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Attributes that influence consumer's willingness to pay for fruit leather-based footwear within Nairobi County.

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DECLARATION

Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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ABSTRACT

Green marketing as a promotion tool for products or services emphasizes on environmental and sustainability benefits while meeting consumer demand with eco-friendly and socially responsible options. However, in a fast-changing world where every aspect of life is coming under increased scrutiny - the food that we eat, the clothes we chooseto wear, the energy consumption, the way we think about leather and how we promote it needs to take account of these changes. Fruit leather is classified as a new product in the market. Hence, it is important to understand consumer preferences regarding fruit leather attributes, enabling producers to design a market-acceptable product. The research analyzed characteristics that shape consumer's willingness to pay for fruit leather-based footwear. The attributes that were studied in this research included social-economic (age, income level and education level), functional (material type and lifespan), marketing (price, and eco-label) and psychological (pro- environmental behaviors-self green-identity, reduce, reuse, and recycle). The main research question was: Which attributes influence consumer's willingness to pay for fruit leather-based footwear in Nairobi County, Kenya? Data was collected using a survey that was distributed to different customers with preference to leather based footwear in Nairobi County. The survey consisted of 3parts; 1) questions regarding socio-demographic; 2) questions regarding consumer's pro- environmental behavior; and 3) questions of choice based conjoint experiment. The survey consisted of eight choice-based questions with two alternatives provided for each question. Thus,binary logistic regression was used for the analysis. The response rate for the study was 91.2% representing 456 of the 500. Respondents between the age of 18 years to 60 years were selected asthey were exiting from Citywalk Shops-Central Business District (Starehe constituency), Bata shops- Westlands Sarit center mall (Westlands constituency), and footwear shops-Krikor market(Starehe constituency). The study findings indicated that in order of significance, social-economic attributes illustrated the highest influence on consumers' inclination to pay for fruit leather-based footwear which it accounted for 45.2% variability in consumers' readiness to pay for fruit leather-based footwear – gender was the most influential attribute among other social-economic attributes, followed in second place by psychological attributes accounting for 22.5% variability in consumer's willingness to pay for fruit leather-based footwear – self green-identity was the mostinfluential attribute among other psychological attributes. In third place marketing attributes accounting for 19.3% - ecolabels was the most influential attribute as a marketing attribute- followed and from a distance in fourth place was functional attributes accounting for 1.4% variability in consumer's willingness to pay for fruit leather-based footwear- material type was themost influential attribute in the functional attributes category. The study established from the binary logistic regression, that the attributes considered significantly contributed to the consumer's willingness to pay for fruit leather-based footwear – given that the value of R squared was 94.1% an indication that, 94.1% variation in the consumer's willingness to pay (dependent variable) was attributed to the attributes (independent variables). Thus, proper consideration of the attributes considered in this study during product design would result in an improvement in the consumer's willingness to pay for fruit leather-based footwear.

Key words: *Green marketing, Willingness to pay, Social economic, Psychological, Pro-environmental behavior, Self-green identity, Ecolabels, Functional attributes*

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DEFINITION OF TERMS

Animal leather	A hide or skin of an animal skin treated for human use.
Conjoint analysis	A statistical method in market research that relies on surveys and helps determine how people value different attributes that make up an individual product or service.
Consumer preference	Subjective individual tastes, likes and dislikes, and predispositions.
Eco-label	A means of measuring performance and communicating and marketing the environmental credentials of a given product.
Footwear	Things that people wear on their feet, for example shoes.
Fruit leather	Sheets of dehydrated fruit pulp with a pliable, elastic consistency.
Green self-identity	An individual's overall perceived identification with the typical green consumer.
Willingness to pay	A customer's personal assessment of a product or service's worth or attractiveness to them, particularly when compared to a rival product.
Pro-environmental behavior	All possible actions aimed at avoiding harm to and/or safeguard of surroundings.
Sustainable consumption	Utilizing products and services in a manner that reduces their environmental footprint for human needs to be met in the present but also for future generations.
Synthetic leather	A material designed to serve as a leather alternative in upholstery, clothing, footwear, and other applications requiring a leather-like appearance, especially when the actual material is either prohibitively expensive or unsuitable.
Willingness to pay	The maximum price at or below which a consumer will buy one unit of a product.

LIST OF ABREVIATION AND ACRONYMS

AMG	Association of Mango Growers
COMESA	Common Market for Eastern and Southern Africa
CBD	Nairobi Central Business District
FAO	Food and Agriculture Organization of the United Nations
IPCC	Intergovernmental Panel on Climate Change.
KLDC	Kenya Leather Development Council
MSMES	Ministry of Micro, small & Medium Enterprises.
NACOSTI	National Commission for Science, Technology, and Innovation
NEMA	National Environment Management Authority
PEB	Pro-environmental behavior
PU	Polyurethane plastic
PVC	Polyvinyl chloride (PVC) synthetic plastic
TRA	Theory of Reasoned Action
UNEP	United Nations Environment Programmed.
WTP	Willingness To Pay

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I would like to wholeheartedly convey my profound gratitude to my outstanding supervisor, Prof. Simon Wagura Ndiritu, for his invaluable guidance, unwavering support, and the inspiration he provided throughout the process of composing this thesis. I would also like to extend my appreciation to the entire Strathmore University community, with a special mention for Dr. Everlyne Makhanu and Kevin Otieno who were steadfast allies on this long journey. They consistently came to my aid with books and IT solutions whenever I encountered challenges, and I commend their professionalism.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Green marketing has emerged as a critical global issue, reflecting a paradigm shift in consumer preferences and a growing awareness of the environmental challenges facing our planet (Nekmahmud, 2020). In an era marked by climate change, resource scarcity, and heightened concerns about sustainability, businesses worldwide are recognizing the need to adapt (Kar, 2022). They are increasingly incorporating green marketing strategies into their operations to meet the demands of environmentally conscious consumers and address pressing global issues (Khan, 2019). According to Szabo (2021), this shift is reshaping industries and challenging companies to innovate, develop sustainable products, and implement responsible supply chain practices. Furthermore, governments and regulatory bodies are introducing policies to encourage green marketing and discourage greenwashing, emphasizing the significance of this emerging issue in the global economic landscape (Lashitew, 2021). Based on Khan (2019), the quest for a more sustainable and environmentally responsible future is driving green marketing to the forefront of global discussions and transforming the way businesses and consumers engage with products and services.

The massive consumption of shoes has led to the footwear market being worth an estimated US$366 billion in 2020, with a forecast of growing to US$550 billion by 2027 (Ghanashyam, 2018). According to Footwear (2022) and (Chouhan, 2020) sixty-six million pairs of shoes were produced, and 49 million pairs were bought by consumer in 2020. This made the footwear industry the 20th largest industry worldwide. Statista (2021) illustrated that 82.3% of footwear production takes place in Asia, which leads to massive import and export activity, seconded by Footwear (2022) export, and import worth of US$1.7 billion and US$ 584 million respectively.

Referring to Footwear (2022), shoes are made primarily from non-biodegradable materials; 47% of shoes are made from plastic or rubber. Typical shoes consist of several parts, including the outsole (rubber), midsole (foam), insole (Polyurethane fam), heel counter (petrochemical-derived material) and upper material (polyurethane leather/animal leather) (Jenkins, 2003). Kibbey (2018) and Akebis (2021) highlight that 1.4% of global carbon emissions come from sneakers production generating 27.2 kilograms of carbon dioxide per kilogram of shoes. These emissions are

considerably higher than airplane carbon emissions that emit 2.5% of global CO2 emissions (Kibbey et al, 2018).

At present, with the global enhancement of ethical consciousness, consumers are growing more cognizant of the environmental and social concerns linked to the fashion industry (Lundblad & Davies, 2016) & (Jein, 2019). The rise of interest in fruit leather fashion has led to an increase in interest in materials recognized as alternative materials to animal leather (Choi, 2021). There is a move towards meaningful, slow consumption, where 'take, make and re-use' to keep natural resources within the economy for as long as possible known as the circular economy (Kerry, Leather, and consumer, 2022). Concepts like sustainability, provenance and buying local are becoming more familiar and most people acknowledge that they must change consumption habits if they are to tackle climate change, yet to a large extent still living in a take, make, waste economy (Francoeur, 2021). Francoeur explains that we have grown accustomed to replacing things that get broken or damaged, rather than fixing them or choosing items that are made to last. Consumer

preference changes when leather status changes to re-use of a by-product of a process or waste utilization (Glatzer S. M., 2021).

The leather industry in Kenya is one agro-based industries in the country that is promising and has immense potential (Nicholas, 2012). The value of the value chain is very rich and is ranked third in the COMESA region after Sudan and Ethiopia. The national livestock population in Kenya was estimated to comprise of 14 million cattle, 10.9 million goats and 7.9 million sheep and approximately 1.8 million bovine hides and 4.2 million goats/sheet skins per annum, which translates to 251,000 metric tons (Noema, 2020). Based on Nicholas (2012) the optimum utilization of the resource has been limited or constrained by the lack of technical, low equipment capacity, skills, and finance. The figure below shows a downward trend in the production of both hides and skins in the period from 2001 to 2010, which is a negative development for the leather value chain

in Kenya and the COMESA region.

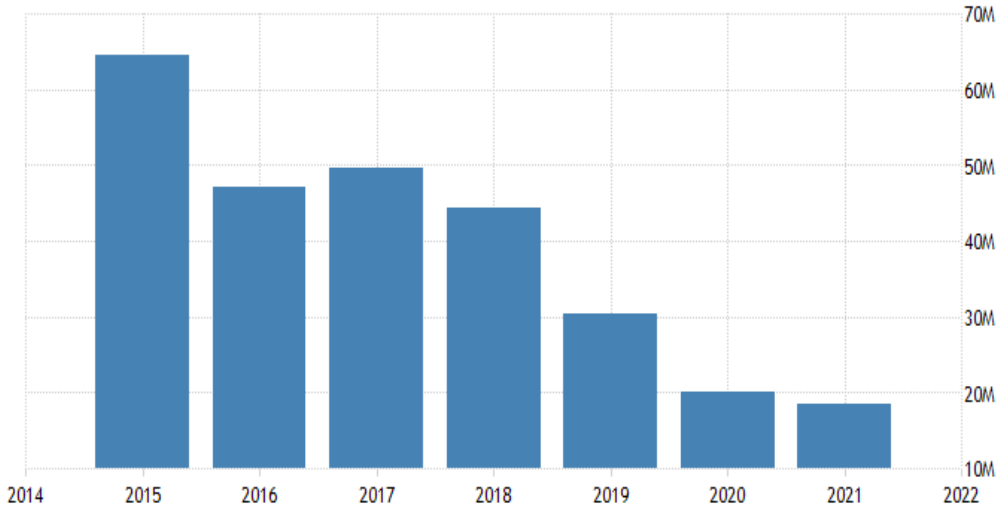

Figure 1.1 Trends in the Production of Hides and Skins (million pieces)

Source *(Economics, 2023)*

In Kenya, leather footwear production is currently estimated at 10 M (million) pairs of shoes per annum (p.a.) (KLDC, 2022). This is a sharp contradiction to FAO's data (2016), this indicates that the annual production of leather footwear in Kenya stands at approximately 1.5 million shoe-pairs. The variation of this data in regard to FAO can be attributed to the fact that FAO data was completely based on the output of formal and large-scale enterprises. In this context, it is evident that micro, small, and medium-sized enterprises (MSMEs) contribute to 85 percent of the total leather footwear production in Kenya. Observational data suggests the presence of numerous MSMEs operating in various towns and business centers across Kenya, engaged in the manufacturing of leather good like shoes, and sandals. Nevertheless, their production is not accounted for in the census of the national production. The outlook for the footwear industry in Kenya depends on these small enterprises, which often operate independently with very minimum backing from key stakeholders. The government of Kenya has taken a significant initiative by establishing the Leather Development Council, which is positioned to take on a pivotal role in the transformation of this industry.

Figure 1.2 Summary of MSMEs footwear and leather products cluster by location in Kenya

Source (COMESA LLPI, 2021)

According to Kenyan government estimates, as much as 50 percent of Kenya's harvested fruit goes to waste (Kimera, 2017). Kimera argues that postharvest loss signifies a substantial reduction in earnings for smallholder farmers like John Moomba, who grows mango fruits on a 2-acre farm in Mizu, Kenya. Despite his trees thriving and yielding delicious, green mangoes, the worth of his cherished harvest can significantly decrease due to various factors. Increased fruit fly infestations and other pests in Kenya, driven by climate crisis, can devastate a significant portion of the yield. Furthermore, fruit that becomes bruised during improper harvesting or damaged in transit will not fetch good prices. Additionally, high temperatures can pose a significant threat to John's fruit, causing rapid deterioration post-harvest.

Fruits wastes like grape pulp from wine industry, apple waste from the juice industry, waste of pineapple leaves, and cactus leaves are combined with organic cotton to make the alternative leather Tanovic (2021). Conventional leather manufacturing has a detrimental impact on the environment, contributing to over 10% of total global carbon emissions from animal husbandry, while leather tanning releases significant quantities of harmful chemicals into the soil and water. In contrast, plant-based leather offers a solution to address these issues and, at the same time, tackle the extensive challenge of food waste (Andrea, 2021).

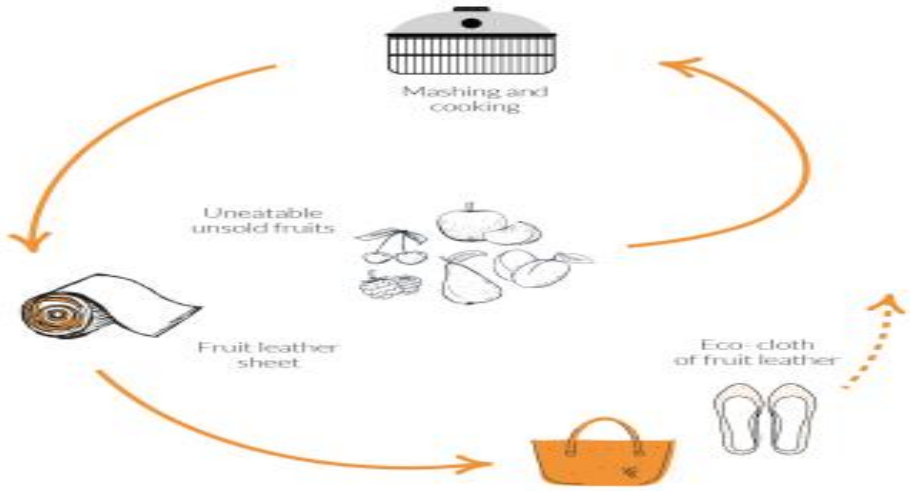

Figure 1.3 Fruit leather sheet processing chain

Source (Repair, 2019)

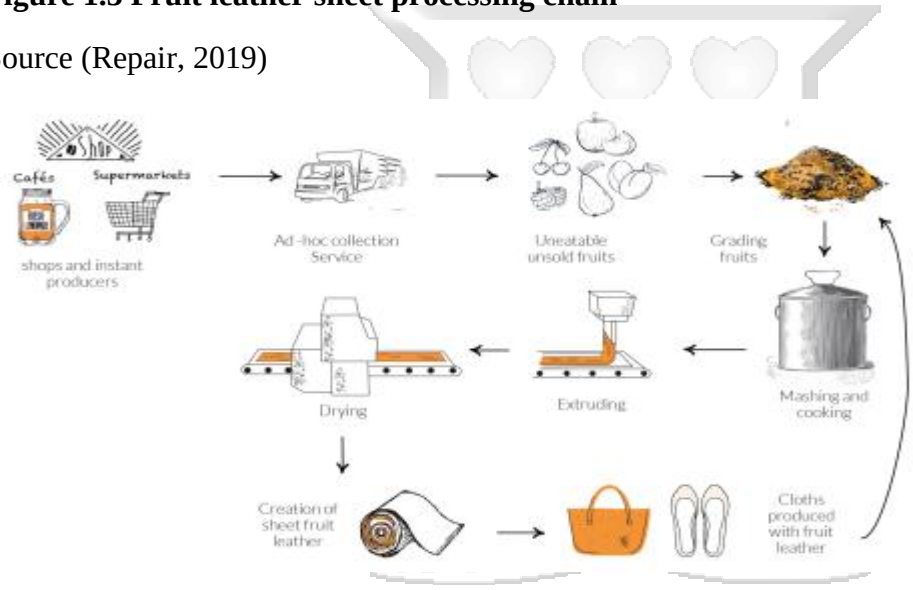

Figure 1.4 Fruit leather value chain

Source (Repair, 2019)

Apple leather is produced using the residual apple skins left behind by the fruit juice and compote sector. It's worth emphasizing that the beverage industry alone generates approximately 1.4 million tons of apple peel waste (Welsch, 2022) and this was estimated based on juice consumption and usage ration in f ruit juice processing industry. When these discarded peels are combined with other bio content, recycled materials theycreate durable leather material (Joy, 2021). Another fruit with a waste challenge is mango fruit dueto a very high sensitivity to post-harvest handling, temperatures, and pests where More than 60% of Kenyan mangoes are lost prior to reaching the retail market, and an additional 8% to 22% of the mangoes remain unsold (FAO, 2018). Allegories makes use of these would-be wasted mangos to create travel bags while others make shoes leather (Allegories,

2022).

The recent and rapid expansion of the global population has led to an increased need for food (Choon, 2018). This situation presents a significant obstacle for food producers seeking to optimize the utilization of available food resources. Choon further explains that a growing research trend involves the extraction of health-enhancing bioactive compounds from fruit byproducts. This trend seeks to tackle both the problem of waste reduction and the increasing public demand for phenolic compounds, believed to provide protective effects against chronic diseases. Globally, about 25% to 40% of fruits are lost betweenthe point of harvesting and the point where mangoes reach the consumer (Evans, 2017). These postharvest losses occur due to a wide range of factors throughout the fruits value chain. Accordingto Statista Market Forecast (2022), Kenya is among the leading producers of fruits in Africa, where the fresh fruits segment volume is expected to amount to 1,758.2mkg by 2027 and a volume growth of 6.3% in 2023.

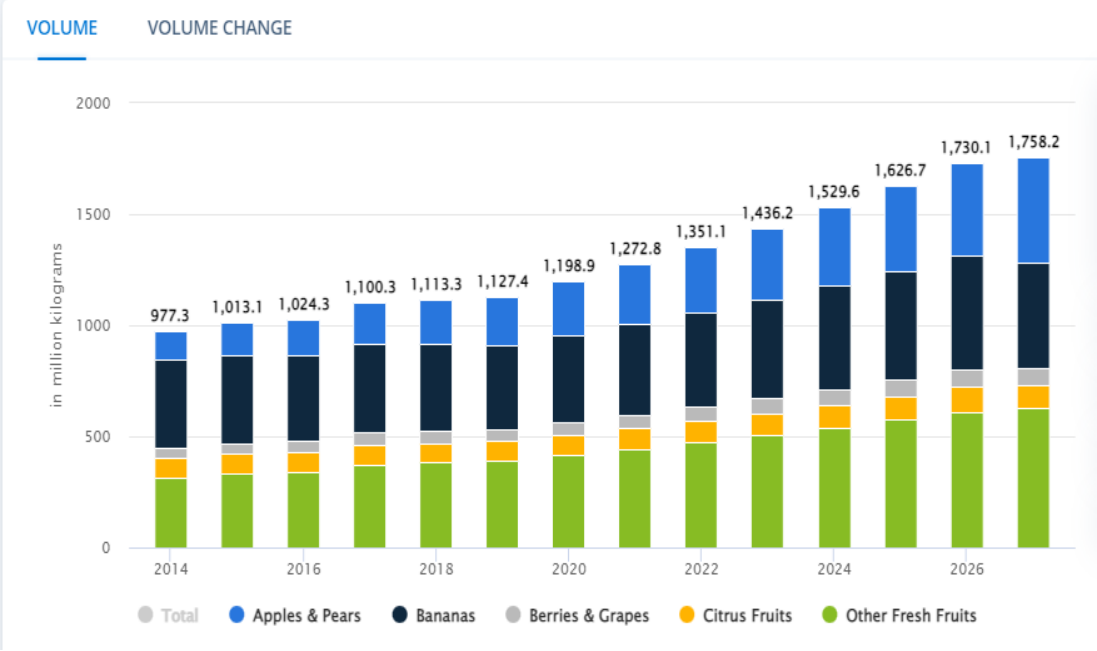

Figure 1.5 Fresh fruits production volumes in Kenya

Source Statista *(2022)*

Footwear can be defined as the man-made outer covering of the human foot (IUP, 2011). Footwear is considered as an assembly of upper and lower parts, with each part composing of multiple components primarily tailored from a range of materials, including textile fabric, leather, and synthetic materials. Leather shoes normally feature an upper section crafted from leather and the sole can be made from leather, rubber, PVC, PU, or other materials (Gajewski, 2019). Various

components give different and vital roles in the quality and performance of the shoe and failureof one may affect the overall performance of the footwear and hence the quality of footwear is evaluated inline with whether the shoe carries out its intended function, its effects on the wearer(comfort),and the extent to which it meets the requirements of the user which defines footwear lifespan (Lo, C. H. , 2021).

Eco-friendly actions often referred to as green, sustainable, or eco-friendly behavior, is characterized by individuals taking proactive measures to safeguard the environment (Cheung & To, 2019). PEBs (Pro-environmental behaviors) encompass responsible actions related to reusing and recycling waste materials, as well as adaptive responses to climate change impacts, such as the procurement of sustainable products (Xu et al., 2020). With anthropogenic (human-induced) the urgency of the change of the climate and weather is increasing, recent climate assessment reports such as the IPCC (Trivedi et al, 2018) and in recent research, the term "climate change adaptive behavior" has started to be employed (Patel & Rohit, 2020), where the concept is described as any action that individuals can take to mitigate the harmful effects of climate change while simultaneously promoting climate change mitigation and sustainability. Consumers' pro-environmental behavior (PEB) is also referred to as green purchasing, which involves buying environmentally friendly products (Zhang, 2020).

1.2 Statement of the problem

The concern over the number of environmental problems such as global warming, pollution of resources, ozone depletion, natural resource destruction in the last few years have been increasing in a high rate (Tanner, 2013), and social and economic disparities and based on NEMA (2021), these challenges have to a certain extent been attributed to over consumption of natural resources. Operating under the presumption that a substantial portion of worldwide environmental deterioration can be directly linked to what can be appropriately described as excessive consumption in the many of the countries, (McDonald, 2019) it therefore must be necessary to tackle environmental degradation from the consumers end (Almada, 2018). Bruce (2017) gives a very small forecasting of present consumption trends; global economy in its current form, leads to its own detriment. It engages short-sightedness and a tendency for exploitation and depletion, without realization of the limited limits of the global ecology.

Sustainable consumption is characterized by the utilization of products and associated services that meet essential needs, enhance the overall quality of life, and simultaneously reduce the

consumption of natural resources and hazardous substances. This approach also aims to decrease waste and pollutants throughout the product's life cycle, ensuring that the well-being of future generations is not compromised (Fuchs, 2015) & (COP27, 2022). Furthermore, a key component of the contemporary sustainable consumption conversation is to motivate consumers to actively engage in the market and assume responsibility by making environmentally friendly or more sustainable product choices. (Bjarne, 2014).

Both on a global scale and within the African context, leather stands as one of the most extensively exchanged goods, experiencing continuous growth, and valued at an estimated yearly total exceeding $100 billion (Statista, 2021) and this additionally clarifies that on a global scale, the demand for leather and leather products is increasing more rapidly than the supply, while African nations, including Kenya, continue to have a limited presence in this industry. Kenya faces significant challenges in competitiveness compared to global leaders like China, primarily due to the influx of low-cost footwear imports (James, 2021) and there is need for Kenya to build on its reputation for quality foot ware by improving the quality of its products, diversification into other leather materials like fruits andmushrooms and building the "made in Kenya" brand distinction but there is minimum research work on Kenyan consumer's willingness to pay for leather derived from other source apart from animal leather and therefore no information whether Kenya should venture into alternative leathersources.

Ethical awareness is increasing globally, where consumers have started to censure the issues that are unethical and associated with the use of animal and synthetic raw materials to make leather (Choi et al., 2021), but there is minimum research work on Kenyan consumer and through this research, the Kenyan sampled population contributed to the global research work on consumers' willingness to pay for fruit leather-based footwear which is a biodegradable material.

The Association of Mango Growers (AMG) (2011), Kenya's high production is accompanied by major losses throughout the value chain; these losses are estimated at 40% to 50% slightly higher than the global average. Further in United Nations Women's (2018) report indicated that, the fruits losses in Kenya are largely due to variety of harvesting and post-harvest handling techniques as well as pests and disease. In the markets of Nairobi, unsold, spoilt, or decaying fruits are usually abandoned, polluting the streets and burdening waste collection system (FAO, 2022). Fruits are perishable and pandemics like Covid-19 results to mountains of fruits going to waste due to shuttering of restaurants, transport restrictions and supply chain disruptions and as a result fruits

decay and releases methane greenhouse gas (Charlton, 2020). This impact is also experienced by low prices created by middlemen who take advantage of lack of ready market and dictate prices to the farmers who end up delaying the sales and as a result for example in bananas in Kisii countyin Kenya end up losing 32% to 40% (Mbula, 2021).

Over the years, most of the research work and food product development have been on how there can be substantial contribution of several unique and diverse processed fruit products by transforming fresh fruits into products with a longer shelf life with ideal organoleptic, nutrition and other quality attributes (SNV, 2018). In addition to this, previous studies provide extensive informationregarding bio-based footwear. Studies regarding bio-based footwear can be found in developed countries, such as Germany and the US (Brand, 2021); (Scherer, 2018) and (Wang L. X., 2022). However, there is little evidence that Kenyan consumers prefer fruit leather-based footwear. Thisresearch searched to assess the potential of fruit leather-based footwear in Nairobi County, Kenya.

Kenya, as a nation, has not yet established an official eco-labeling program, creating a requirement to widen market accessibility among consumers who are environmentally aware and hence need to introduce environmental-policies that prioritize to sustainable consumption and production (Muriithi, 2013). The obstacles to implementing eco-labeling in Kenya comprise: the absence of suitable incentives to encourage eco-labeling, absence and inadequacy of trust in eco labels, limited awareness among stakeholders on the benefits of eco labeling and absence of industrial policies prioritizing eco labeling.

1.3 Objectives of the study

1.3.1 General Objective

The main objective is as follows:

To identify the attributes that influence consumer's willingness to pay for fruit leather-based footwear in Nairobi County, Kenya.

1.3.2 Specific Objectives

i. To identify the influence of social-economic attributes on consumer's willingness to pay for fruit leather-based footwear.

ii. To identify the influence of functional attributes on consumer's willingness to pay for fruit leather-based footwear.

iii. To identify the influence of marketing attributes on consumer's willingness to pay for fruit leather-based footwear.

iv. To identify the influence of psychological attributes on consumer's willingness to pay for fruit leather-based footwear.

1.4 Research questions

i. How do social-economic attributes influence consumer's willingness to pay for fruit leather-based footwear?

ii. How do functional attributes influence consumer's willingness to pay for fruit leather-based footwear?

iii. How do marketing attributes influence consumer's willingness to pay for fruit leather-based footwear?

iv. How do psychological attributes influence consumer's willingness to pay for fruit leather-based footwear?

1.5 Significance

This study had a scientific relevance as it provided a better understanding of consumer preference towards fruit leather-based footwear by investigating how Kenyan consumers value different attributes and features of footwear. Previous studies have explained consumer intentions toward purchasing environmentally friendly products (Ekebas, 2021) and (Salmivaara, 2021) however, when it comes to understanding the consumer choice process, the knowledge of important part is the consumer choice behavior (Blakney, 2014). Eco-labelling aids consumers to be able to quickly assess the environmental friendliness of a certain product (Jin et al., 2018). Previous studies have provided insights into the regulations set for eco-label certification (Alsmadia, 2018). However, no evidence has been found regarding the impact of government and self-declared eco-label on consumer preference in Kenya. Therefore, by this research investigating factors of consumer preference through binary logistic regression analysis contributed to the evaluation of the impact of sustainability labels.

Previous studies provide extensive information regarding bio-based footwear. Studies regarding bio-based footwear can be found in developed countries, such as Germany and the US (Brand, 2021); (Scherer, 2018) and (Wang L. X., 2022). However, there is limited substantiation that Kenyan consumers are open to paying for fruit leather-based footwear. Kenya provides a suitable

context to understand consumers' willingness to pay further, given its economic prominence both in the world and in the East African region. Therefore, it provided a suitable environment for further understanding consumer's willingness to pay in Kenya.

The study was also relevant from a social perspective. Global warming has been a great threat to the planet, and using conventional plastic only accelerates the rate of global warming (Ford et al., 2022). Fruit leather-based footwear is seen as one of the approaches to minimize environmental impact in the form of carbon emission reduction (Alvarez et al., 2012). From this research, information regarding consumer's inclination to pay for sustainable and environmentally friendly footwear was gained. Previous studies found that consumers find it important to purchase footwear based on the label embedded in it (Gatzer & Magnin, 2021) and (Petro, 2022).

This research investigated consumer's willingness to pay for fruit leather-based footwear in the Kenyan market. This involved a study of the attributes that Kenyan consumers value when it comes to fruit leather-based footwear choices. The study of these attributes provided the best utility for Kenyan customers. This in turn, provided information for brand managers to develop fruit leather footwear products that fit the preferences of customers in Kenya.

1.6 Scope of the study

The study was conducted in Nairobi County and centered on examining the impact of factors such as price, material, eco-label, and durability on consumers' inclination to invest in fruit leather-based footwear in this region. It also explored the extent to which variations in willingness to pay are influenced by factors like age, income, education, and gender. Additionally, the research delved into whether consumers' self-identification with environmentally-friendly practices, as well as their efforts to reduce, reuse, and recycle, have an impact on their willingness to pay for these products.

1.7 Assumptions of the study

The study assumed that respondents shared honest and valuable information needed for the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter captured the review of some of the studies that have been carried out regarding consumer preference on fruit leather-based footwear. The literature covered both theoretical review and empirical evidence.

2.2 Theoretical review.

2.2.1 Theory of reasoned action

Fishbein and Ajzen's in 1975 proposed the Reasoned Action Theory (TRA), which is well demonstrated in the top panel of Figure 2.1. According to the Theory of Reasoned Action (TRA), an individual's actions are shaped by their intent to carry out the behavior, and this intention, in return, is affected by their attitude towards the behavior and the social norms associated with it (Henk, 2019).

Hence,

$$B \approx I, \qquad (1)$$

Where the person's overt action B (generally measure by self-report in this domain) is a function of the intention I or willingness to perform the behavior which in this case the consumer preference (for example how likely is that a customer would use a fruit leather-based footwear to protect the environment? (Yan, 2017)). Thus, one is likely to purchase fruit leather-based footwear if one is willing to protect the environment. Intentions are swayed by viewpoint toward carrying out the behavior and the subjective norm (Wayne, 2022). The extent on to which one has a positive versus a negative evaluation of the behavior is an attitude (Stangor, 2022) and is typically determined by a bipolar semantic set of different scales (for example affordable-expensive, conserving-polluting, durable-short lifespan (Gene, 2019)). The subjective norm pertains to an individual's perception of whether significant individuals believe they should or should not engage in a specific behavior. It is commonly assessed through statements such as "people who are significant in my life believe I ought to utilize fruit leather-based footwear" (Henk, 2019).

Therefore.

$$I \approx A_{BW1} + SN_{BW2} \qquad (2)$$

Where;

I is the intention to perform behavior B,

A_B is the attitude toward performing behavior B,

SN_B is the subjective norm concerning behavior B, and

W1 and W2 are weights for A_B and SN_B .

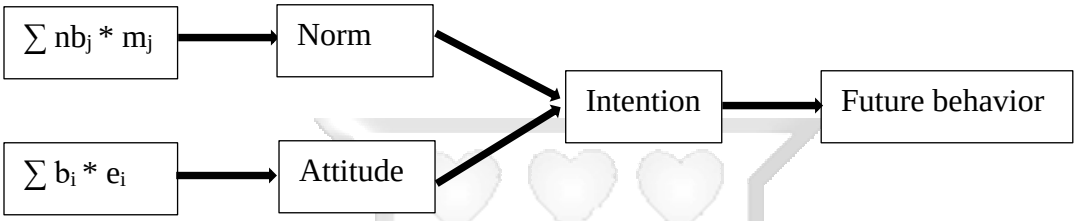

Figure 2.1 The theory of reasoned action

Source *(Henk, 2019)*

Where.

$\sum ob_j * m_j$ = sum of Normative Beliefs X Motivation to Comply (indirect norm).

$\sum b_i * E_i$ = sum of Beliefs X Evaluations (indirect attitude).

The predictive validity of the theory of reasoned action has been examined in numerous studies that have previously served as literature for several reviews. (Stossel, 2021) analyzed 10 studies and concluded that the correlation for the prediction of behavior from intentions was 0.62 on average and a mean multiple correlation of 0.77 for the equation predicting intentions from both attitudes and norms. With similar objectives and larger samples of studies, Salam Zadeh et al.'s (2022) and Lee (2021) meta-analyses calculated correlations of 0.57 and 0.65 when predicting behavior, and correlations of 0.66 and 0.68 for the prediction of intentions. These researches analyses were instrumental in validating the accuracy of predictions of the theory of reasoned action as a comprehensive model of behavior.

Moosa and Hassan (2015) investigated on the intentions to purchase electric vehicles, it was observed that when green innovation played a prominent role, the perceived societal benefit had a notable and positive impact on customer satisfaction. Furthermore, the study revealed that enhanced product popularity or broader social acceptance led to an improved product image and greater acceptance among prospective purchasers. Customers intentionally express their

environmentally conscious beliefs, with the expectation of receiving public recognition and being viewed with higher regard and positivity (Griskevicius, 2010). Conversely, if a buying decision lacks social approval from others, it may adversely affect purchase intentions, leading to cognitive dissonance (Chi, 2015). When this value is applied to fruit leather-based footwears, purchase intentions are more likely to be elevated when the purchases are in accordance with social norms and widely accepted (Koller, 2019). For these reasons theory of reasoned action was helpful in evaluating the willingness to pay of the consumer for fruit leather footwear attributes.

2.2.2 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is a psychological model that was formulated by Ajzen in 1985(2005) To elucidate human behavior, the TPB asserts that an individual's actions are predominantly dictated by their intention to engage in that behavior. This intention, in turn, is shaped by three key elements: their attitude toward the behavior, the subjective norms, and their perception of behavior control.

Attitudes refer to a person's evaluation of a particular behavior as positive or negative. Subjective norms involve the perception of societal influence on whether a behavior should be carried out or not. Perceived behavior control pertains to an individual's confidence in their capability to execute the behavior.

According to the TPB (2020), the more favorable a person's attitude towards a behavior, the stronger their intention to perform that behavior. Similarly, the more supportive their subjective norm, the stronger their intention to perform the behavior. Finally, the higher the person's perceived behavior control over the behavior, the more robust their intention to perform the behavior.

In practice, the TPB can be employed for anticipation and explain a wide range of behaviors, such as consumer behaviors, health-related behaviors, and environmental behaviors (Yuriev, 2020). It can also be used to design interventions that aim to change behavior by targeting attitudes, social norms and the perception of one's ability to control their behavior (Hagger, 2022).

A study by Patwary et.al., (2022) examined the TPB in the context of exercise behavior. The results showed that the TPB variables (attitude, subjective norm, and perceived behavioral control) significantly predicted exercise behavior. Haloes and Matsiori (2019) applied the TPB to the context of car use and found that the TPB variables were significant predictors of car use behavior. They also found that the TPB variables were more predictive than demographic variables such as

age and gender. Consequently, a study by Wang et.al., (2021) applied the TPB to the context of online gaming addiction and found that the TPB variables were significant predictors of online gaming addiction behavior.

Overall, these studies and many others suggest that the TPB is a useful framework for understanding and predicting a wide range of behaviors across various domains and for this reason TPB was useful in predicting effects of different attributes on willingness to pay of the consumer for fruit leather-based footwear.

2.2.3 Theory of Green Economy

The concept of a "green economy" is an economic theory and model that focuses on sustainability ad environmental responsibility as essential components of economic growth and development. The primary goal of a green economy is to create a more sustainable, low-carbon, and environmentally friendly economic system that pertains environmental challenges, including climate change, resource depletion, and ecosystem degradation. According to Gareth (2022), the tension between economic expansion and ecological limits is a central challenge in the context of sustainable development and environmental stewardship. Gareth explains that the challenge refers to the conflict or trade-off between the pursuit of economic growth and the finite capacity of the Earth's ecosystems to provide resources, absorb waste, and support human activities. He explains that economic expansion often entails increased consumption of natural resources, such as fossil fuels, minerals, and forests. These resources are finite, and their overexploitation can deplete them faster than they can naturally regenerate, leading to ecological damage and resource scarcity. In addition, economic activities can generate pollution and environmental degradation, including air and water pollution, deforestation, habitat destruction, and soil erosion can harm ecosystems, disrupt biodiversity, and compromise the products they provide.

Transitioning to a green economy is not without challenges, but it offers significant opportunities for sustainable development, job creation, and economic growth (Chomsky, 2020). According to Chomsky, governments, businesses, and individuals must work together to implement policies, technologies, and practices that support this transition and its positive economic outcomes such as contribution to a more resilient, equitable, and environmentally responsible future. According to Ayodele (2021), sustainable agriculture lays a crucial role in the green economy theory as it addresses the intersection of economic development, environmental responsibility, and food

security as it aims at using natural resources efficiently foe economic viability and promotion of circular economy by promoting practices that minimize waste, reuse – waste utilization. It offers a pathway to ensure that agriculture can meet the needs of a growing global population while protecting the planet's ecosystems and natural resources. Despite the challenges, businesses are increasingly recognizing the value of green marketing and sustainability initiatives in emerging economies (Adae, 2021). Adae, Eric Kwame, et al explain that as consumer awareness grows, and as regulatory environments evolve, companies that successfully navigate the challenges can position themselves as leaders in sustainability, attract environmentally conscious consumers, and contribute to the long-term well-being of both their businesses and the planet.

In overall, all these studies and many more suggest that green economy theory recognizes that traditional economic models have often failed to account for the environmental costs of economic activities. The studies emphasize the need to integrate environmental and social considerations into economic decision-making and policy development. By doing so, proponents of the green economy argue that we can achieve economic growth that is both sustainable and environmentally responsible, addressing critical global challenges while promoting prosperity and well-being.

2.3 Empirical review

This section of empirical review included an analysis of the pertinent and accessible observational studies as literature pertaining to consumer willingness to pay and the factors that impact such willingness in the context of green products. The segments were arranged in a consecutive order and aligned with the research objectives.

2.3.1 The influence of social-economic attributes on consumer's willingness to pay for fruit leather-based footwear.

The willingness of the consumer to pay for fruit leather-based footwear can be affected by a variety of social-economic attributes (Adams, 2021). According to Adams, these attributes are factors that influence how consumers gauge the product's value or service based on their social and economic backgrounds. Some of the significant social-economic attributes that influence consumer's willingness to pay include:

Age: Different age groups tend to have distinct needs, priorities, and preferences when it comes to purchasing products or services, and businesses need to be aware of these differences when developing marketing products (Kral, 2020). Younger consumers, such as Millennials and Gen Z, tend to be more tech-savvy and value products and services that are innovative, socially

responsible, and eco-friendly (Rhein, 2021). They also tend to be more price-sensitive and focused on the overall experience of using a product or service rather than on brand loyalty or reputation (Kaun, 2020). On the other hand, older consumers, such as Baby Boomers and Gen X, tend to be more focused on reliability, durability, and quality (Koksal, 2019). They may be less likely to be early adopters of new technologies and may place greater emphasis on factors such as brand reputation and customer service (Vahdat, 2021). Additionally, older consumers would be more willing to pay a premium price for products or services that offer greater value or meet their specific needs (Guinee R. P., 2020).

It's important for agri-businesses to understand these age-related differences in consumer preferences and behaviors and to tailor their marketing strategies accordingly (Chiu, 2021). For example, according to Chiu, businesses targeting younger consumers may need to focus on social media and influencer marketing, while those targeting older consumers may need to place greater emphasis on product reliability and quality and on providing exceptional customer service and businesses that can understand and respond to these age-related differences in consumer behavior are likely to be more successful in reaching and engaging their target audiences.

Gender: Research done by Yadav (2017) indicated that women may place a higher emphasis on the perceived value of products or services. They may consider factors such as quality, durability, and functionality when assessing the value of a product, which could impact their willingness to pay. Gender roles and societal expectations can influence how individuals perceive and value products. For instance, women might be more likely to invest in products that align with traditional feminine roles or aspirations, which could affect their willingness to pay for certain items (Wangechi, 2023). The impact of gender on WTP can vary depending on the product category. A study done by Hojnik (2021), indicated that women could exhibit a greater inclination to invest in products associated with beauty, health, and personal care, particularly when they perceive a strong link to their self-image or well-being. In addition, research done on BATA Kenya (Ng'ang'a, 2021) found that the female gender is the majority in purchasing leather footwear from BATA retail shops in Nairobi Kenya.

Income: Income is one of the primary social-economic attributes that affect the consumer's willingness to pay (Julia et al., 2021). Consumers with higher incomes are more likely to perceive higher value in products or services than those with lower incomes (Wang B. R., 2019). Higher income consumers may be willing to pay more for products and services that are perceived as

higher quality or have additional features, and this is because higher income consumers often have more disposable income and may be less price-sensitive compared to lower income consumers (Goulder, 2019). Higher income consumers may also have higher expectations in terms of quality and features, which can influence their willingness to pay more for products or services that meet their expectations (Wang M. W., 2022). Additionally, higher income consumers may also place more value on the perceived status associated with certain products or services, which can further influence their willingness to invest in a higher price (Morone, 2021). Example, luxury goods and high-end experiences are often marketed towards consumers with higher income levels, as these consumers are more likely to perceive greater value in these products and be disposed to pay a premium price for them (Kakawin, 2019).

Education: Consumers with higher education levels may be more likely to perceive greater value in products and services that have more features or functionality (Ryen, 2022). From the study done by Marcus (2018), consumers with higher levels of education may be more willing to pay a higher price for products or services that are perceived to have higher quality or offer more features or benefits and one reason for this is that higher levels of education are often associated with higher levels of income, which can also impact willingness to pay. However, education level can also negatively impact consumers' decision-making processes and their willingness to pay for a product or service (Shin, 2021). Consumers who have attained higher levels of education may possess a more comprehensive comprehension of the features and benefits of a product or service and may be more willing to pay a higher price for products or services that meet their specific needs and preferences (Mai, 2022). Additionally, consumers who have accomplished higher levels of education may be more interested in innovative and technologically advanced products, which can also influence their readiness to pay a higher price for these products (Guinee R. P., 2020).

In conclusion, while it is important to recognize the role that socio-economic attributes can play in influencing consumer’s willingness to invest or pay, it is also crucial to consider other factors that can affect willingness to pay. Furthermore, the relationship between socio-economic attributes and willingness to pay is not always straightforward and can be affected by a range of factors. Therefore, it was important to approach the consumer’s disposal to pay with a nuanced and multi-dimensional perspective and that what this research was seeking.

2.3.2 The influence of functional attributes on consumer's willingness to pay for fruit leather-based footwear.

Quality measurement of a footwear is difficult, as there is a difference between perceived and objective quality (Roy, 2020). Quality factors include flexibility, structural strength, water resistance among other measures (Luximon, 2016). According to a study done by Pratas and Carla (2022), perceived quality refers to the consumer's preparedness to pay for the quality of the product and services, which can be influenced and affeected by factors such as brand reputation, design, and marketing while objective quality, on the other hand, refers to the actual quality of the product, which can be measured through factors such as materials, construction, and durability.

Objective quality can be measured through various testing methods such as abrasion resistance, flexing, and water resistance (Covington, 2019). However, these tests are not always representative of how the shoe will perform in real-world use (Arina, 2022). Additionally, perceived quality can be influenced by factors such as brand reputation, design, and marketing (Pratas, 2022). Therefore, it can be difficult to balance perceived quality and objective quality as they may not always align. For example, a study by Anic (2022), found that a shoe that is made with high-quality materials and construction may not be perceived as high quality if the design is not fashionable or if the brand has a poor reputation. Conversely, a shoe that has a fashionable design and a strong brand reputation may be perceived as high quality even if the objective quality is not as high.

The lifespan of footwear is intended to reflect the quality of shoes and perceived quality positively affects a consumer's intention to purchase (Tim, 2020). There have been several studies that have looked at the relationship between the lifespan of footwear and consumer preferences. One study found that buyers are ready to invest or pay more for footwear that is perceived to have a longer lifespan. This is because they see it as better value for their money and appreciate the durability and longevity of the product (Miguel, 2017). Another study done by policy department (2017), found that it is more likely for consumers or buyers to purchase footwear that has been sustainably produced, and that they are disposed to pay a premium for this type of product. Tanovic (2021) retells about Mother Earth (MEA) company that creates alternative leather sneakers from fruits wastes and claims that the shoes emit 89% fewer carbon emissions than traditional leather. Approximately 70% of Kenyan consumers, as revealed in a 2018 survey, expressed a willingness to pay extra for superior clothing and accessories. Likewise, 71% of consumers in Kenya indicated their readiness to invest more in order to acquire long-lasting footwear (Statista, 2022).

Fruit leather is flexible yet durable (Sorenson, 2020) and it is elastic so it can be stretched yet it resists tearing and abrasion. Further, Sorenson elaborates on the breathability of fruit leather material, it effectively insulates heat, contributing to the regulation of foot temperature. These characteristics enable shoes made from this material to conform to the wearer's feet, making it a popular choice. The durability of footwear crafted from upper leather depends on the source of the raw material, and the comfort associated with high-quality leather shoes can be attributed to the structural composition of the leather as well as its diverse physical and chemical attributes (Covington, 2019).

In general, studies found that consumers are ready to pay more for footwear that is perceived as having a longer lifespan, more durable, sustainable, and eco-friendly. Brands that can communicate the sustainable and eco-friendly aspect of their products effectively, have a better chance of attracting consumer's attention and willingness to pay more (Ephrem, 2019). However, most of these studies have been done outside of the Kenya market and this research searched to contribute positive to the research gap on influence of the functionality attributes of fruit-leather based footwear in the Kenyan market.

2.3.3 The influence of marketing attributes on consumer’s willingness to pay for fruit leather-based footwears.

Price can influence willingness to pay in several ways. One way is through the concept of "anchoring," where a consumer's willingness to is anchored to the initial price, they see for a product (Zong, 2022). According to Zong if the price is high, the consumer may perceive the product as having a higher value, even if it is like a lower-priced product. Additionally, according to study done by Lingham (2022), consumers often associate higher prices with higher quality and craftsmanship. However, this is not always the case, and willingness to pay can also be affected by brand reputation, marketing, and personal experience (Hao, 2020). However, it's also important to note that there are limits to this phenomenon and people are also sensitive to what they consider to be "fair price" and can be influenced by external factors like current economic conditions, product availability, and competition (Csordas, 2022). Research done by Roediger (2015) found that consumers often compare the price of a product to a reference price, which might be the previous price they paid for a similar item or the price they expect to pay. If the current price is significantly lower than the reference price, consumers might perceive it as a good deal and be more willing to pay. In addition, Biswas (2015) found that consumers' income levels and financial situations

directly impact their willingness to pay. A product that is priced too high relative to a consumer's income might be perceived as unaffordable, leading to a lower willingness to pay. According to research done by Printer (2021), market share from the perspective of an average consumer's willingness to pay refers to the percentage of customers or potential buyers within a specific market segment who choose a particular company's product or service based on their willingness to pay a certain price for it. Printer's research explains that this concept is closely tied to the idea of consumer willingness to pay, value perception, and pricing strategies where a company with a larger market share indicates that a higher proportion of consumers are willing to pay the price that the company is charging for its product or service compared to its competitors.

Eco labelling has been practiced by some proactive enterprises in Kenya who have export orientation with a small extent (Miriam, 2013). Scheer et al (2018), cites examples of; the tourism sector's Eco-Rating Scheme and the Kenya Lower council's silver and golden codes of practice. UNEP's (2013), project that focused on Kenya's leather industry -Enabling Development Countries to size Eco-label opportunities. The project was aimed at promoting European eco labels in African countries. The Diamond Mark of Quality (D-Mark) from Kenya Bureau of Standards (KEBS) product quality standard that touches on environmental issues (KEBS, 2022).

In Kenya Eco-labels are classified under green economy where the system accommodates sustainable economic activities related to the production, distribution and consumption of goods and services and bring about improved human well-being over the long term, by ensuring no exposure of the future generations to significant environmental risks and ecological scarcities (UNEP, 2019). The activities that reduce carbon dioxide emissions to the atmosphere, initiatives that promote efficient use of natural resources for sustainable development, and job opportunities creation to minimize poverty can be classified as green economy (Williams, 2019). The transition to green economy emphasizes reliability of clean renewable energies and reducing carbon emissions (NEMA, 2021). The activities of investing in clean production technologies and adherence to environmental regulations are therefore Green initiatives (NEMA, 2021). There were several initiatives to promote forests and biodiversity conservation, promotion of organic agricultural practices, the minimization according to a survey done in Kenya by UNEP (2019) and recycling of wastes, development of renewable energy and the promotion of sustainable production and consumption via National Cleaner Production Centers in the country.

The marketing of the green economy in Kenya has had three approaches with various actors and roles where the actors are NEMA itself, corporate entities, and individuals (Schroth, 2011). NEMA (National Environment Management Authority) on its part gazetted various regulations which aid in promotion of a green economy. These include Environmental (Impact Assessment and Audit) Regulations 2003 (GOK, 2003), Waste Management Regulations, 2006 (GOK, 2006) and The Environmental Management and Co-ordination (GOK, 2006). The fundamental element in the country's 'green economy' policy is to adopt environmental conservation and sustainable resource use by all stakeholders. These include and not limited to the policy makers like NEMA in Kenyan set up, the corporate in production industry and all sectors of the economy, and the individual who is also the final consumer of the products of a green economy and Jordan (2020) found that eco-labels have the potential to educate and guide consumption-driven strategies for addressing change in climate hence important to investigate the elements propelling the growth and diffusion of these eco-labels.

Ecolabels facilitate the exchange of shared sustainability values among product developers and customers which is an important catalyst for effective collaboration that inspires sustainable consumption (Kwok, 2021). Based on Kwok, despite the numerous tools that have been created for evaluating and conveying the sustainability performance of the product, customers are encountering difficulties in understanding product sustainability information and There is limited exploration regarding the gaps in understanding how product sustainability information is perceived and how this impacts customer purchasing behavior.

Empirical research was conducted to examine consumers' inclination toward locally eco-labeled products as opposed to foreign ones. Data was gathered through in-person questionnaires in both Algeria and Tunisia, involving interviews with a total of 300 consumers. The results indicated that the factors of eco-labeling, product origin, and price significantly impacted consumers' preferences in both countries. In the case of Algeria and Tunisia, consumers demonstrated a stronger preference for locally eco-labeled products over those imported from France (Achabou, 2018).

Ecolabels as a form of environmental certification indicates that a product or service has met certain environmental standards and by displaying an ecolabel, a product or service can signal to consumers that it is environmentally friendly, which can increase its willingness to pay (Borin, 2011). This can lead to increased consumer demand and willingness to pay a premium price for the product or service and additionally, ecolabels can also help companies differentiate themselves

from competitors and attain a competitive superiority in the marketplace (Berger, 2021). There have been several studies conducted on the relationship between ecolabels and market value. One study published in the Journal of Environmental Economics and Management (Shunsuke, 2019) found that ecolabels can increase the market value of products, as consumers are willing to pay a premium for products with ecolabels. The study found that the price premium for products with ecolabels varies depending on the type of ecolabel, with some ecolabels commanding a higher premium than others. Another study published in the Journal of Business Ethics (Mohd, 2021), found that ecolabels can increase consumer trust in a product, which in turn can lead to increased sales and market value.

There are also some studies that have found mixed results, with some finding that ecolabels have a positive effect on market value and others finding no significant effect (Riskos, 2021) (Darnall, 2018) & (Sihem, 2021). It is important to note that the effect of ecolabels on market value and hence consumer preference may depend on a variety of factors, including the type of ecolabel, the product category, and the target market (Pavel, 2016). In conclusion, while studies have shown the influence of marketing attributes to consumer's willingness to pay, it was important to understand which of the marketing attributes is more important for the consumer. This research searched to understand whether the Kenyan consumer would prefer a government owed eco-label or a private owned eco-label.

2.3.4 The influence of psychological attributes on consumer's willingness to pay for fruit leather-based footwears.

Numerous businesses have adjusted their production approaches to proactively address environmental concerns and shifts in consumers' environmental perspectives (Wang et al., 2017). Consumers are shifting away from products that have a relatively high environmental impact and are gravitating towards environmentally friendly alternatives (Degirmenci, 2019). Most consumer theories that investigate how specific factors influence environmentally conscious purchasing behavior, believe that environmental awareness and beliefs influence environmentally conscious buying behavior by influencing consumers' environmental attitudes (Groening, 2018).

Fruit leather material has varying effects on consumer preference. In Germany, consumers have high regard for their purchase of outdoor apparel, and a higher percentage of fruit leather material is preferred (Scherer, 2018). Environmental realization also affects consumer preference (Brand, 2021) where green consumers consider the environmental aspect and impact of the product, and

pay attention to details such as material, material origin, and eco-label and likewise non-green consumers consider fewer environmental attributes.

Attitudes and habits are changing at pace and so the Institute for Creative Leather Technologies (ICLT) together with Leather UK (2022) did research to better understand consumer knowledge around leather and its origins as a by-product of the food industry. Out of the 1,074 people interviewed, 67% said fruit leather footwear could be trusted to last a lifetime and 55% said the leather from fruits is a high-quality material. Some 53% cited fruit leather's comfort and practicality as a main reason to purchase, while 37% find it as easy to maintain and clean. 16% would choose fruit leather due to lee environmental impact than synthetic leather such as PVC though both are called vegan leather while 13% would purchase fruit leather as a status symbol.

According to Nanda et al., (2022) fruit leather is classified as a biodegradable material and though a bio-based footwear would contain different amounts of biodegradable materials it comes in varying degrees of biodegradability and when making bio-based footwear, companies should choose carefully which material they use because a biodegradable bio-based product can provide a better end of life but can also deliver a less durable product.

Pro-environmental behavior refers to actions or choices made by individuals or organizations that are intended to benefit the environment. such as implementing sustainable business practices, using renewable energy, and reducing their carbon footprint and hence to reduce one's negative impact on the environment and promote sustainability (Breda, 2022). There have been numerous studies conducted on pro-environmental behavior and its effects on consumer's willingness to pay. Some findings include consumers are more likely to purchase products from companies that have environmentally friendly practices, such as reducing waste and using eco-friendly materials (Gerrit, 2022), brands that communicate their pro-environmental efforts effectively to consumers have a higher probability of drawing in and retaining customers who value sustainability (Fandy, 2018) and pro- environmental behavior can also increase brand loyalty, as consumers may feel a sense of personal connection to a company that shares their values (Alonso, 2022). Several studies have also shown that buyers are prepared to invest in or pay for premium products that are sustainable, especially when they are clearly labeled and marketed as such while on the other hand, greenwashing (exaggerating environmental claims) can lead to consumer skepticism and mistrust, which can harm the company's reputation Its also found that environmental concern and

knowledge, gender, age, education, income and other demographic factors can influence pro-environmental behavior (Yabe, 2020).

To assess the effect of pro-environmental behavior on consumer preference, four questions will be asked in the interview of this study regarding the respondents' environmental behavior. Respondents will answer using a form of the Likert scale, which will have a scoring system from 1 to 5. This research will use green self-identity and the three most promoted environmental behaviors in Kenya, reduce, reuse, and recycle (3R), to measure consumer preferences based on pro-environmental behavior (NEMA, 2015).

a) **Green Self Identity**

Green self-identity refers to a person's sense of self-concept as being environmentally conscious and responsible (Sharma, 2020). Research has shown that having a strong green self-identity is positively correlated with pro-environmental behavior, such as recycling, conserving energy, and supporting environmentally friendly policies (Legere, 2020). This is likely because individuals with a strong green self-identity view environmentalism as an important part of their personal identity and are more likely to act in ways that align with that identity (Gravelines, 2022). A study done by Suttikun et al., (2022), found that people with a strong green self-identity place a higher value on products and services that align with their environmentally conscious values, such as those that are sustainably produced or use renewable energy and they are more likely to pay morefor these types of products and services because they see them as having greater value than non- green alternatives. Additionally, they may be more likely to engage in pro-environmental behaviors such as recycling, conserving energy, and supporting environmentally friendly policies(Opoku, 2019). A research done by Harras et al., (2020), also suggests that with individuals who strongly identify with environmental values which is also termed as a strong green self-identity may be more likely to support companies and organizations that have environmentally friendly practices and policies, which can increase the willingness to pay of thosecompanies and organizations and overall, green self-identity can influence the willingness to pay of products, services, and companies by influencing the extent to which they align with an individual's environmentally conscious values.

b) **Reuse and reduce.**

Reusing refers to the practice of using a product or item again, instead of disposing of it and

replacing it with a new one and this can include using a reusable shopping bag, instead of a disposable one, or refilling a reusable water bottle, instead of purchasing a new disposable one (Essl, 2021). Reusing items can help to reduce waste, conserve resources, and decrease the environmental impact of consumerism hence an important pro-environmental behavior, as it encourages sustainability and reduces the need for constant consumption (Escario, 2020).

Essl (2021), found that reusing items as a pro-environmental behavior have a positive impact on willingness to pay by promoting sustainability and reducing waste and it is achieved by encouraging customers to bring their own reusable bags, containers, or cups when shopping or buying products. Additionally, reusing promotes the benefits of using durable and long-lasting products, such as rechargeable batteries or reusable water bottles and increases willingness to invest or pay(Arnut, 2017). Based on David et al., (2019), businesses can also communicate their efforts toreduce waste and promote sustainability through marketing campaigns, which can increase customer loyalty and attract environmentally conscious consumers. A study done by Varkey (2021) found that when individuals were provided with the option to reuse items, such as shopping bags and water bottles, they were more likely to choose them over single-use alternatives and this suggested that when individuals are given the opportunity to reuseitems, they are more likely to make environmentally friendly purchasing decisions.

Another study done by Coelho et al., (2020) explained that when buyers were provided with information about the environmental impact of different product packaging options, such as reusable versus disposable packaging, they were more likely to choose the more sustainable option.

Additionally, a study on reusable containers for take-out food found that when individuals were provided with the option to use reusable containers, they were more likely to choose them over disposable containers, resulting in less waste generated (Schuermann, 2022).

Overall, studies suggest that when individuals are given the opportunity to reuse items, provided with information about the environmental impact of their purchasing decisions, or provided with reusable options, they are more likely to make environmentally friendly purchasing decisions.

c) **Recycle**

Recycling is a pro-environmental behavior that positively affect consumer's willingness to pay by showing that the individual or company is committed to sustainability and reducing their impact on the environment (Schuermann, 2022). It also demonstrates a sense of responsibility and

stewardship towards resources, and this can lead to increased trust and loyalty from consumers who value environmentally friendly practices (Yang, 2022). Additionally, recycling can also leadto cost savings for the individual or company, which can be marketed as a benefit to the consumer(David, 2019). Buyers or customers are inclined to invest or pay more for products that areperceived as being eco-friendly, such as those that use recycled materials (Minh, 2021). Additionally, companies that have implemented recycling programs and promote recyclingmay be viewed as more socially responsible and trustworthy, which can further enhance consumer's willingness to pay (Coelho, 2020). Furthermore, recycling can also lead to cost savingsfor companies, which can be passed on to consumers in the form of lower prices or increased valuewith recycled materials (Cheng, 2022). Overall, recycling is a well-known and widely accepted pro-environmental behavior, and it is likely to be viewed positively by consumers.

In conclusion, while the studies have shown that pro-environmental behaviors can influence the consumer's preparedness to invest or pay, it's important and crucial to note that the willingness to pay more forenvironmentally friendly material may be different depending on the product, the consumer's personal values and their financial situation. Some consumers may not be able to afford to pay a premium for environmentally friendly products, while others may prioritize other factors over sustainabilitywhen making purchasing decisions. It was also very important to understand if there is arelationship between age and pro-environmental behavior driven decisions in Kenyan market.

2.4 Summary of research gaps

Understanding the motivations, attitudes, and behaviors of consumers towards green products and services remains a critical research gap. This includes investigating factors that influence purchase decisions, such as price sensitivity, trust in green claims, and the role of social norms and peer influence.

Research is required to pick out the most effective strategies for communicating green attributes and sustainability claims to consumers. This includes exploring the impact of various labels, symbols, and certification schemes, as well as the role and responsibility of advertising and social media in conveying green messages.

There is a need for research on how to detect and combat greenwashing, where companies make false or exaggerated claims about the environmental benefits of their products or practices.

Understanding how trust in green marketing claims can be built and maintained is also important. Green marketing research has often focused on Western markets. Exploring how cultural differences influence consumer perceptions and responses to green products in non-Western markets is an area that warrants further attention. Investigating the impact of government policies and regulations on green marketing and consumer choices is an area of significance. This includes understanding the effectiveness of eco-labeling standards and carbon pricing mechanisms. Investigating how marketing aligns with and promotes circular economy principles, including product design for recyclability, reuse, and remanufacturing is also a critical research gap.

Previous studies provide extensive information regarding attributes that influence consumer's inclined to pay for fruit leather-based footwear. However, there is minimal evidence that Kenyan consumers are ready to pay for fruit leather-based footwear. Kenya provides a suitable context to understand consumers' willingness to pay further, given its economic prominence both in the world and in the East African region. Therefore, it provides a suitable environment for further understanding consumer's willingness to pay in Kenya. This research was seeking to understand in the combination of the attributes what is the Kenyan consumer's utility value for fruit leather-based footwear.

2.5 Conceptual framework

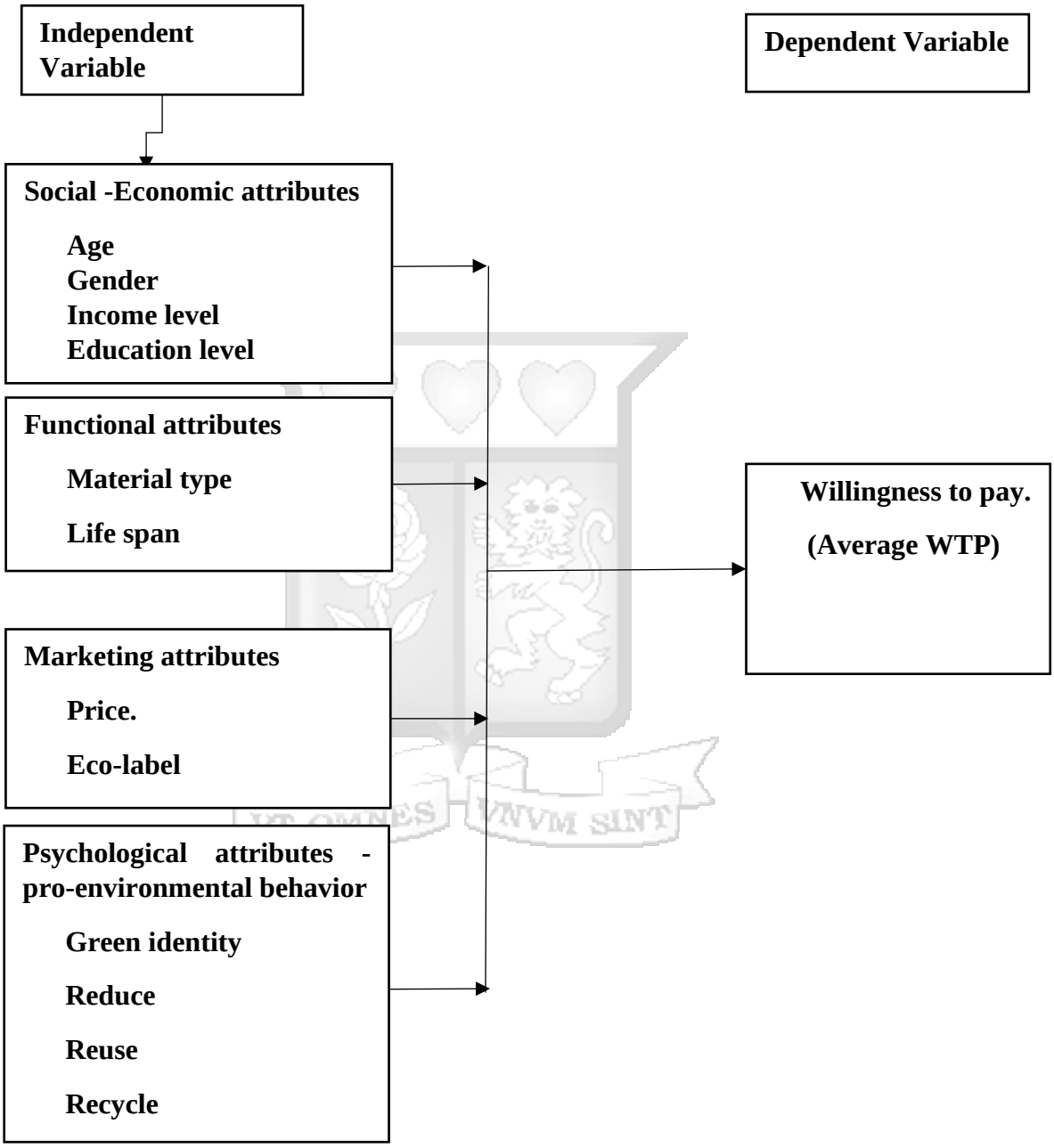

Figure 2.1: Conceptual framework (Source: Researcher 2023)

2.6 Operationalization of variables

Table 2.1: Operationalization of variables

Variable	Type of Variable	Indicators	Measurement	Data collection method
Willingness to pay	Dependent	-Utility levels	Tangible benefits/ Price	Questionnaire
Social-economic attributes	Independent	-Age -Gender -Income level -Education level	Demographic questions	Questionnaire
Functional attributes	Independent	-Material type -Life span of the footwear	Likert scale	Questionnaire
Psychological attributes	Independent	-pro environmental behavior	Rating scale	Questionnaire

Marketing attributes	Independent	-Price issues -Eco-labels	Likert scale	Questionnaire

Source: Researcher (2023)

2.7 Chapter summary

Shoe material incorporates the environmental awareness of a person in their choice of material for this attribute (Nanda, 2022), the study examined consumer's material preference by giving choices of animal leather, synthetic leather, and fruit-based leather. It is assumed that the more bio-based leather embedded in the shoe, the more environmentally friendly it is. The levels of shoe prices are based on the average prices in the shoe industry in Kenya (Mulu, 2021). There are companies that choose not to include any eco-label on their footwears (UNEP, 2019), therefore this attribute provided a means to assess the importance of eco-label in a shoe purchase. It was assumed that the better the shoe quality, the longer it will last (Tim, 2020), and in this case, the study examined three levels of shoe lifespan duration: less than 1 year, 1 and 2 to 3 years.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology the researcher is going to use in carrying out the study. It encompasses the methods and designs that were used by the researcher when conducting the research. It also explained the study population putting forward their appropriateness for choice in the study. The chapter also presented sampling procedure, research instruments, data collection procedures, data analysis procedures and presentation clearly indicating the appropriateness of application of each concerning the study.

3.2 Research philosophy

The researcher utilized the positivism research philosophy. Positivism is a research philosophy that emphasizes the use of empirical evidence to understand the social world (Park, 2020). In this context of the consumer willingness to pay, the positivism approach involved collecting quantitative date through survey to understand the attributes that affect consumer's willingness to pay for fruit leather-based footwear in Nairobi.

3.3 Research design

A study design provides a blueprint or a strategy that can be employed in the creation of the answers to address the problem under study (Sabando, 2022) as it illustrates the organization of the different study conditions and examines them to obtain the relevance of the study being conducted.

The researcher will utilize a choice-based experiment design in the study. It is a statistical method employed in market-oriented research, based on surveys, to assess how individuals assign value to various characteristics (features, functions, benefits) that constitute a particular product or service (Konig, 2022). Choice experiments allow for a high degree of experimental control. Researchers can systematically vary attributes and levels to understand how different combinations influence choices, all while holding other factors constant (Mariel, 2021). This methodology also helps reveal trade-offs individuals are willing to make when selecting from a set of alternatives. Researchers can assess the relative value of various attributes and how people weigh these trade-offs (Shaddy, 2021). For complex decision-making situations with multiple attributes and options, choice

experiments simplify the decision process for participants and allow researchers to analyze the decision factors systematically (Pearce, 2021). According to Pearce, researchers can customize choice experiments to suit the specific context and research objectives, making them highly adaptable to a wide range of applications.

The binary logistic regression analysis will be used to identify which combination of the restricted set of attributes holds the most sway over a respondent's choice or decision-making process within predefined market channels: customers with preference to leather based shoes within Nairobi County. A controlled set of attributes will be shown to survey respondents and by analyzing how they make choices among these attributes, The inherent assessment of the individual components comprising the fruit leather-based footwear or service can be determined. These inherent appraisals (utilities) can be applied to construct market models, which in turn can estimate market portion, income, and the prospective profitability of new designs. The study will focus on the consumer's willingness to pay in the leather industry and the researcherwill adopt choice-based conjoint analysis survey using binary logistic regression analysis to understand the attributes that would influence consumer's willingness to pay for fruit leather-basedfootwears.

3.4 Population and sampling

3.4.1 Target population

According to (Pandey, 2021), the target population of the study involves the overall count of the characters or objects being studied. In other words, according to Yeager (2019), a target population is the total number of characters or objects that the researcher wishes to study and draw conclusions from.

The study focused on Nairobi County which is the capital city of Kenya and the largest leather processing and footwear distribution and consumption town according to World Bank (2020). However, the study targeted urban dwelling shoppers with preference to leather based footwear in Nairobi County given a population of 4,397,073 (KNBS, 2019). Respondents between the age of 18 years to 60 years were selected as they exit from Citywalk Shops-Central Business District (Starehe constituency), Bata shops-Westlands Sarit center mall (Westlands constituency), and footwear shops-Kariokor market (Starehe constituency) with a target population of 2,142,909 (KNBS, 2019).

3.4.2 Sampling Technique and sample size

A study sample refers to a subset of the entire population that is chosen by the researcher to study on, and then the generalization is done to the whole population (Baltes, 2022). According to Baltes, the process of getting a subset from the whole population to save time, money and energy is called sampling and the population characteristics or behavoirs are represented by the sample within which it is selected.

For this study the sample size was determined using Fischer's et al (1998) formula (Lanz, 2019). The selection of this formula was because it provides an option for estimating sample size when the target population is infinite.

$$n = {}^{Z^{2pq}}/_{d^2} \quad (3)$$

Where;

n = Sample size, d = the level of precision, Z = the Z score corresponding to the confidence interval, p = estimated proportion of customers with preference of leather footwears in the population, q = 1-p

The researcher utilized a 94% confidence interval, and a +/- 3% level of precision and a the estimated proportion of customers with preference to leather footwears (p) was set as 86%.Tthe resulting sample size was determined at:

n = 1.88^2*0.86*0.14/0.03^2, n = 472 - every fifth urban dwelling shoppers between the age of 18 years to 60 years selected as they exit from the footwear shops.

Therefore, the sample size n was determined as 472 respondents. It was also adjusted upwards by 6% to cater for non-responses making a total of 500 respondent's sample.

3.5 Data collection

The study employed questionnaires (appendix II) as the main data gathering instrument, where a random selection of the respondents was done by considering only customers with preference to leather based footwear in Nairobi County. The questionnaire attached in the appendix was used to undertake the survey where the customers were picked randomly from as they exit footwear shops. The survey involved trained enumerators where every fifth respondent exiting the Bata shops,

Citywalk shops and Footwear shops at Kariokor market were approached and requested to take part in the study and if the request was declined, the next would be requested until successful. The respondents were interviewed as they exited the footwear shops: Footwear shops-Kariokor market, Bata shops -Westlands and City walk shops-Central Business District. Special care was taken to ensure they were willing to respond to the questionnaire. Consideration was taken to carrying out the interviews at different times of the day, both at weekdays and weekends to have a broader representation of different shoppers.

The survey collected quantitative information which enabled binary logistic regression analysis from which greater insights was gained. Binary logistic regression analysis provided the opportunity to analyze the willingness to pay of the respondents in the sample. Furthermore, it was less time-consuming in terms of obtaining and analyzing a lot of respondents than qualitative analysis is.

The survey consisted of 3 parts. The first part was collecting of the socio-demographic data of the respondents, which included: age, income, education, and gender. The second part of the survey was to collect data on the environmental behavior of the respondents. Four questions about the respondent's beliefs about their green self-identity, reduce, reuse, and recycling behavior were responded to in the format of the Likert scale. The third part of this survey consisted of the choice-based conjoint experiment. Respondents were asked to choose their preferred shoes from two options given. Eight choice-based questions were asked of the respondents, an example of which is displayed in Table 3.1.

Table 3.1: Example of the Conjoint Choice Task.

Option 1	**Option 2**
Price: Ksh. 1,800	Price: Ksh. 2,400
Material type: Animal leather	Material type: Synthetic leather
Eco Label: Private	Eco Label: KEBs
Lifespan: 2 years	Lifespan: 1 year

Source: Researcher (2023)

For the binary logistic analysis, all attributes were used, and each attribute had several levels. The WPT which is the dependent variable of the study was the willingness to pay. The independent

variables included the attributes researched namely, age, income level, education level, shoe material, price, eco-label, the Lifespan of the shoes and pro-environmental behaviors (green identity, reduce, recycle, reuse).

Table 3.2: Research Attributes and Levels

Attributes	Levels
Social-economic	• Age
	• Income level
	• Education level
Functional	• Type of material
	• Life span
Psychological	• Pro-Environmental behavior
Marketing	• Price
	• Eco label

3.6 Quality Research

3.6.1 Validity

Validity pertains to whether the measuring tool accurately assesses the behavior it's designed for and serves as an indicator of how effectively the measuring instrument fulfills its intended purpose (Surucu, 2020), therefore the assessment of validity relies on the meaningful and appropriate way to understand or explain of the data derived from the measuring instrument due to the analyses conducted. Apuke (2017) defined validity as acquiring data that suits the intended purpose of the measuring devices. The validity was attained by considering constructs from previous studies presented in the reviewed literature.

3.6.2 Reliability

The stability of the measuring instrument used and its consistency over time is reliability (Surucu, 2020). It is the consistency of measurement instrument to yield consistent outcomes when used on separate occasions, though it is unlikely that similar results will be achieved every time due to differences at the time the measuring instrument is applied, as well as changes in the population and the sample (Sileyew, 2019). However, a strong positive correlation between the results of the

measuring instrument is an indication of reliability (Lufti, 2020). A reliability test was done to analyze the consistency between all variables being combined to create a single variable. From the reliability test, it proved that the data in all variables was consistent based on the R value (Khayru, 2021).

3.7 Data Analysis

Data was analyzed using binary logit regression. Binary logit regression was used in this research as the regression predicts the probability based on two levels. Regression was suitable for this research as the respondents choose between two options for each choice task. The regression model of this research was as follows:

$$U_{ij}=\beta_0+\beta_1*Age_{Years}+\beta_2*Education\text{-}level_{Years}+\beta_3*Income\text{-}level+\beta_4*Price+\beta_5*Materialtype +\beta_6*Eco\text{-}Label+\beta_7*Lifespan_{Years}+\beta_8*Green\text{-}identity+\beta_9*Reduce+\beta_{10}*Recycle+\beta_{11}*Reuse \quad (4)$$

Choice = 1 if $U_{ij} > 0$

Where U_{ij} is the underlying utility of the consumer.

The binary logistic regression analysis of this research was done using SPSS software. Age and lifespan were treated as a continuous variable, while gender, education level, income level, green identity, reduce, reuse, recycle, eco label, price and material were treated as a categorical variable. In this binary logistic regression, the estimated coefficient was the result.

3.8 Ethic Issues in Research

The researcher conscientiously addressed ethical considerations related to obtaining informed consent, safeguarding the confidentiality of shared information, and ensuring the voluntary nature of participation in the study. Anonymity and privacy were maintained by ensuring that the collected information was used in a manner that would prevent anyone other than the researcher from identifying the source.

The respondents were made aware of their right to not participate or withdraw from the data collection at any time, and this was narrated to them before engagement to the study. The researcher would seek permission from respondents to include them in the study.

Finally, an introductory letter was attached to the questionnaire detailing the objectives of the study, guaranteeing anonymity, confidentiality, and voluntary nature of the study. Along with this, a research permit was acquired from the National Commission for Science, Technology, and Innovation (NACOSTI) and ethical approval from Strathmore University Institutional Ethics Review Committee (SU-IERC).

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter entails the data analysis, the presentation and interpretation of the results of the binary logistic analysis. This study aimed to evaluate the attributes that affect consumer's willingness to pay for fruit leather-based footwear in Nairobi County, Kenya. First, an explanation regarding the sample is given to provide the sample's demographic characteristics. Second, the binary logistic regression results are explained.

4.2 Demographic profile

The study targeted 500 respondents but managed to get the views of 165 from Kariokor market, 153 from City walk Nairobi CBD and 138 from Bata shop Sarit Center Westlands summing up to 456 respondents as shown in Figure 4.1. This translated to a study response rate of 91.2%.

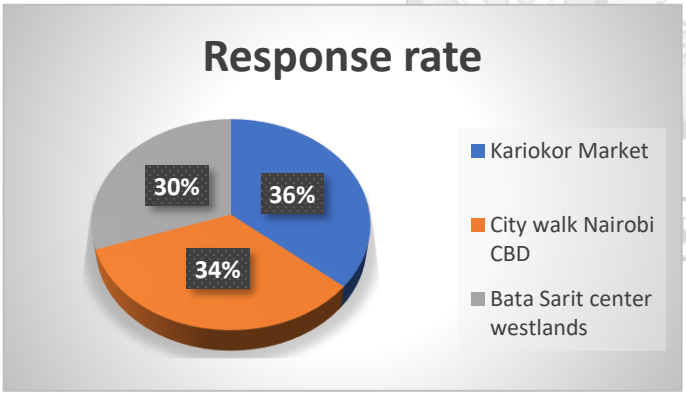

Figure 4.1: Response rate

Source: Researcher (2023)

Table 4.1: Gender of the respondents

Gender			
		Frequency	Percent (%)
Valid	Male	223	48.9
	Female	233	51.1
	Total	456	100.0
Age			
Valid		21-30	28
		31-40	37
		41-50	24
		51-60	10
		61-70	1
	Total		100.0

Source: Researcher (2023)

From Table 4.1, out of the 146 who responded to the study, 233 (51.1%) were female and the other 223 (48.9%) were male. This shows that there was no equal representation of male and female respondents clearly showing that this is a female consumer dominated sector. According to Kothari (2014) a response rate of 50% is satisfactory for data analysis and reporting; 60% rate is good and 70% response rate and over is excellent; hence this response rate was satisfactory for analysis.

From table 4.1, 169 respondents (37%) were of age between thirty-one years and forty years and 296 respondents (65%) were of age below forty-one years and above twenty years old. The data also represented 11% response rate for consumers with the age above fifty years old and below seventy-one years old.

Table 4.2: Education level and Income level of the respondents

Education level			
		Frequency	Percent (%)
Valid	Primary school	7	1.5
	Secondary school	23	5.0

	Diploma	121	26.5
	University degree	232	50.9
	Postgraduate degree	72	15.8
	Total	455	99.8
Missing	System	1	.2
Total		456	100.0
Income level			
		Frequency	Percent (%)
Valid	Below Ksh.24,000	83	18.2
	Ksh.24,001-50,000	140	30.7
	Ksh.50,001-100,000	150	32.9
	Above Ksh.100,000	83	18.2
	Total	456	100.0

Source: Researcher (2023)

The study results in Table 4.2 indicate that most of the respondents, 232 (50.9%) have undergraduate degree, 121 (26.5%) college diploma, 23 (5%) have secondary education, 7 (1.5%) have primary school education while 72 (15.8%) have post-graduate degree. The study also shows that 150 (32.9%) of the respondents have an income level between Ksh.50,001- Ksh.100,000, 140 (30.7%) have an income level between Ksh.24,001- Ksh.50,000, 83 (18.2%) have an income level below Ksh.24,000 while, 83 (18.2%) have an income level above Ksh.100,000. From these findings, most respondents, 77.4% have higher education with 81.8% earning Ksh.100,000 and below hence adequately enough to respond about the attributes influencing consumer's willingness to pay for fruit leather-based footwear.

4.3 The attributes that influence consumer's willingness to pay for fruit leather-based footwear

The study sought to find attributes that influence consumer's willingness to pay for fruit leather-based footwear as a formal approach of analysis of performance and systematic efforts to improve it by use of data to monitor the outcomes. This was done through a survey that consisted of 3 parts. The first part was collecting of the socio-demographic data of the respondents, which included: age, income, education, and gender. The second part of the survey was to collect data on the environmental behavior of the respondents. Four questions about the respondent's beliefs about their green self-identity, reduce, reuse, and recycling behavior were responded to in the method of the Likert scale. The third part of this survey consisted of the choice-based conjoint experiment. Respondents were asked to choose their preferred shoes from two options given.

To demonstrate the influence of the attributes on the consumer's willingness to pay for fruit leather-based footwear, the researcher carried out regression analysis. This was done at 6% level of significance (94% confidence level). The results are summarized in Table 4.3.

Table 4.3: Attributes that influence consumer's willingness to pay for fruit leather-based footwear

	Overall Model
Independent variables	**Combined**
	Dependent variable - WTP
Gender	1.0773***
	(0.2601)
Age	0.0089
	(0.0126)
Education level	0.7473**
	(0.3000)
Income level	-0.0723
	(0.2510)
Green identity	-1.7442***
	(0.8280)
Reduce	0.8367***
	(0.6627)

Reuse	-0.0063
	(0.3604)
Recycle	0.6746**
	(0.3110)
Ecolabel	-0.8631***
	(0.4243)
Price	0.3600*
	(0.2023)
Material	-0.4876**
	(0.2265)
Lifespan	-0.0962
	(0.2326)
Constant	0.1711
	(0.8536)
Observations	453
Pseudo R-squared	0.941
R value	0.9700
LR Chi square	45.0000
P value	0.0000
Standard errors in parentheses	
*** p<0.01, ** p<0.06, * p<0.1	

Source: Researcher (2023)

The constant of the regression equation (0.1711) is the y-intercept, and it indicated the value that would be predicted for the willingness to pay for fruit leather-based footwear (dependent variable) if all the attributes (independent variables) were simultaneously equal to zero which in the case is 54%.

$$\mathbf{P = e^{\beta 0} \div \left(1 + e^{\beta 0}\right) = e^{0.1711} \div \left(1 + e^{0.1711}\right) = 0.54.} \qquad \mathbf{(5)}$$

The R value of the model was 0.9700 representing the simple correlation between consumer's willingness to pay (dependent variable) and the attributes (independent variables). It indicated that

there exists a high degree of correlation between consumer's willingness to pay (dependent variable) and the attributes (independent variables). The R value indicated that the data was fit and reliable for analysis. The value of R squared = 0.941 indicated how much of the total variation in the consumer's willingness to pay (dependent variable) are explained by the attributes (independent variables). In this case, 94.1% of the variation in the consumer's willingness to pay (dependent variable) was accounted for by the attributes (independent variables). This is a high variation in consumer's willingness to pay.

The regression model predicts the dependent variable (willingness to pay) significantly well given that p-value (sig) =0.0000103<0.06 (6% significance level). This indicated that the regression model was a good fit for the data, that is, it significantly predicted the outcome variable (willingness to pay).

These results provided the necessary information to predict consumer's willingness to pay for fruit leather-based footwear from the attributes (social-economic, functional, marketing, and psychological). Furthermore, the results also provided information showing whether the attributes contributed statistically significantly to the model. Thus, the average willingness to pay for fruit leather-based footwear was predicted using the model as follows:

$$\textbf{Willingness to pay for fruit leather-based footwear} = \frac{e^{0.1711}}{1+e^{0.1711}} + \frac{e^{1.0773}}{1+e^{1.0773}} + \frac{e^{0.0089}}{1+e^{0.0089}} + \frac{e^{0.7473}}{1+e^{0.7473}} + \frac{e^{-0.0723}}{1+e^{-0.0723}} + \frac{e^{0.3600}}{1+e^{0.3600}} + \frac{e^{-0.4876}}{1+e^{-0.4876}} + \frac{e^{-0.8631}}{1+e^{-0.8631}} + \frac{e^{-0.0962}}{1+e^{-0.0962}} + \frac{e^{-1.7442}}{1+e^{-1.7442}} + \frac{e^{0.8367}}{1+e^{0.8367}} + \frac{e^{0.6746}}{1+e^{0.6746}} + \frac{e^{-0.0063}}{1+e^{-0.0063}} = \mathbf{0.6701} \quad \textbf{(6)}$$

The overall model equation was as follows.

Willingness to pay for fruit leather-based footwear = 0.1711 + 1.0773*Gender + 0.0089*Age_{Years} + 0.7473*$Education\text{-}level_{Years}$ - 0.0723*Income-level + 0.3600*Price - 0.4876*Materialtype - 0.8631*EcoLabel - 0.0962*$Lifespan_{Years}$ - 1.7442*Green-identity + 0.8367*Reduce + 0.6746*Recycle - 0.0063*Reuse **(7)**

The average willingness to pay for fruit leather-based footwear was 67%. From this model, all the attributes contributed towards consumer's willingness to pay for fruit leather-based footwear. However, gender, education level, ecolabel, green identity, reduce and recycle were the only independent variables that contribute statistically significantly to the model. The coefficients of the model were obtained from the SPSS analysis.

4.4 The relationship between social-economic attributes and consumer's willingness to pay for fruit leather-based footwear

The first specific objective of the study was to determine the influence of social-economic attributes on consumer's readiness to pay for fruit leather-based footwear. The relationship between social-economic factors and consumer's willingness to pay for fruit leather-based footwear was analyzed through a binary logistic regression model and the results are presented in table 4.3.

The variables considered in this study as social-economic attributes included gender, age, education level and income level. From table 4.3, gender (1.0773) significantly and constructively influenced consumer's preparedness to pay for fruit leather-based footwear. In addition, education level (0.7473) significantly influenced consumer's willingness to pay for fruit leather-based footwear positively. The data also indicated that the income levels (-0.0723) negatively influenced consumer's willingness to pay for fruit leather- based footwear though the influence is insignificant. Age had an insignificant constructive influence on consumer's willingness to pay for fruit leather-based footwear. Gender was the most influential variable among the considered social-economic attributes.

The model for the average willingness to pay for fruit leather-based footwear due to social-economic attributes was a below.

Willingness to pay for fruit leather-based footwear = -0.2717 + 0.8567*gender + 0.0030*age + 0.7850*education level – 0.0471*income level **(8)**

4.5 The relationship between functional attributes and consumer's willingness to pay for fruit leather-based footwear

The second specific objective of the study was to determine the influence of functional attributes on consumer's willingness to pay for fruit leather-based footwear. The relationship between functional attributes and consumer's willingness to pay for fruit leather-based footwear was assessed through a binary logistic regression model and the results are presented in Table 4.3.

The variables considered as functional attributes in this study included material and lifespan. The material variable (-0.4876) negatively influenced consumer's willingness to for fruit leather-based footwear. Lifespan had an insignificant negative influence on consumer's readiness to pay for fruit leather-based footwear.

The model considered to illustrate the average willingness to pay for fruit leather-based footwear due to functional attributes was a below.

Willingness to pay for fruit leather-based footwear = 1.5753 – 0.1070*material – 0.0625* lifespan **(9)**

4.6 The relationship between marketing attributes and consumer's willingness to pay for fruit leather-based footwear

The third specific objective of the study was to determine the influence of marketing attributes on consumer's willingness to pay for fruit leather-based footwear. The relationship between marketing factors and consumer's willingness to pay for fruit leather-based footwear was assessed through a binary logistic regression model and the results are presented in Table 4.3.

This study evaluated the influence of ecolabel and price as marketing attributes, on consumer's willingness to pay for fruit leather-based footwear. The data indicated that ecolabel and price as marketing factors contributed statistically significantly to the model where the absence of eco labels (-0.8631) very significantly negatively influenced consumer's willingness to pay for a fruit-leather and the low footwear price (0.3600) insignificantly positively influenced consumer's willingness to pay for fruit leather-based footwear.

The model for the average willingness to pay for fruit leather-based footwear due to marketing attributes was a below.

Willingness to pay for fruit leather-based footwear = 2.0064 – 0.9786*ecolabel + 0.0414* price **(10)**

4.7 The relationship between psychological attributes and consumer's willingness to pay for fruit leather-based footwear

The fourth specific objective of the study was to determine the influence of psychological factors on consumer's willingness to pay for fruit leather-based footwear. The relationship between psychological attributes and consumer's willingness to pay for fruit leather-based footwear was assessed through a binary logistic regression model and the results are presented in Table 4.3.

The study evaluated the influence of self-green identity, reduce, reuse, and recycle- pro-environmental behaviors as psychological attributes on consumer's willingness to pay for fruit leather-based footwear. The data indicated that green identity, reduce, reuse, and recycle as psychological attributes contributed statistically significantly to the model where the respondents that not at all thinks of the impact of the products they purchase have on the environment (low self-green identity) (-1.7442) significantly negatively influenced consumer's willingness to pay for a fruit leather-based footwear. The respondents who in great extent stay away from items that contain materials that are not environmentally friendly (such a plastic and synthetic leather) (high reduce pro-environmental behavior) (0.8367), very significantly positively influenced respondents' willingness to pay for fruit leather-based footwear. The respondents that did not look for ways to reuse the products they own the more reuse attribute (low reuse pro-environmental behavior) (-0.0063) insignificantly negatively influenced respondents' willingness to pay for fruit leather-based footwear. The respondents that in great extent sort the trash with an aim of recycling the trash they generate (high recycle pro-environmental behavior) (0.6746) significantly positively influenced respondents' willingness to pay for fruit leather-based footwear.

The model for the average willingness to pay for fruit leather-based footwear due to psychological attributes was a below.

Willingness to pay for fruit leather-based footwear = 1.0637 – 1.2043*green-identity + 0.8916*reduce – 0.2473*reuse + 0.6720recycle **(11)**

4.8 Chapter Summary

In this Chapter, the influence of the attributes on the consumer's readiness to pay for fruit leather-based footwear was assessed. The study findings from the binary logistic regression models indicated that gender among the social-economic factors was the most impactful on the consumer's willingness to pay for fruit leather-based footwear with a beta coefficient of 1.0773 in which it accounts for 45.2% variability in consumer's willingness to pay. From the multiple regression the study established that the attributes significantly contribute to the willingness to invest or pay by the consumers for fruit leather-based footwear in Nairobi County. However, there is need to further investigate other attributes that influence the rest of 5.9%, since the attributes in the study contributed to 94.1% of the variation of consumer's willingness to pay for fruit leather-based footwear.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, discussion of the findings, conclusions, and recommendations for further research.

5.2 Summary of findings

The research study aimed to evaluate the attributes that influence consumer's willingness to pay for fruit leather-based footwear in Nairobi County, Kenya. The analysis was examined using a choice-based conjoint analysis using binary logistic regression. The research focused on four attributes namely, social-economic attributes, functional attributes, psychological attributes and marketing attributes and their influence on consumer's willingness to pay for fruit leather-based footwear. The research was entrenched in consumer's willingness to pay, theory of reasoned action (TRA), and the theory of planned behavior (TPB). The research was conducted in three different footwear market outlets with a target population of 500 and a response rate of 91.2% was obtained from 456 respondents. The study findings showed that that gender among the social-economic attributes was the most impactful on the consumer's willingness to pay for fruit leather-based footwear with a beta coefficient of 1.0773 in which the social-economic attributes accounts for 45.2% variability in consumer's willingness to pay.

5.3 Discussion of findings

5.3.1 The influence of social-economic attributes on consumer's willingness to pay for fruit leather-based footwear.

The study findings showed that the female gender was the most influential attribute on consumer's willingness to pay for fruit leather-based footwear (see table 4.3) which is in line with literature (Yadav, 2017) that explained that women place a higher emphasis on the perceived value such as recycled raw materials, quality, durability and functionality when assessing the value of a product, which impacts their willingness to pay. In addition, the data is in line with the literature on BATA retail outlets in Nairobi Kenya (Ng'ang'a, 2021) that found that the female gender is the majority gender that purchase leather footwear (see table 4.1). The data also showed education level attribute

positively influenced consumer's willingness to pay for fruit leather-based footwear (see table 4.3) which is in line with the literature review by Guine (2020), which found that consumers that attained levels of education may be more interested in innovative and technologically advanced products, which contribute positively their willingness to pay for these products. From table 4.2 above 50% of the respondents have acquired higher education which includes tertiary education (diploma level and above). The data represented an educated society with 81.8% having an income below Ksh.100,000 and had an average WTP of 67% for fruit leather-based footwear, contrary with a literature review research done by Marcuta (2018), that found that consumers who attained higher levels of education may be more willing to pay a higher price for products or services that are perceived to have higher quality or offer more features or benefits and one reason for this is that higher levels of education are often associated with higher levels of income.

5.3.2 The influence of functional attributes on consumer's willingness to pay for fruit leather-based footwear.

The analysis measured consumers' willingness to pay for fruit leather footwear with certain material attributes and different life spans. The presence of sythentic leather negatively influenced consumer's willingness to pay for fruit leather footwear (see table 4.3) – in reference to the theory of reasoned action (TRA) and literature review (Yan, 2017) which proves that a customer would use a fruit leather-based footwear to protect the environment though other factors like price would limit them. Consumer's were also willing to pay for shoes with more than one year life span (see table 4.3) – in line with literature review (Miguel, 2017) proving that consumers are open to paying a higher price for footwear that is perceived to have a longer lifespan because they see it as a better value for their money and appreciate the durability and longevity of the product.

5.3.3 The influence of marketing attributes on consumer's willingness to pay for fruit leather-based footwear.

The study found out that consumers are very price sensitive an indication of low disposable income – where low footwear price positively influenced consumer's willingness to pay for fruit leather-based footwear this is in line with the literature review (Rodiger, 2015) consumers often compare the price of a product to a reference price, which might be the previous price they paid for a similar item or the price they expect to pay. When the current price is significantly lower than the reference

price, consumers might perceive it as a good deal and be more willing to pay. In addition, it is in line with the literature review (Biswas, 2015) consumers' income levels and financial situations directly impact their willingness to pay. A product that is priced too high relative to a consumer's income might be perceived as unaffordable, leading to a lower willingness to pay. The absence of eco labels very significantly negatively influenced consumer's willingness to pay for a fruit-leather and the study proves that government regulated eco-labelling aids consumers to be able to quickly assess the environmental friendliness of a certain product (Jin et al., 2018).

5.3.4 The influence of psychological attributes on consumer's willingness to pay for fruit leather-based footwear.

The study found that self-green identity pro-environmental behavior which represented by the high number of respondents that were not at all thinking of the impact of the products they purchase have on the environment, negatively influenced consumer's willingness to pay for fruit leather-based footwear. These findings are in line with the literature review (Gravelines, 2022) where individuals with a strong green self-identity view environmentalism as an important part of their personal identity and are more likely to act in ways that align with that identity, in this case the respondents could not align with fruit leather-based footwear which is environmentally friendly due to their weak green self-identity. It was evident from the study that consumers that embodied green behavior, such as reducing and recycling, tend to choose products that are environmentally friendly as consumers with a great extent pro-environmental behaviors of reduce and recycle attributes positively influenced consumer's willingness to pay for fruit leather-based footwears (see table 4.3). The result confirmed the literature review, that green consumers tend to choose products that embody better environmental attributes than less green consumers, more specifically in choosing better-regulated eco-label (Coelho, 2020), (Essl, 2021) and (NEMA, 2015).

Previous research suggested that educated consumers would have environmental awareness and therefore green consumers, which would lead to choosing a product with better environmental attributes and from the study, in Nairobi Kenya majority of consumer 77.4% have higher education level and are more environmental (see table 4.2 and 4.3).

5.4 Conclusion

The study findings have shown that all the four independent variables had an influence on consumer's willingness to pay for fruit leather-based footwear. In order of significance, social-economic attributes were the most influential on consumer's willingness to pay for fruit leather-based footwear which it accounts for 45.2% variability in consumer's willingness to pay for fruit leather-based footwear, followed in second place by psychological attributes accounting for 22.5% variability in consumer's willingness to pay for fruit leather-based footwear. In third place marketing attributes accounting for 19.3% followed at a distance in fourth place was functional attributes accounting for 1.4% in variability consumer's willingness to pay for fruit leather-based footwear.

Overall, from the binary logistic regression we conclude that the attributes considered in this study significantly contribute to the consumer's willingness to pay for fruit leather-based footwear – given that the value of R squared (see table 4.3) 94.1% of the variation in the consumer's willingness to pay (dependent variable) are accounted for by the attributes (independent variables). Thus, proper consideration of the attributes during product design would result in an improvement in the consumer's willingness to pay for fruit leather-based footwear.

According to literature (Pretner, 2021), market share from the perspective of an average consumer's willingness to pay refers to the percentage of customers or potential buyers within a specific market segment who choose a particular company's product or service based on their willingness to pay a certain price for it. From the model the average consumer's willingness to pay for fruit leather-based footwear was 67%, which indicates that in Nairobi County the market share for fruit leather-based footwear was 67%. These results indicated that in Nairobi County, for every 500 people of age between 18 years and 60 years, 335 people would be willing to pay for fruit leather-based footwear at Ksh. 1800 per pair. This represented an opportunity for fruit leather-based footwear.

5.5 Recommendations

Recommendations are proposed toward the fruit leather-based footwear industry and green marketing.

1. The researcher recommends development of environmental attributes of shoes. This recommendation is in line with the research result in which consumers in Nairobi County highly value the environmental friendliness of footwear that they use, such as fruit leather. Though presence of synthetic leather in the industry was not promoting consumer's willingness to pay for fruit leather footwear, the materials making the footwears should be well declared and the consumers should be given the opportunity to decide on which footwear to purchase. This recommendation goes to NEMA and policy makers.
2. Eco-label certification promotion. The KEBs Ecolabel was a very significant attribute in choosing fruit-leather footwear. The eco-label assures the consumers regarding the environmental impact of the product. Therefore, choosing to put either a company (self-declared) or government eco-label is strongly recommended.
3. Price strategy. The consumers are very price sensitive and even though they are willing to pay for fruit leather-based footwear, the market is filled with low priced footwear. The recommendation is to ensure competitive prices (including environmental taxes on synthetic leather materials) in such a small economy where most of the consumers have minimal disposable income.
4. Harnessing environmental economy. This recommendation is from the findings where consumers expressed a willingness to invest in footwear made from fruit leather. The consumer is willing to protect the environment by reducing materials that are not environmentally friendly; reduce and recycle materials to protect the environment. This is an opportunity for the government through policy making to ensure production of products that shall promote economic growth since the consumers are already willing to pay for such products. Through policies, synthetic leather footwear should be highly regulated using taxes to allow price protection for fruit leather footwear. This is also a profitable opportunity for the government and private sector to utilize the 40% to 50% fruit wastes losses and reduce the methane gas hence protecting the environment by reducing carbon emissions (Charlton, 2020).
5. The is a huge opportunity for Kenya to venture into alternative sources of leather apart from animal leather for the consumers are willing to pay for footwear made from other materials fruit leather.

5.6 Suggested Areas for Further Research

1. Green economy as an emerging issue in economics and marketing.
2. What other bio-degradable materials like mushroom can consumers express a readiness to purchase products crafted from these materials.
3. Which other attributes influence consumer's willingness to pay for a product made from bio-degradable materials.

5.7 Limitation

One of the limitations of this study was the limited knowledge on fruit leather-based footwear among consumers in Nairobi County. This is because the fruit leather-based footwear is relatively a new product in Kenya. A benchmarking was however presented, and research was done to determine the leather footwear making process from fruits.

The other limitation was some respondents were unwilling to spend time to answer questions on the research, this was resolved by explaining to the respondents clearly why it's important to participate and that the information given was anonymous and was not used against them but only for the purpose of the research.

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APPENDICIES

APPENDIX I: INTRODUCTION LETTER

Ole Sangale Rd, Madaraka Estate,
P.O Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya
Email: info@sbs.ac.ke or vist www.sbs.strathmore.edu

Strathmore UNIVERSITY
BUSINESS SCHOOL

26th May 2023

To Whom It May Concern,

RE: FACILITATION OF RESEARCH – MARY WANGERE

This is to introduce Mary Wangere who is a Master of Management in Agribusiness Student at Strathmore University Business School, admission number MMA/137723. As part of our MMA Program, Mary is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MMA course. To this effect, Mary would like to request appropriate data from your organization.

Mary is undertaking a research paper on "**ATTRIBUTES THAT INFLUENCE CONSUMER'S WILLINGNESS TO PAY FOR FRUIT LEATHER-BASED FOOTWEAR WITHIN NAIROBI COUNTY.**" The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MMA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Njoki Kiagiri

Manager – Graduate Programs.

Strathmore University Business School.

Strathmore Business School is a Proud member of;

APPENDIX II: RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **768366**

Date of Issue: **31/May/2023**

RESEARCH LICENSE

This is to Certify that Ms.. Mary Wangere Wangere of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: ATTRIBUTES THAT INFLUENCE CONSUMER'S WILLINGNESS TO PAY FOR FRUIT LEATHER-BASED FOOTWEAR WITHIN NAIROBI COUNTY for the period ending : 31/May/2024.

License No: **NACOSTI/P/23/26272**

768366

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDIX III: PARTICIPANT'S INFORMATION AND CONSENT FORM

HEADING FOR THE PROPOSED STUDY: ATTRIBUTES THAT INFLUENCE CONSUMER'S WILLINGNESS TO PAY FOR FRUIT LEATHER-BASED FOOTWEAR WITHIN NAIROBI COUNTY

SECTION 1: INFORMATION SHEET

INVESTIGATOR: MARY WANGERE

INSTITUTIONAL AFFILIATION: STRATHMORE BUSINESS SCHOOL (SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

2.1: Why is this study being carried out?

To evaluate attributes that influence consumer's willingness to pay for fruit leather-based footwears within Nairobi.

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 consumer willingness to for fruit leather-based footwears. You are free to decline to take part in the study from this study at any time without giving any reasons.

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

18 years to 55 years

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

Below 18 years

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

You will be approached by trained enumerators 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 taken through a questionnaire to complete.

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

There are no 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 environment conservation by utilization of fruit wastes.

2.8: What will happen to me if I refuse to take part 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. That information may be transcribed into a database, but this will be sufficiently encrypted, and password protected. 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: Who can I contact in case I have further questions?

You can contact me, MARY WANGERE, at SBS, or by e-mail mary.wangere@strathmore.edu. You can also contact my supervisor, Prof. S. Wagura Ndiritu, at the Strathmore Business School, Nairobi, or by e-mail, sndiritu@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 Tel number: +254 703 034 375

I, _____, have had the study explained to me. I have understood all that I have read and have had explained to me and had 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 DON'T 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 DON'T AGREE to have my completed questionnaire stored for future data analysis.

(Please print name)

Participant's Signature: **Date:**

I, _____ _____/_____/_____

DD / MM / YEAR

Participant's Name: **Time: _____ /_____**

_____

___MARY WANGERE_____ confirm that I have upheld the standard operating procedures (SOP) for this research and clarified the information about the study to the participant above, and that s/he has discerned the nature and the purpose of the study and accepts to participate in this research. She/he has been accorded a chance to probe inquiries deemed to have been responded to adequately.

Investigator's Signature:

Date: ___20th __/___JUNE___/___2023_____

Investigator's Name: Mary Wangere

Time: 10.00am

APPENDIX IV: ETHICAL APPROVAL LETTER

Strathmore UNIVERSITY

17th May 2023

Mrs Wangere Mary Nyambura,
mary.wangere@strathmore.edu

Dear Mrs Wangere,

RE: Attributes that Influence Consumer's Willingness to Pay for Fruit Leather-Based Footwear within 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-ISERC1739/23**. The approval period is from **17th May 2023 to 16th 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

STRATHMORE UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE
(SU-ISERC)
17-May-2023
Email:ethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

APPENDEX V: QUESTIONNAIRE

The survey will be done in Nairobi County Kenya.

Introduction and consensus

Good morning/afternoon/evening, my name is Mary Wangere. I am a Masters student at Strathmore University, currently doing research associated with consumer's willingness to pay for a fruit leather-based footwear.

Are you willing to fill this questionnaire? (Tick where appropriate)

Y☐ (C (Continue) N☐ (Stop filling the questionnaire)

Do you have any questions for me before you start? (Tick where appropriate)

Y☐ (Pause to ask questions) N☐ (Proceed)

Sex of the respondent:(Tick where appropriate) M☐ Fem☐e

How old are you: (Indicate your exact years of age)

What is your income level per month? (Tick where appropriate)

Below Ksh.24,0☐- Ksh 25,000 – 50,0☐- 51,000-100,000 ☐- above Ksh.100,000☐-

What is your highest education level? (Indicate your exact schooling level). For example, Class eight level.

Do you think of yourself as a consumer who would purchase a fruit leather-based footwear? (Tick where appropriate)

YES ☐ NO ☐

Do you think of yourself as a consumer who cares about the impact the product you buy has on the environment: (Tick where appropriate)

Not at all ☐ Small extent ☐ Moderate extent ☐ Great extent ☐

Do you stay away from items that contain materials that are not environmentally friendly (such a plastic and synthetic leather)? (Tick where appropriate)

Not at all ☐ Small extent ☐ Moderate extent ☐ Great extent ☐

Do you look for ways to reuse the products you own? (Tick where appropriate)

Not at all ☐ Small extent ☐ Moderate extent ☐ Great extent ☐

Do you sort the trash with an aim of recycling the trash you generate? (Tick where appropriate)

Not at all ☐ Small extent ☐ Moderate extent ☐ Great extent ☐

Are you familiar with Eco Labels in Kenya? (Tick where appropriate) Yes ☐ No ☐

Imagine that you are shopping in a store to buy a pair of shoes. In each of these survey questions, you will be asked to choose a pair of shoes from the two available options. Please choose the shoes you like. The choice of shoes will be different for each question, for a total of 8 questions.

The difference between the two pairs of shoes is only based on the characteristics shown. Please assume that differences beyond the indicated characteristics are the same in all respects. The characteristics of the shoe include:

Price - The price of the shoes will range from Ksh.1,800 to Ksh.3,000.

Materials - From the choice of materials there are: fruit leather, animal leather, and synthetic leather.

Eco Label - Shoes can have an eco-label "Environmentally Friendly" from Kenya Bureau of Standards (KEBS); The Company's self-declared "Eco" label; or do not include an eco-label.

Lifespan - 1 year, 2 year and 3 years.

Q1: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 1,800** Material: **Animal fruit leather** Eco Label: **KEBs** Lifespan: **1 Year** ☐

Option 2 Price: **Ksh. 3,000** Material: F**ruit leather** Eco Label: **KEBs** Lifespan: **2 Year** ☐

Q2: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 1,800** Material: **Synthetic leather** Eco Label: **Self-declared eco-label** Lifespan: **1 Year** ☐

Option 2 Price: **Ksh. 2,400** Material: **Animal leather** Eco Label: **No Label** Lifespan: **3 Years** ☐

Q3: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 2,400** Material: F**ruit leather** Eco Label: **KEBs** Lifespan: **1 Year** ☐

Option 2 Price: **Ksh. 3,000** Material: **Fruit leather** Eco Label: **No Label** Lifespan: **3 Years** ☐

Q4 Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 3,000** Material: **Fruit leather** Eco Label: **KEBs** Lifespan: **1 Year** ☐

Option 2 Price: **Ksh. 2,400** Material: **Synthetic leather** Eco Label: **Self-declared eco-label** Lifespan: **1 Year** ☐

Q5: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 1,800** Material: **Animal leather** Eco Label: **Self-declared eco-label** Lifespan: **2 Year** ☐

Option 2 Price: **Ksh. 3,000** Material: **Fruit leather** Eco Label: **No Label** Lifespan: **1 Year** ☐

Q6: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 2,400** Material: **Animal leather** Eco Label: **Self-declared eco-label** Lifespan: **3 Years** ☐

Option 2 Price: **Ksh. 1,800** Material: **Fruit leather** Eco Label: **No Label** Lifespan **2 Year** ☐

Q7: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 3,000** Material: **Synthetic leather** Eco Label: **No Label** Lifespan: **2 Years** ☐

Option 2 Price: **Ksh. 1,800** Material: **Animal leather** Eco Label: **Self-declared eco-label** Lifespan: **1 Year** ☐

Q8: Which shoes will you choose? (Tick one option)

Option 1 Price: **Ksh. 2,400** Material: **Synthetic leather** Eco Label: **Self-declared eco-label** Lifespan: **2 Year** ☐

Option 2 Price: **Ksh. 3,000** Material: **Fruit leather** Eco Label: **KEBs** Lifespan: **1 Year** ☐