect of pharmacists on the drug-purchasing behavior of cost-sensitive customers. The results were that pharmacists' advice to customers about choosing lower-cost, but still appropriate prescription and over-the-counter medications had a big impact on consumer purchase intention.

Kohli, and Buller, (2013) investigated factors influencing American consumers purchasing patterns of generic versus brand-name over-the-counter medicines. The researchers used a 20-question, self-administered, multiple-choice survey to collect data on the factors influencing consumers' preferences for generic versus brand-name OTC drugs. The Results revealed that the single most influential factor for participants when purchasing OTC drugs was lower cost. More than half of the survey respondents reported purchasing generic medications over brand names.

Chan and Tran (2016) did a study in an Australian pharmacy and the study aimed to examine customers' key expectations and what they valued when purchasing OTC medicine from a pharmacy. A total of 86 customers from a broad range of demographics were captured in this study. The findings were that High levels of trust, confidence, and a sense of altruism and care were key factors for customers buying OTC from a pharmacy, regardless of time pressures, costs, or existing levels of stress and health. When asked where they intend to buy their future OTC, 89% indicated a pharmacy instead of a supermarket. They further advised that it would be of interest to conduct a study to directly compare shoppers in different settings where OTC are also available like supermarket OTC shoppers. The current study was conducted in a different setting of Kenyan supermarkets and found time and cost as key factors influencing purchase intention.

A study conducted in China by Peng et al., (2019) investigated the role of time pressure and product involvement in the relationship between perceived value and purchase intention. Drawing on survey data from wjx.com in China, they found that perceived value was positively related to purchase intention, whereas time pressure as an element of cost negatively moderated the effect of emotional/social value on purchase intention. Previous research done on cost has found low cost to positively influence purchase intention. The findings from this study in Kenya were consistent with Pujari et al, (2016) findings but differed with Peng et al., (2019) as they found the cost to have a positive influence on purchase intention.

Pujari et al., (2016) conducted a study on the variables affecting consumers' decisions regarding prescription and over-the-counter medications in India. The investigation was to assess the link between consumer behaviour to pharmaceutical awareness. The majority of those surveyed were found to avoid paying for necessary medical care even though they had good monthly incomes. People were found to be highly selective when it came to their medication choices, whether they were prescription or over-the-counter. The survey showed that consumers prefer to pay what they want for their prescription drugs. Beyond what was expected, people prefer low-cost self-medication followed by family and friend recommendations, the internet, marketing, and literature.

Beneke et al., (2012) sought to understand which of the perceived risks has the biggest impact on the purchase intention of South African customers. They found that customers' preference to buy premium grocery private label brands was significantly impacted negatively by both functional and time risk. The study informed the current study to investigate time as an element of cost in a different context. Temechewu and Gebremedhin (2020) examined factors affecting consumers' purchase decisions of over-the-counter (OTC) medicines from community pharmacies in Ethiopia. They used descriptive and explanatory research designs. They found the cost to be significant as they used Both primary and secondary data in their study on Ethiopian consumers' inclination to purchase over-the-counter medicines. Few studies have been done in Kenya relating to cost and purchase intention according to the researcher's knowledge. Among the ones done, they have focused on cost as the price of goods and services only. This study investigated cost as time and energy and how they influence the purchase intention of supermarket OTC customers in Kenya.

### **2.3.3 Convenience and Purchase Intention**

Convenience in the 4Cs marketing concept refers to the ease with which customers can obtain the goods and services they require. Businesses that can maximize customer convenience will gain a positive purchase intention (Cheng et al., 2017; Fei et al., 2021; Idris,2021). Convenience in the OTC retail business includes determinants such as the location of the retail store, accessibility of products in the retail store, check-out displays, and ease of reach of the products. Thus, with various customer touchpoints, supermarkets as providers of OTC medicine should be well-positioned to use this element of the 4C'S to provide consistent and personalized services, including convenience, to customers over time and across multiple touch points with OTC medicine (Akbar, Lawson, & Turner, 2022).

A study conducted by Kevrekidis, et al., (2018) in Saudi Arabia, aimed to investigate the consumers' preferences concerning the selection of pharmacy and over-the-counter (OTC) medicines and to identify customer segments concerning these preferences. A cross-sectional study was carried out on a convenient quota sample of 300 participants. A structured questionnaire with multiple choice, closed-ended questions served as the primary data collection tool. The findings were that younger consumers who made up the largest clusters of 49%, were influenced by convenience, respondents gave moderate to good scores to aspects influencing pharmacy and OTC selection; convenience, experience, and the pharmacist's opinion received the best ratings. The majority of the second cluster of 35% was the loyal customers who were old and retired and visited just one pharmacy. Consumers in the smallest cluster 16% convenience and price-sensitive clients were primarily retired or jobless, had low to moderate levels of education, and had low personal incomes. They gave the lowest scores to most of the elements they looked at; convenience among factors influencing pharmacy selection, whereas product price, experience, and the pharmacist's advice were the three factors most strongly impacting the purchase of OTC. This study used a Likert scale which allowed the customers to express their perceptions on a scale and found convenience to have the highest score among the variables under study.

Farida (2016) investigated how students in Indonesia perceived online shopping assistance for products. a quantitative method was applied in the research design. The sample for this study was collected through purposive sampling method. There were 212 participants in this study. Accessibility, informational ease, and transaction ease were all aspects of online purchasing convenience that contributed positively to customer satisfaction. These empirical research results also demonstrated the large positive impact of consumer satisfaction on intentions of repeat purchases. This previous study informed the current study on accessibility in form of check out displays. The current study used convenience sampling. The findings were consistent with Farida's findings on convenience having a strong positive relationship on purchase intention.

Indiani and Fahik, (2020) sort to propose a research model in Indonesia by utilizing the consumer usage knowledge and purchasing convenience to explore the relationship among service satisfaction and purchase intention. Structural Equation Model (SEM) was utilized to analyse the structural relationship between measured variables and latent constructs. According to the research findings, they found that consumer usage knowledge impacts the consumer purchases convenience positively and impacts to consumer purchasing intention

positively. Because of each industry's specific characteristics, research results cannot be generalized and applied equally to other industries. The current study was done in the pharmaceutical industry. findings were consistent with the previous findings as convenience had a positive significance on purchase intention.

Kibandi and Reuben (2019) sought to establish the factors impacting Kenyan customer's selection of online stores. The study used a descriptive research approach, with a sample size of 385 online shoppers. The study's participants were chosen via convenience sampling. Data gathering involved the use of a questionnaire and found that individual traits, consumer attitudes, and convenience positively influence the choice of online retailers to purchase in Nairobi County. The current study focused on brick-and-mortar customers. The current study focused on brick-and-mortar stores and found convenience to be significant on purchase intention of OTC medicine.

#### **2.3.4 Communication and Purchase Intention**

Kotler (2006) defines marketing communications as “how firms attempt to inform, persuade, and remind their customers directly and indirectly of products and brands they sell.” Effective communication strategies can help businesses connect with potential customers, build trust, and ultimately influence them to make a purchase. This study will assess communication as shelf advertising, sales promotions, outstanding shelf display, and personal selling by having advisors at the outlet explaining the usage of the products, and about OTC medicine in the retail stores to understand what influences a customer purchase intention while at a supermarket. Kathiravan, et al., (2019) conducted a descriptive study to examine the variables influencing Indian consumers' decisions to purchase over-the-counter medicines. Consumers' prior experiences, pharmacist advice, insert leaflets for the drugs, television advertisements, and various promotional campaigns can all have an impact on consumers' purchase intention of OTC medications.

A field study was conducted by Tiwari (2016) to determine which forms of advertising have a significant influence on the OTC Purchase intention in Nepal. It was observed that among the 128 respondents, medical recommendations/advice constituted the highest influence on the purchase intention followed by family and friends' recommendations before reaching to advertising on different platforms. This study used 384 respondents to get a broader view of respondents who visited the supermarkets. Generally, communication which was the independent variable, had a positive strong relationship with purchase intention.

Rasheed, Dyaolu, and Raji, (2022) did a study to determine and establish the effect of physicians' prescriptions on patients' behavior towards over-the-counter medicine (OTC) in Nigeria. A survey method design was adopted for the work. The result showed that physicians' prescription of patients positively affected their buying behavior toward over-the-counter medicine (OTC). In line with the findings, the study recommended that pharmaceutical companies should conduct market research on the different markets to ensure that the advertising initiatives being implemented suit the targeted markets to increase purchases. This study conducted research in Kenya to investigate the influence if the 4Cs on the purchase intention of OTC medicine and found communication to be the C that had the greatest influence which was consistent with Rasheed, Dyaolu, and Raji, (2022) study findings.

Ngonde (2021) conducted a study to establish the moderation effect of pharmacy personnel knowledge, and consumer preference on the relationship between communication, on the uptake of generic medicines in retail pharmacies in Njiru Sub-County Nairobi Kenya. He found that communication and consumer preference had a statistically significant effect on the uptake of generics. Idris (2021) also found that communication using the appropriate strategies with customers can help a marketing campaign succeed, which is one of the most effective marketing strategies marketers should employ. The empirical findings have established that communication has a positive relationship with purchase intention (Kathiravan, et al., 2019; Tiwari 2016; Ngonde 2021). This study was informed by Idris's findings on the significance of communication in a different geographical region of Kenya. It attempted to shed light on which communication strategies can influence the tier-one supermarkets' OTC customers' purchase intention.

The fact that a range of research done so far indicates that the 4Cs are important elements that influence the purchase intention of OTC medicine makes it an interesting area of research. Therefore, the chapter has covered a review of literature that was relevant to this study. In this chapter, it has been made clear that the 4Cs influence purchase intention. In many developing countries such as Kenya with the increasing demand for OTC medicine, there has been the emergence of many pharmacies, supermarkets, and online pharmacy retailers. These businesses are all trying to influence their random customers to make a purchase when they visit the outlet. Therefore, they need to know what influences them to buy. Among the key factors to influence the purchase intention of OTC medicine is the use of the 4Cs of the marketing framework.

## 2.4 Research Gaps

The fact that a range of research done so far indicates that purchase intention is an important element that determines the overall performance of organizations makes it an interesting area of research. Therefore, the chapter has covered a review of literature that is relevant to this study. In this chapter, it has been made clear that the 4Cs influence purchase intention. The below table shows the gaps from past empirical studies.



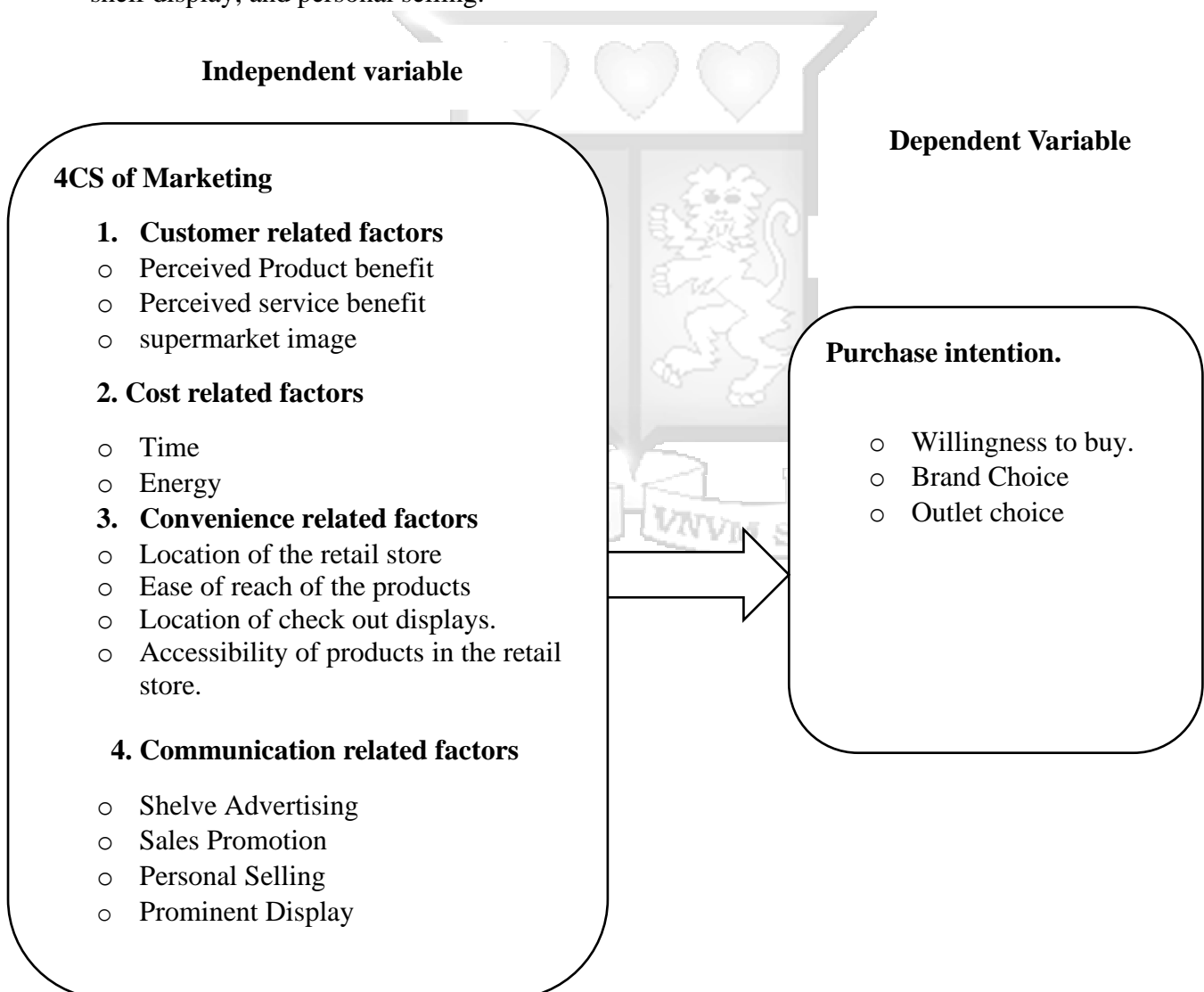
**Table 2. 1: research gaps**

| <b>Author</b>                 | <b>The focus of the study</b>   | <b>Findings</b>   | <b>Knowledge gap</b>   | <b>The focus of the current study</b>  |
|-------------------------------|---|---|--|--|
| Vemaraju and Bethapudi (2019) | To understand which of the four Cs of marketing is different depending on the retail format a client chooses when purchasing jeans?                 | Out of the 4Cs of retail marketing attributes studied, ‘Convenience and Cost’ related attributes, differed significantly across the two retail formats (while for ‘Communication and Customer solution’ no significant impact was found on customer’s retail format choice decisions in buying jeans. | The previous study in India studied the customer as a customer solution.                       | The current study focused on the customer perceived value in Kenya.  |
| Kiage (2018)                  | To Investigate the connection between visitors’ future intentions and their perceptions of the value (PV) of creative tourism attractions in Kenya. | Perceived Value was a valuable indicator to account for customer satisfaction and forecast visitors’ intentions to visit creative tourist destinations in the future.   | The study was done in the tourism industry investigating perceived value as the only variable. | This study was done in the pharmaceutical retail industry and investigated additional elements of perceived value as service delivery and perceived product quality. |

|   |   |   |   |   |
|---|---|---|---|---|
| Pujari et al, (2016)                    | Evaluating variables affecting consumers' decisions regarding prescription and over-the-counter medications in India.                         | The majority of those surveyed were found to avoid paying for necessary medical care even though they had good monthly incomes. Beyond what was expected, people prefer low-cost self-medication. | The study had an evidence gap as the findings were not as per the expectation.  | This study assessed the customers in different geographical regions to fill this gap.   |
| Beneke, Greene, Lok, and Mallett (2012) | To understand which of the perceived risks has the biggest impact on the purchase intention of south African customers.                       | Customers' preference to buy premium grocery private label brands was significantly impacted negatively by both functional and time risk.   | This study was limited to a specific geographic region and demographic grouping.  | The current study was conducted in Kenya on different demographics.   |
| Tiwari (2016)                           | To determine which forms of advertising have a significant influence on the OTC Purchase intention in Nepal.                                  | Medical recommendations/advice constitute the highest influence on the purchase intention followed by family and friends' recommendations before reaching advertising on different platforms.     | There is a population gap as they used 128 respondents in one town and did not evaluate some elements of communication. | This study used 384 respondents to investigate other elements of communication namely, prominent display, personal selling, sales promotion and shelve advertising. |
| Rasheed, Dyaolu, & Raji, (2022)         | To determine and establish the effect of physicians' prescriptions on patients' behaviour towards over-the-counter medicine (OTC) in Nigeria. | Physicians' prescription on patients positively affected their buying behaviour towards over-the-counter medicine (OTC).  | The study recommended that pharmaceutical companies should conduct market research on different markets.                | This study was done in Kenya to investigate the 4C's influence on purchase intention of over-the-counter medicine.  |

## 2.5 conceptual Framework

The conceptual framework figure 2.1 details the association between consumer purchase intention which was the dependent variable measured as customer willingness to buy, and Brand choice, and the 4Cs customer, cost, communication, and convenience which were the independent variables. In this study customer was studied as; customer perceived value on Product benefit, Service benefit, and supermarket image, the cost was measured in terms of time and energy, convenience was measured as the location of the retail store, accessibility of products in the retail store, check out displays, and ease of reach of the products. Communication was measured in terms of shelf advertising, sales promotions, outstanding shelf display, and personal selling.



**Figure 2. 1: Conceptual Framework**

Source:Researcher(2024)

**Table 2. 1 Operationalization of variables**

Operationalization facilitates the reduction of abstract notions of constructs into observable characteristics so that they can be measured using indicators. A Likert scale ranging from 1=strongly disagree to 5=strongly agree will be used to measure both the dependent and independent variables. The indicators that will be used in the study are summarized in the below table.

**Table 2. 2: Operationalization of variables**

| Variable                     | Construct  | Operational definition   | Measurement Indicators   | Supporting literature            |
|------------------------------|--|--|--|----------------------------------|
| <b>Independent variable.</b> |  |  |  |                                  |
| <b>4Cs of marketing</b>      |  |  | <b>Five-point Likert scale</b>   |                                  |
| <b>Customer</b>              | 1. Perceived product benefit<br>2. Perceived Service benefit<br>3. Supermarket image | A customer is a person who deserves to receive products or services that meet their needs and wants. | What is being measured on this scale?<br>1-Strongly Disagree<br>2-Disagree<br>3-Neutral<br>4-Agree<br>5-Strongly Agree | (Akbar, Lawson, & Turner, 2022). |
|                              |  |  | <b>Five-point Likert</b>   |                                  |

|                       |  |   |   |                        |
|-----------------------|--|---|---|------------------------|
|                       |  |   | <b>scale</b>  |                        |
| <b>Cost</b>           | Time and energy  | It is the cost to satisfy customers wants and needs.                        | 1-Strongly Disagree<br>2-Disagree<br>3-Neutral<br>4-Agree<br>5-Strongly Agree | (Alagoz et al., 2013)- |
| <b>Convenience</b>    | 1.Location of the retail store.<br>2. Ease of reach of the products.<br>3. Checkout displays.<br>4. Accessibility of products in the retail store. | It is the ease of service delivery or the location of the product purchase. | 1-Strongly Disagree<br>2-Disagree<br>3-Neutral<br>4-Agree<br>5-Strongly Agree | (Watts, 2017)          |
| <b>Communication;</b> |  |   | <b>Five-point Likert scale</b>  |                        |

|                           |   |   |   |                                 |
|---------------------------|---|---|---|---------------------------------|
| <b>Communication;</b>     | <ol style="list-style-type: none"> <li>1.Shelve Advertising</li> <li>2. Sales Promotion</li> <li>3. Personal Selling</li> <li>4. Prominent Display</li> </ol> | It refers to how customers interact with one another in a much more sophisticated communication environment.                          | <ol style="list-style-type: none"> <li>1-Strongly Disagree</li> <li>2-Disagree</li> <li>3-Neutral</li> <li>4-Agree</li> <li>5-Strongly Agree</li> </ol> | (Akbar,Lawson, & Turner, 2022). |
| <b>Dependent Variable</b> |   |   |   |                                 |
| <b>Purchase intention</b> | <ol style="list-style-type: none"> <li>1. willingness to buy</li> <li>2. Brand Choice</li> </ol>  | Purchase Intention is the likelihood that customers will intend to buy or be willing to buy a specific good or service in the future. | <ol style="list-style-type: none"> <li>1-Strongly Disagree</li> <li>2-Disagree</li> <li>3-Neutral</li> <li>4-Agree</li> <li>5-Strongly Agree</li> </ol> | (Shah, et al., 2012)            |

Source: Researcher (2023)

## 2.6 Chapter Summary

This chapter discussed the theories on which the study was anchored on, as well as the empirical studies scholars have carried out on the 4Cs of marketing and purchase intention. The research gaps arising from previous studies were summarized. The conceptual framework was derived showing the interrelationships between variables, and the operationalization table summarized the description of variables and their measures.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section outlines the study methodology. The research design, sampling methodology, data collection methods, data analysis approach, reliability and validity of the research instruments, and ethical considerations are presented hereunder.

#### **3.2 Research philosophy**

Research philosophy describes how data about a phenomenon should be obtained and examined (Saunders, Lewis, & Thornhill, 2012). Khalid, Abdullah, and Kumar (2012) claim that two main research philosophies underpin research in social sciences: interpretivism and, positivism. This study adopted a positivism research philosophy. This implied that only factual knowledge gained through observation through the senses, including measurement, was reliable (Collins, 2010). Therefore, the researcher's roles were limited to data collection and interpretation objectively (Creswell, 2014). The paradigm assumes that social reality cannot be influenced; it is measurable and has an external reality. It further combines deductive logic and empirical observation to estimate human behavior (Williams, 2007).

#### **3.3 Research Design**

Research design underlines the framework adopted to formulate the research questions, identify information needed for analysis, the method of collecting data, and techniques useful for analyzing data for the study (Khalid et al., 2012). The current study employed a descriptive cross-sectional design using the quantitative method as the researcher sought to assess the relationship between variables (Novikov, & Novikov, 2013). The design was selected since it allows for establishing an association between study variables using quantitative techniques. Specifically, the influence of each of the 4Cs on purchase intention was assessed. It used a, hence saving on time and cost (Cooper & Schindler, 2011). Specifically, the influence of each of the 4C's on purchase intention was assessed. The 4C's of marketing were considered as the independent variables that influence purchase intention which was the dependent variable.

#### **3.4 Population of the Study**

A target population comprises individuals or elements the researcher is concerned with generalizing the study conclusions from (Khalid et al., 2012). The population for this study was customers who shopped in 47 branches of Naivas, Carrefour, Chandarana Food Plus and

Quick Mart supermarkets in Nairobi County. Supermarkets in Kenya are divided into different tiers; tier one with fifteen branches and above, tier two with five to fifteen branches, and tier three supermarkets with below five branches (Kenya Retail Guide, 2023). These four supermarkets fall under the tier one supermarket category based on the branch network. However, the population was unknown. The selected supermarkets were ideal for this research as obtaining a sample from them would constitute a fair representation given their size and location.

### 3.5 Sampling design

Cooper and Schindler (2011) describe a sampling frame as a collection of items from which a sample is drawn. Sampling entails selecting a subset of elements from a population to approximate the attributes of the entire population (Cooper & Schindler, 2011).

The sample size was 384 respondents. The study applied a non-probability sample design of convenience sampling in selecting the research respondent samples who were customers from selected tier-one supermarkets visiting the over-the-counter category in Nairobi County. Convenience sampling was deemed suitable for the study as the researcher had access to the customers who bought their OTC medicine from the supermarket as they did their usual shopping. The research assistants approached each customer who bought any OTC medicine and filled out the questionnaire to those respondents who were willing to respond.

The sample size was calculated by dividing the standard normal deviation at the 95% confidence level (1.96), the percentage of respondents who made a choice or provided a response (50% = 0.5), and the confidence interval (0.05 = 5) by the number of respondents. This yielded the minimum sample size needed for accuracy in estimating proportions (Ishmael, 2014). The formula was as below.

$$n = z^2 (p)(1-p) / c^2$$

Where:

z = standard normal deviation set at 95% confidence level

p = percentage picking a choice or response

c = confidence interval

$$((1.96)^2 \times 0.5(0.5)) / (0.05)^2$$

$$(3.8416 \times 0.25) / .0025$$

0.9604 / 0.0025

$n=384.16$  hence the sample was rounded of to 384 since we were sampling people who could only be measured by a whole number.

### **3.6 Data Collection Methods**

The research was conducted in May 2023. Primary data was collected through a structured questionnaire by the researcher with the help of two research assistants. They were trained by the researcher. According to Mathers and Boerma (2010), a questionnaire is a convenient way of collecting data since each item targets a specific objective. The instruments targeted to collect responses on the five variables: customer, cost, convenience, communication, and purchase intention statistics under the study. A pilot test with ten respondents from the supermarket was conducted to identify potential flaws within the design of the questionnaire.

An introductory letter was drafted by the researcher and qualified by Strathmore Business School. Three hundred and eighty-four questionnaires were distributed for one month. Each day the research assistants distributed at least sixteen questionnaires from Monday to Saturday between 9 am and 5 pm in different supermarkets.

The research assistants issued the research letter to the management of the supermarkets and were allowed to stand at the over-the-counter aisle and counter in the supermarkets. They administered the questionnaires with a pen to the willing respondents. The research assistants reassured the respondents of the confidentiality of their feedback on behalf of the researcher. This encouraged the respondents to be honest and maximally contribute to the research. The customers could fill out the questionnaire at the reception and leave it with the supermarket attendant. In the evening the research assistant collected the filled questionnaires which were returned to the supermarket reception. At the end of one month, the research assistants submitted all the returned filled questionnaires to the researcher for data analysis.

### **3.7 Data analysis**

The final data was then transferred to the Statistical Package for Social Sciences (SPSS) for analysis. The completed questionnaires were analyzed for completeness and consistency. The data collected was summarized, edited, coded, and classified into various categories according to the respondents' answers. Data was analyzed using descriptive and inferential

statistics. Descriptive statistics included distribution, diagrams, mean, and standard deviation. A scale of one to five was used to measure the level of each questionnaire statement. The mean was interpreted as; one to two point four was disagree, two point five to three point four was moderate, three point five to four point four was agree while four point five to five was strongly agree. Inferential statistics included correlation and regression analysis which was applied to determine the fitness of the variables of study for further analysis. The relationship of the correlation analysis was interpreted using a scale that varied from -1 to +1 where any number above 0 represented a positive relationship while any number below 0 represented a negative relationship (Saunders, M., Lewis, P. & Thorn H. A., 2016). Computer application packages such as Microsoft excel was used to summarize and visualize the data.

A Kolmogorov-Smirnov (K-s) was then performed, to test normality of all the independent variables. Simple regression was carried out to determine the relationship between each of the 4Cs and the customer purchase intention as per the objectives. Independent variables of the 4cs were regressed against the dependent variable of customer purchase intention. Simple regression was used to analysis and establish a Positive or negative influence as well as the strength of each independent variable to the dependent variable.

The data analyzed was presented in the form of tables, frequencies, and percentages. The regression equations that were applied were as follows as per the objectives.

$$Y = \alpha + \beta X + \varepsilon$$

#### **First Equation**

To determine the influence of customer factors on the purchase intention of OTC medicine in Tier One supermarkets.

$$Y = \alpha + \beta C1 + \varepsilon$$

#### **Second Equation**

To assess the effect of cost factors on the customer purchase intention of OTC medicine in Tier one supermarkets.

$$Y = \alpha + \beta C2 + \varepsilon$$

#### **Third Equation**

To determine the influence of convenience factors on customer purchase intention on OTC medicine in Tier one supermarkets.

$$Y = \alpha + \beta C_3 + \epsilon$$

#### **Fourth Equation**

To examine the influence of communication factors on the customer purchase intention of OTC medicine in Tier one supermarkets.

$$Y = \alpha + \beta C_4 + \epsilon$$

#### **Joint 4Cs Equation**

The joint influence of 4Cs (Customer, Cost, Convenience, and Communication) on purchase intention.

The equations are as shown below:

$$Y = \beta_0 + \beta C_1 + \beta C_2 + \beta C_3 + \beta C_4 + \epsilon$$

Where;

Y represented the dependent variable purchase intention

C1 represented the customer, C2 represented the cost, C3 represented convenience, C4 represented communication,  $\alpha$  was a constant,  $\beta$  was the slope or gradient and  $\epsilon$  was the random error term.

A negative  $\beta$  indicated a negative relationship between the independent variable 4Cs and the dependent variable purchase intention, meaning that the independent variable did not influence the purchase intention. A positive  $\beta$  represented a direct relationship between the independent variable 4Cs and the dependent variable purchase intention, meaning that the independent variable influenced the dependent variable.

### **3.8 Research Quality**

The quality of the research checked on the Validity and reliability of the tools used.

#### **3.8.1 Validity of Data Collection Instruments**

Validity is described as the assessment of an instrument's ability to measure what is purposed from the study objectives (Sekaran & Bougie, 2010). A pilot test with ten respondents from the supermarkets was conducted to identify potential flaws within the design of the questionnaire. Three questionnaires were distributed in Carrefour, Naivas, and Quickmart while one was distributed in Chandarana Food Plus. These respondents from the pilot test

were not part of the study sample. The goal of the pilot was to guarantee that the respondents comprehended the questionnaire, subject to amendments that followed the pilot test.

Saunders, Lewis, and Thorn (2016) posit that a pilot study is indispensable when collecting data using questionnaires. The researcher checked each completed questionnaire to ensure respondents had no problems understanding or answering questions and had followed all instructions correctly. After the pilot test was analyzed, the major weaknesses that were identified in the questionnaire were edited by the researcher and reviewed by the research supervisor before the collection of data to avoid problems in recording data.

### 3.8.2 Reliability of Data Collection Instruments

Reliability assesses the extent to which a research instrument repeatedly captures consistent outcomes (Cooper & Schindler, 2011). Cronbach's alpha refers to a correlation coefficient between two data sets the scores obtained from the test are referred to as the reliability coefficient (Cronbach, 1951). Data to be collected from the respondents in the pilot test with the reliability coefficient ranged between -1 and 1, if the value was below 0, it implied that the test score was not reliable. If the value was higher, it suggests that the scores were more reliable. While testing the reliability of the 4Cs customer, cost, convenience, and communication, any coefficient below 0 resulted in a negative relationship between the variable of the 4Cs and purchase intention, and the test was not accepted. On the other hand, if the coefficient results were more than 0 it meant that the relationship between the 4Cs and purchase intention was accepted. The reliability test was done on the sample selected for the pilot test.

According to Mugenda, Shreyer, and Cronney (2019), the Acceptable threshold value for alpha is 0.7, which formed the benchmark for this study. Cronbach's alpha was used to determine the reliability of each variable from the pilot test results, a reliability coefficient of 0.7 and above was acceptable,

**Table 3.1: Reliability Test Results**

| Variable                 | Cronbach's Alpha | N of Items | Verdict  |
|--------------------------|------------------|------------|----------|
| Purchase intention       | 0.748            | 5          | Reliable |
| Customer related factors | 0.728            | 5          | Reliable |
| Cost related factors     | 0.866            | 5          | Reliable |
| Convenience              | 0.718            | 5          | Reliable |
| Communication            | 0.762            | 5          | Reliable |

**Source: Researcher (2024)**

The findings reveal that Cronbach's alpha value for all the variables ranged between 0.718 and 0.866. A Cronbach alpha level of 0.7 or higher denotes instrument reliability (source). Therefore, items measuring this study's variables were reliable and appropriate for further analysis.

### **3.9 Ethical Consideration**

The standards and expectations with which ethical and proper research need to be in line with legal and ethical issues. It requires thinking about appropriate and improper conduct at all stages of the research process (Bryman, 2012). First, this study ensured that respondents from participating supermarkets gave their free and informed permission. Respondents were informed that the survey was exclusively intended for academic purposes. Compliance in the management of data was motivated by the principle of ensuring the privacy of those who took part was maintained and not disclosed to any parties apart from the researcher.

The respondents were made aware of the voluntary nature of participation, including the right not to answer any questions, to modify the nature of their consent, to withdraw at any time whenever they felt so, and possibly to withdraw data they had already provided. This was stated during the debriefing of the respondents on the purpose of the research. The study observed integrity and intellectual honesty during data collection, measurement, analysis, and reporting on research findings. The researcher maintained objectivity by making sure that the data was collected, interpreted, and reported accurately from the actual data collected without any alteration or modification. This avoided exercising subjective selectivity when recording the data and gave the researcher the ability to report valid and reliable reports as received.

The study adhered to ethical issues by acknowledging the works and contributions of other authors and scholars by citing them accordingly. The researcher obtained study approval from relevant authorizing bodies from the University Ethical Board. The researcher sought authorization for the study from the National Commission for Science Technology and Innovation (NACOSTI) and an authorization letter from the Strathmore University Business School to facilitate data collection. The researcher honoured the promise of submitting a summary report to the marketing managers in the supermarkets that hosted this research. The information provided was stored in the university database and only authorized individuals will have access to it.

### 3.10 Chapter Summary

This chapter covered research philosophy and design, population of the study, sampling design, data collection method, and analysis. It has also included ethical consideration, validity, and reliability tests.



## CHAPTER FOUR

### PRESENTATION OF RESEARCH FINDINGS

#### 4.1 Introduction

This chapter presents the Data analysis, findings, and discussion of findings obtained from data collection. This chapter also presents background information on the respondents and findings of the analysis based on the study's objectives. To discuss findings inferential statistics and descriptive statistics were applied. A correlation analysis was conducted to determine the relationship between the dependent and independent variables. The regression analysis was used to determine the significant relationship between the dependent and independent variables. The target population was the tier-one supermarket customers.

#### 4.2 Background Information

The study sought to determine how the 4Cs of marketing influenced the purchase intention of OTC medicine in tier-one supermarkets in Nairobi County. The analysis of the participant's information is presented in this section.

##### 4.2.1 Response Rate

Primary data was collected using a questionnaire while a self-constructed data collection sheet was used to collect secondary data. Three hundred and eighty-four (384) questionnaires were issued. Two hundred and seventy-eight questionnaires were returned representing a 72% (N=278) response rate. The response rate was considered more than adequate given the recommendations by Saunders, Lewis, and Thornhill (2016) who suggest a 30-40% response rate out of 100%- please check this.

#### 4.3 Demographic Characteristics

In this section the personal characteristics of the respondents are discussed as follows:

##### 4.3.1 Gender of the Respondents

The study focused on determining the gender of the respondents and the results are as tabulated below; -

**Table 4. 1: Distribution of Respondents by Gender**

|  | <b>Gender</b> | <b>Frequency</b> | <b>Percentage (%)</b> |
|--|---------------|------------------|-----------------------|
|  | Female        | 195              | 70                    |
|  | Male          | 83               | 30                    |
|  | <b>Total</b>  | <b>278</b>       | <b>100.0</b>          |

**Source: Researcher (2024)**

Out of the 278 respondents 195(70%) were Female and 83(30%) were male from the sampled as shown in Table 4.1. This indicates that Female participants were the most customers shopping in the supermarkets who participated in the study. This information portrays that women are influenced by cost and convenience by getting all products under one roof. This could help the marketing managers tailor a shopper profile on their target market for OTC medicine in the tier one supermarkets.

#### 4.3.2 Age of the Respondents

Table 4.2 shows the findings on the age distribution of the respondents who took part in the study.

**Table 4. 2: Age of the Respondents**

| Age            | Frequency  | Percentage (%) |
|----------------|------------|----------------|
| 18-30 years    | 135        | 49             |
| 31-45 years    | 104        | 37             |
| Above 46 years | 39         | 14             |
| <b>Total</b>   | <b>278</b> | <b>100</b>     |

**Source: Researcher (2024)**

Results in Table 4.2 show that most of the respondents 135(49%) were in the age group of between 18 and 30 years while 104(37%) were in the age group of between 31 and 45 years. On the other hand, only a few respondents 39(14%) were above forty-six years. This implied that all age brackets shop in tier supermarkets. This was good as the sample comprised different age groups, who gave different opinions on their purchase intention. The marketing managers can use this information to craft messages targeting most of the shoppers who were between 18- 30 years, and 31-45 years as they contributed to almost 80% of the shoppers.

#### 4.3.3 Academic Qualifications of the Respondents

The highest level of education qualification of the respondents was also sought in the questionnaire and Table 4.3 presents the findings.

**Table 4. 3: Academic Qualifications of the Respondents**

| <b>Education Level</b> | <b>Frequency</b> | <b>Percentage (%)</b> |
|------------------------|------------------|-----------------------|
| Certificate            | 28               | 10                    |
| Degree                 | 117              | 42                    |
| Diploma                | 77               | 28                    |
| Masters                | 41               | 15                    |
| PhD                    | 7                | 3                     |
| Others .....           | 8                | 3                     |
| <b>Total</b>           | <b>278</b>       | <b>100</b>            |

**Source: Researcher (2024)**

Results in Table 4.3 indicate that the majority of the respondents 117(42%) were degree holders while 77(25.7%) were diploma holders, 28(10%) had a certificate and 41(15%) possessed master’s qualifications respectively. Only a few of the respondents and others were 8(3%) while 7(3%) had a PhD qualification as well. This shows that the majority of the respondents who visited the over-the-counter category were degree holders.

#### **4.3.4 Respondents Average Monthly Income**

The study asked the respondents to indicate their respondents’ average monthly income. The findings are presented in Table 4.4.

**Table 4. 4: Respondents Average Monthly Income**

| <b>Monthly Income</b>      | <b>Frequency</b> | <b>Percentage (%)</b> |
|----------------------------|------------------|-----------------------|
| Less than KSh 23,670       | 16               | 6                     |
| Between KSh 23,670-119,999 | 182              | 65                    |
| KSh 120,000 and above      | 80               | 29                    |
| <b>Total</b>               | <b>278</b>       | <b>100.0</b>          |

**Source: Researcher (2024)**

Results in Table 4.4 indicate that the majority of the respondents 182(65%) had an average monthly income of between Ksh. 23, 670-119, 999; 80(29%) had an average monthly income of between Ksh. 120, 000 and above while 38(6%) had an average monthly income of Ksh. 23, 670 and below. This indicates that the majority of the respondents who visited the tier-

one supermarkets to buy their over-the-counter medicine were middle-income earners and marketers can use this to profile their customers.

#### 4.4 Descriptive Statistics of Study Variables

##### 4.4.1 Influence of Customer related factors

Respondents were asked to indicate their level of agreement or disagreement with statements about the influence of Customers on the purchase intention of OTC Medicine. A scale of one to five was used to measure this level. One to two point four was disagree, two point five to three point four was moderate, three point five to four point four was agree and four point five to five was strongly agree. The descriptive results are shown in Table 4.5

**Table 4. 5: Descriptive Statistics of Customer related factors**

| Statement  | N          | Mean        | Std. Deviation |
|--|------------|-------------|----------------|
| The attendants in the supermarkets provide me with the information I need on OTC medicine. | 278        | 3.36        | 1.26           |
| The OTC medicine variety available in the supermarkets meets my needs.                     | 278        | 3.16        | 1.27           |
| The OTC medicine sold in supermarkets has an acceptable standard of quality.               | 278        | 3.09        | 1.18           |
| The supermarket is prompt in responding to my queries.                                     | 278        | 3.05        | 1.24           |
| The supermarket customer service is very effective.  | 278        | 2.68        | 1.25           |
| <b>Overall Mean score</b>  | <b>278</b> | <b>3.07</b> | <b>1.24</b>    |

**Source: Researcher (2024)**

These findings from Table 4.5 indicated that customers moderately agreed on all the statements with an average mean of 3.07 and a standard deviation of 1.24. The statement that had the highest mean score of 3.36 and a standard deviation of 1.26 was the attendants in the supermarkets provide me with the information I need on OTC medicine, while the lowest was the statement on the supermarket customer service is very effective with a mean of 2.68 and a standard deviation of 1.25. It can be interpreted that customers are satisfied with the information they receive, the variety of OTC medicine available, and the quality they receive from the supermarkets. On the other hand, the supermarket customer service was not

satisfactory as it had a mean of 2.68. Therefore commercial managers should note and make improvements.

#### 4.4.2 Influence of Cost related factors

Respondents were asked to indicate their level of agreement or disagreement with statements about the influence of cost on the purchase intention of OTC Medicine. A scale of one to five was used to measure this level. One to two point four was disagree, two point five to three point four was moderate, three point five to four point four was agree and four point five to five was strongly agree. The descriptive results are shown in Table 4.6.

**Table 4. 6: Descriptive Statistics of Cost related factors**

| <b>Statement</b>  | <b>N</b>   | <b>Mean</b> | <b>Std. Deviation</b> |
|---|------------|-------------|-----------------------|
| Before I purchase medicine over the counter, I consider the cost of the medicine. | 278        | 3.62        | 1.23                  |
| Time is a key factor when I am locating the OTC medicine in the supermarket.      | 278        | 3.31        | 1.31                  |
| Before I choose where to buy OTC medicine, I consider the transport cost.         | 278        | 3.19        | 1.32                  |
| Before I purchase any OTC medicine, I consider the brand's frequent availability. | 278        | 2.98        | 1.36                  |
| When there is a gift or bonus on the purchase of OTC medicine, I buy more.        | 278        | 2.33        | 1.14                  |
| <b>Overall Mean score</b>   | <b>278</b> | <b>3.09</b> | <b>1.27</b>           |

**Source: Researcher (2024)**

The study sought to assess the influence of cost on purchase intention of OTC medicine. These findings indicated that customers moderately agreed on all the statements with an average mean of 3.09 and a standard deviation of 1.27. The statement that had the highest mean score of 3.62 and a standard deviation of 1.23 was before I purchased medicine over the counter (OTC), I considered the cost of the medicine. This means that the majority of the customers agree. Some customers disagreed with the statement when there is a gift or bonus on the purchase of OTC medicine, I buy more. As displayed in Table 4.6 it had the lowest mean score of 2.33 and a standard deviation of 1.14. Therefore, this means that time and energy are paramount as an element of cost in the influence of purchase intention of over-the-

counter medicine in supermarkets. However, price reduction as a bonus does not have a great influence on the purchase intention of over-the-counter medicine.

#### 4.4.3 Influence of Convenience

Respondents were asked to indicate their level of agreement or disagreement with statements about the influence of convenience on the purchase intention of OTC Medicine. A scale of one to five was used to measure this level. One to two point four was disagree, two point five to three point four was moderate, three point five to four point four was agree and four point five to five was strongly agree. The descriptive results are shown in Table 4.7.

**Table 4. 7: Descriptive Statistics of Convenience**

| Statement  | N          | Mean        | Std. Deviation |
|--|------------|-------------|----------------|
| Check out displays that make my purchase of OTC medicine easy.                                       | 278        | 3.28        | 1.33           |
| Accessibility of OTC medicine is very fast within a supermarket store.                               | 278        | 3.14        | 1.24           |
| Displays are arranged to allow me to interact with the OTC medicine on shelves and decide on buying. | 278        | 3.10        | 1.26           |
| A shorter journey in locating the OTC medicine in a supermarket influence my purchase.               | 278        | 3.02        | 1.25           |
| I purchase OTC medicine in supermarket outlets in the neighborhood.                                  | 278        | 2.93        | 1.40           |
| <b>Average</b>   | <b>278</b> | <b>3.09</b> | <b>1.30</b>    |

**Source: Researcher (2024)**

The study sought to assess the influence of convenience on the purchase intention of OTC medicine. All Customers moderately agreed on all the statements with a mean of 3.09 and a standard deviation of 1.3. The statement check-out displays make my purchase of OTC medicine easy; it had the highest mean of 3.28 and a standard deviation of 1.33. The statement with the lowest score was I purchase OTC medicine in supermarket outlets in the neighborhood. This means that OTC medicine customers are not influenced by the location of the retail store as much, compared to the other elements of convenience. Conclusively from the overall mean, the customers are influenced by convenience in the supermarkets as shown in moderate agreement with all the statements. Therefore, this means that check-out displays,

accessibility, and display arrangement have a great influence while the location of the supermarket does not have a great influence on the purchase intention of over-the-counter medicine in supermarkets.

#### 4.4.4 Influence of Communication

Respondents were asked to indicate their level of agreement or disagreement with statements about the influence of communication on the purchase intention of OTC Medicine. A scale of one to five was used to measure this level. one to two point four was disagree, two point five to three point four was moderate, three point five to four point four was agree and four point five to five was strongly agree. The descriptive results are shown in Table 4.8

**Table 4. 8: Descriptive Statistics of Communication**

| Statement   | N          | Mean        | Std. Deviation |
|---|------------|-------------|----------------|
| The advice given on the usage of OTC medicine influences my buying decision.                | 278        | 3.55        | 1.19           |
| I rarely read advertisements that just seem to contain a lot of information                 | 278        | 3.46        | 1.24           |
| Information signs, price tags, and shelf talkers influence my decision to buy OTC medicine. | 278        | 3.16        | 1.22           |
| A well-lit display attracts me to buy OTC medicine.   | 278        | 2.93        | 1.40           |
| Personal selling influences my purchase decision of OTC medicine.                           | 278        | 2.85        | 1.18           |
| <b>Overall Mean score</b>   | <b>278</b> | <b>3.19</b> | <b>1.25</b>    |

**Source: Researcher (2024)**

The study focused on assessing the influence of communication on the purchase intention of OTC medicines. The study found out that customers moderately agreed with all the statements with an overall mean of 3.19 and a standard deviation of 1.25. Most customers agreed on the statement with the highest mean stating the advice given on the usage of OTC medicine influences my buying decision with a mean of 3.55 and a standard deviation of 1.19. The statement with the lowest score was personal selling influenced my purchase decision of OTC medicine having a mean of 2.85 and a standard deviation of 1.18. This means that OTC medicine customers are not influenced by personal selling as much

compared to the advice given on the usage of OTC, shelve advertisements, and prominent displays in their purchase intention of over-the-counter medicine.

#### 4.4.5 Purchase Intention of OTC Medicine

Respondents were asked to indicate their level of agreement or disagreement with statements about the influence of communication on the purchase intention of OTC Medicine. A scale of one to five was used to measure this level. One to two point four was disagreed, two point five to three point four was moderate, three point five to four point four will mean agree while four point five to five will mean strongly agree. The descriptive results are shown in Table 4.9.

**Table 4. 9: Descriptive Statistics for Purchase intention of OTC medicine**

| Statement   | N          | Mean        | Std. Deviation |
|---|------------|-------------|----------------|
| I only buy a brand of OTC medicine that I Know.                 | 278        | 3.58        | 1.30           |
| I will be willing to purchase OTC medicine in supermarkets.     | 278        | 3.36        | 1.22           |
| Sometimes I buy spontaneously my OTC medicine in supermarkets.  | 278        | 3.06        | 1.36           |
| I must plan to buy my OTC medicine before shopping.             | 278        | 3.02        | 1.34           |
| Before buying an unknown brand, I research available OTC brands | 278        | 2.73        | 1.20           |
| <b>Overall Mean score</b>                                       | <b>278</b> | <b>3.15</b> | <b>1.28</b>    |

**Source: Researcher (2024)**

The study sought to determine the influence of purchase intention of OTC medicines. Customers moderately agreed on all the statements with an overall mean of 3.15 and a standard deviation of 1.28. Most customers agreed on the statement with the highest mean stating I only buy a brand of OTC medicine that I Know which had a mean of 3.58 and a standard deviation of 1.3. The statement with the lowest score was, before buying an unknown brand, I research available OTC brands having a mean of 2.73 and a standard deviation of 1.2. This meant that customers prefer buying brands they know, will be willing to buy from supermarkets, and knowledge of other unknown brands is not paramount in influencing the purchase intention.

## 4.5 Diagnostic Tests

Diagnostic tests were carried out which were meant to establish whether the obtained data met the assumptions of the regression model. The results are as herein presented.

### 4.5.1 Normality Test

The regression model assumes that the residuals in a dataset are normally distributed. This is an implication that the plot of the responses for the variables in each population has a normal curve. To test for the normality in this study, the Kolmogorov-Smirnov test was used as the sample size for the study was 384 which was  $>50$  (Saunders, Lewis, & Thorn, 2016).

**Table 4. 10: Normality Test Results**

| <b>Tests of Normality</b> |                                 |     |      |
|---------------------------|---------------------------------|-----|------|
|                           | Kolmogorov-Smirnov <sup>a</sup> |     |      |
|                           | Statistic                       | df  | Sig. |
| Purchase Intention        | .111                            | 278 | .091 |
| Customer related factors  | .085                            | 278 | .221 |
| Cost related factors      | .169                            | 278 | .330 |
| Convenience               | .076                            | 278 | .069 |
| Communication             | .106                            | 278 | .211 |

**Source: Researcher (2024)**

The Kolmogorov-Smirnov (K-S) is based on the P-value where the level of significance for a normally distributed dataset should be above 0.05 set according to (Mugenda, Shreyer & Croney, 2019). As the results in Table 4.10 portray, under Kolmogorov-Smirnov, the P-value of the customer was  $0.221 > 0.05$ , the P-value for purchase intention was  $0.091 > 0.05$ , the cost was  $0.330 > 0.05$ , convenience was  $0.069 > 0.05$  while communication had a p-value of  $0.211 > 0.05$ . This implied that using Kolmogorov-Smirnov, normality was achieved for all the variables.

#### 4.5.2 Multicollinearity Test

According to Saunders (2016), multicollinearity occurs when two or more independent variables in a regression model are highly correlated.

| <b>Table 4.11: Results for Multicollinearity Test</b> |                          |                         |       |
|---|--------------------------|-------------------------|-------|
| <b>Coefficients<sup>a</sup></b>                       |                          |                         |       |
| Model   |                          | Collinearity Statistics |       |
|   |                          | Tolerance               | VIF   |
| 1   | Customer related factors | .840                    | 1.191 |
|   | Cost related factors     | .888                    | 1.126 |
|   | Convenience              | .586                    | 1.705 |
|   | Communication            | .573                    | 1.745 |

a. Dependent Variable: Purchase Intention

Source: Researcher (2024)

In this study, multicollinearity was tested using Variance Inflation Factor (VIF). This tells the extent to which variables are correlated. The threshold for the VIF is that if the values are greater than 10, it is an indication of the presence of multicollinearity. The lower the VIF, the more the absences of multicollinearity (Mugenda, Shreyer & Croney, 2019). As the findings in Table 4.11 portray, the customer was  $1.191 < 10.0$ , the VIF for cost was  $1.126 < 10.0$ , the VIF for convenience was  $1.705 < 10.0$ , the VIF for communication was  $1.745 < 10.0$ . The results imply that all the VIFs for the variables were below 10, an indication that there was the absence of multicollinearity among the independent variables in the dataset.

#### 4.6 Correlation Analysis

The study sought to find out how the variables related to purchase intention. To determine how the study variable related and to what extent, a correlation analysis was carried out and the findings are presented in Table 4.12. Correlation analysis is key in determining prevalence and relationships among variables, and to forecast events from current data and knowledge (Curtis, Comiskey, & Dempsey, 2016).

**Table 4. 12: Correlation between the 4Cs and Purchase Intention**

| Correlations             |                     |                    |          |         |             |               |
|--------------------------|---------------------|--------------------|----------|---------|-------------|---------------|
|                          |                     | Purchase intention | Customer | Costs   | Convenience | Communication |
| Purchase intention       | Pearson Correlation | 1.000              |          |         |             |               |
|                          | Sig. (2-tailed)     |                    |          |         |             |               |
| Customer related factors | Pearson Correlation | .533**             | 1.000    |         |             |               |
|                          | Sig. (2-tailed)     | 0.000              |          |         |             |               |
| Cost related factors     | Pearson Correlation | -.407**            | -.280**  | 1.000   |             |               |
|                          | Sig. (2-tailed)     | 0.000              | 0.000    |         |             |               |
| Convenience              | Pearson Correlation | .638**             | .309**   | -.219** | 1.000       |               |
|                          | Sig. (2-tailed)     | 0.000              | 0.000    | 0.000   |             |               |
| Communication            | Pearson Correlation | .627**             | .322**   | -.258** | .632**      | 1.000         |
|                          | Sig. (2-tailed)     | 0.000              | 0.000    | 0.000   | 0.000       |               |
|                          | N                   | 278                | 278      | 278     | 278         | 278           |

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

**Source: Researcher (2024)**

From the findings in Table 4.12, there was a strong positive and significant correlation between customer ( $r=0.533$ ,  $p=.000<.05$ ), convenience ( $r=0.638$ ,  $p=.000<.05$ ), and communication ( $r=0.627$ ,  $p=.000<.05$ ). These results mean that change in customer, convenience and communication aspects is accompanied by change in the purchase intention of over-the-counter medicine in the same direction. Conversely, the findings indicate a negative and significant correlation between costs ( $r=-0.407$ ,  $p=.000<.05$ ). These results denote that a change in costs is accompanied by a change in the purchase intention of over-the-counter medicine in the opposite direction.

#### 4.7 Simple Regression Analysis

In this study, the four Cs customer, cost, convenience, and communication were the independent variables and purchase intention was the dependent variable in the regression model. From the results of the simple regression shown in each of the tables below, the

researcher developed regression equations for each objective and a model equation for the multiple regression model.

#### 4.7.1 customer related factors and Purchase Intention

The researcher sought to find out how customers influence purchase intention. The results are displayed in Table 4.13.

**Table 4.13: Regression model on customer-related factors and Purchase Intention**

| Model Summary                                       |                          |                             |                   |                            |         |                   |
|---|--------------------------|-----------------------------|-------------------|----------------------------|---------|-------------------|
| Model   | R                        | R Square                    | Adjusted R Square | Std. Error of the Estimate |         |                   |
| 1   | .533 <sup>a</sup>        | .285                        | .282              | .7799727                   |         |                   |
| a. Predictors: (Constant), Customer related factors |                          |                             |                   |                            |         |                   |
| ANOVA <sup>a</sup>                                  |                          |                             |                   |                            |         |                   |
| Model   |                          | Sum of Squares              | df                | Mean Square                | F       | Sig.              |
| 1   | Regression               | 66.768                      | 1                 | 66.768                     | 109.751 | .000 <sup>b</sup> |
|   | Residual                 | 167.907                     | 276               | .608                       |         |                   |
|   | Total                    | 234.675                     | 277               |                            |         |                   |
| a. Dependent Variable: Purchase Intention           |                          |                             |                   |                            |         |                   |
| b. Predictors: (Constant), Customer related factors |                          |                             |                   |                            |         |                   |
| Coefficients <sup>a</sup>                           |                          |                             |                   |                            |         |                   |
| Model   |                          | Unstandardized Coefficients |                   | Standardized Coefficients  |         | Sig.              |
|   |                          | B                           | Std. Error        | Beta                       | t       |                   |
| 1   | (Constant)               | 1.092                       | .202              |                            | 5.409   | .000              |
|   | Customer related factors | .648                        | .062              | .533                       | 10.476  | .000              |
| a. Dependent Variable: Purchase Intention           |                          |                             |                   |                            |         |                   |

**Source: Researcher (2024)**

From Table 4.13, the coefficient of determination (R Square) = 0.285. This implied that 28.5% of the variation in purchase intention is because of customer variables.

The significance of the regression model was tested using Analysis of Variance (ANOVA). F=109.751, and p=0.000, which is less than 0.05 thus the model was statistically significant in predicting how customers influence purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. Given that p<0.05, the model is significant at 95% confidence level and that the variables in the equation are important.

The customer had a coefficient of 0.533 and  $p < 0.05$ . This meant that the relationship was significant at the 5% level. The standardized coefficients indicate the corresponding change in the dependent variable when a change of one unit is affected in the independent variable. Thus, a unit improvement in customers will lead to a 0.533-unit change in purchase intention in the same direction.

Therefore, the regression equation is;

$$Y = 1.092 + 0.533 C1$$

Where, Y=purchase intention, C1=Customer related factors

#### 4.7.2 Cost-related Factors and Purchase Intention

The researcher sought to find out how cost influences purchase intention. The results are displayed in Table 4.14 below.

**Table 4. 14: Regression model on Cost related factors and Purchase Intention**

| Model Summary                                    |                      |                             |                   |                            |        |                   |
|--|----------------------|-----------------------------|-------------------|----------------------------|--------|-------------------|
| Model  | R                    | R Square                    | Adjusted R Square | Std. Error of the Estimate |        |                   |
| 1  | .407 <sup>a</sup>    | .166                        | .163              | .8422509                   |        |                   |
| a. Predictors: (Constant), Cost related factors  |                      |                             |                   |                            |        |                   |
| ANOVA <sup>a</sup>                               |                      |                             |                   |                            |        |                   |
| Model  |                      | Sum of Squares              | df                | Mean Square                | F      | Sig.              |
| 1  | Regression           | 38.884                      | 1                 | 38.884                     | 54.814 | .000 <sup>b</sup> |
|  | Residual             | 195.791                     | 276               | .709                       |        |                   |
|  | Total                | 234.675                     | 277               |                            |        |                   |
| A. Dependent Variable: Purchase Intention        |                      |                             |                   |                            |        |                   |
| B. Predictors: (Constant), Cost-related factors. |                      |                             |                   |                            |        |                   |
| Coefficients                                     |                      |                             |                   |                            |        |                   |
| Model  |                      | Unstandardized Coefficients |                   | Standardized Coefficients  | t      | Sig.              |
|  |                      | B                           | Std. Error        | Beta                       |        |                   |
| 1  | (Constant)           | 4.117                       | .140              |                            | 29.367 | .000              |
|  | Cost related factors | -.341                       | .046              | -.407                      | -7.404 | .000              |
| a. Dependent Variable: Purchase Intention        |                      |                             |                   |                            |        |                   |

Source: Researcher (2024)

From table 4.14, coefficient of determination (R Square) = 0. 166.This implied that 16.7% of variation in purchase intention can be explained by cost.

The significance of the regression model was tested using Analysis of Variance (ANOVA).  $F=54.814$ , and  $p=0.000$ , which is less than 0.05 thus cost is statistically significant in predicting the influence on purchase intention of over-the-counter medicine in tier one supermarkets in Kenya. Given that  $p<0.05$ , the model is significant at 95% confidence level and that the variables in the equation are important.

The cost had a coefficient of -0.407 and  $p=0.000<0.05$ . This meant that the relationship was significant at the 5% level. The standardized coefficients indicate the corresponding change in the dependent variable when a change of one unit is affected in the independent variable. Thus, a unit increase in cost will lead to a 0.407-unit change in purchase intention in the opposite direction.

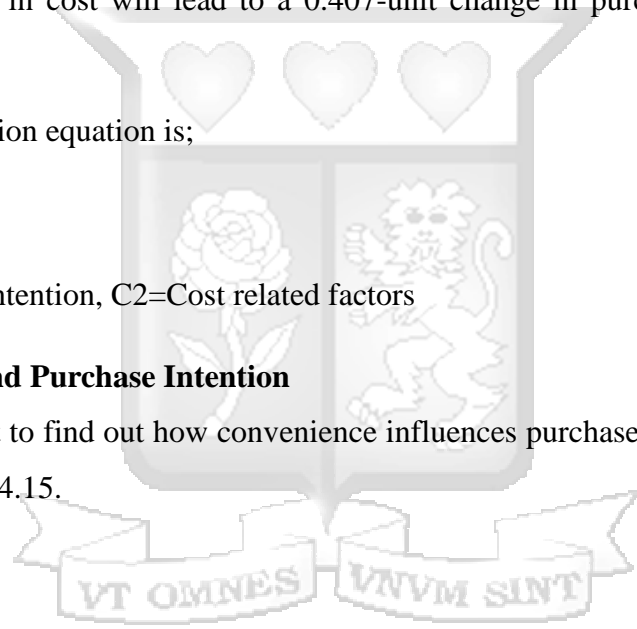
Therefore, the regression equation is;

$$Y = 4.117 - 0.407C_2$$

Where, Y=purchase intention,  $C_2$ =Cost related factors

### **4.7.3 convenience and Purchase Intention**

The researcher sought to find out how convenience influences purchase intention. The results are displayed in table 4.15.



**Table 4. 15: Regression model on convenience and Purchase Intention**

**Model Summary**

| Model                                     | R                 | R Square                    | Adjusted R Square | Std. Error of the Estimate |         |                   |
|---|-------------------|-----------------------------|-------------------|----------------------------|---------|-------------------|
| 1   | .638 <sup>a</sup> | .407                        | .405              | .7100954                   |         |                   |
| a. Predictors: (Constant), Convenience    |                   |                             |                   |                            |         |                   |
| ANOVA <sup>a</sup>                        |                   |                             |                   |                            |         |                   |
| Model                                     |                   | Sum of Squares              | df                | Mean Square                | F       | Sig.              |
| 1   | Regression        | 95.506                      | 1                 | 95.506                     | 189.407 | .000 <sup>b</sup> |
|   | Residual          | 139.169                     | 276               | .504                       |         |                   |
|   | Total             | 234.675                     | 277               |                            |         |                   |
| a. Dependent Variable: Purchase Intention |                   |                             |                   |                            |         |                   |
| b. Predictors: (Constant), Convenience    |                   |                             |                   |                            |         |                   |
| Coefficients <sup>a</sup>                 |                   |                             |                   |                            |         |                   |
| Model                                     |                   | Unstandardized Coefficients |                   | Standardized Coefficients  | t       | Sig.              |
|   |                   | B                           | Std. Error        | Beta                       |         |                   |
| 1   | (Constant)        | 1.417                       | .133              |                            | 10.668  | .000              |
|   | Convenience       | .560                        | .041              | .638                       | 13.763  | .000              |
| a. Dependent Variable: Purchase Intention |                   |                             |                   |                            |         |                   |

**Source: Researcher (2024)**

From the table 4.15, the coefficient of determination (R Square) = 0.407. This implied that 40.7% of the variation in purchase intention can be explained by convenience.

The significance of the regression model was tested using Analysis of Variance (ANOVA). F=189.407, and p=0.000 which is less than 0.05 thus the model is statistically significant in predicting how convenience influences the purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. Given that p<0.05, the model is significant at a 95% confidence level and that the variables in the equation are important.

Convenience had a coefficient of 0.638 and p <0.05. This meant that the relationship was significant at the 5% level. The standardized coefficients indicate the corresponding change in the dependent variable when a change of one unit is affected in the independent variable. Thus, a unit improvement in convenience will lead to a 0.638 change in purchase intention in the same direction. Therefore, the regression equation is;  $Y = 1.417 + 0.638 C_3$

Where, Y=purchase intention, C3=Convenience

#### 4.7.4 Purchase Intention and communication

The researcher sought to find out how communication influences purchase intention. The results are displayed in table 4.16 below.

**Table 4. 16: Regression model on Purchase Intention and communication**

| Model Summary                             |                   |                             |                   |                            |         |                   |
|---|-------------------|-----------------------------|-------------------|----------------------------|---------|-------------------|
| Model                                     | R                 | R Square                    | Adjusted R Square | Std. Error of the Estimate |         |                   |
| 1   | .627 <sup>a</sup> | .394                        | .391              | .7180684                   |         |                   |
| a. Predictors: (Constant), Communication  |                   |                             |                   |                            |         |                   |
| ANOVA <sup>a</sup>                        |                   |                             |                   |                            |         |                   |
| Model                                     |                   | Sum of Squares              | df                | Mean Square                | F       | Sig.              |
| 1   | Regression        | 92.363                      | 1                 | 92.363                     | 179.129 | .000 <sup>b</sup> |
|   | Residual          | 142.312                     | 276               | .516                       |         |                   |
|   | Total             | 234.675                     | 277               |                            |         |                   |
| A. Dependent Variable: Purchase Intention |                   |                             |                   |                            |         |                   |
| B. Predictors: (Constant), Communication  |                   |                             |                   |                            |         |                   |
| Coefficients <sup>a</sup>                 |                   |                             |                   |                            |         |                   |
| Model                                     |                   | Unstandardized Coefficients |                   | Standardized Coefficients  | t       | Sig.              |
|   |                   | B                           | Std. Error        | Beta                       |         |                   |
| 1   | (Constant)        | .997                        | .166              |                            | 5.993   | .000              |
|   | Communication     | .675                        | .050              | .627                       | 13.384  | .000              |
| a. Dependent Variable: Purchase Intention |                   |                             |                   |                            |         |                   |

**Source: Researcher (2024)**

From the results in Table 4.16, the coefficient of determination (R Square) = 0.394. This implied that 39.4% of the variation in purchase intention can be explained by communication.

The significance of the regression model was tested using Analysis of Variance (ANOVA). F=179.129, and p=0.000 which is less than 0.05 thus the model is statistically significant in predicting how communication influences the purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. Given that p<0.05, the model is significant at 95% confidence level and that the variables in the equation are important.

The communication had a coefficient of 0.627 and p <0.05. This meant that the relationship was significant at the 5% level. The standardized coefficients indicate the corresponding

change in the dependent variable when a change of one unit is affected in the independent variable. Thus, a unit improvement in communication will lead to a 0.627 change in purchase intention in the same direction. Therefore, the regression equation is;  $Y = 0.997 + 0.627 C4$

Where, Y=purchase intention and C4=Communication

#### 4.7.5 Multiple Regression of 4cs against Purchase Intention

The researcher sought to find out how all the 4Cs combined influences purchase intention. The results are displayed in table 4.16 below.

**Table 4.17: Regression model on Purchase Intention and 4Cs**

| Model Summary   |                          |                             |                   |                            |         |                   |
|---|--------------------------|-----------------------------|-------------------|----------------------------|---------|-------------------|
| Model   | R                        | R Square                    | Adjusted R Square | Std. Error of the Estimate |         |                   |
| 1   | .784 <sup>a</sup>        | .615                        | .609              | .5754765                   |         |                   |
| a. Predictors: (Constant), Customer related factors, Cost related factors, Convenience, Communication,              |                          |                             |                   |                            |         |                   |
| ANOVA <sup>a</sup>  |                          |                             |                   |                            |         |                   |
| Model   |                          | Sum of Squares              | df                | Mean Square                | F       | Sig.              |
| 1   | Regression               | 144.264                     | 4                 | 36.066                     | 108.904 | .000 <sup>b</sup> |
|   | Residual                 | 90.410                      | 273               | .331                       |         |                   |
|   | Total                    | 234.675                     | 277               |                            |         |                   |
| a. Dependent Variable: Purchase intention<br>b. Predictors: (Constant), Customer, Cost, Convenience, Communication, |                          |                             |                   |                            |         |                   |
| Coefficients <sup>a</sup>   |                          |                             |                   |                            |         |                   |
| Model   |                          | Unstandardized Coefficients |                   | Standardized Coefficients  |         |                   |
|   |                          | B                           | Std. Error        | Beta                       | t       | Sig.              |
| 1   | (Constant)               | .608                        | .232              |                            | 2.623   | .009              |
|   | Customer related factors | .353                        | .050              | .290                       | 7.084   | .000              |
|   | Cost related factors     | -.152                       | .033              | -.181                      | -4.549  | .000              |
|   | Convenience              | .293                        | .043              | .334                       | 6.811   | .000              |
|   | Communication            | .296                        | .053              | .276                       | 5.554   | .000              |
| a. Dependent Variable: Purchase intention   |                          |                             |                   |                            |         |                   |

**Source: Researcher (2024)**

From the Model Summary Table 4.17, 61.5% ( $R^2$ ) of the total variability in the dependent variable (Purchase Intention) can be explained by the independent variables (Customer, Cost,

convenience, and communication). This therefore means that other determinants not studied in this research contribute 38.5% of variations in customer purchase intention of OTC medicines.

The results of the ANOVA indicated that the 4Cs of marketing had a significant influence on purchase intention. The model utilized was statistically significant as indicated by the F-value = 108.904, sig value=.000<.05. Thus, the model is statistically significant in predicting how the 4Cs framework influence purchase intention of over-the-counter medicine in tier one supermarkets in Kenya. Given that  $p < 0.05$ , the model is significant at 95% confidence level and that the variables in the equation are important.

Table 4.17 shows the regression weights of four independent variables. The standardized coefficients indicate the corresponding change in the dependent variable when a change of one unit is affected by one of the independent variables holding other variables constant. The findings reveal that taking other independent variables at zero, a unit improvement in customer will lead to a 0.290 increase in purchase intention which was statistically significant (sig-value =0.000<.05); and a unit increase in cost will lead to a 0.181 unit decrease in purchase intention which was statistically significant (sig-value =0 .000<.05).

Results also indicate that a unit improvement in convenience will lead to a 0.334 unit increase in purchase intention which was statistically significant (sig-value =0 .000<.05); and a unit improvement in communication will lead to a 0.276 unit increase in purchase intention which was statistically significant (sig-value =0 .000<.05). The regression results were therefore interpreted as follows:  $Y = .608 + 0.290C_1 - 0.181 C_2 + 0.334 C_3 + 0.276 C_4$

Where Y, C1, C2, C3, C4 represented purchase intention, customer, cost, convenience, and communication respectively.

#### **4.8 Chapter Summary**

This chapter presented the findings of the research obtained from the data collected including descriptive statistics, correlation, and regression. The means and standard deviations result of every variable are also included. The research notes that 50.5% of purchase intention variations are predicted by the 4Cs of marketing strategies adopted within tier-one supermarkets in Kenya.

## **CHAPTER FIVE**

### **DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter is a summary of the major findings of the study, conclusions, and recommendations. These are done based on the research questions that motivated this study and the findings from the data analysis. An attempt is made to relate the results to the questions of the study.

#### **5.2 Summary of Findings**

The marketing strategy should enable firms to concentrate their limited resources towards meeting customers' needs and wants. It could be achieved by offering a positive influence on the purchase intention of their OTC Medicine. Marketing influences are a combination of strategies and tactics calculated to appeal to customers and motivate them to buy, leading to sales. It is from this understanding that marketing scholars and practitioners developed the concept of the 4Cs of marketing to focus on the customer. This research aimed to determine the influence of the 4Cs of marketing and the purchase intention of OTC medicine in tier-one supermarkets in Nairobi County.

The study sought to answer the following questions: What influence do the customer-related factors have on the purchase intention of OTC medicine in Tier One supermarkets? What is the effect of cost-related factors on the customer purchase intention of OTC Medicine in Tier One supermarkets? What is the influence of convenience on the customer purchase intention of OTC medicine in Tier One supermarkets? What is the influence of communication on the customer purchase intention of OTC medicine in Tier One supermarkets? What is the joint influence of the 4Cs (Customer, Cost, Convenience, and Communication) on purchase intention? The five questions imply that the study would determine whether the 4Cs of the marketing mix have an influence on the purchase intention of OTC medicine in tier-one supermarkets and to what extent each C has an influence.

Questionnaires were issued to the customers and used for data collection as designed by the researcher. Descriptive and inferential statistical methods were used to analyze the data and establish if a relationship exists between the 4Cs elements and customer purchase intention. Correlation analysis and regression findings showed a positive and significant relationship between customer, convenience, and communication on Purchase Intention. These implied

that as customer, convenience, and communication increase by a single unit, there is an increase by one unit in the purchase intention of OTC medicine in tier-one supermarkets. Conversely, the study found a negative and significant relationship between cost and Purchase intention. These implied that as cost is reduced by a single unit, the purchase intention increases by one unit in the purchase of over-the-counter medicine in tier-one supermarkets.

### **5.3 Discussions of Results**

#### **5.3.1 Influence of Customer related factors on Purchase Intention**

The study sought to determine the influence of customer perceived value on purchase intention in tier-one supermarkets in Kenya. From descriptive analysis, the respondents moderately concurred that there was a customer-perceived benefit on product and service for OTC customers shopping in the supermarkets. There was a strong positive and significant correlation between customer-related factors and purchase intention. Results held that the customer factors study influenced the purchase intention of over-the-counter medicine in tier-one supermarkets. The regression model implied that 28.5% of the variation in purchase intention was because of customers. The significance was tested using an Analysis of Variance and the model was statistically significant in predicting how customers influence purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. A unit improvement in customer-related factors will lead to a unit change in purchase intention in the same direction.

The customer variable was informed by the 4cs framework which states that marketers should focus on the target customer and sell what the customer wants and need to buy. The findings of this study are consistent with the 4Cs framework as the customer variable was significant and had a direct relationship with the influence of the purchase intention. Thus, when the perceived value of the customer increases the purchase intention increase and vice versa.

These findings agree with Oppong, Mensah, and Addae's (2021) study on the over-the-counter herbal market in South Africa, investigating the effects of brand image, trust, and credibility on value dimensions and, in turn, their function in enhancing repurchase intentions. The study found that brand image, trust, and credibility have a favorable impact on the value dimensions, strengthening consumers' inclinations to make another purchase.

The current study found customer factors under study significant in influencing the purchase intention in tier-one supermarkets.

The findings of this study agree with the findings of a study conducted by Kiage (2018) in Kenya in the tourism industry. The study investigated the connection between visitors'(customers) future intentions and their perceptions of the value (PV) of creative tourism attractions in Kenya. The findings indicated that PV was a valuable indicator to account for customer satisfaction and forecast visitors' intentions to visit creative tourist destinations in the future. These past findings from the tourism industry were key to the current study as the researcher investigated the same variable in the pharmaceutical industry targeting OTC customers and found a significant relationship between the customer factors (perceived value) and the purchase intention.

The current study differs from the findings of the previous study done by Vemaraju and Bethapudi (2019) in India on consumer's perceptions of the 4 Cs of marketing (Customer solution, Customer Cost, Convenience, and Communication) and their impact on retail format choice decisions in buying jeans. They found that out of the 4Cs of retail marketing attributes studied, 'Convenience and Cost' related attributes, differed significantly across the two retail formats (Departmental Store and Shopping malls), while for 'Communication and Customer solution' no significant impact was found on customer's retail format choice decisions in buying jeans. The current study focused on the customer perceived value in Kenya and found customer variables as significant to the purchase intention when buying OTC medicine in tier-one supermarkets.

### **5.3.2 Influence of Cost related factors on Purchase Intention**

The study sought to determine the influence of cost factors such as time and energy on purchase intention in tier-one supermarkets in Kenya. From descriptive analysis, the respondents moderately concurred that they saved time and energy while shopping in the supermarkets for their OTC medicine. There was a negative and significant correlation between cost-related factors and purchase intention. The regression model implied that 16.7% of the variation in purchase intention can be explained by cost. The significance of the regression model was tested using Analysis of Variance and was statistically significant in predicting the influence on purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya.

A unit reduction in cost will lead to a unit change in purchase intention in the opposite direction. These results denote an inverse relationship between cost and purchase intention, meaning that if cost increases the purchase intention of over-the-counter medicine decreases and vice versa.

These findings relate to the theory of impulse buying. Suggested Impulse Buying informed cost variable. For instance, a customer may not have remembered to add some OTC medicine to their shopping list, but when the time and energy spent to locate a product is reduced, they buy on impulse. Most of the customers were interested in reduced time and energy as key elements of cost, to influence their purchase intention of over-the-counter medicine in the tier-one supermarkets.

Peng et al., (2019) findings from China as are corroborative with this study. They investigated the role of time pressure and product involvement in the relationship between perceived value and purchase intention. They found that perceived value was positively related to purchase intention, whereas time pressure as an element of cost negatively moderated the effect of emotional/social value on purchase intention.

The study findings are consistent with Pujari *et al.*, (2016) who found the low cost to be highly considered when purchasing OTC medicine. This was from their study on the factors that influenced Indian consumers' choices between prescription and OTC pharmaceuticals. The goal of the study was to determine if there was a correlation between consumer behavior and knowledge about pharmaceuticals. Surprisingly, people put their trust in low-cost self-medication the most, followed by suggestions from friends and family, the internet, advertisements, and printed materials. The current study found that as cost reduced purchase intention increased.

The study findings were consistent with Temechewu and Gebremedhin's (2020) study. It examined factors affecting consumers' purchase decisions of over-the-counter (OTC) medicines from community pharmacies in Ethiopia. They found cost to be significant in Ethiopian consumers' inclination to purchase over-the-counter medicines.

The study findings contradict with Chan and Tran (2016) who did a study in an Australian pharmacy. The study aimed to examine customers' key expectations and what they valued when purchasing OTC medicine from a pharmacy. The findings were that High levels of trust, confidence and sense of altruism and care were key factors for customers buying OTC from a pharmacy, regardless of time pressures, costs or existing levels of stress and health.

The current study was conducted in a different setting of Kenyan supermarkets and found time as a cost factor to be significant in influencing purchase intention.

### **5.3.3 Influence of Convenience on Purchase Intention**

The study sought to determine the influence of convenience factors such as the location of the retail store, ease of reach of products, check-out displays, and accessibility of products in a retail store on purchase intention in tier-one supermarkets in Kenya. From descriptive analysis, the respondents moderately concurred that convenience was the greatest influence on purchase intention for OTC medicine while shopping in supermarkets. This implied that 40.7% of the variation in purchase intention can be explained by convenience. From the correlation analysis, there was a strong positive correlation between convenience and purchase intention. Regression model significance was tested using Analysis of Variance and the model was statistically significant in predicting how convenience influences purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. A unit improvement in convenience will lead to a unit change in purchase intention in the same direction.

The convenience variable had been informed by suggested impulse buying under the Hawkins theory of impulse buying, whereby a customer may buy OTC medicine because of the ease of accessing the products while in the supermarket in places like checkouts. Therefore, the findings connect with the theory that if convenience improves it influences the purchase intention positively.

The study findings are consistent with Farida's (2016) investigation results on how students from Indonesia perceived online shopping assistance for products. Accessibility, informational ease, and transaction ease were all aspects of online purchasing convenience that contributed positively to customer satisfaction. These empirical research results also demonstrated the large positive impact of consumer satisfaction on intentions of repeat purchases.

Indiani and Fahik, (2020) findings also agree with the current study done in a different industry. It sought to propose a research model by utilizing consumer usage knowledge and purchasing convenience to explore the relationship between service satisfaction and purchase intention in Indonesia. According to the research findings, they found that consumer usage knowledge impacts consumer purchase convenience positively and impacts consumer

purchasing intention positively. Because of each industry's specific characteristics, research results cannot be generalized and applied equally to other industries.

The findings agree with Kibandi and Reuben's (2019) study that sought to establish the factors impacting Kenyan customer's selection of online stores. The study's participants were chosen via convenience sampling. Data gathering involved the use of a questionnaire. They found that individual traits, consumer attitudes, and convenience positively influence the choice of online retailers to purchase in Nairobi County. The current study used brick-and-mortar stores and found convenience to be significant in the purchase intention of OTC medicine.

The study contradicts the study conducted by Kevrekidis, et al., (2018) in Saudi Arabia. It aimed to investigate the consumers' preferences concerning the selection of pharmacy and over-the-counter (OTC) medicines and to identify customer segments concerning these preferences. The findings were that younger consumers who made up the largest clusters of 49%, were influenced by convenience, respondents gave moderate to good scores to aspects influencing pharmacy and OTC selection; convenience, experience, and the pharmacist's opinion received the best ratings. The majority of the second cluster of 35% was the loyal customers who were old and retired and visited just one pharmacy. Consumers in the smallest cluster 16% convenience and price-sensitive clients were primarily retired or jobless, had low to moderate levels of education, and had low personal incomes. They gave the lowest scores to convenience among factors influencing pharmacy selection, whereas product price, experience, and the pharmacist's advice were the three factors most strongly impacting the purchase of OTC. This study found convenience to have the highest score among all the variables under study.

#### **5.3.4 Influence of Communication on Purchase Intention**

The study sought to determine the influence of communication factors such as shelf advertising, sales promotion, personal selling, and prominent display on purchase intention in tier-one supermarkets in Kenya. From descriptive analysis, the respondents moderately concurred that communication was the second greatest influence on purchase intention for OTC medicine while shopping in supermarkets. From the correlation analysis, there was a strong positive and significant correlation between communication and purchase intention. The regression model implied that 39.4% of the variation in purchase intention can be explained by communication.

The significance of the regression model was tested using Analysis of Variance and the model was statistically significant in predicting how communication influences the purchase intention of over-the-counter medicine in tier-one supermarkets in Kenya. A unit improvement in communication will lead to a unit change in purchase intention in the same direction.

The Hawkins theory of impulse buying informed the study through pure impulse buying, where a customer may be influenced by a well-lit, prominent display as a communication factor. This could attract them to buy OTC medicine that had not been planned for when they visit a supermarket. Therefore, the findings connect to the theory as communication improves the purchase intention improves.

The research findings agree with a field study conducted by Tiwari (2016) to determine which forms of advertising had a significant influence on the OTC Purchase intention in Nepal. It was observed that among the 128 respondents, medical recommendations/advice constituted the highest influence on the purchase intention followed by family and friends' recommendations before reaching to advertising on different platforms. This study used 384 respondents to get a broader view of respondents who visited the supermarkets. The findings were consistent as advice on the usage of OTC medicine had the highest mean of 3.55 and a standard deviation of 1.19. Generally, communication which was the independent variable, had a positive strong relationship with purchase intention.

The results of this study were consistent with Rasheed, Dyaolu, & Raji, (2022) study. These findings were corroborative by their study on determining and establishing the effect of physicians' prescriptions on patients' behavior towards over-the-counter medicine (OTC) in Nigeria. The result showed that physicians' prescription on patients positively affected their buying behavior toward over-the-counter medicine (OTC).

The findings are in support of studies done by Ngonde (2021) who sought to determine if there was a relationship between communication and the uptake of generic medicines in retail pharmacies in Njiru Sub-County Nairobi Kenya. They found that communication and consumer preference had a statistically significant effect on the uptake of generics and the adoption of generic drugs in retail pharmacies in the Njiru Sub-County of Nairobi.

### **5.3.5 Influence of the combined 4Cs on Purchase Intention**

The study sought to determine how the combined 4Cs (customer, cost, convenience, and communication) influenced the purchase intention of OTC medicine in tier-one supermarkets

in Kenya. The results of the model summary showed that 61.5% ( $R^2$ ) of the total variability in the dependent variable (Purchase Intention) can be explained by the independent variables (Customer, Cost, convenience, and communication). This therefore means that other determinants not studied in this research contribute 38.5% of variations in customer purchase intention of OTC medicines.

The results of the ANOVA indicated that the 4Cs of marketing had a significant influence on the purchase intention of OTC medicine in tier-one supermarkets in Kenya. The 4Cs framework could be used to influence the purchase intention of OTC tier-one supermarket customers.

The research findings were consistent with Gia and Dang's (2021) findings which assessed the potential factors that influence the current demand planning framework in the Vietnam FMCG industry based on the 4Cs concept. They found that the 4Cs marketing concept had a significant impact on the current demand of the Vietnam FMCG industry, especially on conversion and communal activation. Le (2021) conducted a study in the FMCG industry on factors affecting the green marketing elements influencing students' decisions to purchase food in the Co-opMart supermarket chain in Vietnam. He reported that four components made up the green marketing mix, of 4Cs; green commodity, green cost, green convenience, and green communication. The student's decision to buy food at Co-opMart supermarket was influenced by all these variables. Student interest in buying green items was most strongly influenced by cost, then by convenience, then by communication.

#### **5.4 Conclusion**

The findings of this study indicate that customer, convenience, and communication have a positive and significant influence on purchase intention of OTC medicine in tier one supermarkets in Kenya. Conversely, the cost has a negative and significant influence on the purchase intention of OTC medicine in tier-one supermarkets. The combined influence of 4Cs on purchase intention is reported as significant with a model significant value of 0.000. The research revealed that customer factors have a significant influence on purchase intentions. The study notes that customers get the information they need from the supermarkets but find the supermarket customer service to be less effective.

The research found that over-the-counter medicine costs were significant and that supermarket customers considered the cost before buying. However, cost and purchase intention had an inverse relationship. This meant that if cost reduces the purchase intention

increases and vice versa. Time and energy were a key factor when locating the over-the-counter medicine, incentivizing the product with gifts or bonuses would not lead to the purchase of more. The study found that the convenience factors positively and significantly influenced the customers' purchase intentions. Convenience had the greatest influence on the purchase intention of all the 4 Cs. Most customers prefer to buy at the checkout display due to ease of accessibility.

The research concluded that communication factors do have a positive and significant influence on Over-the-counter medicine purchase intentions. The study concludes that on the dependent variable (purchase intention), customers prefer buying known brands, Knowledge obtained from advice given about the usage of over-the-counter medicine influenced the purchase intention. However, knowledge of unknown brands was not paramount in influencing the purchase intention. Further, the nature of the message represented in advertising media should not have a lot of information for the customers to read and be influenced to purchase. Finally, the customers are willing to buy their over-the-counter medicines in the supermarket.

### **5.5 Recommendations**

To the marketing managers of over-the-counter medicines. The study recommends that they should use customer-oriented 4Cs of marketing approach to meet their customer's needs. They should focus more on convenience, communication, customer, and cost strategies to influence positive purchase intention in the supermarkets. They then need to place a greater emphasis on aspects like understanding their target customer demographics in creating a good customer profile for their OTC medicine as well as availing themselves of more OTC medicine that the customer needs. This could be achieved by working closely with the supermarkets' decision makers who can advise on what the customers enquire about and need from the OTC medicine category.

Commercial managers in tier one supermarkets need to understand their customers perceived value for them to do a proper brand assortment to avail in the tier one supermarkets the desired customers portfolio that offers product benefit and service benefit. They must also consider the customer need on saving their time and energy before acquiring their OTC medicine from the supermarkets and come up with strategies that will lower the cost for them to have a positive purchase intention. The ease of which the customers can get information

about their favourite OTC brands from their preferred supermarkets is crucial in preventing customers from showing signs of hopping in other channels that stock OTC medicine.

To succeed, they must pay close attention to what customers want and display their OTC medicine in a way that appeals to them using the displays. This means that marketing managers should ensure they work with the tier one Supermarkets managers, to ensure that the customer gets informed about the OTC medicine using the mentioned display cues like information signs. Managers of retail establishments would do well to perform extensive market research so that they may better serve their customers by meeting their specific marketing needs. Therefore, it is important for retail store managers to relay customer feedback about product preferences to distributors of OTC medicines to keep the marketing managers abreast with the customer insights.

To policymakers, the studies recommend that with the acceleration on self-medication in urban areas, the marketing society of Kenya in collaboration with other stakeholders, should allow discussion on the awareness of the OTC medicine availability in the supermarkets and create a positive environment for their acceptability across the country. The research recommends that policymakers within the regulatory body of the Marketing society of Kenya to include the 4C s strategies as key to the tier one supermarket managers and OTC medicine marketing managers to influence the customer purchase intention to actual sales.

### **5.6 Limitations of Research**

The study was limited only to Nairobi City County comprising of urbanites, which constrains the study findings' generalizability in other non-urban areas in the country. Further, customer interviews would have provided greater insight into the relationship between purchase intentions and various marketing strategies applicable in each market segment.

### **5.7 Suggestions for Further Study**

The study suggests that further research should be conducted to examine the non-urbanites customers. This research was carried out in Nairobi County. Further research is suggested in other regions outside Nairobi County to investigate which of the 4Cs has a greater influence on the customers purchase intention through interviews.

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## APPENDICES

### Appendix I: Introduction Letter

**STRATHMORE UNIVERSITY**

**BUSINESS SCHOOL**

**P.O BOX 59857- 00200**

**NAIROBI.**

Dear Respondent,

**REF: QUESTIONNAIRE FOR A RESEARCH TITLED THE INFLUENCE OF 4CS MARKETING ON CONSUMER PURCHASE INTENTION OF OVER-THE-COUNTER MEDICINE (OTC) IN TIER ONE SUPERMARKETS IN NAIROBI COUNTY.**

I am a Master of Commerce degree student at Strathmore university business school.

This study is carried out in partial fulfilment for the award of a master's degree in commerce.

This research focuses on how the elements of the 4'Cs influence the customer purchase intention of over-the-counter (OTC) medicine in tier one supermarkets in Kenya.

Its overall aim is to establish a model guiding the successful implementation of the marketing mix for the OTC retail customer. This research aims to seek expert opinion on the understanding of the 4 c's marketing influence on customer purchase intention variables and factors likely to lead to their successful implementation. It will also elicit other issues related to the variables employed by the retailers in the over-the-counter business.

The survey should take no more than 5-10 minutes to complete. I would appreciate it if you could complete the survey within that time. I will be quite grateful if you will provide the information sought by the tools. Please note that honest answers will be valuable to this study. The information provided will be upheld with confidentiality and you have a right to withdraw at any time whenever they feel so.

Thank you.

Yours Truly,

Signature: 

Susan

Muraya.

## **Appendix II: Participant Information and Consent Form**

I would like to invite you to take part in my research study. Before you decide, it is important that you understand why the research is being done and what it would involve for you. Please take time to read this information and discuss it with others if you wish. If there is anything that is not clear, or if you would like more information, please ask.

### **RESEARCH TITLE**

The influence of 4cs of marketing on purchase intention of over-the-counter medicine in tier one supermarkets in Nairobi County.

### **SECTION 1: INFORMATION SHEET**

**1.1** Researcher: Susan Muraya

**1.2** Institutional affiliation: Strathmore University Business School

### **SECTION 2: INFORMATION SHEET–THE STUDY**

#### **2.1: Why is this study being carried out?**

This study is being conducted in partial fulfillment of the requirement for an award of the degree of Master of Commerce at Strathmore University Business School. The study aims to examine the elements of the 4’Cs influence the customer purchase intention of over-the-counter (OTC) medicine in tier-one supermarkets in Kenya.

#### **2.2: Do I have to take part?**

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on how performance management influences the retention of millennials in startups in Kenya. You are free to decline to take part in the study at any time without giving any reasons.

#### **2.3: Who is eligible to take part in this study?**

Any customer who shops in the supermarket OTC category.

#### **2.4: Who is not eligible to take part in this study?**

Customers who shop from pharmacies and any customers who are not willing to participate in such studies.

#### **2.5: What will taking part in this study involve for me?**

You will be contacted by the researcher and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then take a questionnaire to complete.

**2.6: Are there any risks or dangers in taking part in this study?**

There are no known risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

**2.7: Are there any benefits of taking part in this study?**

The information will be used to improve the body of knowledge regarding the relationship between performance management and retention of millennials in startups in Kenya.

**2.8: What will happen if I refuse to participate in this study?**

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

**2.9: Who will have access to my information during this research?**

All research records will be stored in securely locked cabinets. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

**2.10: Whom can I contact in case I have further questions?**

You can contact me, Susan Muraya, at Strathmore Business School, or by e-mail at [susan.wamaitha@strathmore.edu](mailto:susan.wamaitha@strathmore.edu) or by phone at +254 700 449 884 You can also contact my supervisor, Dr. Hellen Otieno at the Strathmore Business School, Nairobi, or by e-mail [hotieno@strathmore.edu](mailto:hotieno@strathmore.edu)

If you want to ask someone independent anything about this research please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email [ethicsreview@strathmore.edu](mailto:ethicsreview@strathmore.edu) Tel number: +254 703 034 375

I, \_\_\_\_\_, have understood all that I have read and have had any of my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you.

**Participation in the research study**

- I AGREE to take part in this research.
- I DO NOT AGREE to take part in this research.

**Storage of information on the completed questionnaire**

- I AGREE to have my completed questionnaire stored for future data analysis.
- I DO NOT AGREE to having my completed questionnaire stored for future data analysis.

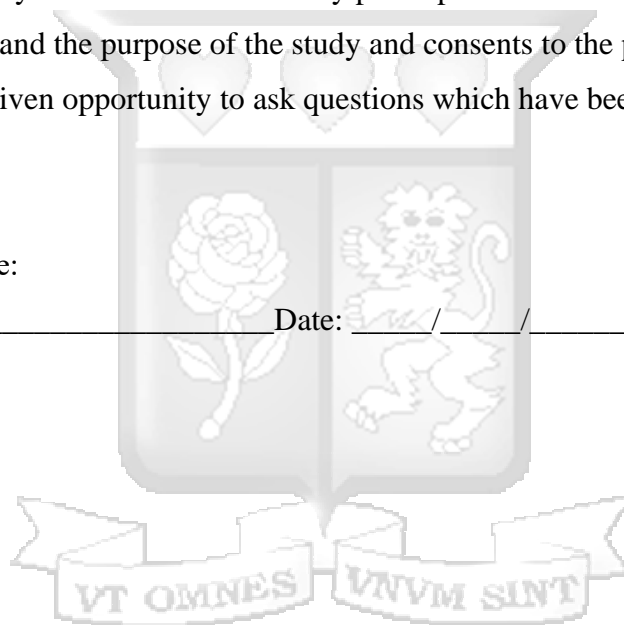
Participant's Name/Signature/Initials:

\_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_\_ DD/MM/YEAR

I, \_\_\_\_\_ certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Researcher's Signature:

\_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_\_ DD/MM /YEAR



### Appendix III: Questionnaire

This questionnaire is divided into Sections A, B, C, D and E Please respond as accurately and as honestly as possible to all the questions. Read each question carefully and follow the instructions.

Please complete each section as instructed do NOT write your NAME on the questionnaire. All the information in this questionnaire will be kept confidential.

#### Section A: Customer Bio Data Information

Please mark (✓) where appropriate.

##### 1. Indicate your gender.

Male [ ]

Female [ ]

##### 2. Indicate your highest educational level.

Certificate [ ]

Diploma [ ]

Degree [ ]

Masters [ ]

Ph.D. [ ]

Others .....

##### 3. What is your age bracket?

18-30 years [ ]

31-45 years [ ]

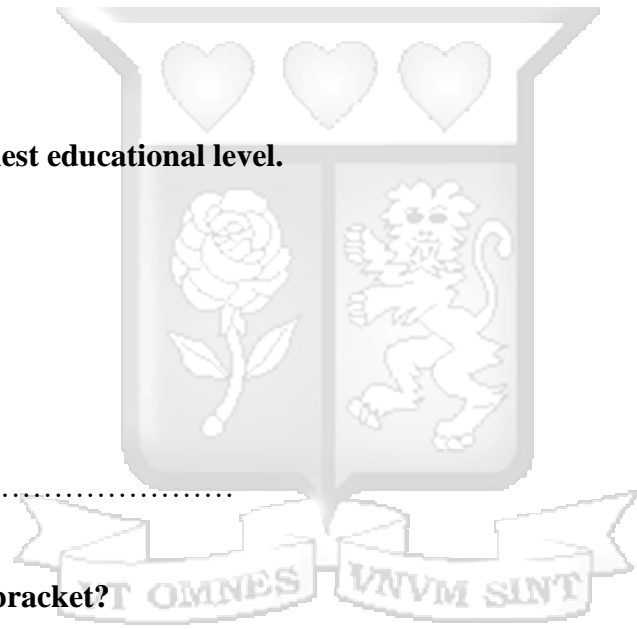
Above 46 years [ ]

##### 4. What is the average of your monthly income?

Less than KSh. 23,670 [ ]

Between KSh. 23,670-119,999 [ ]

Between KSh. 120,000 and above [ ]



### Section B: Customer

Below are the dimensions of the customer that influence the purchase intention. Please indicate the extent to which they influence your purchase intention of OTC medicine. Use a scale of 1-5 represented as follows: (1) - Strongly Disagree (2) - Disagree (3) - Neutral (4) - Agree (5) - Strongly Agree; and mark an X as appropriate.

| SNo | Comment  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1.  | The OTC medicine variety available in the supermarkets meet my needs.                      |   |   |   |   |   |
| 2.  | The OTC medicine sold in the supermarkets has an acceptable standard of quality.           |   |   |   |   |   |
| 3.  | The attendants in the supermarkets provide me with the information I need on OTC medicine. |   |   |   |   |   |
| 4.  | The supermarket is prompt to responding to my queries.                                     |   |   |   |   |   |
| 5.  | The supermarket customer service is very effective.  |   |   |   |   |   |

### Section C: Costs

Below are the dimensions of the cost that influence the purchase intention. Please indicate the extent to which they influence your purchase intention of OTC medicine. Use a scale of 1-5 represented as follows: (1) - Strongly Disagree (2) - Disagree (3) - Neutral (4) - Agree (5) - Strongly Agree; and mark an X as appropriate.

| SNo | Comment  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1.  | Before I purchase over the counter medicine, I consider cost of the medicine.                      |   |   |   |   |   |
| 2.  | Time is a key factor when I am locating the OTC medicine in the supermarket.                       |   |   |   |   |   |
| 3.  | Before I purchase any OTC medicine, I consider the brand frequent availability in the supermarket. |   |   |   |   |   |
| 4.  | Before I choose where to buy OTC medicine, I consider transport cost.                              |   |   |   |   |   |
| 5.  | When there is a gift or bonus on purchase of OTC medicine, I buy more.                             |   |   |   |   |   |

### Section D: Convenience

Below are dimensions of convenience that influence the purchase intention of OTC medicine. Please indicate the extent to which they influence the decision of you buying OTC medicine Use a scale of 1-5 represented as follows: (1) - Strongly Disagree (2) - Disagree (3) - Neutral (4) - Agree (5) - Strongly Agree; and mark an X as appropriate.

| SNo | Comment   | 1 | 2 | 3 | 4 | 5 |
|-----|---|---|---|---|---|---|
| 1.  | Accessibility of OTC medicine is very fast within a supermarket store.                          |   |   |   |   |   |
| 2   | Shorter journey in locating the OTC medicine in a supermarket influence my purchase.            |   |   |   |   |   |
| 3.  | Display are arranged to allow me interact with the OTC medicine on shelve and decide on buying. |   |   |   |   |   |
| 4.  | Check out displays make my purchase of OTC medicine easy.                                       |   |   |   |   |   |
| 5.  | I purchase OTC medicine in supermarkets in the neighbourhood.                                   |   |   |   |   |   |

### Section E: Communication

Below are dimensions of communication that influence the purchase intention of OTC medicine. Please indicate the extent to which they influence your decision to buy OTC medicine. Use a scale of 1-5 represented as follows: (1) - Strongly Disagree (2) - Disagree (3) - Neutral (4) - Agree (5) - Strongly Agree; and mark an X as appropriate.

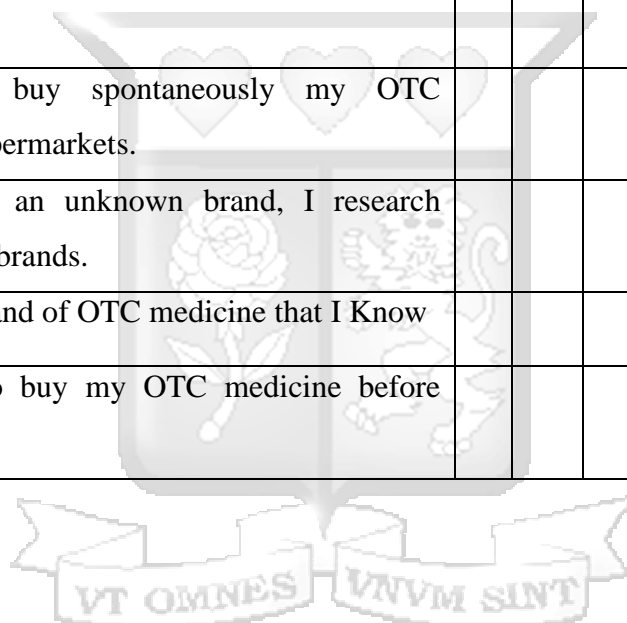
| SNo | Comment  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1.  | I rarely read advertisements that just seem to contain a lot of information. |   |   |   |   |   |
| 2.  | The advice given on the usage of OTC medicine influences my buying decision. |   |   |   |   |   |
| 3.  | Personal selling influences my purchase decision of OTC medicine.            |   |   |   |   |   |
| 4.  | A well-lit display attracts me to buy OTC medicine.                          |   |   |   |   |   |
| 5.  | Information signs, price tags and shelf talkers                              |   |   |   |   |   |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  | influence my decision to buy OTC medicine. |  |  |  |  |  |
|--|--|--|--|--|--|--|

**Section F: Purchase Intention**

Below are dimensions of Purchase intention of OTC medicine. They are divided into Willingness to buy. For the willingness to buy, please indicate the extent to which they influence the decision you are buying OTC medicine Use a scale of 1-5 represented as follows: (1) - Strongly Disagree (2) - Disagree (3) - Neutral (4) - Agree (5) - Strongly Agree; and mark an X as appropriate.

| SNo | Comment  | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| 1.  | I will be willing to purchase OTC medicine in supermarkets.      |   |   |   |   |   |
| 2.  | Sometimes I buy spontaneously my OTC medicine in supermarkets.   |   |   |   |   |   |
| 3   | Before buying an unknown brand, I research available OTC brands. |   |   |   |   |   |
| 4   | I only buy a brand of OTC medicine that I Know                   |   |   |   |   |   |
| 5.  | I must plan to buy my OTC medicine before shopping.              |   |   |   |   |   |



**Thank you for your Participation.**

## Appendix IV: List Of Supermarkets

**Table I: Target population**

### NAIVAS SUPERMARKETS IN NAIROBI COUNTY

|    |                                |    |                                    |
|----|--------------------------------|----|------------------------------------|
| 1  | NAIVAS LTD. - WESTLANDS BRANCH | 18 | NAIVAS LTD - KITENGELA             |
| 2  | NAIVAS LTD. - BURUBURU         | 19 | NAIVAS LTD - LANGATA               |
| 3  | NAIVAS LTD. - EASTGATE         | 20 | NAIVAS LTD - MOI AVENUE            |
| 4  | NAIVAS MAIYAN MALL             | 21 | NAIVAS LTD - NEW DEV HOUSE         |
| 5  | NAIVAS UTAWALA                 | 22 | NAIVAS LTD - RONALD NGALA NEW      |
| 6  | NAIVAS WATERFRONT              | 23 | NAIVAS LTD - SOUTH C BRANCH        |
| 7  | NAIVAS AGHAKHAN                | 24 | NAIVAS LTD CAPITAL                 |
| 8  | NAIVAS EMBAKASI EXPRESS        | 25 | NAIVAS LTD GREEN HOUSE             |
| 9  | NAIVAS MUINDI MBIGU            | 26 | NAIVAS LTD RIRUTA                  |
| 10 | NAIVAS NAIROBI WEST            | 27 | NAIVAS LTD SYOKIMAU                |
| 11 | NAIVAS LIFESTYLE               | 28 | NAIVAS LTD. - CIATA CITY KIAMBU RD |
| 12 | NAIVAS GITHURAI 44             | 29 | NAIVAS LTD. - AIRPORT VIEW KIFARU  |
| 13 | NAIVAS LIMITED KILIMANI BRANCH | 30 | NAIVAS LTD. - MOUNTAIN MALL        |
| 14 | NAIVAS LIMITED LAVINGTON CURVE | 31 | NAIVAS LTD. - OJIJOBANCH           |
| 15 | NAIVAS LIMITED MOUNTAIN VIEW   | 32 | NAIVAS LTD. - JUJA BRANCH          |
| 16 | NAIVAS LIMITED PRESTIGE BRANCH | 33 | NAIVAS LTD. - WESTLANDS BRANCH     |
| 17 | NAIVAS LTD - KASARANI BRANCH   |    |                                    |

Source: Naivas branches accessed on 20/04/2023

### QUICKMART SUPERMARKETS IN NAIROBI COUNTY

|   |                              |    |                        |
|---|------------------------------|----|------------------------|
| 1 | QUICK MART LIMITED LAVINGTON | 10 | QUICKMART WAIYAKI WAY  |
| 2 | QUICK MART LIMITED RUAKA     | 11 | QUICKMART KILIMANI     |
| 3 | QUICKMART FEDHA              | 12 | QUICKMART MOMBASA ROAD |
| 4 | QUICKMART BY BURUBURU        | 13 | QUICKMART EMBAKASI     |
| 5 | QUICKMART CHAKA              | 14 | QUICKMART KIAMBU       |
| 6 | QUICKMART JIPANGE            | 15 | QUICKMART WESTLANDS    |
| 7 | QUICKMART ROYSAMBU           | 16 | QUICKMART KESERIAN     |
| 8 | QUICKMART MFANGANO           | 17 | QUICKMART PIONEER      |
| 9 | QUICKMART TOMMBOYA           |    |                        |

Source: Quickmart branches accessed on 20/03/2023

### **CARREFOUR SUPERMARKETS IN NAIROBI COUNTY**

|    |                       |
|----|-----------------------|
| 1  | CARREFOUR GALLERIA    |
| 2  | CARREFOUR GARDEN CITY |
| 3  | CARREFOUR NEXTGEN     |
| 4  | CARREFOUR VILLAGE     |
| 5  | CARREFOUR WESTGATE    |
| 6  | CARREFOUR TRM         |
| 7  | CARREFOUR SARIT       |
| 8  | CARREFOUR JUNCTION    |
| 9  | CARREFOUR THE HUB     |
| 10 | CARREFOUR SOUTHFIELD  |
| 11 | CARREFOUR TWO RIVERS  |
| 12 | CARREFOUR COMET       |
| 13 | CARREFOUR MEGA        |

Source: Carrefour branches accessed on 20/03/2023

### **CHANDARANA SUPERMARKETS IN NAIROBI COUNTY**

|   |                                    |
|---|------------------------------------|
| 1 | CHANDARANA SUPERMARKET - LAVINGTON |
| 2 | CHANDARANA SIGNATURE MALL          |
| 3 | CHANDARANA - DIAMOND PLAZA BRANCH  |
| 4 | CHANDARANA SUPERMARKET - MOBIL     |
| 5 | CHANDARANA SUPERMARKET - YAYA      |
| 6 | CHANDARANA SUPERMARKET -ABC        |
| 7 | CHANDARANA SUPERMARKET- ADLIFE     |
| 8 | CHANDARANA SUPERMARKET- RIDGEWAYS  |

Source: Chandarana branches accessed on 20/03/2023

## Appendix V: Ethical Review Letter



9<sup>th</sup> May 2023

Mrs Muraya Susan Wamaitha,  
susan.wamaitha@strathmore.edu

Dear Mrs Muraya,

### **RE: The Influence of 4Cs of Marketing on Purchase Intention of Over-The-Counter Medicine in Tier One Supermarkets in Nairobi County**

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC1735/23**. The approval period is from **9<sup>th</sup> May 2023 to 8<sup>th</sup> May 2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

for: **Mr Ambrose Rachier,**  
**Chairperson; SU-ISERC**





## Appendix VII: Research Budget

### Research Budget

| <b>Description</b>            | <b>Cost</b>      |
|-------------------------------|------------------|
| Travel                        | 15,000.00        |
| Admin costs                   | 20,000.00        |
| Snacks & Refreshments         | 10,000.00        |
| Telephone & internet expenses | 15,000.00        |
| Miscellaneous                 | 5,000.00         |
| <b>TOTAL</b>                  | <b>65,000.00</b> |

