



**INVESTIGATING FACTORS THAT INFLUENCE THE PURCHASE BEHAVIOUR OF
GREEN COSMETIC PRODUCTS AMONGST FEMALE CONSUMERS IN SOUTH AFRICA**

by

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Abstract

Current generations have come to realise that their consumption of harmful products is what has contributed in the degradation of the environment. In an attempt to alleviate the environmental problems consumers have embraced the green purchasing behaviour. This notwithstanding, there has been an increase in the number of people that are eager to purchase green products, and there remains insufficient data that supports that the procurement of green products has increased, despite the environmental consciousness and the positive attitudes that consumers have towards green products. In the 21st century, female consumers are increasingly taking part in the economy. Particularly in the cosmetic industry, females have been identified to possess the largest purchasing power when compared to that of male consumers, but remains under-researched. The proposed study focused on addressing the impact of awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude on the purchasing intention of green cosmetic products amongst female consumers in South Africa to make green purchase decisions.

The sample size for this research was 295 participants. The results revealed that only perceived price and attitude have a significant influence on purchase intention of green cosmetic products amongst females in South Africa. While awareness, product information, product availability, environmental concern and perceived barriers needed a mediating variable (attitude) to have an influence on the purchasing intention of green cosmetic products of female consumers in South Africa.

This research study aid to the green literature since South Africa is in the green awakening stage. The research study also expanded on the Alphabet theory by introducing additional elements to framework, namely, product availability and perceived priced. The study offers useful insight for the managers and marketers who are venturing into the green cosmetic industry. Future research studies should focus on qualitative research that focus on specific green cosmetic category such as skin care, haircare and make up so as to gain an in-depth insight on the purchasing intention of the female consumers of the specific categories

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1. Chapter 1

1.1. Introduction and Background

There is mounting concern over environmental and sustainable development issues, causing businesses to become accustomed to new roles and responsibilities in order to address them (Öberseder, Schlegelmilch, Murphy & Gruber, 2014). According to Joshia, and Rahmanb (2015), consumers that reside in developed countries have demonstrated that they are cognisant of the negative impact modern consumerism might have on the natural environment. In an attempt to alleviate the environmental problems, consumers have embraced the green purchasing behaviour. Wang, Ma, and Bai (2019) make reference to a study that shows that although there is a significant number of American consumers who remain alarmed by the environmental consequences of their purchase decision, only 75% of the consumers will consider on the environmental impact of the products when they purchase. A study by Nielsen's 2014 global survey on corporate social responsibility shows that 63% of Africans have shown willingness to purchase products or services that are dedicated to have a positive social and environmental impact (Rayapura, 2014). However, Bisschoff and Liebenberg (2016) point out that, in South Africa, there has been considerably insignificant research on green behaviour as compared to that generated on first world countries, resulting in South African consumers experiencing insignificant exposure to sustainability implementation. Thus, these dire environmental issues, combined with the demand for green products by consumers, have led to the emergence of green marketing. As a response, companies have had to adopt green marketing strategies that address the sustainability issues in order to remain competitive (Singh and Pandey, 2012).

Green marketing is defined by Wang (2014) as the commitment that an organisation has to undertake to produce safe, eco-friendly goods and services, while utilising recyclable packaging, superior pollution prevention methods, and the proficient use of energy. Joshia and Rahmanb (2015) note that any marketing action that is meant to satisfy consumers' needs or wants, with the least possible detrimental impact on the natural environment, is referred to as green marketing. There has been a growing awareness of green marketing in developing nations. Synodinos and Bevan-Dye (2014) maintain that consumers and businesses in South Africa are in the 'green awakening phase', in which consumers are constantly making an effort to

understand green behaviour, however there has been inadequate published research regarding consumer green behaviour. There is an evident lack of research in South Africa with regards to green marketing, where studies such as that of Saxena and Khandelwal (2009) as well as Joshia and Rahmanb (2015) have mainly focused on in developed countries.

1.2. Problem Statement

There is no doubt that a number of businesses are under immense pressure to implement green marketing initiatives in order to remain competitive (Chaudhary and Bisai, 2018). Thevanes and Weerasinghe (2019) indicate that the need to conserve the environment has attracted a huge global focus, necessitating organisations to pay special attention to the environmental sustainability standards to avoid any further damage to the brand and the triple bottom line. Despite this, there has been an increase in the number of people that are eager to purchase green products, with Wang, Ma and Bai (2019) stipulating that, there has not been enough evidence to support the procurement of green products has increased, notwithstanding the environmental consciousness and the positive attitudes that consumers have towards green products. In addition to that, Jaiswal and Bihari (2020); Kaufmann, Panni and Orphanidou (2012); note that although customers have displayed a snowballing concern for environmental sustainability, various studies report discrepancies in consumer green purchase behaviour, as well as consumers' environmental concern. Johnstone and Tan (2015) discovered that consumers hardly ever "walk the talk", since customers continuously purchase products that are dangerous to the environment regardless of being green conscious.

Nastu (2009) states that, there is evidence that shows that light green consumers are more apprehensive towards paying a little bit extra for environmental feature but they are prone to choose products that are easily accessible, provide comfort, and which prove to be low maintenance. To add to this, Caruana, Carrington and Chatzidakis (2016) suggests that, when an individual is confronted with context-specific issues such as lack of money, time, willingness to change, and convenient shopping patterns, this has been seen to hinder the consumers' positive attitudes towards green products or services. Tascioglu, Eastman and Iyer (2017); Drozdenko, Jensen and Coelho (2015) highlight that, there is an obvious increase in the desire to purchase green products in public as a result of a desire for status,

although the status motive did not increase green purchase behaviour in the terms of private shopping. This presents an attitude gap between environmental concern and actual purchase behaviour. The research study will rely on alphabet theory to narrow the attitude gap that exists in green purchase behaviour.

The use of alphabet theory can be effective in helping researchers to detect the reasons why consumer purchase green products, by evaluating the internal and situational factors (Rivaroli, Baldi and Spadoni, 2020). The suitability of the theory relies on its ability to introduce additional theoretical elements that will be vital in closing off the attitude gap (Schaufele and Hamm, 2017). There hasn't been a universal model that evaluates the impact of awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude towards green purchase intention in a single study, hence these factors can be accounted for by alphabet theory. The attitude gap that exists, coupled with the fact that little or no research has been done pertaining to the impact of awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude on the green purchase intention of green cosmetic products among female consumers in South Africa, has necessitated the proposed study.

In the 21st century, female consumers are increasingly taking part in economic forces, as compared to other previous years (Kim and Seock, 2009). In particular, in the cosmetic industry, females have been identified to possess the largest purchasing power as compared to the male consumers; (Quoquab, Jaini and Mohammad, 2020); (Pudaruth, Juwaheer and Seewoo, 2013), but this remains under-researched. The proposed study will focus on addressing the impact of awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude towards the purchasing intention of green cosmetic products of female consumers in South Africa in making green purchase decisions.

1.3. Research Question

What are the factors that influence purchase intention of green cosmetic products amongst female consumers in South Africa?

1.4. Research Objective

1.4.1. Primary research objective

To identify the factors that influence purchase intention of green cosmetic products amongst female consumers in South Africa.

1.4.2. Secondary research objective

RO1 To examine the influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO2 To examine the influence of product information on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO3 To examine the influence of product availability on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO4 To examine the influence of environmental concern on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO5 To examine the influence of perceived barriers on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO6 To examine the influence of perceived price on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO7 To examine the influence of perceived barriers towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO8 To examine the influence of attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

RO9 To examine the influence of perceived price towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

1.5. Research Methodology

The study is a form of descriptive research that involves observing and describing the behaviour of a subject without influencing it in any way. Quantitative research was conducted following a positivist approach, where the researcher is required to maintain a neutral stance to ensure that they can distinguish between science and personal experience, so as to eliminate bias (Longino, 2017). A deductive approach was followed, whereby the researcher formulated a set of hypotheses that need to be tested using a relevant methodology. The study used questionnaires as a means to collect data from the respondents in which convenience sampling technique was used.

1.6. Contribution

The planned study will be able to contribute to the theoretical and practical side of marketing. Theoretically, the study provided insight on consumer behaviour and green cosmetic marketing literature of female consumers, because female consumer green purchase behaviour has been rarely researched in South Africa, even though these consumers possess the largest purchasing power. In addition to that, the proposed study will benefit marketers, where it determines the factors that influence female consumer purchase decisions for green cosmetic products. In this way, it will help organisations to design an appropriate green marketing mix. In the business world today, green marketing is considered to be a major trend, where the proposed research will help marketers formulate marketing communications that will ensure that the green cosmetic purchase intention actually translate to actual purchase behaviour. The study will also expand on the literature by making use of the alphabet theory, since the theory has largely been applied in qualitative studies, and only a few quantitative studies.

1.7. Scope

This study was primarily concerned with investigating the factors that influence green cosmetic purchase behaviour of female consumers. The factors that were focused on in this study are awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude. The study was only centred on female consumers in South Africa.

1.8. Limitations

The limitations that the researcher is likely to face in the proposed study are as follows:

1. The timeframe, as the researcher will only be able to reach a limited number of people to participate in the research. As a result, the proposed research might not be a true reflection of the results of the female consumers in South Africa.
2. The proposed research study will make use of quantitative research methods. Therefore, future studies ought to consider undertaking qualitative research methods in order to get an in-depth insight as to why awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitudes influence the green cosmetic purchase behaviour among female consumers in South Africa.
3. The proposed research is only focused on the female consumers above the age of 18 years. Future studies may conduct a comparative study by gender.
4. Future research may also consider other developing countries. Since South Africa is a diverse country with a rich culture, this may result in different findings being obtained in other developing countries.

2. Chapter 2: Overview of Green Industry in South Africa and Globally

2.1. Introduction

Green products are rapidly gaining prominence, where more consumers are leaning more towards the purchasing of green products in an effort to try minimise the damage to the environment (Khan, Royhan, Rahman, Rahman and Mostafa, 2020). A majority of the consumers purchasing decisions have been widely altered, where consumers are switching from purchasing the conventional products to rather choosing the greener alternatives (Yadav and Pathak, 2017). Researcher have proposed that greater importance should be placed on conducting research in developing countries, as this is the place in which growth in the use of green products is noticeable (Elhoushy &Lanzini, 2020; Joshia &Rahmanb, 2015). This study helps marketers to successfully evaluate the factors the influence of green purchase intention on green cosmetic products. A variety of studies that were previously conducted in the green marketing field were utilised in this literature review.

2.2. Overview of Green Marketing

The increasing presence of sustainable development problems has predominantly been visible in the world, consequently shaping the future of the human community (Khan, Saengon, Alganad, Chongcharoen and Farrukh, 2020; Milovanov, 2015). Martínez, Cremasco, Gabriel Filho, Junior, Bednaski, Quevedo-Silva, Correa, Da Silva and Padgett (2020) and Lee, Kwon, Shin, Yang, Lee, and Suh (2014) point toward the fact that certain organisations, coupled with different consumers, display the inclination to participate in the shift towards environmental sustainability. For this reason, as more consumers are becoming drawn to green consumerism, it is essential that businesses start to incorporate green practices into their day-to-day activities in order to successfully aid in increasing consumers awareness of the existence of green problems (Taufique and Islam, 2021; Milovanov, 2015). Businesses have become accustomed to the business development opportunity that comes with green marketing, since there has been a noticeable change in the

society, which consequently encourages businesses to take action to fulfil the everchanging demands of consumers (Kanchanapibul, Lacka, Wang, and Chan, 2013).

The prevailing increase in green marketing has led businesses in various sectors to create products whose sole purpose is to make the most minimal possible contribution to environmental degradation (Schubert, Kandampully, Solnet and Kralj, 2010). The most important job for managers is to effectively and efficiently ensure that the organisation provides products and services that appeal to the green consumers (Taufique and Islam, 2021; Bergin-Seers and Mair, 2009;). In order to stay competitive and increase market share, many businesses have widely adopted the green marketing concept, so as to appeal to green consumers (Tascioglu and Rehman, 2016). To successfully penetrate the green industry the business must have a differentiation strategy that will set them apart from the competitor, so as to gain a competitive advantage (Chang, Hsu, Hsu and Chen, 2019). The market environment is oversaturated with the presence of conventional and green products (Lin and Chang, 2012). For that reason, the success of any business is dependent on the organisation's aptitude to launch its brand with a unique market presence (Chang, Hsu, Hsu, and Chen, 2019).

According to Shiel, do Paco, and Alves (2020) and Sheehan and Atkinson (2012) through the use of green marketing, the businesses will be able to portray a communication that will effectively draw the environmentally concerned consumers. However, Milovanov (2015) indicates that, even though there is a snowballing awareness of green marketing around the world, there is a noticeable absence of the motivation that will encourage consumers to act in an environmentally friendly manner. The dearth in the green marketing and motivation will subsequently hinder the consumers in behaving in a manner that will aid in the consumer future survival and the preservation of the environment (Schubert, Kandampully, Solnet and Kralj, 2010).

Although the main aim for the businesses to community is to be socially responsible, research has shown that there are various factors, other than being socially responsible, that encourage the business to participate in green marketing, such as monetary motivation, which leads to the business falsely applying green claims to

the existing products without any knowledge of the green marketing concept (Mei, Ling and Piew, 2012). To add to this, Leonidou, Katsikeas, Fotiadis and Christodoulides (2013) note that, irrespective of the reason that encourages the business to take part in the green marketing concept, there is consensus in prior research that the combination of green issues in the organisation's decision-making with the marketing communications can significantly improve the businesses competitive edge.

On the other hand, Gershoff and Frels (2015) states that, in as much as a product is considered to be a green product, not all features of these products are eco-friendly, since it is highly probable that a single element of product is environmentally friendly. There have been various questions that have been raised concerning whether there has been such a thing as a green consumer. Bergin-Seers and Mair (2009) point out that, the complexity that exists in green marketing and the various factors that influence green behaviours has contributed to a certain attitude gap. Martínez, Cremasco, Gabriel Filho, Junior, Bednaski, Quevedo-Silva, Correa, Da Silva and Padgett (2020) stipulate that the attitude gap that exists in green marketing is due to the green claims that vague and misleading, consumers have become repulsed by these claims, leading to stagnant green consumer behaviour. In support of this, Gershoff and Frels (2015) suggests that, when consumers are faced with products that are not entirely green, or that have green claims, this will possibly affect the way green consumers potentially judge the green benefits that come from the supposed green products.

Additionally, Wu and Chen (2014) point out that, a few companies do not have the resources to successfully market green products to potential consumers, as they deem it expensive to incorporate environmental concepts in all areas of the company's marketing communications. As a result, this can be noted as one of the reasons a company engages in false green claims. Ik and Azeez (2020) and Kanchanapibul, Lacka, Wang and Chan (2013) highlight that, even though organisations are willing to integrate green marketing in the organisation, most organisations are not well-equipped to do so, and thus, are likely to face problems with showing green position to consumers. From another perspective, Martínez, Cremasco, Gabriel Filho, Junior, Bednaski, Quevedo-Silva, Correa, Da Silva and Padgett (2020) and Ng, Butt, Khong and Ong (2014) point out that businesses are

constantly faced with difficulties regarding the scepticism that is displayed by consumers concerning the functional performance of the green products in their green marketing campaigns.

Even though Mei, Ling, and Piew (2012) indicate that there has been increased attention towards green marketing, there is still need for marketers to gain knowledge of the green purchase intention in that specific country, in order to develop satisfactory green marketing strategies. As a result of the dearth of research in developing countries in terms of green marketing, marketers in developing countries have the tendency to adopt green marketing strategies that have been used in developed countries, forgetting that the factors that significantly influence green purchase behaviour in one country may be different in another (Nekmahmud and Fekete-Farkas, 2020; Lasuin and Ching, 2014). However, in spite of the rapid the adaptation of green marketing, there are still inadequate tools that would aid marketers in assessing the success of different green marketing communications and factors that are employed by the organisation to identify the intentions, attitude and behaviour of consumers (Liao, Wu, and Pham, 2020; Do Paço and Reis, 2012).

2.3. Overview of Green Industry

The green industry has been growing at a tremendous rate, with various debates towards the green purchase behaviour of consumers within the different industries (Fauzi and Hashim, 2015). According to Becker and Shadbegian (2009), the green industry is defined as an economic activity that aims to decrease the effect to the environment. In the United States of America, evidence has shown that green industry is the fastest growing industry (Kim and Seock, 2009). By way of contrast, Liobikiene and Bernatoniene (2017) stipulate that the green industry is still in its initial growth stage, and consumers are fast adopting the green concept. A wide range of industries have started to incorporate green products into their new product line, so as to appeal to the new green segment emerging in the market (Fauzi and Hashim, 2015). The top green industries in the world include the hospitality industry, food industry, automobile industry, energy industry, electronic industry, as well as cosmetic and personal care (Becker and Shadbegian, 2009). Little or no research has been done on green cosmetic products in South Africa with regards to green

cosmetic purchasing behaviour and attitudes towards green cosmetic products, while a wide range of research studies have been conducted in other industries. Thus, this study attempts to investigate the factors that influence green cosmetic purchasing behaviour of female consumers.

2.4. Overview of the green cosmetic industry

A number of extant studies have been aimed at the green products purchase behaviour and intention, which is apparent in a vast number of academic journals that ranges from 2000 to 2014 (Liobikiene and Bernatoniene, 2017; Kumar and Polonsky, 2017). The main aim of such research was to mainly investigate the factors that influence the purchase behaviour of green products, without considering the different product categories of green products (Joshi and Rahman, 2015). Different green products have different factors that influence green purchase behaviour (Chekima, Wafa, Igau, Chekima, and Sondoh Jr, 2016). Kollmuss and Agyeman (2002) stipulate that there are different underlying factors that motivate consumers to engage in specific purchase behaviours, including social, economic, cultural, personal and marketing mix factors. For this reason, there is need to pay special attention to a specific industry within the green products, such as the cosmetic industry, so as to gain deeper understanding of the consumer behaviour of the customers in the green cosmetic industry. Developing countries consumers have experienced insignificant exposure and knowledge of green products, as has been evident in the case of green cosmetic products (Pudaruth, Juwaheer and Seewoo, 2013). Fully comprehending the factors that influence the purchase intention towards green cosmetic products is essential for endorsing the development of the green cosmetic market, therefore the gap that exists is that green cosmetic research is still in its infancy in South Africa, such that this study will add to the current literature that is available.

The level of consciousness that is exhibited by different consumers towards green cosmetic products is what determines whether consumers will actively engage in the purchasing of green cosmetic products (Kanchanapibul, Lacka, Wang and Chan, 2014). Prevailing green consciousness has had huge consequences on the cosmetic industry around the world, although in previous studies, South Africa has been

identified as being in the green awakening stage, while on the other hand, Liobikiene and Bernatoniene (2017) states that green cosmetics research is considered to be in its infancy. A study conducted in the United Kingdom showed that the organic food market significantly affects the cosmetic and beauty industry, due to the fact that once a consumer is conscious, and has awareness of what they consume, this awareness is extended to what they apply to their skin so as to make sure that a healthy lifestyle is maintained (Kim and Seock, 2008).

The green movement that has been making headlines around the world has subsequently led to various companies venturing into development of green cosmetic products, so as to effectively attract the green consumers and increase the company's target market (Charter and Polonsky, 2017). A number of studies showed that the main reasons that make consumers purchase green cosmetic products is usually environmental concern and animal well-being (Fauzi and Hashim, 2015). Over the last two years, the growth rate that has been apparent in the global cosmetic industry is above 5%, in which the industry accounted for 500 billion American dollars market value in the year 2019 (Pop, Saplacan, and Alt, 2020).

According to Łopaciuk and Łoboda (2013), the cosmetic industry is one of the fastest-growing industries attributable to the rising use of the internet. In addition to that, Chen and Dermawan (2020) state that beauty care and haircare products are being widely advertised by different social media bloggers, thereby increasing the general awareness of cosmetic products, such that the vast growing large market of cosmetic products can make space for the introduction or the success of other green cosmetic products. For that reason, the green consciousness of consumers has led the cosmetic industry to introduce an extensive range of products that will deliver healthier lifestyles and green beauty products (Kim and Seoc, 2009).

In the midst of realising the green movement, research has found that in the cosmetic industry, skin care products accounts for 40% of the cosmetic industry market share (Ridder, 2020). However, in the African cosmetic industry, South Africa accounts for 36% of the growth; while an expected annual growth increase of 6.6% in the cosmetic industry is expected in the whole of Africa from 2018 to 2022 (InterGest, 2020). Over the last couple of years, consumers have gravitated more towards a further ecological living that strengthens the concerns that arises from the

need to protect the environment, including cognisance of the damage resulting from the chemicals that exists in products (Chin, Jiang, Mufidah, Persada and Noer, 2018). Pudaruth, Juwaheer and Seewoo (2013) point out that there has been a transformation of cosmetic products to ensure that the products are environmentally friendly.

2.5. Generational groups as agents of change in green marketing

Over the years, gender has been identified to play a significant role in the purchasing criteria of individuals and what they consider to be of importance (Chen, Yan, Fan and Gordon, 2015). According to Dagher and Itani (2014) it is a noteworthy factor that often influences the green purchase behaviour of consumers. However, different research studies have identified that there are unpredictable results in terms of gender differences and green purchasing behaviour (Chekima, Wafa, Igau, Chekima and Sondoh Jr., 2016).

Different generational groups are understood to be bound to exhibit different purchasing traits, whereas people from the same generation tend to share a collective viewpoint (Brosdahl and Carpenter, 2011). Eastman, Iyer, and Thomas (2013) state that the constant evolution of the buying behaviour of young consumers has caught the attention of various marketers, as young consumers are considered to be trendsetters. A comparison was done between young consumers and previous generations, where evidence showed that the young consumer has more disposable income than that of previous generational groups, meaning that they can easily adopt new products without any deep consideration of their purchase decision (Kanchanapibul, Lacka, Wang, and Chan, 2014).

On the other hand, Anvar and Venter (2014) state that there was no significant relationship between age, green attitudes, and behaviour. Foster (2004) points out that female consumers above the age of 45 have the inclination to be more receptive towards green information and green products. Kanchanapibul, Lacka, Wang, and Chan (2014) note however those young consumers have shown more willingness to agree with innovative ideas than other generational groups, since the young consumers are decisive, necessitate the need for personal experience, and require justification and motivation for participating in a certain behaviour as a result of their cynic nature.

Hume (2010) notes that although Generation Y (1981 – 1996) has displayed unmatched consumer value and social awareness when compared to other generational groups, the environmental consciousness of these consumers has not translated into green behaviour. Göçer and Oflaç (2017) note that a great deal of young consumers have shown notable sensitivity with regards to the environmental issues, however, green purchase behaviour did not necessarily match consumers' environmentally conscious behaviour. For this reason, the age of consumers does not necessarily distinguish the purchase intention of green products specifically green cosmetic products.

In the 21st century, female consumers are increasingly taking part in the market (Kim and Seock, 2009). Particularly in the cosmetic industry, females have been identified to possess the largest purchasing power than their male counterparts (Pudaruth, Juwaheer and Seewoo, 2013). Individuals that are constantly looking for ways to encourage a healthy lifestyle are those that display high levels of health consciousness (Fauzi and Hashim, 2015). In comparison to male consumers, female consumers are more inclined towards green cosmetic products, as they become more conscientious about health and safety in what they consume (Pudaruth, Juwaheer and Seewoo, 2013). The use of cosmetic products has been identified to enhance an individual's self-image, while green cosmetic products assist in addition to minimising the health risks (Amberg and Fogarassy, 2019). Female consumers are more prone to purchase green cosmetics products, believing that these products will aid in decreasing the damage to the environment and an individual's health. The safety and health consciousness of women has resulted in the female consumers requesting more product knowledge, with the need for more knowledge by means of which to make choices and preferences, in order to have positive attitudes towards green cosmetics (Pudaruth, Juwaheer & Seewoo, 2015).

However, substantive research has shown that female consumers are prone to impulse buying, and usually buy products based on which product is most readily available to them (Kanchanapibul, Lacka, Wang & Chan, 2014). This can affect the buying behaviour of female consumers in South Africa, since the country is still in its 'green awakening' stage, where green cosmetic products are not extensively available in most shopping outlets. This will negatively affect the green buying behaviour of female consumers, since the purchases will be viewed as perceived

personal inconvenience to the consumer. On the other hand, Göçer and Oflaç (2017) highlight that the increasing lack of awareness of green cosmetic products by female consumers has contributed to the stagnant green cosmetic purchase behaviours, in spite of female consumers having heard of green products, or young consumers showing interest in consuming these.

2.6. Green purchase behaviour

Green purchasing refers to when an individual actively intends to purchase green products that have minimal detriment to the environment (Yadav and Pathak, 2017). The willingness that consumers display to purchase green products is referred to as green purchase intention, as these highlight the driving features that influence green purchase behaviour (D'Souza, Taghian and Khosla, 2007). One of the significant factors that Mei, Ling and Piew (2012) noted to be a prerequisite in determining the consumer purchase behaviour is purchase intention, since the purchase intention is considered to be a representation for actual purchase behaviour. In light of this, Huang, Yang and Wang (2016) highlight that, in the assessment of a consumer's intention to purchase a particular product, some of the key questions to be asked are ““thinking about purchasing,” “want to purchase,” and “possibly will purchase”, which will be used to estimate the purchase behaviour.

Environmentally friendly purchasing has been increasingly measured using green purchase intention and behaviour, since purchase intention has been seen to minimise the attitude gap that exists in green purchase behaviour (Joshia and Rahmanb, 2015). There has been a clear indication in the research that marketers who do not fully comprehend the gap that exists between intention and behaviour will not be able to develop marketing strategies that influence the consumer to develop positive attitudes towards green products (Hassan, Shiu and Shaw, 2016). However, Carrington, Neville and Whitwell (2010) indicate that even though consumers are ethically minded, an intention behaviour gap exists, because there has been exaggerated measures of intention. In support of this, Johnstone and Tan (2015) point to research which shows that there is a tendency to exaggerate attitudinal preferences and purchase intention during the time when they consumers intend on responding to environmental issues.

Chen (2013) suggests that, people from different countries, cultures and generational groups are likely to exhibit different key factors that may have a more prominent role in influencing the consumers purchase intention towards green products. As a result, due to the fact that different individuals have different attitudinal preferences, it is of utmost importance to investigate the different consumer groups in order to avoid the overstating of the importance of environmental issues and the influence of purchase intention of the various consumer groups (Johnstone and Tan, 2015).

Hassan (2014) notes that, a number of studies concerning the consumers purchase intention and that of purchase behaviour have usually been centred in first world countries where it was identified that consumer purchase intention towards green products will thereby positively impact consumer purchase decisions. It is necessary therefore to distinguish between green purchase intention and green behaviour in a developing country such as South Africa, where consumers are in the green awakening stage.

Chapter 3: Theoretical Framework, Conceptual Model and Hypotheses Development

3.1. Theoretical Framework

There are different factors that influence a consumer to consider buying different green products as such it constitutes that an analysis be conducted so as to identify the best model to use to identify why consumers purchase green products. Previous studies in green marketing have mostly used Theory of Planned Behaviour (TPB), Value Belief Norm theory (VBN) and Attitude Behaviour Context theory (ABC).

According to Sharma and Foropon (2019) the basis of TPB lies supposition that humans are rational beings whereby people first consider the implications of their purchase behaviour before deciding to engage in a purchase or not. In other words, LaMorte (2016) states that, TPB is mainly focused on describing consumer behaviour that is initiated with intention, this poses some difficulty in fully capturing the complexity of green consumer behaviour. Zaremohzzabieh, Ismail, Ahrari and Samah (2021) argues that, TBP does not possess the power to explain the green purchase behaviour in an environmental context, such that it could not be used to explain the purchase behaviour of green cosmetic products in this research study.

As a result, the VBN theory was considered for this research study as it takes into account the internal (values) and the external (norms) influences. Conferring to Ghazali, Nguyen, Mutum and Yap (2019) VBN theory utilises beliefs as a mediator to fully describe just how environmental norms and attitudes are created for every consumer instead of just relying only on passionate green consumers. Groening, Sarkis and Zhu (2017) stipulates that, personal norms do not significantly influence green behaviour when the behaviour is strongly constrained by the contextual factors. Such that, it was necessary to consider the ABC theory as the research study look to consider contextual factors such as product availability, perceived price and perceived barriers. Xu, Maki, Chen, Dong and Day (2017) suggest that, the ABC theory stipulates that context facilitates the link between attitude and behaviour. Zhao, Gao, Wu, Wang, Zhu (2014) points out that, the very precise nature of the attitude-behaviour-context differs in individuals in addition to, across cultures and race making it difficult to generalise the results of green purchase behaviour. Since, a specific behaviour is as a result of many influencing factors making it difficult to

comprehend and considering that no single theory encompasses all factors being investigated at any given time. Therefore, for the purpose of this study, Alphabet theory is appropriate as it is adaptable enough for researchers to introduce additional theoretical elements that can be used to narrow the gap (Schaufele and Hamm, 2017). Rivaroli, Baldi and Spadoni (2020) note that this theory is founded on multiple individual consumer theories, with the aim of increasing the knowledge of green products by explaining the consumer behaviour. This theory will be discussed in the next section.

3.1.1. Alphabet Theory

The research study was grounded on alphabet theory. Rivaroli, Baldi and Spadoni (2020) note that this theory is founded on multiple individual consumer theories, with the aim of increasing the knowledge of green products by explaining the consumer behaviour. According to Stampa, Schipmann-Schwarze and Hamm (2020), the alphabet theory is a combination of value-belief-norm theory, attitude-behaviour-context theory, knowledge, information seeking, context, habits and demographics. Choia, Jang and Kandampully (2015) state that value-belief-norm theory was intended to predict the actual green behaviour instead of the green intention behaviour. Attitude-behaviour-context theory helps to examine when an individual performs a specific behaviour as they expect certain rewards from performing that behaviour, identifying how attitudes result in specific behaviours (Zhang, Li, Cao and Huang, 2018). As a result, Zapede and Deal (2009) stipulate that the combination of the value-belief-norm theory and the attitude-behaviour-context theory will help the researcher to fully comprehend why consumer purchase intention does not necessarily turn into actual purchase behaviour. Testa, Iovino and Iraldo (2020) point out that, knowledge, information seeking and context (availability, price and social influence) are essential to an understanding of the reason consumers choose to purchase green products. Demographics element were omitted (Cranfield, Henson and Blandon, 2012) and habits were omitted (Feldmann and Hamm, 2015), as they are insignificant predictors of green purchase intention.

The alphabet theory adaptable enough for researchers to introduce additional theoretical elements that can be used to narrow the gap (Schaufele and Hamm, 2017). For example, Le-Anh and Nguyen-To (2020) added food safety concerns, environmental concerns, perceived barriers, and perceived value. Therefore, Schaufele and Hamm (2017) indicate that the gaps that might be available in describing consumer behaviour and the factors that influence green purchase behaviour can be closed off by the application of alphabet theory through the addition of other theoretical elements. Figure 1 below depicts the conceptual framework that has been adapted from alphabet theory by Le-Anh and Nguyen-To (2020), who conducted a quantitative study.

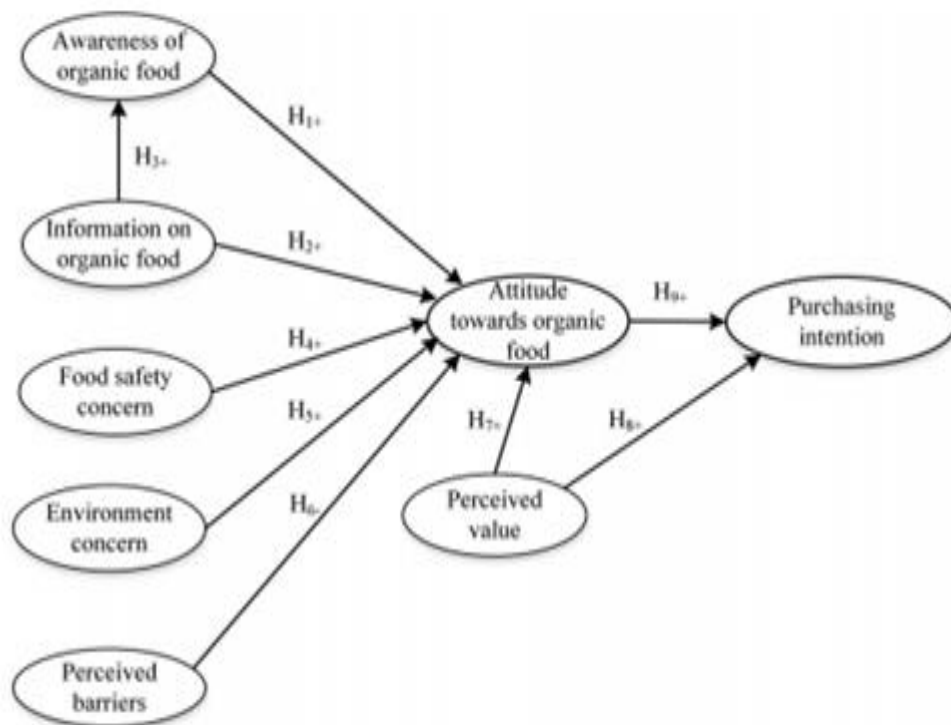


Figure 1: The conceptual framework has been adapted from alphabet theory (Le-Anh and Nguyen-To, 2020)

3.2. Conceptual model and hypotheses development

Le-Anh and Nguyen-To (2020) conducted a study in the Vietnamese market to identify the personal factors (information and awareness of organic food, safety concern, consumer perceived value) and contextual factors (perceived barriers and

environmental concern) as the central factors that influence the purchase intention in developing countries. According to these authors, the literature on organic food failed to focus on developed countries and a few in developing countries. Below Figure 2 shows the conceptual framework that has been formulated to guide the research study. This conceptual model has been adapted from that of Le-Anh and Nguyen-To (2020). In contrast to the research study by Le-Anh and Nguyen-To (2020), the proposed study aims to focus on the green cosmetic products in South Africa. Given that there has been a number of studies that concentrated on organic food, the green cosmetic industry was viable to explore, since there has been minimal or no research on green cosmetic products in South Africa. This study identified two additional elements, namely product availability and perceived priced, which Chen, Lin and Weng (2015) identified, noting that product availability and perceived priced as the factors that hinder the purchase intention of green products. The results confirmed that the information and awareness on the attitude towards organic food as shown by Zepeda and Deal (2009), in addition to that the study also showed that Environmental concern, does not have any significant impact on attitude towards organic food. Hwang (2016) found the same, revealing that perceived barriers might cause a negative impact on attitude towards organic food. By adapting the conceptual framework by Le-Anh and Nguyen-To (2020) here, it is possible to identify green cosmetic products that will yield the same results as organic food.

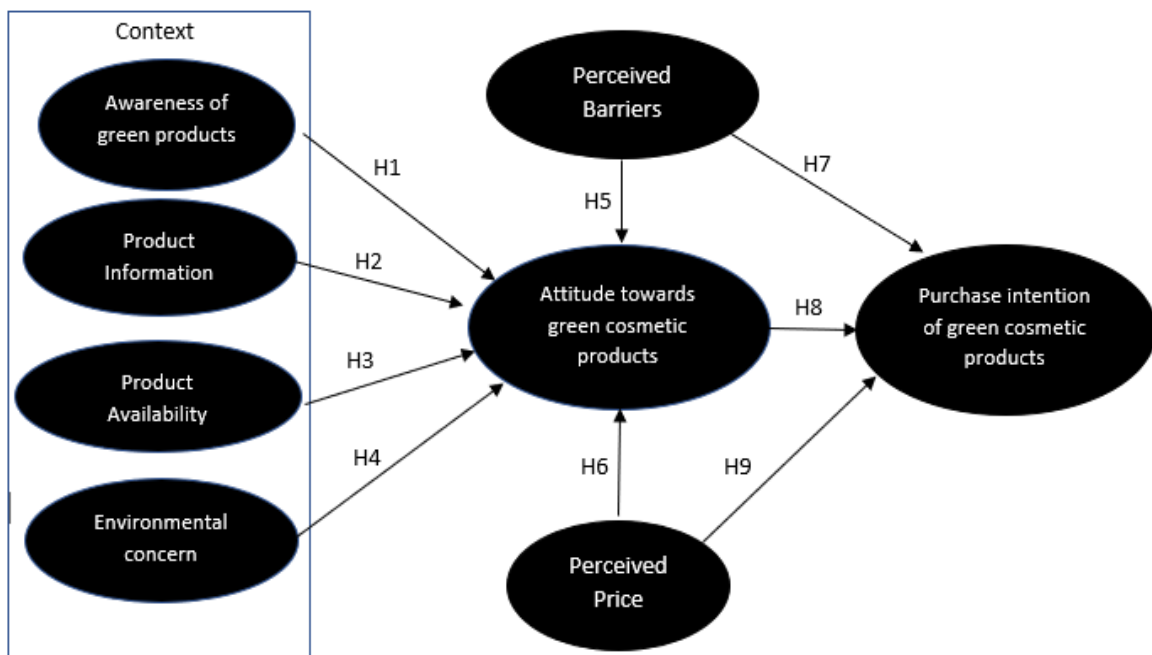


Figure 2: The conceptual framework has been adapted from a study by Le-Anh and Nguyen-To (2020)

3.2.1. Awareness of green products and attitude towards green products

The emergence of green marketing has rapidly been adopted by businesses due to the increased consumer awareness (Bhatia and Jain, 2013). According to Gleima, Smith, Andrews and Cronin Jr. (2013), the increased consumer awareness that exists amongst consumers on the problems that surround the natural environment has resulted in a greater importance being placed on the need to purchase green products. As green marketing rises, green purchase intention and attitudes towards green products is altered in a number of ways, resulting in a reduction of the wasteful or harmful consumption patterns (Suki, 2013). Additionally, Kumar and Ghodeswar (2015) raise awareness of the degradation of natural resources stemming from human actions and consumption, coupled with the desire to conserve the environment, which has had a snowball effect on the environmental awareness of consumers.

Anvar and Venter (2014) who show a rise in the awareness of environmental issues has consequently influenced consumer attitudes and buying behaviour towards green products. Kang, Liu, and Kim (2013) define product awareness as the information on which a consumer is knowledgeable when it comes to specific business offerings, as compared to the product offerings of competitors in the same industry. In addition to that, Xu, Benbasat and Cenfetelli (2011) define product awareness as the aptitude a consumer has to disseminate the functions, features, and the use of a product for other people. In recent years, more consumers have become increasingly aware of issues affecting the environment, where as a result, consumers are utilising the awareness acquired to influence their attitudes towards green products and purchasing intention of green products (Lee, Kwon, Shin, Yang, Lee and Suh, 2014).

The continued rise in the awareness of green products by consumers has led to a shift of green behaviour, where there is now a linkage that exists between the thought and actions of consumers (Fauzi and Hashim, 2015). The 21st century consumers have increased awareness and cognisance of the roles they have to play to ensure that the environment is preserved (Yeng and Yazdanifard, 2015). In recent

times, the green cosmetic industry has been experiencing an increased market share, as consumers have shown awareness over green cosmetic products, and are leaning more towards movements for a healthier lifestyle and eco-conscious beauty (Chin, Jiang, Mufidah, Persada & Noer, 2018). The desire for natural and environmentally friendly ingredients in cosmetic products is consequential for eco-conscious beauty amongst women that reflect a high level of awareness that the consumers have of the products that they apply to their face and body (Fauzi & Hashim, 2015).

A change in the market place is usually stimulated by the awareness and motivation that a consumer possesses when green products are introduced, taking into account the global environmental crisis (Maheshwari, 2014). To successfully ensure that the customers attain a high level of awareness towards green products, Sangtani and Murshed (2017) indicate that a business must effectively develop a form of marketing communication that is accessible to the target market so as to make sure that the goods and services are recognised and utilised by the consumers. Maheshwari (2014) suggested that, when a business successfully markets their product to the public, they are thereby able to acknowledge the trends that exist in the business environment so as to position the product in a way that supports consumer purchase intention.

The collaboration in the information exchange with potential consumers will aid the organisation in becoming more knowledgeable of the green product awareness of the target customers, so as to create informed advertising strategies that will aid the organisation in understanding the different green purchasing behaviours of consumers. Hussain, Khokhar, and Asad (2014) emphasise that, the most important aim of a business is to sustain feasibility amid competition in which the fast adoption of green awareness strategies has been employed by a number companies, in order to promote green products, boost product sales, and ensure survival of companies. In addition to that, Abd Rahim, Zukni, Ahmad, and Lyndon (2012) note that, the use of green campaigns has been seen as a successful tool for educating and motivating young consumers to lean towards going green, however, evidence has shown that the level of awareness is still low.

On the other hand, Anvar and Venter (2014) note that, even though there has been a significant rise in the awareness of green marketing, there is notable stagnation in green product market share that is noticeable in emerging markets. To support this Saifullah, Kari and Ali (2017) indicate that, awareness of green products and the behaviour with regards to the awareness is not positively correlated, meaning that green products awareness does not display a significant positive reflection of behavioural intention. A study by Braimah and Tweneboah-Koduah (2011) highlighted that, consumers that reside in Ghana still have a significantly low level of awareness with regards to green products, which has consequently affected consumer attitudes and purchase intention when it comes to green products. A comparison to other developed countries has resulted in India showing significantly less awareness of environmental issues and green products, which has negatively affected Indian consumers attitudes towards green products (Rather and Rajendran, 2014).

The aforementioned finding is supported by Anvar and Venter (2014) who show that a vast number of individuals remain uninformed about the consequences to the environment, due to their purchase behaviour and lack of exposure to green product communication, hindering consumer positive attitudes towards green products and green purchase intention. In contrast, Saifullah, Kari and Ali (2017) show that in China there is low environmental awareness, however, consumers displayed positive attitudes towards sustainability, and in turn, towards green products. Research by Braimah (2015) notes that, even though the participants of their study reflected that they are aware of green terminology, influence on the purchasing intention is still very low, where it can be inferred that participant awareness did not influence participant attitudes towards green products and purchasing decisions.

Harahap, Zuhriyah and Rahmayanti (2018) argue, on the other hand, that there is an intricate correlation between knowledge, awareness, and consumer purchase behaviour, meaning that awareness of a given product does not necessarily affect the green purchase intention and behaviour of consumers. Patwarya, Omarb and Tahirc (2020) meanwhile indicate mixed findings regarding the effects of environmental awareness and attitudes on consumer behaviours, which may result from the fact there is insufficient research considering environmental awareness and attitudes alongside consumer purchase intention. As a result, even though

consumers have high level of awareness of green products, consumers attitude towards green products is what determines whether the consumers will engage in green purchases (Kang, Liu and Kim, 2013). Despite this, a number of consumers are aware of the fact there are green cosmetic products in the market, but are not willing to go through the extensive process of acquiring them (Fauzi and Hashim, 2015).

Similarly, Tejpal (2016) indicates that the level of awareness of the respondents was checked, which reflects that 59.4% of participants reflected that they are aware of the presence of green products, while 39.6% of the participants were not aware of the presence of green products in Northern India consumers. Over the last decade, the concern over the environmental issues has increased, resulting in initiatives to educate and persuade the consumers to go green in an attempt to increase people's awareness thus increasing the consumer attitudes and purchase intention of green products (Ali and Ahmad, 2016). Sangtani and Murshed (2017) specify that, when a consumer has high product awareness, there is a high probability that it will influence the decision-making process of the consumer or vice versa. This is supported by Wijaya (2015), who reveals that, in the hierarchy of effects model the first step is for a customer to obtain the necessary product knowledge and awareness of a product offering, followed by developing either positive or negative attitudes about a company's product offering, while the last step is for the customer to decide whether or not to purchase a given product.

The existing trends for a healthier lifestyle and eco-conscious beauty has resulted in the motivation and exchange of information between customers and organisations so as to develop and modernise green cosmetic products (Fauzi and Hashim, 2015). There is an ongoing trend in women who are increasingly aware of the health and safety of green cosmetic products, where female consumers have displayed favourable attitudes towards the buying behaviour of green cosmetic products and are constantly seeking for widespread product knowledge (Kurnia and Mayangsari, 2020). For that reason, Martinko (2017) notes that purchasing cosmetics products will augment the appearance of the body, and female consumers are now paying special attention towards the ingredients that are used in the cosmetic products so as to ensure that they do not have a negative impact on consumer health or on the environment. Therefore, is hypothesised that:

H1 Awareness has a positive influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa

3.2.2. Product information and attitude towards green products

Product information is necessary to increase knowledge of green products (Demirtas, 2019). The moment in which different consumers are able to acquire adequate product information about products, they are more likely to engage in purchases, as consumers will be aware of the products attributes and the benefits of purchasing the products, hence consumers will have positive attitude towards them (Le-Anh and Nguyen-To, 2020). According to Kumar and Ghodeswar (2015), the tendency that consumers have towards information seeking on product information displays a positive relationship with green purchase behaviour, which consequently shows positive attitudes towards green products amongst these consumers.

Kaufmaan, Panni and Orpanidou (2012) suggest that it is of importance for businesses to heavily capitalise on green promotional campaigns, with the aim of effectively communicating the safety issues and health friendly features of a product, because customers also consider the company advertisements in acquiring product information. According to Premapriya, Velaudham, and Baskar (2016), in promotional campaigns, it is the aim for the promoters to highlight the technical information and product features, because providing this information is guaranteed to attract those who choose green cosmetic products based on their health benefits and environmental concern. In addition to that, Palazon and Ballester (2009) note that informative promotional campaigns that provide product information on green products and their benefits have been shown to affect consumer product preferences. In so doing, the organisation will have positioned themselves in the mind of consumers as a way of changing the consumers' attitude towards green cosmetic products.

Cheung and To (2019) found that product information can effectively aid consumers in product review as the consumers will have gained a high level of awareness as a result of green marketing. As a result, the process of providing product information through green marketing will persuade consumers to move over to a greener lifestyle, where 30% of Europeans indicate that providing product information is the

most efficient way to promote a green product (Liu, Wang, Shishime and Fujitsuka, 2012). For this reason, Cheung and To (2019) highlight the key determining factor of green purchasing behaviour to be green product information, since it has been noted that when a company makes available clear product information, it will result in an increased acceptance of green products.

However, evidence shows that consumers are routinely faced with only partial information on the eco-friendly consequences of a product, having to undergo a long, expensive, and uncertain process in order to obtain the information (Brécard, Hlaimi, Lucas, Perraudeau and Salladarré, 2009). A consumer first has primary perception of a product is through the product information provided on the label (D'Souza, Taghian and Lamb, 2006). According to Lin, Yang, Hanifah and Iqbal (2018), the percentage of women in Britain who check the label for the ingredients before engaging in any kind of purchase has increase to 41 per cent. Mason (2012) stipulates however that consumers still find it hard to select green cosmetic products, because most cosmetic consumers pay special attention to functions or benefits, rather than features or detailed information on ingredients.

D'Souza, Taghian and Lamb (2006) states that consumers consider product labels a necessity, although some still are confused about the green jargon that companies use on product labels (D'Souza, Taghian and Lamb, 2006). The aforementioned is reemphasised by Brécard, Hlaimi, Lucas, Perraudeau and Salladarré (2009), who suggests that, even having undergone the long process of obtaining information, some consumers have difficulty in interpreting it. However, Cheung and To (2019) indicate that, the moment in which product information is easily available to consumers at the point of sale, it will aid the consumer in assessing product ingredients, as well as determining whether paying higher price for green products will result in a decrease in the damage caused to the environment.

For this reason, based on the aforementioned, it is crucial to gain insight on consumer information and knowledge on attitudes towards green products, since product information and information available to consumers influence consumer attitudes (Brécard, Hlaimi, Lucas, Perraudeau and Salladarré, 2009). The moment consumers are confronted with a new product and are in the process of making a decision to adopt the product, they usually assess the products through the

evaluation of awareness of the known product category, coupled with the new information regarding the new product (Lin and Huang, 2012). According to Liu, Wang, Shishime, and Fujitsuka (2012), for consumers to actively take part in environmental issues, they need to have conveniently available product information of green products, since the lack of availability of product information on green products has been identified as a barrier towards developing positive attitudes towards green products.

Biswas and Roy (2015) stipulate that the lack of product information has been identified to be a contributing factor towards the attitude behaviour gap between environmental concern and actual green purchase behaviour. This results in a stagnant market share for green products such that the availability of product information may fill the gap. To support this, Gifford and Nilsson (2014) suggest that it is of paramount importance to ensure information is available to consumers through channels that appeal to target consumers. Effectively communicating the reasons why consumers purchase green products takes place when providing the initial knowledge that consumers need to consider a course of action and its consequences.

Nevertheless, a number of consumers are of the belief that some organisations have put on a façade on how green their products or service really are when providing information on the green products negatively affecting consumer attitudes towards green products (Sheehan and Atkinson, 2012). Subsequently, green claims negatively impact the consumers attitudes towards green purchasing behaviour as the consumers would rather purchase something cheaper (Johnstone and Tan, 2015).

In the case of green cosmetic products, consumers are actively engaging in seeking information from various avenues such as the social media platforms, company advertisements, product labels, and family and friends, so as to ensure that they are purchasing products that have a less deleterious impact on the environment, this means that the consumers are likely to have positive attitudes towards green products (Lin and Huang, 2012). Harahap, Zuhriyah and Rahmayanti (2018) indicate that, during the process of a product information search, family, friends and work colleagues have the highest influence and feedback on consumers who intend on

purchasing green products. In addition to that, Zulfikar and Mayvita (2018) note that, consumers usually first seek out information regarding a product, and then discuss the positive and the negative impacts of the products with friends in order to determine their own attitude towards a product and engage in purchasing it or not.

There has been a tremendous increase on the internet being the main source of communication between companies and consumers, which has significantly altered the purchasing process of consumers (Bilgihan, 2016). Consumers are more inclined to lean towards social media networks so as to acquire much-needed information about green products, which is also true in the cosmetic industry (Roux, 2020). According to Pop, Saplacan, and Alt (2020) a study conducted in 2019 shows that 37% of consumers acquired more information about green cosmetic products by viewing advertisements on social media; 33% obtained more information about green cosmetic products by keeping up with recommendations and comments on social media; and 22% obtained information through celebrity endorsements globally. As a result, Balakrishnan, Dahnil and Yi (2014) point out that social media networks are popularly known amongst different individuals, which makes them ideal for strategic marketers to provide information about green cosmetic products, since they are considered to be visible sites for advertising. Thus, the following hypotheses is proposed:

H2 Product information has a positive influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa

3.2.3. Product availability and attitude towards green products

Gleim, Smith, Andrews and Cronin Jr. (2013) indicate that, economic costs have a substantial influence on consumer decision-making, amongst the many factors that influence the purchase of green products. Price is not only the economic cost factor that has emotional impact on the consumer decision-making, but other factors such as time and determination that a consumer invest in assessing and searching for green products. According to Biswas and Roy (2016) challenges are faced in the change of consumer behaviour when a consumer considers the change to be costly. This thereby hampers green behaviour, thus compelling companies to consider contextual factors such as availability separately, in order to identify the level on

influence on each contextual factor. In addition to that, Zakowska-Biemans (2011) stipulates that the availability of a given product is one of the most significant purchase criteria that individual consumers consider when planning to engage in green purchases.

Although, sustainable features are seen as drivers that a consumer evaluates when they purchase green products, the research has shown that without ease of availability this can stand as a barrier for consumers to participate in specific purchase behaviour (Sharaf and Perumal, 2018). Hisashi (2014) delineates that, the efforts that a business puts into ensuring that a product is conveniently accessible to the customers when they intend to purchase it is defined as product availability. Empirical research shows that, there is a dearth of information over green products, which in turn has a domino effect on the long process that a consumer has to undergo in order to procure environmentally friendly products (Kaufmaan, Panni and Orpanidou, 2012). For that reason, Arli, Tan, Tjiptono and Yan (2018) note that, there is noticeably scant availability and marketing of environmentally friendly products. Walia, Kumar and Negi (2020) point out that when a company actively markets green products, it provides consumers with information about the products features, pricing, comparison with consumers, desired social image, and product availability, resulting in the development of positive attitudes towards green products.

As a result, Su and Zhang (2009) state that to make certain that a business can effectively and efficiently increase their market share and reach their maximum potential of the green market, the organisation has to eradicate the barriers that restrict the green purchase intentions in order to be actual purchase actions, by ensuring that the green products are conveniently available. According to Khare (2015), there are a number of aspects that aid in the increase of green behaviour, broad-spectrum awareness about environmental science, and sustainability, improving the accessibility of green alternatives. It was noted by Arli, Tan, Tjiptono and Yan (2018) that, even though consumers presented with the intention to purchase green products, the intention to purchase the green products did not translate into purchasing behaviour attributable to low availability.

Consumers are of the belief that green cosmetic products are difficult to find, as compared to other normal cosmetic products, and research has shown that most

green cosmetic products are available in online shops. According to Lupberger (2017), most consumers are sceptical about purchasing green cosmetic products that are found in small online shops and/or farmers' market. Some scepticism exists amongst consumers on the online purchasing of green cosmetic products, which are predominantly available on small online shops (Braga Junior, Martínez, Correa, Moura-Leite and Da Silva, 2019). Companies must acknowledge that consumers will not negotiate on traditional products features such as availability, convenience, price, quality and performance, which may be the reason why green purchase intention did not translate to purchasing behaviour (Martínez, Cremasco, Gabriel Filho, Junior, Bednaski, Quevedo-Silva, Correa, Da Silva and Padgett, 2020).

Marketers should understand that green consumers have different drivers that motivate them to purchase green products and it is the marketer's duty figure out what these drivers are. Nastu (2009) reports that 39% of light green consumers acknowledge that they only noticed the green product when they were at the store, while 13% of the light green consumers purchased a product after hearing the product was available. It can be concluded that having green products readily available will motivate consumers who did not initially plan to buy environmentally friendly products to purchase them. In support of that Cohen and Munoz (2017) state that when a product is readily available on the shelves, it triggers sales, where as a result, marketers have come to terms with the fact that incessantly having green products available has monetary benefit, as it attracts green consumers that impulsively buy green products.

In a study by Joshia and Rahman (2015), utilising the Motivation-Ability-Opportunity (MAO) model will assist the businesses and marketers to fully comprehend consumer behaviour, that will subsequently generate positive attitudes that develop desired behaviour on the condition that the consumers possess the ability and opportunity to carry out the expected behaviour. For instance, if the product is not easily available, the green purchase behaviour will not be executed, because the light green consumers would rather purchase conventional products that are easily available in stores. Special attention ought to be given to green products convenient accessibility to ensure that the location of the products will stimulate awareness of the products. Morel and Kwakye (2012) state that, strategically placing products in a store has the ability to possibly help create attention. Nguyen, De Leeuw, and

Dullaert (2018) points out that, product availability has a positive influence on the attitudes towards the green purchase behaviour of consumers. In addition to that, Nastu (2009) states that 29% of the dark green consumers only came to the decision to purchase a green product once they received information that it was available, while 20% of the dark green consumers made the decision to purchase the green products when they were at the store and noticed the product. A dark green consumer is a consumer is more inclined to planning on purchasing green products as compared to light green consumers, who buy green products based on impulse (Bergin-Seers and Mair, 2008).

Accordingly, from the aforementioned, it can be derived that product unavailability is a fundamental element that coerces consumers to change products if the green products are not available. When green products are scarcely distributed, this can constrain an individual's intentions to perform specific actions that are prompted when individuals notice others behaving commendably (Prothero, Dobscha, Freund, Kilbourne, Luchs, Ozanne, and Thøgersen, 2011). Patwarya, Omarb and Tahir (2020) puts forward that, the moment that green products are not available at the consumers first store preference it will have an adverse emotional impact on consumers purchasing behaviour, in spite of having initially shown positive attitudes towards green products. In light of this, Barbarossa and Pastore (2015) reference the social dilemma theory, which states that the application of green behaviour to the theory can result of individual negative consequence of green consumption, since there are individual additional costs when purchasing green products. Therefore, it can be inferred that the noticeable personal inconvenience that consumers are faced with when purchasing green products can delay the purposes of green consumption, owing to the fact that purchasing green products is a time consuming, costly and stressful activity (Barbarossa and De Pelsmacker, 2016).

For that reason, the moment green products are available in various stores, and are visible in the store, it will generate an increased awareness and thereby generally decrease the problems that occur with regards to green products not being conveniently accessible, or only small quantities being available (Hong and Guo, 2019). On the other hand, a number of marketers have been strategically making use of the scant availability of green products in order to create the belief that there is excess demand, so as to persuade the consumers to purchase products quickly

before they are out of stock (Steinhart, Mazursky and Kamins, 2013). In addition to that, some marketers make use of a lack of availability of green products to justify the need to charge a premium for green products, because when supply of green products is low and the demand of green products is high, consumers do not mind paying premiums (Pawlewicz, 2020).

On the other hand, Roy (2013) indicates that business ought to take into account that the scarcity of green products along with poor quality and cost has been identified to be a limitation in consumers' readiness to take part in green purchasing behaviour. When a customer shows the intention to purchase a green product, and they experience an out-of-stock of the green product, it diminishes customer satisfaction, and consequently results in the loss of potential customers. Johnstone and Tan (2015) state that situational factors, such as the lack of choice and availability are considered as obstacles with which consumers will be faced in participating in green purchase behaviour. In addition to that, Patwarya, Omarb and Tahirc (2020) state that, once consumers come to terms with the fact that green products are out of stock, this discourages consumers from procuring the products, as they will hardly find alternative stores that sell green products this thereby result in the procuring of green products to be more difficult. A chain of problems is detected for stakeholders when the products are temporarily unavailable, which subsequently leads to potential sales losses for businesses, and discontent amongst consumers (Nguyen, De Leeuw, and Dullaert, 2018).

H3 Product availability has a positive influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa

3.2.4. Environmental concern and attitude towards green products

The alertness that consumers exhibit about the environmental issues and the preparedness that consumers show towards solving environmental issues is defined as environmental concern (Kirmani and Khan, 2016). A consumer who is more concerned about the environmental degradation is more likely to have positive attitudes towards the protection of the environment. Lin and Huang (2012) indicate that attitude is usually used to understand whether a consumer will behave in an ecologically concerned manner. Gan, Wee, Ozanne and Kao (2008) argue that

consumers harbour concern over the environment, and are likely to display attitudes that have a positive outcome on ecologically conscious living.

Today's generation has realised that their consumption of harmful products is what has contributed in the degradation of the environment (Yadav and Pathak, 2016). Consumers have realised that the chemicals used in cosmetic products that might pollute the environment or even worse be harmful to their body and skin (Kim and Seoc, 2009). Therefore, influenced by the environmental and health-conscious trend a significant number of consumers have actively started to seek out green cosmetic products that will have minimal destruction to the environment, and will without doubt be gentle on the skin (Fauzi and Hashim, 2015). A separate analysis was conducted by Chin, Jiang, Mufidah, Persada and Noer (2018) indicating that, in spite of growing concern with regards to the effects of ingredients on health, environmental concern greatly influences consumer engagement in green cosmetic purchase behaviour. According to Gan, Wee, Ozanne and Kao (2008) many more consumers are starting to change their habits and way of living in order to adjust to a more environmentally conscious way of living.

According to Goh and Balaji (2016), readily available literature points out that environmental concern is of paramount importance when trying to fully comprehend the consumers purchase intention of green products, since environmental conservation is associated with attitudes related to protecting the environment. In addition, Kim and Seock (2009) point out that, those consumers that display more concern over the issues relating to the environment are more likely to purchase cosmetic products that have green certification labels, without bargaining on freely choosing the green cosmetic products that they want, and without worrying the time it takes to seek out information. For that reason, White, Habib and Hardisty (2019) highlight those consumers that have a high level of environmental concern will not usually be swayed from purchasing green products, even when confronted with some hurdles when trying to purchase a green product.

Various researches concerning green marketing has shown contradictory results regarding the relationship that exists between environmental concern and the attitude towards green products (Kirmani & Khan, 2016). Paul, Modi, and Pate (2016) report that consumer perception of environmental preservation is more

positive, because as innate environmental concern surges, and consumers develop positive attitudes towards green products, where it is identified that there is a direct and indirect outcome of environmental concern as this influences attitude and purchase intention towards green products. Yadav and Pathak (2016) point out that there is a significant relationship that exists between environmental concern and attitude amongst young consumers in India, while Hanson (2013) also suggest that, the same relationship exist amongst young consumers in Canada.

By way of contrast, Khaola, Potiane and Mokhethi (2014) argue that when marketers develop inappropriate hypothesis that overall attitudes like environmental concern are direct factors of specific behaviours is what usually leads to the frustration that exists when marketers do not achieve the expected relationship between the environmental concern and green purchase behaviour. Kirmani and Khan (2016) state that environmental concern has an insignificant correlation with green purchasing intention. Fauzi and Hashim (2015) meanwhile points out that, in order to be different and stand out from their peers, Generation Z engage in the buying of green cosmetic products, without importance being placed on environmental concern by these consumers.

Mostafa (2007) suggests that the environmental concern displayed by consumers does not always translate to positive attitudes towards green products. Amberg and Fogarassy (2019) argue that the willingness that a consumer has to purchase green cosmetic products stems from their degree of concern for the environment. In support of this, Khaola, Potiane and Mokhethi (2014) highlight that, when viewing the issue of attitudes from a theoretical viewpoint, consumers who show less concern over the environment are unlikely to buy green products or vice versa, however, this is not always the case, because of the incorrect theory that attitudes like environmental concern directly affect green purchase behaviour. Therefore, is hypothesised here that:

H4 Environmental concern has a positive influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa

3.2.5. Perceived barriers and attitude towards green products

Despite the fact that there has been growing awareness in the use of green cosmetic products globally, evidence has shown that customers still do not actively purchase green products all the time (Chin, Jiang, Mufidah, Persada and Noer, 2018). The attitude gap in green purchasing is still predominantly evident, regardless of the increased environmental consciousness that exists amongst consumers (Johnstone and Tan (2015). According to Nguyen, Lobo, and Nguyen (2018), the perceived barriers that consumers face become a determining factor in whether or not consumers will engage in green purchase behaviour. Various studies by Pop, Saplacan, and Alt (2020) have found that the internal factors acting as a perceived barrier to engaging in purchasing behaviour of green cosmetic products is the time that the consumers will take to engage in the purchase; capability; and income. On the other hand, Chin, Jiang, Persada and Noer (2018) have distinguished that the external factors seen by consumers as barriers to engaging in purchasing behaviour of green cosmetic products is a lack of availability of the green cosmetics. However, amongst other major perceived barriers that hinder consumers to actively take part in green purchase behaviour is a lack of trust, and green washing (Chen, Lin and Weng, 2015), which are discussed below.

The inconsistency that exists in the preferences of green products when consumers decide to purchase products is derived from lack of trust and green washing of green products (Chen and Chang, 2013). According to Goh and Balaji (2016), even though there is noticeable increase in the number of green products on the market, a number of businesses have the tendency to circulate wrong and ambiguous information so as to try boost sales. Singhal and Malik (2018) points out that several companies are adopting the green cosmetic trend in order to differentiate themselves to gain a greater market share. Through the adoption of green cosmetic products by many consumers, businesses have had to adapt to the new ways of business by innovating the traditional cosmetics, so that they can meet current trends in the cosmetic industry (Kim and Seoc, 2009).

For this reason, Chen and Chang (2010) suggest that, in attempt to attract the green audiences, company communication is usually unclear and misleading, resulting in green washing, and presenting a significant peril to positive customer perceptions and attitudes towards green products. A study conducted by Kurnia and Mayangsar

(2020) stipulates that half of Indonesian women participating in their study could not easily recall a brand that consistently endorsed the green movement. Klaschka (2016) argues that, a number of consumers are of the belief that companies are not successfully providing green cosmetic products that are safe, and which have minimal damage to the environment and to consumer health. Therefore, the removal of any confusion amongst consumers will aid in the creation of positive attitudes towards green products.

Positive attitudes that are displayed by consumers towards green cosmetic products are what makes the consumers engage in green purchase behaviour (Fauzi and Hashim, 2015). While the consumer has negative attitudes, consumers are more likely to not engage in the purchase of green cosmetic products, resulting in an immediate halt to buying intention (Kanchanapibul, Lacka, Wang & Chan, 2014). Thøgersen, Haugaard and Olesen (2010) argue that the moment consumers suspect that organisations are engaging in green claims and false advertising of products, this will result in negative attitudes towards green cosmetics. The main target market for cosmetic products are females, as they are the main buyers of eco-labelled cosmetics and beauty care products, necessitating the need to identify the motivation of consumers in engaging in such purchases to minimise the lack of trust barrier (Leire and Thidell, 2005). Upon investigation, Amberg and Fogarassy (2019) highlight that there is a tendency amongst female consumers to feel cynical about the over-advertising of green cosmetic products with green claims by unprincipled marketers.

Past research has noted that trust is fundamental in generating a maintainable competitive advantage (Chen, Lin and Weng, 2015). Thus, Vega-Zamora, Torres-Ruiz and Parras-Rosa (2019) highlights that a lack of trust is a significant barrier accountable to the notable vast difference that exists between attitudes and purchase intention. Lack of trust on green products usually due to inaccurate information on product labels, falsification of products, and different standards and accreditation procedures for green products (Shahrin, Quoquab, Jamil, Mahadi, Mohammad, Salam and Hussin, 2017). The lack of standard certification and knowledge of the certification has resulted in most customers being sceptical, and believing that there are no such thing as green products. For that reason, consumers may initially have positive attitudes towards green products, but the lack of trust that

exists regarding the environmental performance of the green products may hinder the actual purchase behaviour (Chen, 2010).

In addition, a number of consumers are of the belief that some organisations are dishonest about their green products or services (Kumar and Ghodeswar, 2015). Goh and Balaji (2016) found that, consumers show a lack of trust regarding the green claims is attributable to external reasons, which include improving the triple bottom line and the brand image of the company, this subsequently leads to consumers displaying negative attitudes towards the company and green products. According to Chen and Chang (2013), the strength of consumer attitudes towards green products can be altered the moment consumers come into contact with information that is considered not to be dependable.

For this reason, there is a lack of trust amongst consumers regarding how green products come to negatively impact consumer attitudes towards green purchasing intention. According to Chen, Lin, and Weng (2013), a certain fear exists amongst a number of consumers as they are afraid of being duped by the green claims and green washing particularly given that green products are generally sold at a higher price. Given that a majority of customers do not possess the proficiency to be able to discern the basic requirements of green products, the development of trust is essential to enhancing positive attitudes towards green purchases.

However, Sheehan and Atkinson (2012) indicate that, while a number of consumers have displayed lack of trust towards green claims of businesses, this has not had a negative impact on green behaviour, where the evidence has shown that consumers still engage in green purchase behaviour, despite the lack of trust. Goh and Balaji (2016) are of the belief that consumer scepticism is not a factor that shows a distrust in advertising claims, but rather, represents an enhanced interest in the message being communicated. This notwithstanding, extant literature does not distinguish the role that green lack of trust plays in effectively influencing the attitudes that a consumer will possess towards purchasing green products (Nuttavuthisit and Thøgersen, 2017). Therefore, is hypothesised that:

H5 Perceived barriers have a positive influence on attitude towards the purchasing intention of green products amongst young consumers in South Africa.

3.2.6. Perceived price and attitude towards green products

Many businesses have been faced with a great deal of competition in their respective industries, with reduced profit margins on mature products resulting in the businesses relentlessly looking for other products that will attract customers to the business and consequently generate higher margins (Bezawada and Pauwels, 2013). The growing demand for green cosmetic products has contributed to their fast adoption. Some businesses have opted to take an opportunistic approach in order to remain competitive by falsely claiming to sell green products in order to achieve higher margins. This is reinforced by Fauzi and Hashim (2015), who highlights that engaging in green marketing and the selling of green products will aid a company in ensuring that they secure profitability, constant longstanding growth, obtain a favourable social and environmentally responsible status for the company, and gain a competitive advantage.

Given that green products are generally sold at higher price in the market, this has led to the issues of affordability being elevated. With the current pandemic of COVID-19, purchasing behaviour has been greatly affected, as most consumers have faced job losses. Consequently, the ever-rising unemployment rates have significantly resulted in consumers carefully evaluating their purchasing decisions, and opting for essential commodities, significantly affecting attitudes towards green products.

Consumers have identified green products to be more costly than that of regular products, where researchers are often bound to questioning consumers over whether they prepared to pay more for green products (Wang, Ma and Bai, 2019). The level of green consciousness of consumers and the attitudes that the consumer possess towards green cosmetic products is what will determine whether or not a consumer is willing to pay a premium price for the green products (Fauzi and Hashim, 2015). Most customers associate premium pricing of products with high quality. A research study by Royne, Martinez, Oakley, and Fox (2012) have shown that generally, price is used as a measure to ascertain the quality of a product, as well as the degree consumers will hinge on additional quality cues that are present.

South Africa is currently in the green awakening stage, so consumers may not necessarily know how to identify whether the green products are up to the standard

of quality to necessitate the price at which they are being sold, resulting in negative attitudes towards green products. This is supported by Lee, Kwon, Shin, Yang, Lee and Suh (2014), who illustrate that, in the mind of consumers, green products are considered to be a suboptimal choice with a premium price, offering lower performance when compared to what regular products have to offer. Therefore, marketers ought to ensure that they understand that the information that is communicated in an advertisement about the price of green products can potentially have emotional impact on the consumers' discernments of the performance risk of green products.

Lee, Chuang, Huang, Huang and Chen (2013) define perceived performance risk to refer to when the green products do not deliver on their environmentally friendly functions, and the consumption of these products becomes detrimental to the environment. If customers are to pay more for a green cosmetic product, and the product does not provide the requisite benefits, customers are inclined to develop negative attitudes towards green products. Johnstone and Tan (2015) presented reports that argued that various consumers personally preferred green products, but when it came to purchasing such products, the individuals have opted for products at lower cost.

Papista and Krystallis (2012) state that there has been a negative relationship between perceived high price and lower perceived customer value. The perceived high price will consequently affect the overall customer satisfaction and consumer attitudes towards green products (Hur, Kim and Park, 2013). If customers feel that the price is too high, this can potentially ruin the consumers' attitudes towards purchasing a green product (Kaufmann and Orphanidou, 2012). According to Maia, Lunardi, Dolci and D'Avila (2020), low prices and high discount rates are considered to be an incentive that consumers use to motivate themselves to engage in a purchase, where as a result, it is evident that there is a subjective view on high and low pricing, grounded on the perceived value that the product receives as compared to the price consumers pay.

The moment that individual consumers feel as if the high price of green cosmetic products surpasses ethical considerations, the attitude gap that exists in the purchasing of green products is widened (Connell, 2010). The gap that has been

established between the attitudes of consumers and purchase behaviour is usually derived from issues of affordability, along with the performance expectations that the green products were supposed to have not being met (Tseng and Hung, 2013). As a result, a positive attitude exhibited by consumers is not always sufficient incentive to make consumers engage in green purchase behaviour.

Consumers generally have a positive attitude toward the willingness to pay more for green products, because in the introduction phase of green products, the products are generally sold at a higher price than that of regular products. Chang (2011) points out that, based on research conducted in United States of America, 82% of the participants of the study revealed that they are more than prepared to pay 5% more for green products, while research conducted in China showed that participants are prepared to pay 4.5% more for green products. Popovic, Bossink and Van Der Sijde (2019) reflect that, when there is an insignificant increase in price there is no effect on the consumer purchasing intention and behaviour, even in developing countries.

By way of contrast, Sheehan and Atkinson (2012) indicate that half of Americans have exhibited a preference and positive attitudes towards the purchase green products. However, merely 12% of the consumers are ready to pay a premium for them. These results are similar to those showed in other developed nations, where Johnstone and Tan (2015) found that consumers show concern over environmental degradation and willingness to purchase green products, but only a few of the consumers actually purchase such products. This indicates the attitude gap between concern, positive attitudes, and actual purchase intention. Thus, D'Souza, Taghian, Lamb, and Peretiakos (2006) propose that young consumers are highly unlikely to procure green products if the price is higher than that of the regular counterparts, since price plays a vital role in the procurement of green products. The higher price of green products creates a barrier for some consumers to have an actively positive attitude towards green products. Therefore, it is hypothesised that:

H6 Perceived price has a positive influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

3.2.7. Perceived barriers and purchasing intention of green products

Green marketing has become a way of achieving market differentiation (Peattie, 2008). The strength that consumer green purchasing has had over the last decade has led to businesses ultimately changing a company's business strategies to accommodate the increase in environmental concern and green purchase behaviour (Govender and Govender, 2016). Even though there is a noticeable increase in environmental concern around the globe, there is still a number of factors that hinder consumers from acting in an environmentally friendly manner (Kanchanapibul, Lacka, Wang and Chan, 2014). There are several factors that an individual is confronted with, but the individual's ability to control and handle the factors is what determines whether an individual will take part in a behaviour. For that reason, Yenipazarli and Vakharia (2015) indicate that the moment an individual cannot handle the factors that cause a barrier to engage in a purchase behaviour, it will allow other insignificant factors to forecast that behaviour.

In spite of being knowledgeable and having information on green products, some customers still experience barriers in purchasing green products, such as cynicism over whether in fact the products are actually green or not (Sheehan and Atkinson, 2012). According to Hasan, Irfan, Shaari and Sharif (2018), green trust and green washing have been identified as a noteworthy barrier to green purchasing, due to the lack of trust and confidence over green claims. Green washing is defined as the process that businesses go through to provide false and deceptive information with regards to the environmental benefits that a product or service might have (Chen and Chang, 2013). Lack of trust on green products is defined as the feeling that one has that there is something amiss or dishonest about what is being communicated.

When there is an interaction between customers and businesses, a consumer will effectively develop relationship of trust, although Chen (2013) notes that when consumer expectations are not in line with their past experience with the product, this subsequently leads to the decreased product satisfaction and negatively affects future purchase intention. Goh and Balaji (2016) found that in order to successfully overcome uncertainties and perils that have to do with green purchase intention and green purchase behaviour, trust has to be developed. During the process of the assessing green products, it is essential that the business attains the trust of the

consumers since this is considered to have a direct impact on consumers perception of green products, consequently affecting the intention to purchase green products of the consumer (Gleim, Smith, Andrews and Cronin 2013). Kim and Seock (2009) indicate that the trust that consumers have in green products has a positive influence on purchase intention and green purchase behaviour, through which information and communication technology and third-party certification has been identified to solidify consumer trust in green products.

This being the case, green cosmetic products are slowly gaining prominence, where many companies are slowly starting to develop green products. However, there is still a lack of trust amongst consumers as to how green cosmetic products really are (Fauzi and Hashim, 2015). Green cosmetic products are still in their infancy in the market, and they possess juvenile certification standards, therefore the way consumers behave towards the new trend of cosmetic products is significantly influenced by marketing communications that exhibit accurate descriptions of product features (Jaini, Quoquab, Mohammad and Hussin, 2019). Scepticism still exists amongst consumers about green cosmetic products and the potential damage the products will have on the skin and the environment, since consumers do not trust information about certifications, labelling, and manufacturing of green cosmetic products.

A number of businesses aim to gain the trust of consumers by providing as much as they can on green cosmetic products, due to the consumer protection Act of South Africa that provides a substantial summary of required disclosure requirements including also the minimum requirements in terms of product labelling and trade description (Viljoen and Marx, 2013). According to Borin, Cerf, and Krishnan (2011), some consumers may not be able to fully interpret the minimum labelling requirement on the products, since businesses can decide not to provide other ingredients on product labels, which may cause uncertainty as to how green the cosmetic products really are amongst consumers. The lack of guidelines in the information to be provided to consumers may be a barrier to consumer purchase behaviour, with the potential to provide deceptive marketing communications, thereby causing a potential lack of trust in the products (Mintel, 2010). The numerous standards and the various companies engaging in the green washing activities of exaggerated marketing engaged by big brands such as Volkswagen, BMW, and

Nestle have resulted in decreased consumer purchase intention, due to the confusion that consumers who have positive attitudes might have regarding green products. According to De Jong, Harkink, and Barth (2018), consumers are of the belief that various businesses only communicate the positive attributes of their products, and neglect the potential negative impacts of green products. In addition to that, Khan and Mohsin (2017) state that there is no such thing as a fully green product, where one way or another, a product is going to contribute some form of damage to the environment. For this reason, the aim of the businesses is to minimise this damage by means of providing green cosmetic products, as these are believed to have minimal damage to the environment and the skin by comparison with the normal cosmetic products.

Consequently, Goh and Balaji (2016) point out that, despite the fact that there is an increase in the green products being advertised, displaying the various attractive features of green products to encourage consumers to try them, the advertisements are not sufficient to lead to actual purchases. Chen and Chang (2013) note in this regard that consumers are usually reliant on the advertisement communicated by the business before making a purchase, however the green wash on the advertisements of the business are considered to dent consumer confidence and trust in the advertisement, consequently affecting the purchase intention of green products.

Researchers have identified a lack of trust as a behaviour mannerism, while other researchers have identified a lack of trust is resultant from situation influences which is autonomous of personality trait (Sharan and Romano, 2020). Elving (2013) notes that the scepticism that consumers display towards the company communication on green products might differ due to distrust or disbelief towards different green products, however if appropriate and adequate proof is provided as to how green the products are, it can significantly positively sway the purchase intention of these consumers.

Additionally, Goh and Balaji (2016) point out that, for companies to reduce consumer confusion and lack of trust, they must actively participate in initiatives minimise greenwashing, ensuring that information on green claims is easily available to consumers in order to aid in the ability to compare products. In so doing, the accessibility of information on green claims will boost trust and thereby boost

purchases. Where lack of trust and green claims can impact the purchase intention of consumers, it is hypothesised that:

H7 Perceived barriers have a positive influence on the purchasing intention of green products of young consumers in South Africa.

3.2.8. Attitude towards green products and purchasing intention of green products

According to Kaufmann, Panni, and Orphanidou (2012), previous research has used consumer attitudes as an influencing factor to predict energy preservation and environmentally conscious purchasing. Thevanes and Weerasinghe (2019) stipulate that, environmental concern is defined as a worldwide attitude that presents unforeseen effects on behaviour. Götze (2011) notes that there are many barriers that an organisation has to go through when introducing a new product to a new community, since the organisations lack the knowledge on the factors that influence the adoption decisions of consumers. Consumers from different countries have shown different attitudes and motivations that influence the consumers to adopt new products.

Since South Africa is in the green awakening stage, it is essential for businesses to identify the attitudes and motivations that consumers face before considering purchasing green products over the conventional products. When an ethical consumer decides to engage in a purchase, they are faced with a wide range of issues in that regard, including environmentalism which creates a complex decision-making process (Carrington, Neville and Whitwell, 2010). Ethical consumers have recognised a link between the buying behaviour of an individual and the related ethical problem. Tascioglu and Rehman (2016) specifies that individuals that showed a high degree of environmental concern are those likely to engage in environmentally friendly purchases. which has been seen to be the reason that motivated most of the organisations to incorporate the green marketing practices in their day-to-day operations.

According to De Pelsmacker and Janssens (2007), more than half of the European population believe that they possess the power to make a significant difference in the way an organisation conducts business, while 68% of the population state that they purchased from an organisation because the organisation has an ethical reputation. Kolar and Zabkar (2014) state that there is a correlation that exists between attitudes and behaviour, where as a result it revealed that attitudes are considered to be worthy predictors of behaviour when particular elements of attitudes and behaviours are the same. For that reason, it can be assumed that there is a positive relationship between consumer attitude and green purchase behaviour. To support this, Mkhize and Ellis (2018) have noted that there is a positive relationship between environmental attitude and green purchase behaviour. In addition to that, Xu and Benbasat (2011) state that consumers who display a positive attitude towards environmentally friendly initiatives are more likely to engage in green purchase behaviour.

In as much as consumers display positive attitudes towards green behaviour, Ng, Butt, Khong and Ong (2014) indicate that, for a consumer to display positive attitudes towards a particular green product, the products' attributes or features need to have concrete benefit for the natural environment. In order for consumers to continue displaying positive attitudes towards the purchasing of green products or services, organisations ought to ensure that they minimise the obstacles that the consumer might face when purchasing green products or services. Caruana, Carrington and Chatzidakis (2016) suggest that, when an individual is confronted with context-specific issues such as lack of money, time, or adequate information on a product, and show an unwillingness to have to change convenient shopping patterns, this hinders the consumer's positive attitudes towards green products or service.

However, Wang, Ma and Bai (2019) note that even though attitude is used to predict an individual's behaviour, attitude does not always convert into actual purchase behaviour. A number of consumers still find it difficult to purchase green cosmetic products, even though they are aware of the advantages of this (Fauzi and Hashim, 2015). Papista and Krystallis (2013) state that the attitude value intention model holds that even though customers view the environmental issues as detrimental to the natural environment, customer's environmental attitudes inconsistently translate

into environmental behaviours. Johnstone and Tan (2015) note that consumers hardly ever “walk the talk”, routinely purchasing products that are dangerous to the environment, regardless of being green conscious. Thus, despite the fact the consumers possess positive attitudes towards the environment, this does not necessarily result in heightened green behaviour, as is the case in the green cosmetic industry.

Joshia and Rahman (2015) point out that 67% of consumers have exhibited positive attitudes towards the purchase of green, nonetheless only 4% of the consumers have purchased the green products. This could be the result of the fact that, generally speaking, consumers perceive green products to have higher price and low performance compared to conventional products. Milovanov (2015) indicates that a gap exists between green consciousness and actual purchase, referred to as the attitude behaviour gap. For that reason, it is essential for marketers to fully comprehend the behavioural drives and hurdles that green consumers face, so as to identify the ways in which to ensure consumers behave in a sustainable manner.

Lee, Kwon, Shin, Yang, Lee and Suh (2014) highlight that, green consumers usually engage in green purchases due to their own personal values, meaning that they are willing to make a small sacrifice to ensure that they make purchase decisions that are advantageous to the natural environment. Kanchanapibul, Lacka, Wang and Chan (2014) state that the values, beliefs and norm that consumers have are more likely to have a more positive effect on the purchase behaviour of green cosmetic products. Milovanov (2015) indicates that, the first step in sustainable consumption is developing positive attitudes, however; it is of paramount importance that marketers consider the internal stimulus of consumers, rather than the external one, because consumers ought to perceive green behaviour as a personal issue, instead of viewing it as an incentive.

In addition to that, Manaktola and Jauhari (2007) report that the individuals who make use of the hotel services are alarmed about green practices, displaying positive attitudes concerning the organisation, and being inclined to use hotels that have implemented green strategies. Schubert, Kandampully, Solnet and Kralj (2010) states that, hotel owners’ attitude towards the acceptance of environmentally responsible practices has been the focus of some studies, where, in cases where the

hotel owners lack awareness, and do not conduct market research on the consumer attitudes and behaviour towards green practices, this will eventually result in a decrease in market share.

However, Johnstone and Tan (2015) establish that self-interest of individual consumers has been identified to be more important than the combined social gains, irrespective of the consumers displaying positive attitudes towards green products. In some instances, it is noticeable that certain consumers might have positive attitudes towards green products, but these positive attitudes do not translate to actual purchases, due to green washing. Chen and Chang (2012) define green washing as a tactic that the organisation makes use of in order to communicate false information regarding how green the organisation is, or the environmental benefits of a given product or service. As a result, the consumer might have a positive attitude towards green products, and are environmentally conscious, but they are not really confident in whether the green products are actually different to conventional products, and whether these cause damage to the environment.

Pomering and Johnson (2009) indicate that, due to the growing trend of the environmentally conscious consumers, a number of organisations have taken an opportunistic advantage in order to remain competitive, causing consumers to become sceptical. Therefore, a number of consumers have showed the intention to penalise and punish the organisations that portray deceitful environmental claims, triggering the precise relationship between consumer attitudes and green purchase behaviour to not determined (Tucker, Rifon, Lee and Reese, 2012). Lu, Chang and Chang (2015) states that organisations whose business operations have harmful effects on the environment will be punished by consumers changing brands or products.

Joshia and Rahman (2015) suggest that, using attitude to predict future behaviour of consumers is still uncertain, since attitudinal variables fail to show whether a consumer will actually purchase the green products. Johnstone and Tan (2015) identify that a number of consumers do not normally participate in green purchasing, because they feel the pressure of going green, which is notably common in individuals who possess strong attitudes, and who are more resistant to attitudinal change. Bergin-Seers and Mair (2009) stipulate that there are no 100% green

consumers, as sometimes even the dark green consumers only contemplate on green or ethical components for some of their purchases. Nastu (2009) defines dark green consumers as consumers who usually plan their purchases beforehand, while light green consumers usually engage in green purchases based on compulsion and inquisitiveness. Ottman (2010) point out that it is essential for an organisation to know whether consumers display dark green or light greenehaviours in their attitudes when the organisations target consumers; nonetheless, the rise of green concerns, products and labels has made organisation to understand the importance of consumers personal green interests. Therefore, it is hypothesised that:

H8. Attitude has a positive towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

3.2.9. Perceived price and purchasing intention of green products

The economy of South Africa has restricted the purchasing power of young consumers, resulting in consumers critically evaluating the price component of a product before buying. Palazon and Ballester (2009) stipulate that the extent to which a consumer's buying behaviour is swayed by the price attached to a product when making a purchase can be defined as price consciousness. As a result, Popovic, Bossink, and Van Der Sijde (2019) argue that organisations must have precise knowledge of their target market and the degree to which the consumers are price conscious before allocating a price to a product.

Due to the ever-increasing unemployment rate in South Africa, the purchasing intention of products that are expensive, such as green products, have significantly decreased, as young consumers do not have the funds to purchase green products in cases where there are easily accessible conventional substitutes at a lower and cheaper price (Borel-Saladin and Turok, 2012). Palazon and Ballester (2009) suggest that the price component of a product is seen to have a comparative effect, since there are certain consumers that are sensitive to price, with others unfazed by price when they make a purchase decision. According to Bukhari (2011) those consumers that had low awareness of green products are those that are unwilling to

part with a significant amount of money in the name of purchasing green products when they were cheaper products in the market.

Accordingly, it is important for marketers to successfully segment those customers who are willing to buy green products in order to correctly identify the different factors that contribute to the purchase intention of green products of various consumers. According to Nastu (2009), green customers are usually segmented using these two following groups namely: light green consumers, and dark green consumers. Kanter (2008) states that in the case of light green consumers, they generally have to compromise between environmental features and product attributes, such as price. As a result, Nastu (2009) shows that light green consumers are more apprehensive towards paying a little bit extra for environmental feature, but are prone to choosing products that are easily accessible, provide comfort, and that are low maintenance. For that reason, if a company successfully segments their customers, they will be able to figure out that in order to increase the purchase intention of green products of young consumers, they ought to ensure that the green products are conveniently accessible, provide comfort, and have low maintenance, so as to effectively ensure that the light green consumers pay a little bit extra for the product.

Kanter (2008) indicates that dark green consumers place importance on environmentally friendly features over any other product attribute, for that reason, dark green consumers are more motivated to pay an extra amount on the green consumers as they bestow a significant importance on societal and environmental solutions; meaning that the purchase intention of this consumer is significantly high not to be swayed by the price of the green product. Attributable to the noticeable increase in societal and environmental conservation around the world, Chen (2010) stipulates that the green product industry has been experiencing a rapid increase in sales, hence, it can be inferred that many consumers are willing to pay more for green products. Boztepe (2012) highlights that change has been evident in the correlation between price and consumer purchasing behaviour. For example, young consumers exhibit greater eagerness to pay the price of eco-friendly products in comparison to the findings of previous studies.

In addition to the aforementioned, Milovanov (2015) states that a correlation exists between income and environmental issues, by stipulating that, individuals who have high income and welfare have shown significant concern over the environmental issues. This can be the reason why most dark green consumers show that they do not really care about the price of the green products, because they generally validate paying premium prices for green products by assuming that they have a higher quality and purpose than that of conventional products.

Royne, Martinez, Oakley and Fox (2012) point out that marketers must pay special attention to the setting of the price of green products or services, while taking into account consumers' sensitivity to cost, since price plays a huge role in consumer purchase intention of green products. This despite the fact that other researchers have identified that consumers will be more than willing pay extra for green products. Chin, Jiang, Mufidah, Persada and Noer (2018) suggest that there are some individual consumers that have the propensity to simply accept and acknowledge the fact that green cosmetic products are sold at a higher price in the market, even though they have not experienced this themselves.

Consumers are more inclined to pay extra for green products, owing to a number of factors. According to Kim and Seock (2009), the reason why green cosmetic products have higher prices is usually a result of the fact that extra costs are incurred when procuring better and natural raw materials, and ensuring that the labelling certifications leading to a significant decrease in the purchase intention. In addition to that, Braimah (2015) points out that price is considered to be highest ranking of determinants that affect the purchasing intention of consumers, as compared to the concerns over green issues displayed by consumers. As a result, price has been recognised to play a crucial role in price management, where it helps a business establish how prices are observed and valued, as well as how price encourages purchase intention and decisions (Diaz and Cataluña, 2010). Therefore, it is hypothesised that:

H9 Perceived price has a positive influence on the purchasing intention of green cosmetic products amongst female consumers in South Africa.

3.3. Conclusion

Sustainable development secures our collective future. The green industry has been growing at a tremendous rate, with various debates towards the green purchase behaviour of consumers within the different industries. Developing country consumers have experience insignificant exposure to and knowledge of green products, same results have been evident in the case of green cosmetic products. The research study will be grounded on alphabet theory, founded on multiple individual consumer theories, with the aim of increasing the knowledge of green cosmetic products and the consumer behaviour of female consumers in South Africa. In the 21st century, female consumers are increasingly taking part in the market. Particularly in the cosmetic industry, females have been identified to possess the largest purchasing power as compared to males. Conflicting results were evident across the literature. with some research studies finding that awareness of green cosmetic product, product information, product availability, environmental concern, perceived barriers, perceived price, and attitudes had a positive influence on purchase intention when it came to green cosmetic products, and vice versa. This has necessitated that the proposed research study investigates the level of influence that the awareness of green cosmetic product, product information, product availability, environmental concern, perceived barriers, perceived price, and attitudes have on the purchasing intention of green cosmetic products amongst the female consumers in South Africa. This serves to in provide relevant information to marketers in South Africa seeking to optimise market share.

4. Chapter 4: Research Methodology

4.1. Introduction

Research methodology comprises the different methods utilised by the researcher to classify, select, process, and analyse the data presented about a given topic (Flick, 2015). The research methodology section gives the reader of the study the opportunity to critically evaluate the validity and reliability of the overall study. The purpose of the research methodology is to provide a framework that will be implemented in the research study. This chapter will first evaluate the research paradigm that the study. Thereafter, the descriptive research, quantitative design, and deductive approach will be discussed. The sampling design of the research study will next this will include the evaluation of the target population, the sample size, and the sampling method. The research instrument will be analysed, where the analysis included the data collection method, data collection form, scales of measurement, questionnaire design, and pilot study. This will be followed by data analysis and rigor of research. Lastly, ethical considerations and conclusions will be presented.

4.2. Research paradigm

A research paradigm is defined as the collection of the beliefs and values regarding how the world is viewed, which becomes a guide for research behaviour (Jonker and Pennink, 2010). Kamal (2019) points out that a paradigm is one of most fundamental after-effects of any decision in the research process, because it is the rational framework that researchers use when engaging in data collection and analysis process. All research that is conducted is founded on a specific paradigm that will be used that will be used to fully understand the subject at hand (Chilisa & Kawulich, 2012) however, this is individual in their understanding of the truth.

According to Rehman and Alharthi (2016) the research paradigm encompasses four extensively identified paradigms, viz. positivism, constructivism, realism, and pragmatism. For the purpose of this research, positivism will be used. Hasan (2016) states that a positivist research paradigm is most likely to be used in a quantitative research study, where a positivist researcher has confidence in the fact that there is

only one reality that can be measured and known. Hence, if a researcher assumes a positivist approach, there is the need to be unbiased, so as to successfully distinguish the reality of a situation without it being influenced by the personal experience of the researcher (Hasan, 2016). A research paradigm consists of four parts: ontology, epistemology, methodology, and methods.

4.2.1. Ontology and Epistemology

There are various paradigms with diverse ontological and epistemological interpretations, with differing expectations of the evidence that supports the specific research approach (Scotland, 2012). The structure of belief that a person utilised in order to fully comprehend the components that makes a statement a fact, in other words, the nature of reality is defined as ontology (Nasution, 2018). A positivist research ontology holds the certainty of a situation to be exterior, neutral and autonomous of social actors (Antwi and Hamza, 2015). Keser and Köksal (2017) suggest that epistemology is concerned with what is known to be true, such that it concentrates on the opportunities, origins, and restrictions of data in the area of study which can deliver trustworthy information (Antwi and Hamza, 2015). Epistemologically, positivists have a neutral viewpoint, as an essential characteristic of any knowledgeable analysis, whereby the researcher does not impose on the participants (Longino, 2017). In addition, Keser and Köksal (2017) point out that the researcher's ontological and epistemological are vital in any research process, as these are ones that enlighten the research on the specific methodology and methods to use in a research study.

4.2.2. Methodology

Methodology is a systematic approach used by the researcher that gives an explanation of the reason why a certain method is used (Nayak and Singh, 2021). The positivist methodology is supposed to describe relationships that exist. Antwi and Hamza (2015) indicate that a cause-and-effect relationship exists in a positivist paradigm. The purpose of any research is to determine the cause-effect association between the independent variables. The independent variable is the intervention

cause of developments while the dependent variable is the result of the intervention (Nayak and Singh, 2021).

4.2.3. Methods

Apuke (2017) states that methods are those tactics utilised in research studies in order to collect information that will be used to explain and describe data. Since positivist research is usually associated with quantitative research, the collected data is tabulated and analysed mathematically (Park, Konge and Artino, 2020). In addition to that, Antwi and Hamza (2015) highlight that the research tools that are mainly used are hypotheses testing, and questionnaires.

4.3. Research Design and approach

The outline of research methods and techniques used in a research study are defined as research design, as this gives the researcher an opportunity to improve on research methods that will be appropriate for research study at hand (Sileyew, 2019). In descriptive research, design is mainly focused on describing the situation in the research study by making available perceptions into the 'why' and 'how' of the research (Sandelowski, 2010). Experimental design creates a connection between the cause and effect of the independent variable and dependent variable of the research study that is under investigation (Narendran, Meyyanathan and Karri, 2019). On the other hand, correlational research aids in identifying the relationship that exists between closely inked variables this requires two different groups (Pearl, Brennan, Journey, Antill and McPherson, 2014). Udintsev, Danani, Taylor, Giacomini, Guirao, Pak, Hughes, Worth, Vayakis, Walsh and Schneider (2019) state that diagnostic design helps the researcher to assess the primary cause of a particular phenomenon, this aids the researcher to learn more about the phenomenon. Pearl, Brennan, Journey, Antill and McPherson (2014) note that explanatory design makes use of the ideas and thoughts of a researcher on a particular theory, allowing the researcher to evaluate uncharted aspects of a particular theory. For the purpose of this research study, a descriptive research design was followed.

4.3.1. Descriptive research

The strategy that a researcher uses to when they incorporate the factors of the specific study in a clear and rational way in a way that the research problem, as well as data collection, measurement and analysis will be addressed effectively. For the purpose of this study, descriptive research was undertaken. Feinberg, Kinnear and

Taylor (2013) state this as being when a researcher is attentive and describes the actions of a participant in a way that the researcher does not influence the participant is defined as descriptive research. Zikmund and Babin (2010) argue that the essence of descriptive research is not to forecast or manipulate a result, in contrast with done experimental or inferential research. Zena and Hadisumarto (2013) highlight that the goal of descriptive research is to ensure that the research will successfully provide an exact and valid depiction of the variables that are pertinent to the research question.

In descriptive research, a researcher will be able to define a phenomenon that is intended to be studied by means of providing answers to the how, what, when, and where questions in a research problem, instead of the why (Mitchell and Jolley, 2012). Doyle, McCabe, Keogh, Brady and McCann (2020) indicate that the descriptive research ought to clarify what is mutual, dominant, or currently present in a population. Zikmund and Babin (2010) point out that descriptive research comprises three main types of design, namely observational, survey, and case study research design. This proposed study made use of the survey research design since it will gather data using a survey so as to effectively provide a description of a particular set of individuals. When conducting descriptive research, one can either make use of a quantitative or qualitative research method (Siedlecki, 2020). This study is quantitative.

4.3.2. Quantitative research

Barnham (2015) asserts that in quantitative research, the research problem is usually quantified through the creation of mathematical data that the researcher can change into usable statistics. In a descriptive research study, it is vital to collect information that will explain the measure and systemises, depict, and describe the data that is collected (Mitchell and Jolley, 2012). Quantitative research is definite in its sole purpose of quantifying the research problem and fully recognising how dominant the problem is by observing for projectable results that can be translated to a greater population (Zikmund & Babin, 2010). Quantitative research possesses a doctrine that is fundamental, namely that the world that we live in is comparatively constant and undeviating in a way that one would be able to grasp and measure so as to facilitate generalisability (Barnham, 2015).

According to Taylor (2005) the significance of any quantitative research lies in the ability to minimise and rearrange a multifaceted problem to a small number of factors in which the impartialness of the researcher is not seen in the research methodology. In addition to that, Mitchell and Jolley (2012) suggest that when there is a subdivision of factors that affect the problem, reality will be better understood, because through the use of these subdivisions, the hypotheses can be tested and duplicated when it comes to the relationship among the factors. Zikmund & Babin (2010) suggest that a researcher makes use of a quantitative research, with the aim of estimating, figuring out facts, and testing hypotheses that have already been identified. In support of this, Burns & Bush (2014) highlight that for quantitative research it is vital to collect evidence that will either support or contradict the already available hypotheses.

4.3.3. Deductive approach

According to Eid, Geiser and Koch (2016) there is a significant difference identified between inductive research approach and a deductive approach that can be used in a research study, where the deductive approach is focused on testing theory, whereas on the other hand, an inductive approach is aimed at developing a new theory from information that is still emerging. Soiferman (2010) states that a deductive approach is usually followed when one uses a quantitative research method. In such case that there is a shift from the generic reasoning to a specific reasoning, a deductive approach is used (Khan, 2014). In other words, Eid, Geiser and Koch (2016) point out that, when there is satisfactory data available from the theoretical foundation to create the primary set of factors, the deductive approach ought to be used. The deductive approach makes use of the top-down approach, in which the strength of inferences is mirrored to be reliant on prior statements, findings, or conditions being valid (Gill and Johnson, 2010). For that reason, the deductive approach was used in this research study.

4.4. Sampling Design

Turner (2020) defines sampling design as the plans and methods that research will make use of when identifying the sample from the target population as well as the estimation method for calculating the sample statistics. This section will cover the target population of the research study, followed by the sample size and lastly, the sampling method.

4.4.1. Target population

The target population refers to the overall group of people from which a smaller group will be drawn (Asiamah, Mensah and Oteng-Abayie, 2017). The defining of a target population in a research study is critical, as it will be used to generalise a population's response. As a result, Lavrakas (2008) points out that, target population refers to that group of participants that a researcher would like to research and analyse in the proposed study. Therefore, the target population for this research study will be female consumers above the age of 18 years. Over the past years, women have been identified to be the main consumers in the cosmetic and beauty care industry (Pudaruth, Juwaheer and Seewoo, 2015). Hence, female consumers were chosen for the research study. In addition to this, similar studies by Chin, Jiang, Mufidah, Persada and Noer (2018); Kim and Seock (2009); and Pudaruth, Juwaheer and Seewoo (2013) have used females as the target population in green cosmetic research studies.

In order to have a target population that will successfully provide the necessary answers to the research objectives of a study, the researcher must take into account the inclusion criteria, as well as the exclusion criteria, since these form the basis of the selection and eligibility (Patino and Ferreira, 2018). Usually, inclusion criteria consist of the demographic and geographic traits, where it is essential that the geographic characteristics need to be demarcated, including the other factors that ensure the eligibility criteria for the specific study are met (Atkinson, Koenka, Sanchez, Moshontz and Cooper, 2015). The inclusion criteria to be used in this research study are gender and geographic characteristics, where participants to be researched and analysed are female consumers in South Africa. On the other hand, the exclusion criteria look into the characteristics of the target population that meet the inclusion criteria, but might possess additional traits that could hinder the outcome of the proposed study (Patino and Ferreira, 2018). The exclusion criteria were that participants have to be female, as well as above the age of 18.

4.4.2. Sample size

A sample refers to a group of people, objects, or items that are a subset of a larger population for a research study (Etikan, Musa and Alkassim, 2016). When using the quantitative survey design to distinguish sample size, it is vital to take into account non-response bias. Non-response bias is evident in data collection, since the

carefully chosen sample may face difficulty in completing the questionnaire, thereby affecting the response rate (Cheung, Peter, Smit, De Vries and Pieterse, 2017). According to Caine (2016), the risk of having a sample size that is too small, is that they can be inconsistent participants, which are outliers, and that this reflects skewed results and does not provide a fair representation of the whole population. In contrast, Martin & Bridgmon (2012) indicate that, in such case that the sample size is too big, this results in the research study to intricate, expensive and time consuming to complete, even though the results obtained from the study will be more precise. Choy (2014) notes that the costs will out-weigh the benefits. The study used a sample size of 304 respondents, because previous studies by Wang, Ma, and Bai (2019) distributed 283 questionnaires, and Govender and Govender (2016) distributed 100 questionnaires. Therefore, 295 respondents were deemed adequate, taking into account that the nonresponse bias will affect the response rate.

4.4.3. Sampling method

Sampling entails the selection of a small group of the population that will characterise the population as a whole, so as to gather the much-needed information about the research topic at hand (Sharma, 2017). There are two main groups of sampling methods, namely the probability sampling, and no-probability sampling, in which Etikan and Bala (2017) defined probability sampling as the likelihood of each participant in a sample to chosen is guaranteed. On the other hand, Rahi (2017) points out that non-probability sampling indicates that the likelihood of a participant in a sample to be chosen is unknown.

The sample size was selected through the use of convenience sampling and snowball sampling. Etikan, Musa, and Alkassim (2016) defined convenience sampling as a type of non-probability sampling where members of the target population that meet certain criteria, such as ease of access, geographical closeness, readiness to meet at a given time, or the preparedness to participate, are included for the purpose of the study. While, Anieting and Mosugu (2017) defined snowball sampling as the process in which the researcher is able to recruit more participants that will take part in the research study through referrals by the participants amongst their acquaintances.

The questionnaire was distributed to the participants through the use of convenience sampling and snowball sampling. Referring to Etikan, Musa, and Alkassim (2016), convenience sampling is a non-probability sampling method that researchers use when they collect data from a conveniently available pool of respondents. According to Etikan and Bala (2017), some of the disadvantages of convenience sampling is that there is a possibility that the target population might not be a true representation of the population as a whole, although Rahi (2017) has identified that convenience sampling has been noted to be important when there is a low budget, and when the data has to be collected in a short period of time. On the other hand, Anieting and Mosugu (2017) highlighted that, one of the disadvantages of snowball sampling is that the referred participants may share the same characteristics or outlooks on the topic being researched.

4.5. Research Instrument

4.5.1. Data collection method

The main two data collection methods that are used in collecting data is primary and secondary data collection. Brace (2018) states that primary data collection is the information that is collected for primarily for purpose of the research study at hand while Johnston (2014) defines secondary data as the information that collected by other people other than the researcher. For the purpose of proposed research study primary data will be used. According to Mogos and Pauwels-Delassus (2015), the primary data collection method is deemed to be important since the researcher can control the kind of information that is gathered to satisfy the specific needs of that particular research study. In addition to that, Brace (2018) points out that, through the use of primary data, it is possible to gather data that is up to date. Mogos and Pauwels-Delassus (2015) furthermore assert that primary data will ensure that a research study achieves greater accuracy when it comes to the information gathered, since the information gathered is from the selected target population of the specific research study. However, Johnston (2014) indicates that primary data collection methods are usually considered to be more expensive than the secondary data collection methods, considering the time and resources spent in collection data.

4.5.2. Data collection form

Primary data can be collected using different data collection forms, such as questionnaires, interviews, and direct observation, however the proposed research study will make use of questionnaires. A questionnaire is characterised as a number of questions that the researcher will make use of in order to gather the necessary information from the target population (Hulland, Baumgartner and Smith, 2018). In addition to that, Brace (2018) indicates that every participant will have to answer the same question the exact same way, so as to ensure that the information gathered is consistent.

For this reason, Touvier, Méjean, Kesse-Guyot, Pollet, Malon, Castetbon & Hercberg (2010) points out that it is essential for a questionnaire to be constructed and administered in the proper manner so as to ensure that the results will yield results that are accurate and represents the exact views and opinions of the target population. Due to the current pandemic that the world is facing the study will make use of online questionnaires in order to research the target population of the study. This will be done in order to reach a wide number of participants, given the social distancing rules attendant to the current pandemic. The way in which participants are contacted, as well as the medium and mode used to administer the questionnaires can differ (Saris & Gallhofer, 2014). To add, there are different ways to administer a questionnaire this can either be in-person, or online (Rada and Domínguez-Álvarez, 2014).

Given that the research will make use of self-administered questionnaires in which the Qualtrics was used, Belisario, Jamsek, Huckvale, O'Donoghue, Morrison and Car (2015) assert that these types of questionnaires will assist the participant in a way that they will be able to finish the questionnaire at their own given time. Thus, minimising the interviewer bias and the researcher's ability to reach a great number of the target population. Furthermore, online and self-administered questionnaires will go hand-in-hand with the convenience sampling technique, as the target population will finish the questionnaire at a convenient time. Nevertheless, Belisario, Jamsek, Huckvale, O'Donoghue, Morrison, and Car (2015) note that the most significant disadvantage of self-administered questionnaires and online questionnaires is that there is a high possibility that the participants will not send the questionnaires back after completion.

For the purpose of this research, both online and in-person questionnaires were used. Qualtrics was used to for the online questionnaires, whereby the link of the questionnaire was distributed on various social media platforms, and individuals were asked to share the link with other females in South Africa. When the number of people who were participating in the online questionnaire waned, the researcher resorted to distributing the questionnaires in-person in order to acquire new participants.

4.5.3. Scales of measurement

The scale of measurement refers to the values that are allocated to the factors of the study that will help to sort through and then explain the nature of the information gathered (Mishra, Pandey, Singh and Gupta, 2018). Every level of the measurement scale has assigned characteristics that will differentiate them from other scales; these traits will aid in distinguishing the numerous uses of statistical analysis (Potdar, Pardawala and Pai, 2017). There are four distinctive scales of measurement, namely nominal, ordinal, interval, and ratio as identified by Mishra, Pandey, Singh and Gupta (2018).

Nominal scale refers to a scale that does not use numbers to quantify a factor, rather it makes use of labels in order to categorise factors (Potdar, Pardawala and Pai, 2017). An example of a nominal scale that was used in the questionnaire of the proposed research study was where the participant was required to choose their sex in section A of the questionnaire. On the other hand, ordinal scale is the level of measurement that aims to group information by ordering and ranking information without creating the degree of difference between information (Mishra, Pandey, Singh and Gupta, 2018). An example of ordinal scale used was where in Section B, the participant was required to rank which green product brand they are most likely to purchase. Potdar, Pardawala and Pai (2017) define interval scale as the dissimilarities that exist amongst variables is significance, such that the variables are quantified in the same way and the presence of zero is subjective. An example of ordinal scale that was used in the questionnaire of the proposed research study was where the Likert scale was used to provide answers to the research objectives.

Section C to section I used a 7-point Likert scale. Section C consists of questions concerning awareness of green products in which Le-Anh and Nguyen-To (2020) showed a Cronbach's alpha of 0.862. Section D consists of questions concerning product information on green products, in which Le-Anh and Nguyen-To (2020) showed a Cronbach's alpha of 0.867. Section E consists of questions concerning product availability, in which Sharaf and Perumal (2018) showed a Cronbach's α of 0.903. Section F consists of questions concerning the environmental concern, in which Paul, Modi, Patel (2016) showed a Cronbach's alpha of 0.787. Section G consists of questions concerning perceived barriers towards green products, in which Le-Anh and Nguyen-To (2020) showed a Cronbach's alpha of 0.929. Section H consists of questions concerning perceived price, in which He and Zhan (2018) showed a Cronbach's alpha of 0.894. Section I consists of questions concerning attitudes towards green products, in which Le-Anh and Nguyen-To (2020) showed a Cronbach's alpha of 0.890. Section J consists of questions concerning purchase intention, in which Synodinos and Bevan-Dye (2014) showed a Cronbach's alpha of 0.841.

4.5.4. Pilot study

A pilot study is a form of mini-research that is done before the intended study can commence. It is usually done at a smaller scale (Wood, Kadlubek, Pham, Wollins, Lu, Weitzel, & Hughes, 2014). The importance of a pilot study is that it is used to examine and measure whether the pilot sample can fully understand the instruction in the questionnaire and are able to follow the instruction that are specified in the questionnaire (Sincero, 2012). Additionally, Van Teijlingen, Rennie, Hundley and Graham (2001) state that the use of a pilot study will enable the researcher to deliver the question exactly the same way they intend to deliver the questions in the main study to the pilot sample, so that they can identify ambiguities and difficult questions. The proposed study conducted a pilot study using 25 respondents, since Connelly (2008) suggested that 10% of the larger scale of the sample size that will be used in the proposed study will be adequate for the pilot test. The sample was chosen through convenience sampling, in which the first 30 females on my Facebook friend list were asked to complete the questionnaire. There were no amendments that needed to be done to the questionnaire after the pilot study was conducted.

4.6. Data Analysis

The most fundamental part of any research is data analysis, due to the fact that it involves summarising collected data through the interpretation of data using analytical and logical reasoning to determine patterns, relationships, or trends (Silverman, 2018). The researcher made use of Statistical Package for the Social Sciences (SPSS) version 25, to summarise and interpret the data to be collected.

4.6.1. Descriptive statistics

The proposed study made use of descriptive statistic to examine the relationship that exist amongst different components in a target population. The use of descriptive statistics will aid the researcher in tabulating and providing a summary of the target population of a specific research study (McCarthy, McCarthy, Ceccucci and Halawi, 2019). Descriptive statistics mainly focus on the measures of central tendency, as well as measures of variability (Mishra, Pandey, Singh, Gupta, Sahu and Keshri, 2019).

4.6.2. Regression analysis

The other statistical method that was used by the research is regression analysis, Field (2013) indicates that regression analysis is applied when the intention is to identify the relationship that exists between the dependent and independent variable. In addition to that, Daoud (2017) went on to suggest that, through the use of regression analysis, it is possible to determine the relationship that exists between the dependent and independent variables in such a way that the analysis will approximate the strength and direction of the relationship. Thus, determined the different relationship that exists between awareness, product information, product availability, environmental concern, perceived barriers, perceived price, and attitude on the green purchase intention among females in South Africa, whether this be negative or positive.

4.7. Rigour of research

4.7.1. Reliability

Reliability of a study refers to the way in which items that are used are tested to ensure that one can yield dependable results if they are tested under the same conditions (Mogos & Pauwels-Delassus, 2015). To successfully measure the internal consistency of a measuring instrument, the Cronbach's alpha is mainly used, in which Pallant (2010) defines internal consistency as the extent to which the interrelationship between the measuring items that were established to quantify similar construct. In terms of reliability, Radder and Huang (2008) state that a Cronbach's alpha result above 0.5 indicate good internal consistency.

4.7.2. Validity

The term validity in research discusses the aptitude of a research instrument has to quantify what it is meant to measure (Pallant, 2010). The moment research is considered to have a high degree of validity, this means that the research instrument will provide results that match with the traits and differences in world (Zikmund & Babin, 2010). The research study made use of the Kaiser-Meyer-Olkin measure of sampling adequacy, and Bartlett's test of sphericity to measure validity. According to Field (2013), Kaiser-Meyer-Olkin's measure of sampling adequacy is a measure that shows the number of differences that exist in the variables, which might result in underlying factors; while Lehmann, Netzer & Toubia (2015), point out that Bartlett's test of sphericity ought to measure the fairness of differences that exists in various samples. To measure validity, the values that are above 0.5 are seen to be good, according to the Kaiser-Meyer-Olkin measure of sampling adequacy, and Bartlett's test of sphericity to measure validity (Hair, Sarstedt, Ringle & Mena, 2012). To test the validity of the research, a pilot test of the questionnaire was done so as to identify any problems that an individual might face when answering questions related to questionnaire (Heale & Twycross, 2015).

4.8. Ethical Consideration

In a given study, ethical consideration is understood to refer to the rules and standards of behaviour that will distinguish what is satisfactory or unsatisfactory conduct that will guide how research must behave during and after the research is conducted (Kosinski, Matz, Gosling, Popov & Stillwell, 2015). Before the data was collected, an ethical clearance was collected from the Commerce Research Ethics Committee at University of Cape Town. It is of paramount importance that before any research study can be conducted, the researcher has to consider the ethical considerations that will be used in the process of data collection (Fleming and Zegwaard, 2018). For that reason, Arifin (2018) highlights the four focal ethical considerations that a researcher ought to consider when collecting data, namely: obtaining informed consent from the participant; the participant knowing what the study is about; ensuring participants do not experience harm to their being; and guaranteeing anonymity and confidentiality.

4.8.1. Explanatory letter

According to Korstjens and Moser (2018) an explanatory letter is a document that will be used to provide clarification on the issue that is being researched, such that it provides answers to something that is being asked. Coetzee, Ferreira, and Potgieter (2019) indicate that the significance of an explanatory letter lies in the ability of the letter to notify participants of a study of the reasons for conducting it. Therefore, before the questionnaire was given to the respondents, an explanatory letter was made available to them that explained what the study was about, how the results from the questionnaire will be used, whether there is any potential adverse impact to their participation, and who will have access to the findings.

4.8.2. Informed consent from participant

Biros (2018) defines informed consent as the willingness of a participant to participate in a study voluntarily, however they have to be provided with the necessary information, which indicates what it means for the participants to take part in the research study and that the participants are required to have an agreement with the researcher before the data collection can begin.

4.8.3. Ensuring that no harm comes to participants

For any research to proceed, the research has to be transparent with the participants of the study, in the sense that the researcher must inform the participants if there will be any risk or injury that will be inflicted upon them (Gelinas, Pierce, Winkler, Cohen, Lynch and Bierer, 2017). For the purpose of this research, there was no identified harm to any human, animal, or the environment.

4.8.4. Anonymity and confidentiality

According to Lancaster (2017), anonymity is defined as the process of making sure that the people who participate in the study will not be recognised by others, while Surmiak (2018) defines confidentiality as the process that the researcher undergoes to ensure that the responses that are gathered from the research will not be shared with anyone. For this reason, so as to ensure that anonymity and confidentiality was guaranteed, the questionnaire did not require any identifying information, such as the name of the participants. This was done so as to make sure that there was no way that the participants would be identified.

4.9. Conclusion

A paradigm is one of most fundamental aftereffects of any decision in the research process, because it is the rational framework that researchers use when engaging in data collection and analysis process. The research study made use of positivist research and this is most likely to be used in a quantitative research study. The strategy that a researcher uses to when they incorporate the factors of the specific study in a clear and rational way in a way that the research problem, the way the data was collected, measured and analysed was addressed effectively. This study utilised descriptive research. The target population for this research study was female consumers living in South Africa, where the exclusion criteria for the research study was age, namely that the participant had to be a legal adult. The sample size for the research study was 304 participants, selected using convenience sampling and snowball sampling. Primary data was collected using questionnaires, where the participants were reached using online as well as in-person questionnaires. For data analysis, the researcher made use of Statistical Package for the Social Sciences (SPSS) version 25 using descriptive statistics, regression analysis, and Pearson correlation. To test the rigor of research, Cronbach's alpha was used to measure

reliability, and Kaiser-Meyer-Olkin measure of sampling adequacy, as well as Bartlett's test of sphericity to measure validity. Ethical consideration refers to the rules and standards of behaviour that will distinguish what is satisfactory or unsatisfactory research conduct that guides how research must behave during and after it is conducted. For this research study, an explanatory letter was used, with informed consent from participants, ensuring that no harm comes to participants, and that anonymity and confidentiality was guaranteed.

5. Chapter 5: Data Analysis

5.1. Introduction

The main aim of this chapter is to provide empirical results in order to come to a conclusion to the research hypotheses outlined previously. Online and in-person questionnaires were used to collect data and was then statistically analysed in order to provide a comprehensive understanding of the factors that influence green cosmetic purchase behaviour of female consumers in South Africa. The analysis incorporates data cleaning process, study response rate, demographic analysis, descriptive analysis, reliability test, normality test, and multiple linear regression tests. In order to analyse the study data collected, a statistical software called the Statistical Package for the Social Sciences (SPSS) version 25 was used. The results generated from this analysis are presented in forms of tables and graphs.

5.2. Data Cleaning

According to Wegner (2020), data is the lifeblood of statistical analysis, which means that data must be “clean” for statistical analysis, in order to produce good-quality results. In this study, data was cleaned with the aim of filtering respondents’ observations that did not meet the selection criteria, as per the study’s two screening questions. Upon evaluation of the questionnaire, nine (9) of the study participants did not meet the selection criteria, and were therefore deemed ineligible for inclusion in the study’s analysis.

5.3. Response Rate

Considering the aim to investigate the factors that influence green cosmetic purchase behaviour of female consumers in South Africa, it was of paramount importance that the results that will be obtained from the study can be generalised to the whole population. The proposed sample size for this research study was 304 participants. Since the majority of the questionnaires were online, screening questions were utilised so as to ensure that participants that qualified to take part in the study complete the questionnaire. The target population for the study was female consumers that were above the age of 18, who resided in South Africa; thus, the screening questions necessitated that they meet the study criteria. Three hundred and four (304) responses were received from the respondents of the study. However, the study incorporated two screening questions that were supposed to be met by the respondents in order to be included for study analysis purposes. As such,

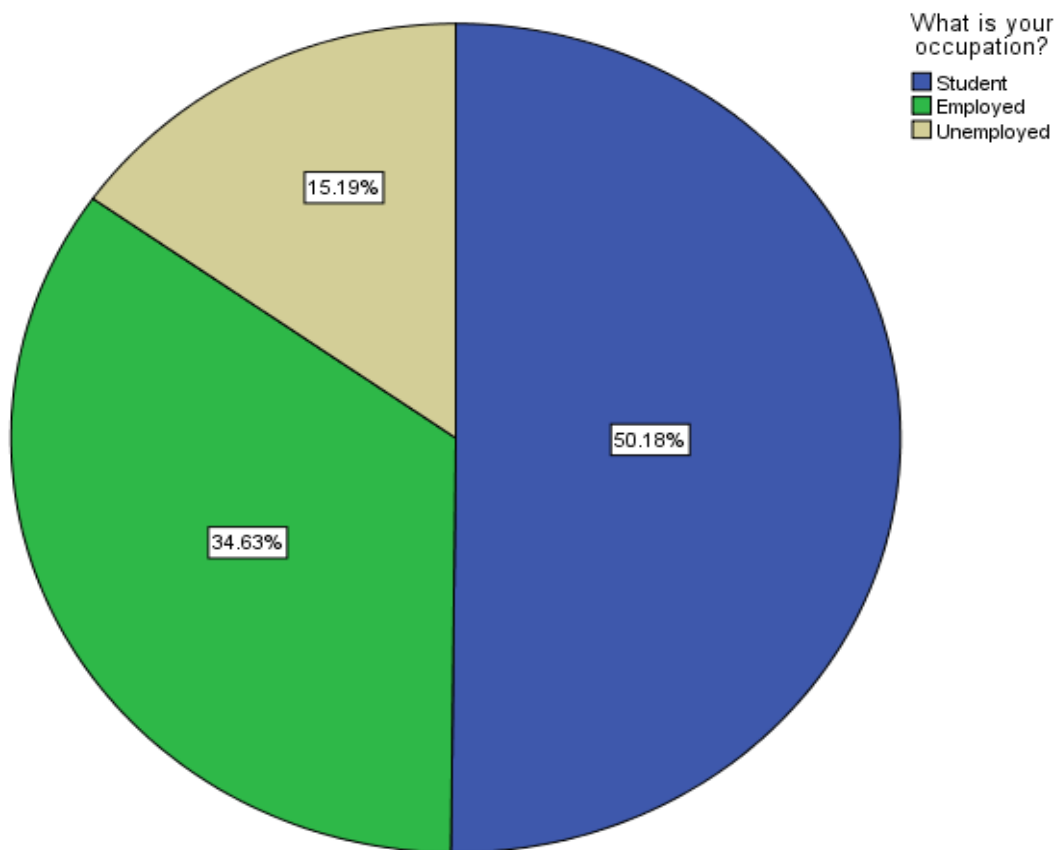
nine (9) out of the 304 respondents did not meet the selection criteria, resulting in only two hundred and ninety-five (295) being eligible. For this reason, this study managed to garner a response rate of 97.04%, which is an admissible response rate, as supported by Fincham (2008). Fincham (2008) stated that any research study that garners a response rate of at least 60.00% is admissible.

5.4. Demographic analysis

5.4.1. Participants Occupation

Out of 295 respondents, in terms of the respondents' occupation, 50.18% were students, 34.63% were employed and 15.19% were unemployed (See Figure 1). This shows that at least half of the respondents were students in terms of the respondents' occupation.

Figure 1: Participants' Occupation

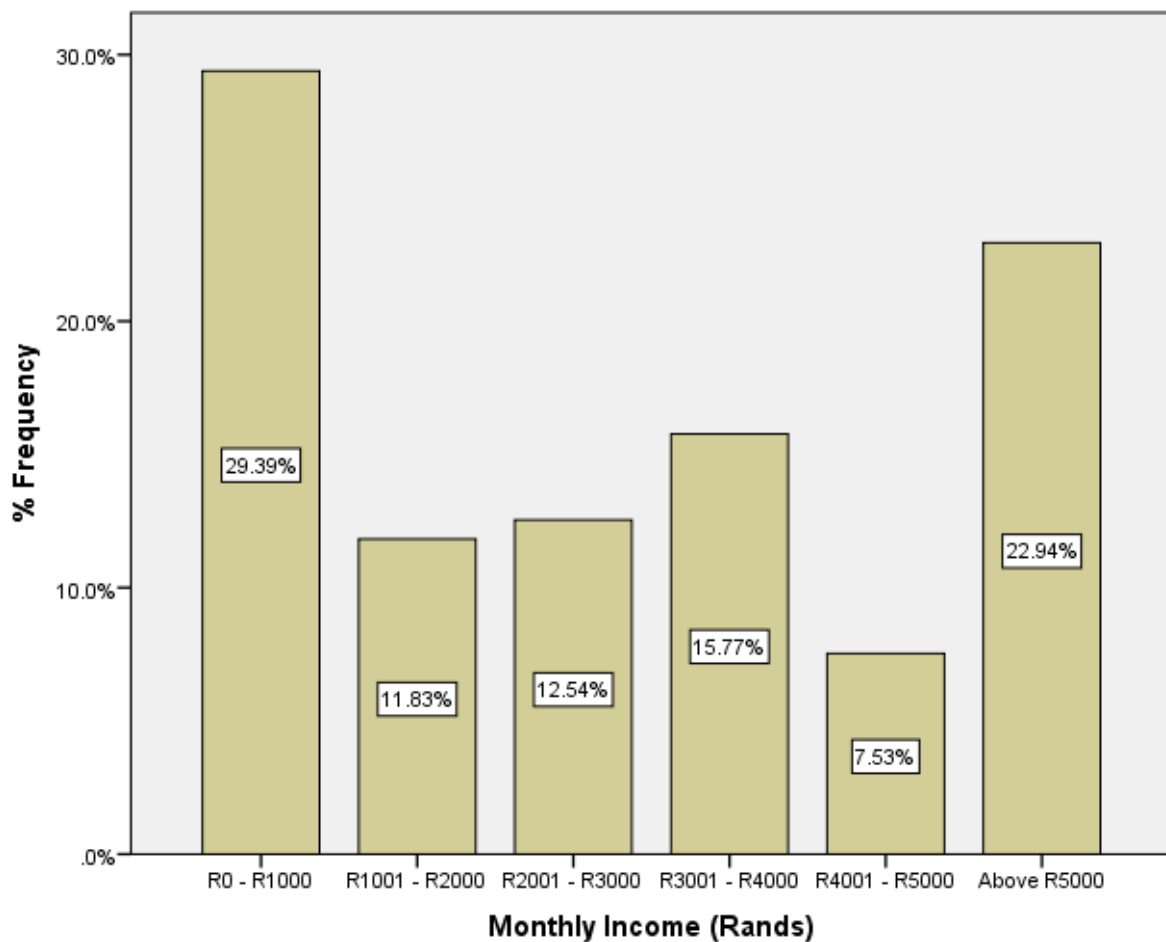


5.4.2. Participants Monthly Income

Figure 2 shows that out of 295 respondents, 29.39% were earning ZAR1000 or less, 11.83% were earning between ZAR1001 and ZAR2000, 12.54% were earning

between ZAR2001 and ZAR3000, 15.77% were earning between ZAR3001 and ZAR 4000, 7.53% were earning between ZAR4001 and ZAR5000, and 22.94% were earning above ZAR5000. This shows that a quarter of the respondents were earning an income of ZAR1000 or less per month.

Figure 2: Participants Monthly Income



The above section managed to provide a discussion on the demographic profiles of this study's respondents, such as respondents occupation and monthly income. From the discussion, it can be noted that a majority of the respondents were students and were also earning ZAR1000 or less as their monthly income.

5.5. Descriptive statistics

Descriptive statistics were used to get categorical percentage distributions of the respondents in terms of which green cosmetic products respondents are familiar

with, which green cosmetic products respondents used the most, and which green cosmetic product respondents used most frequently. Multiple response analyses were carried out in order to provide descriptive statistics in form of categorical percentage distributions, for which green cosmetic products are respondents familiar with and used mostly, since respondents could select more than one option. The data analysed in this section has been collected in Section B of the questionnaire.

Table 1 show the results for which green cosmetic products are participants familiar with. Table 2 show the results which green cosmetic products do participants used mostly. While, Table 3 show the results that the only one green cosmetic product participants do use frequently.

5.5.1. Table 1: Green cosmetic products with which participants are familiar

Green Cosmetic Products	% Frequency
Haircare	28.7
Skincare	29.1
Make-up	20.8
Other – Personal Care	21.3

Based on statistical distribution, the results in Table 1 show that majority of the participants are familiar with skincare (29.1%); followed by haircare (28.7%); followed by other products such as personal care (21.3%); and lastly, with make-up (20.8%).

5.5.2. Table 2: Green Cosmetic Products used most frequently

Green Cosmetic Products	% Frequency
Haircare	30.3
Skincare	32.5
Make-up	18.1
Other – Personal Care	19.1

Equally so, the statistical distribution results in Table 2 also demonstrate that majority of the participants use mostly skincare (32.5%); followed by haircare

(30.3%); other products like personal care (19.1%); and lastly with make-up (18.1%). Furthermore, an analysis was carried out to determine which one of the green cosmetic products the respondents used frequently, with the results provided in Table 3.

5.5.3. Table 3: Green Cosmetic Product Used Frequently

Green Cosmetic Product	% Frequency
Haircare	31.4
Skincare	37.2
Makeup	16.3
Other – Personal Care	13.6
None of the above	1.6

The results in Table 3 show that skin care green cosmetic (37.2%) are used more frequently by the participants who took part in the study product participants. This is followed with hair care (31.4%), followed with make-up (16.3%); followed by personal care (13.6%); and finally, with none of the above options (1.6%). Overall, participants are most familiar with skincare and used green cosmetic products the most in this category. These findings are consistent with a study by Shimul, Cheah and Khan (2021), which states that a high degree of female consumers are inclined to buy chemical-free cosmetic products, believing that these products aid in protecting the skin of the consumers, causing minimal or no harm to the environment. To support this, evidence shows that around the globe, green skin care has been growing at a rapid rate in comparison to the other categories of the green cosmetic products (Ribeiro, Estanqueiro, Oliveira and Sousa Lobo, 2015; Pudaruth, Juwaheer and Seewoo, 2015). To reinforce the aforementioned, My News Desk (2018) indicates that, the green skin care category increased by 22% in 2017, as shown by the research done by the Natural Organic Cosmetic in 2018.

5.6. Research Instrument Analysis

5.6.1. Reliability Test

According to Field (2018), a reliability test is a test conducted to check whether the study managed to achieve internal consistency between its study items or constructs in a scale. Furthermore, Field (2018) recommend that it is vital for a research study with questions in form of a Likert scale to be subjected to a reliability test, with the aim of determining whether an internal consistency between the study's items have been achieved. The table below represents results of the reliability test of the variables from section C to J of the questionnaire.

Table 4: Reliability Test

Construct	Cronbach's Alpha Value	Number of Items
Awareness	0.851	3
Product Information	0.813	4
Product Availability	0.683	3
Environmental Concern	0.912	5
Perceived Barrier	0.868	4
Perceived Price	0.939	4
Attitude	0.882	4
Purchase Intention	0.928	3

From this reliability test, the Cronbach's alpha value should be greater than or equal to 0.7 for 10 or more items, and the Cronbach's alpha value should be above 0.5 for items less than 10 (Denis, 2019). Since the study construct items are all less than 10 for each construct, our study Cronbach's alpha values are benchmarked using the criteria of above 0.5 to be deemed adequately reliable. From this study's reliability test, it can therefore be concluded that the study managed to pass the reliability test, since all items or constructs Cronbach's alpha values are above 0.5.

5.6.2. Validity test

As indicated in Chapter 3 of the study, the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity is used to test validity. According to Hair, Sarstedt, Ringle & Mena (2012), a number between 0.8 and 0.9 is considered to be substantial. Additionally, in order to carry out an explanatory factor analysis, it is recommended that there be at least five participants per measurement item. As a result, the explanatory factor analysis for this study was conducted below.

295 (*Usable questionnaires completed by respondents*) / **30** (*Items formulating constructs*) = **9** *respondents / item*

The calculations above showed that this research study had at least nine participants per measurement item, which was above the recommended appropriate number of participants (Hair, Sarstedt, Ringle & Mena, 2012). The table below that shows the results of the variables test result.

Table 5: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	3679.207
	df	435
	Sig.	.000

It is evident from the table above that the measuring scales were used in the study to measure the variables of this study were appropriate and valid, as indicated by the KMO of 0.885. This exceeds the minimum of 0.5 as noted by Hair, Sarstedt, Ringle & Mena (2012). In addition to that, the worthiness of factor analysis was suitable, as indicated by the results of Bartlett's test of sphericity, showing a p-value of 0.000, which is less than 0.05, making the sample data significant, and suitable for factor analysis.

5.6.3. Normality Test

According to Field (2018), a normality test is considered an important test that ought to be carried out in order to guide which methods, either parametric or non-parametric, to be employed in a research study so as to assist in answering the research questions. Employing of parametric or non-parametric methods is based on whether the data is normally distributed or not (Field, 2018). Field (2018) went further by elaborating those parametric methods require the data to be normally distributed, whereas non-parametric methods do not. Denis (2019) and Field (2018) state that the skewness and kurtosis of the constructs should be within a range of -1.96 to +1.96 for the data to be classified as normally distributed.

Table 5: Normality Test

Construct	Skewness	Kurtosis
Awareness	-0.857	-0.057
Product Information	-0.963	0.267
Product Availability	-0.720	-0.315
Environmental Concern	-1.462	1.526
Perceived Barrier	-0.236	-0.662
Perceived Price	-1.228	0.508
Attitude	-1.064	0.612
Purchase Intention	-0.542	-1.017

Based on this study, the normality test provided in Table 5 above show that the skewness and kurtosis values are within the acceptable range for the data to be classified as normally distributed, thereby guiding this study to employ parametric methods, such as multiple linear regression and simple linear regression analysis, to assist in answering the research questions of this study.

5.7. Multiple Linear Regression Analysis

Multiple Linear Regression (MLR) analysis was employed to assist in providing answers towards the main research question of this study. In this study, one (1) main hypothesis was formulated, with the aim of providing the answer towards the primary research question titled: “What are the factors that influence green purchase intention amongst young consumers in South Africa?” In order to achieve this,

several factors were analysed so as to identify the potential that the factors have to influence the purchase behaviour of green cosmetic products amongst female consumers in South Africa. These factors were tested together by employing a MLR analysis (see Model 1 below).

5.7.1. Model 1: Multiple Linear Regression Analysis

Step 1: Formulation

H₀₁: Awareness, Product Information, Product Availability, Environmental Concern, Perceived Barrier, Perceived Price and Attitude do not influence the Purchase Intention/Behaviour of green cosmetic products amongst female consumers in South Africa.

H_{a1}: Awareness, Product Information, Product Availability, Environmental Concern, Perceived Barrier, Perceived Price and Attitude does influence the Purchase Intention/Behaviour of green cosmetic products amongst female consumers in South Africa.

Estimated Model 1: $\hat{y} = \hat{\beta}_0 + \hat{\beta}_1X_1 + \hat{\beta}_2X_2 + \hat{\beta}_3X_3 + \hat{\beta}_4X_4 + \hat{\beta}_5X_5 + \hat{\beta}_6X_6 + \hat{\beta}_7X_7$; where \hat{y} = estimated Purchase Intention/Behaviour, X_1 = Awareness, X_2 = Product Information, X_3 = Product Availability, X_4 = Environmental Concern, X_5 = Perceived Barrier, X_6 = Perceived Price, X_7 = Attitude, whilst $\hat{\beta}_0, \hat{\beta}_1, \hat{\beta}_2, \hat{\beta}_3, \hat{\beta}_4, \hat{\beta}_5, \hat{\beta}_6$ and $\hat{\beta}_7$ are the estimates of the y-intercept and the slope of $X_1, X_2, X_3, X_4, X_5, X_6$ and X_7 , respectively.

Step 2: p-value

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	326.059	7	46.580	23.150	0.000
	Residual	376.260	187	2.012		
	Total	702.319	194			

a. Dependent Variable: Purchase Intention.

b. Predictors: (Constant), Attitude, Awareness, Product Availability, Perceived Barrier, Perceived Price, Product Information, Environmental Concern.

The p-value = 0.000 (See Table 6)

Step 3: Decision

Reject H_{01} if p-value $< \alpha$

$$0.000 < 0.05 \text{ (True)}$$

Step 4: Conclusion

H_{01} is rejected at 5% level of significance, and by way of conclusion, there is enough evidence to suggest that awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude does influence the purchase intention/behaviour of green cosmetic products amongst female consumers in South Africa.

5.7.1.1. Factors and Individual P-Values

Although the result based on Model 1 confirms this model to be statistically significant, thus implying the factors such as awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude influences the purchase behaviour of green cosmetic products amongst female consumers in South Africa. The study also noted that some of these factors that contribute towards purchase behaviour are not individually statistically significant, as illustrated by their p-values in Table 7 below. Any p-value than is more

than 0.05 is deemed insignificant, and therefore needs to be dropped out of the model since it is considered not to be influencing the purchase behaviour of green cosmetic products amongst female consumers in South Africa.

Table 7: Coefficients and Individual P-Values

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.928	0.551		1.685	0.094
	Awareness	-0.102	0.102	-0.080	-1.007	0.315
	Product Information	-0.204	0.106	-0.148	-1.920	0.056
	Product Availability	-0.005	0.087	-0.004	-0.059	0.953
	Environmental Concern	0.016	0.102	0.012	0.152	0.879
	Perceived Barrier	-0.105	0.099	-0.074	-1.060	0.290
	Perceived Price	0.357	0.089	0.297	4.011	0.000
	Attitude	0.705	0.116	0.503	6.067	0.000

Dependent Variable: Purchase Intention

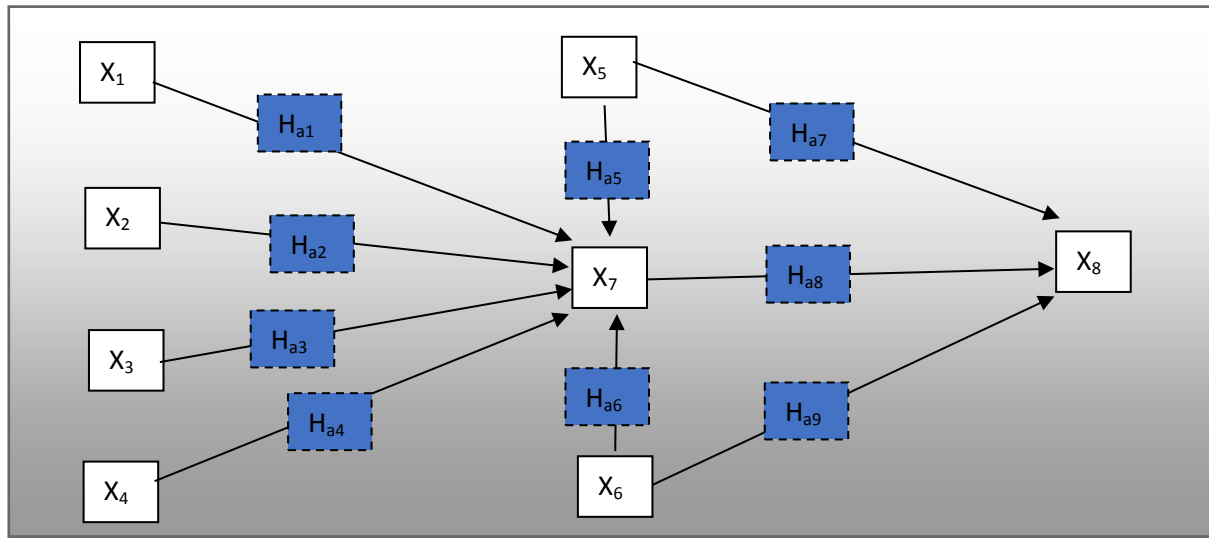
In addition, Table 7 shows that only perceived price and attitude are significant when considered individually towards purchase intention/behaviour of green cosmetic products amongst female consumers in South Africa.

5.8. Simple Linear Regression Analysis

The results from Model 1 confirmed that factors like awareness, product information, product availability, environmental concern, and perceived barriers are not individually statistically significant enough to influence the purchase behaviour of green cosmetic products amongst female consumers in South Africa. This result is supported by the findings from the literature review (Saifullah, Kari and Ali, 2017; Arli, Tan, Tjiptono and Yan, 2018; Kirmani and Khan, 2016; Johnstone and Tan, 2015) (see Figure 3 model below) that stipulated that these factors require a mediating factor (attitude) in order to influence purchase behaviour of green cosmetic products

amongst female consumers in South Africa. For this reason, the researcher of this study employed Simple Linear Regression (SLR) analysis based on Figure 3 model to further assist with providing answers towards this study.

Figure 3



Based on the Model in Figure 3, several SLR analysis via the mediation factor (attitude) were conducted to provide answers for the nine (9) secondary research questions of this study. The nine (9) secondary research questions of this study were answered with the hypothesis formulated as follows:

1. To examine the influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a1} from Figure 3.
2. To examine product information influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a2} from Figure 3.
3. To examine product availability influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a3} from Figure 3.
4. To examine environmental concern influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a4} from Figure 3.

5. To examine perceived barriers, influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a5} from Figure 3.
6. To examine perceived price influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a6} from Figure 3.
7. To examine perceived barriers, influence on the purchasing intention of green cosmetic products amongst female consumers in South Africa. This is represented by H_{a7} from Figure 3.
8. To examine the influence of attitude towards the purchasing intention of green products amongst female consumers in South Africa. This is represented by H_{a8} from Figure 3.
9. To examine perceived price influence on the purchasing intention of green products amongst female consumers in South Africa. This is represented by H_{a9} from Figure 3.

The hypothesis results and analysis of the above are discussed in detail below. For any p-value found to be less than the level of significance, it means that the factor influences purchase intention of green cosmetic products amongst female consumers in South Africa.

Hypothesis Results and Analysis

5.8.1. Alternative Hypothesis 1

To examine the influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a1} : To examine the influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 10: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	311.789	2	155.895	68.247	0.000
	Residual	497.969	218	2.284		
	Total	809.759	220			

a. Dependent Variable: Purchase Intention

b. Predictors: (Constant), Awareness

c. Mediation: Attitude

The p-value = 0.000 (See Table 10)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a1}) and conclude that there is an influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.2. Alternative Hypothesis 2

To examine product information influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a2} : To examine product information influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 11: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
2 Regression	326.673	2	163.336	71.245	0.000
Residual	495.202	216	2.293		
Total	821.875	218			

- a. Dependent Variable: Purchase Intention.
- b. Predictors: (Constant), Product Information.
- c. Mediation: Attitude.

The p-value = 0.000 (See Table 11)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a2}) and conclude that there is an influence of product information on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.3. Alternative Hypothesis 3:

To examine product availability's influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a3} : To examine product availability's influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 12: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
3 Regression	292.839	2	146.419	60.787	0.000
Residual	532.328	221	2.409		
Total	825.167	223			

- a. Dependent Variable: Purchase Intention.
- b. Predictors: (Constant), Product Availability.
- c. Mediation: Attitude.

The p-value = 0.000 (See Table 12)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a3}) and conclude that there is an influence of product availability on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.4. Alternative Hypothesis 4

To examine environmental concern's influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a4} : To examine environmental concern's influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 13: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
4 Regression	282.300	2	141.150	59.807	0.000
Residual	505.061	214	2.360		
Total	787.361	216			

- a. Dependent Variable: Purchase Intention.
- b. Predictors: (Constant), Environmental Concern.
- c. Mediation: Attitude.

The p-value = 0.000 (See Table 13)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a4}) and conclude that there is an influence of environmental concern on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.5. Alternative Hypothesis 5

To examine perceived barriers' influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a5} : To examine perceived barriers' influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 14: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
5 Regression	300.859	2	150.429	61.448	0.000
Residual	550.815	225	2.448		
Total	851.674	227			

- a. Dependent Variable: Purchase Intention.
- b. Predictors: (Constant), Perceived Barriers.
- c. Mediation: Attitude.

The p-value = 0.000 (See Table 14)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a5}) and conclude that there is an influence of perceived barriers on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.6. Alternative Hypothesis 6

To examine perceived price influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a6} : To examine perceived price influence on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 15: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
6 Regression	338.486	2	169.243	74.954	0.000
Residual	499.009	221	2.258		
Total	837.496	223			

- a. Dependent Variable: Purchase Intention.
- b. Predictors: (Constant), Perceived Price.
- c. Mediation: Attitude.

The p-value = 0.000 (See Table 15)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a6}) and conclude that there is an influence of perceived price on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.7. Alternative Hypothesis 7

To examine perceived barriers' influence on the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 1: Formulation

H_{a7} : To examine perceived barriers' influence on the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Step 2: p-value

Table 16: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
7	Regression	61.677	1	61.677	17.436	0.000
	Residual	820.652	232	3.537		
	Total	882.329	233			

a. Dependent Variable: Purchase Intention.

b. Predictors: (Constant), Perceived Barriers.

The p-value = 0.000 (See Table 16)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, this means we accept our alternative hypothesis (H_{a7}) and conclude that perceived barriers influence the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.8. Alternative Hypothesis 8

To examine the influence of attitude towards the purchasing intention of green products amongst female consumers in South Africa.

Step 1: Formulation

H_{a8} : To examine the influence of attitude upon the purchasing intention of green products amongst female consumers in South Africa.

Step 2: p-value

Table 17: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
8 Regression	297.100	1	297.100	121.690	0.000
Residual	556.651	228	2.441		
Total	853.751	229			

a. Dependent Variable: Purchase Intention.

b. Predictors: (Constant), Attitude.

The p-value = 0.000 (See Table 17)

Step 3: Conclusion

Since p-value < $\alpha = 0.05$, it means we accept our alternative hypothesis (H_{a8}) and conclude that attitude influences the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.9. Alternative Hypothesis 9

To examine perceived price's influence on the purchasing intention of green products amongst female consumers in South Africa.

Step 1: Formulation

H_{a9} : To examine perceived price's influence on the purchasing intention of green products amongst female consumers in South Africa.

Step 2: p-value

Table 18: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
9 Regression	253.787	1	253.787	93.795	0.000
Residual	614.207	227	2.706		
Total	867.994	228			

a. Dependent Variable: Purchase Intention.

b. Predictors: (Constant), Perceived Price.

The p-value = 0.000 (See Table 18)

Step 3: Conclusion

Since $p\text{-value} < \alpha = 0.05$, it means we accept our alternative hypothesis (H_{a9}) and conclude that perceived price influences the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.8.10. Summary of Hypotheses

H1 (Awareness and Attitude) statistically significantly predicted purchase intention variable, $F(2,218) = 68.247$, $p < 0.05$. Awareness and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H2 (Product information and attitude) statistically significantly predicted purchase intention variable, $F(2,218) = 71.245$, $p < 0.05$. Product information and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H3 (Product availability and attitude) statistically significantly predicted purchase intention variable, $F(2,221) = 60.787$, $p < 0.05$. Product availability and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H4 (environmental concern and attitude) statistically significantly predicted purchase intention variable, $F(2,214) = 59.807$, $p < 0.05$. Environmental concern

and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H5 (perceived barriers and attitude) statistically significantly predicted purchase intention variable, $F(2,225) = 61.448$, $p < 0.05$. Perceived barriers and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H6 (perceived price and attitude) statistically significantly predicted purchase intention variable, $F(2,221) = 74.954$, $p < 0.05$. Perceived price and attitude as a mediating variable added statistically significantly to the prediction, $p < .05$.

H7(perceived barriers) statistically significantly predicted purchase intention variable, $F(1,232) = 17.436$, $p < 0.05$. Perceived barriers added statistically significantly to the prediction, $p < .05$.

H8 (attitude) statistically significantly predicted purchase intention variable, $F(1,228) = 121.690$, $p < 0.05$. Attitude added statistically significantly to the prediction, $p < .05$.

H9 (perceived price) statistically significantly predicted purchase intention variable, $F(1,227) = 93.795$, $p < 0.05$. Perceived price added statistically significantly to the prediction, $p < .05$.

5.9. Summary of Findings

The majority of the participants were students, and most participants received a monthly income of ZAR1000 or less. The top two green cosmetic products that the participants were most familiar with were skin and haircare products. It was also noted that the most top two frequently used green cosmetic products among the participants were skin and hair care products.

The study analysed all of the factors combined such as awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude in order to understand whether these have an influence on purchase intention. The study supported the claim that all the factors combined have an influence on purchase intention. However, a further analysis was done in order to identify how these factors will individually influence the purchase intention of green cosmetic products. This analysis revealed that only perceived price and attitude have

a significant influence on purchase intention of green cosmetic products, as compared to other factors. The results from Model 1 confirmed that factors like awareness, product information, product availability, environmental concern and perceived barriers are not statistically significant when tested individually to determine their influence on the purchase behaviour of green cosmetic products amongst female consumers in South Africa. This result is supported by the broader literature, which stipulated that these factors require a mediating factor (attitude) in order to influence purchase behaviour of green cosmetic products amongst female consumers in South Africa.

An analysis was done on the all the factors, with attitude being a mediating factor in order to understand whether or not awareness, perceived price, product information, product availability, environmental concern, and perceived barriers influence purchase intention of green cosmetic products amongst female consumers in South Africa. Study results confirm that awareness influences attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. Additionally, the results of this study confirm that product information influences attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This study also revealed that product availability influences attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. The claim that there is an influence of environmental concern on attitude towards the purchase intention of green cosmetic products amongst female consumers in South Africa was supported.

It was furthermore confirmed that perceived barriers influence attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. This study also reveals that perceived price influences attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa. The results also show that perceived barriers influence the purchasing intention of green cosmetic products amongst female consumers in South Africa. The results noted that attitude influences the purchasing intention of green cosmetic products amongst female consumers in South Africa. Finally, results revealed that perceived price influences the purchasing intention of green cosmetic products amongst female consumers in South Africa.

5.10. Conclusion

The results that were presented in this chapter were the outcomes of the of the data that was collected for this research. The data analysed from the descriptive statistics show that participants were most familiar with skin care and hair care green cosmetic products, and that they used these most frequently. The validity results showed results that were above 0.6 meaning that the measuring instrument had a good measuring internal consistency. In addition to this, the multilinear analysis proved that perceived price and attitude had a significant influence on purchase intention of green cosmetic products as compared to other factors. When a mediating factor (attitude) was included in the analysis, this proved that the nine hypotheses that were indicated in the study were all true.

6. Chapter 6: Reporting and Interpretation

6.1. Introduction

Reporting and Interpretation of results are presented in this chapter as a result of the main finding gathered in Chapter 4. Firstly, the chapter examines the reporting and interpretation of results of the descriptive statistics. The reporting and interpretation of the results of the main objective then follows next. This is followed by the reporting and interpretation of result of the 9 hypotheses of the study. Lastly, the conclusion for this chapter will be presented.

6.2. Reporting and Interpretation of results

6.2.1. Descriptive statistics reporting and interpretation of results

The analysis of the descriptive statistics of the demographic profiles revealed that a majority of the participants were students, while on the other hand, most of the participants earned R1000 or less. There are different factors that influence an individual's buying behaviour, namely an individual's upbringing, preferences, character, motivations, and economic status (Kollmuss and Agyeman, 2002). Students most often than not do not have much disposable income, which limits their ability to want to purchase products that are costly (Kanchanapibul, Lacka, Wang, and Chan, 2014). However, given that consumers buy green cosmetic products as a result of wanting to achieve a certain social status or to impress others along with the personal, situational and specific issue motivation, perceived environmental effectiveness and innovation seeking characteristics are associated with green cosmetic products (Choi and Johnson, 2019).

The level of consciousness that is exhibited by different consumers towards the green cosmetic products is what determines whether or not consumers will actively engage in the purchasing of green cosmetic products (Kanchanapibul, Lacka, Wang and Chan, 2014). Therefore, even though majority of the participants are students and earn ZAR1000 or less, it is their level of consciousness and their attitudes that will determine whether or not the individuals will purchase green cosmetic products. In the midst of realising green movement, research has found out that in the cosmetic industry, the skin care products accounts for 40% of the cosmetic industry market share (Ridder, 2020). Thus, supporting the results gathered in this research

study as the results indicated that majority of the participants were familiar with and frequently purchased green cosmetic skin care products.

6.2.2. Reporting and interpretation of results the main objective of the study

The green movement that has been making headlines around the world has subsequently led to various companies to venture into development of green cosmetic products, so as to effectively attract the green consumers and increase the company's target market (Charter and Polonsky, 2017). Different green products have different factors that influence green purchase behaviour (Chekima, Wafa, Igau, Chekima and Sondoh Jr., 2016). The study analysed all of the factors combined such as awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude to understand if they have an influence on purchase intention, the study supported the claim that the all the factors combined have an influence on purchase intention. However, even though the report supported the claim (Joshi and Rahman, 2015) stated that green products purchase intention of consumers did not always translate into actual purchase behaviour. It is a question as to why this is the case, that is, why the research went on to further analyse how each factor influences purchasing intention.

On analysis, the results showed that only perceived price and attitude had a significant influence on purchase intention. This is consistent with the result attained in descriptive statistics, which noted that students were a majority of the participants with little income. This is supported by Borel-Saladin and Turok (2013), where due to the ever-increasing unemployment rate in South Africa, the purchasing intention of products that are expensive, such as green products, have significantly decreased, as young consumers do not have the funds to purchase green products in cases where there are easily accessible conventional substitutes at a lower and cheaper price.

Additionally, it is the attitude towards green cosmetic products that the consumers possess that will determine if the consumers will engage in the purchase of green cosmetic products. Kolar and Zabkar (2014) state that there is a correlation that exists between attitudes and behaviour, where as a result, it revealed that attitudes are considered to be worthy predictors of behaviour when particular elements of

attitudes and behaviours are the same. In support of this, Mkhize and Ellis (2018) note that there is a positive relationship that exists between environmental attitude and green purchase behaviour. Xu and Benbasat (2011) state that the consumer who displays a positive attitude towards environmentally friendly initiatives is more likely to engage in green purchase behaviour. As a result, it was essential to analyse the factors (awareness, product information, product availability, environmental concern, perceived barrier, perceived price) of this study with the mediating factor as attitude.

6.2.2.1. Reporting and interpretation of results of hypotheses 1 of the study

Over the last decade, concern over the environment has increased, resulting in initiatives to educate and persuade the consumers to 'go green' by purchasing green products (Ali and Ahmad, 2016). Tejpal (2016) indicates that the level of awareness of the respondents was checked, which reflected that 59.4% of the participants reflected that they are aware of the presence of green products in Northern India consumers, but noted that an attitude gap existed. This is consistent with the results obtained in this study, which confirm that awareness did not have a significant influence on purchase intention, as it reflected a p-value of 0.315. This is supported by a study by Braimah and Tweneboah-Koduah (2011) report on consumers that reside in Ghana who still have a significantly low level of awareness with regards to green products. This has consequently affected the consumers' purchase intention of such products.

A further analysis conducted in the study identified that there is an influence of awareness on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa as shown by a p-value of 0.000, which reflects a significant relationship. This is reinforced by Saifullah, Kari and Ali (2017) who observed participants taking part in a study in China to have little environmental awareness, however, displaying positive attitudes towards sustainability issues, meaning that these consumers have positive attitudes towards green products. For that reason, it is essential to increase the level of awareness of green cosmetic products of consumers so as to ensure that the female consumer make certain that consumers gain positive attitudes that will encourage consumers to purchase green cosmetic products.

6.2.2.2. Reporting and interpretation of results of hypotheses 2 of the study

Seventy percent of the consumers in the study conducted by Chkanikova and Lehner (2015) reveal that, when intending to purchase green products, consumers are influenced by eco-friendly messages that are derived from advertising and product labelling. However, the results from this study showed that product information did not have a significant relationship with purchase intention of green cosmetic product as it revealed a p-values of 0.056. Le-Anh and Nguyen-To (2020) note that when different consumers are able to acquire adequate product information about products, they are more likely to engage in purchases as the consumers will be aware of the products attributes and the benefits of purchasing the products hence the consumers will have positive attitudes towards the products. A further analysis of the results of this study revealed a p-value of 0.000, thus confirming that there is a significant influence of product information on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa.

Biswas and Roy (2015) stipulated that the lack of product information has been identified to be a contributing factor towards the attitude behaviour gap between environmental concern and actual green purchase behaviour resulting in a stagnant in the market share of green products such that the availability of product information may fill the gap. Thus, Brécard, Hlaimi, Lucas, Perraudeau and Salladarré (2009) point out that it is of paramount importance to gain insight into consumer information and knowledge with regards to attitude towards green products, since product information and information available to consumers influence consumer attitudes.

6.2.2.3. Reporting and interpretation of results of hypotheses 3 of the study

Su and Zhang (2009) state that in order to make certain that a business can effectively and efficiently increase their market share and reach their maximum potential of the green market, the organisation has to eradicate the barriers that restrict the green purchase intentions to be actual purchase actions, by ensuring that the green products conveniently available. From the analysis of the data, it is revealed that product availability does not have a significant influence on the purchase intention of green cosmetic products, as it is evident from a p-value of 0.953. This is echoed by Nam, Dong, and Lee (2017) who identified that 25.1% of the participants highlighted that the main reason for not purchasing green products is

more often than not linked to the lack of product availability. Patwarya, Omarb and Tahirc (2020) argue that the moment that green products are not available as the consumer's first store preference, this will have an adverse emotional impact on consumers purchasing behaviour. in spite of having initially shown positive attitudes towards green products. The aforementioned is supported by the results of this study, as it reflects that there is a significant influence of product availability on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa, as shown by a p-value of 0.000. Nguyen, De Leeuw, and Dullaert (2018) point out that product availability has a positive influence on the attitudes towards the green purchase behaviour of consumers.

6.2.2.4. Reporting and interpretation of results of hypotheses 4 of the study

Lin, Yang, Hanifah and Iqbal (2018) highlights that 50% of British consumers have displayed that they prefer cosmetic products that are produced from natural components. Wang, Ma and Bai (2019) make reference to a study that shows that although there is a significant number of American consumers who remain alarmed by the environmental consequences of their purchase decision, only 75% of the consumers will consider the environmental impact of the products when they make a purchase. This is consistent with the results that were gathered in this research study that stipulated that there is not a significant relationship between environmental concern and purchase intention of green cosmetic products, as indicated by a p-value of 0.879.

According to Goh and Balaji (2016), the broader literature shows that environmental concern is of paramount importance when trying to fully comprehend the consumers purchase intention of green products since environmental conservation is associated with the attitudes related to protecting the environment. Paul, Modi and Pate (2016) highlight that consumer perception of environmental preservation is more positive, because as the innate environmental concern surges, and consumers develop positive attitudes towards green products, there is direct and indirect outcome of environmental concern as this influences attitude and purchase intention towards green products. This is supported by the results of this study, which confirm that there is a significant influence of environmental concern on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa, which is reflected by a p-value of 0.000. This is supported by Yadav

and Pathak (2016), who point out that there is a significant relationship between environmental concern and attitude influencing purchase intention amongst young consumers in India, while Hanson (2013) also suggests that the same relationship exists amongst young consumers in Canada.

6.2.2.5. Reporting and interpretation of results of hypotheses 5 of the study

Nguyen, Lobo and Nguyen (2018) note that the perceived barriers that consumers face become a determining factor regarding whether consumers will engage in green purchase behaviour. Chen and Chang (2013) suggest that, in an attempt to attract the green audiences, company communication is usually unclear and misleading, and that as a result, green washing presents a significant peril to positive customer perceptions and attitudes towards purchase intention of green products. Vega-Zamora, Torres-Ruiz and Parras-Rosa (2019) highlight that a lack of trust is a significant barrier due to the prominent vast difference that exists between attitudes and purchasing intention. Results of this study confirm that there is an influence of perceived barriers on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa, as indicated by a p-value of 0.000.

Positive attitudes displayed by consumers towards green cosmetic products make consumers engage in green purchase behaviour (Fauzi and Hashim, 2015). This is supported by a research study by De Pelsmacker and Janssens (2007), who suggest that more than half of the European population believe that they possess the power to make a significant difference in the way that an organisation conducts business, while 68% of the population state that they purchased from an organisation because the organisation it had an ethical reputation. For this reason, the removal of any confusion amongst consumers will aid in the creation of positive attitudes towards green products.

6.2.2.6. Reporting and interpretation of results of hypotheses 6 of the study

Consumers have identified green products to be more costly than that of regular products, where researchers are often bound to questioning consumers if they prepared to pay more for green products (Wang, Ma, and Bai, 2019). Johnstone and Tan (2015) present reports arguing that various consumers personally prefer green products, but that when it came to the moment of purchase, the individuals have testified to having opted for lower-priced goods. This study reveals that there is a significant influence that perceived price has on attitude towards the purchasing intention of green cosmetic products amongst female consumers in South Africa as the analysis recorded a p-value of 0.000. To support this, Sheehan and Atkinson (2012) indicate that, half of the Americans have exhibited a preference, and positive attitudes towards the purchase green products. However, a mere 12% of consumers are ready to pay a premium for them. Papista and Krystallis (2012) state that, there has been a negative relationship between perceived high price and lower perceived customer value, such that the perceived high price will consequently affect the overall customer satisfaction and consumer attitudes towards green products (Hur, Kim, and Park, 2013).

6.2.2.7. Reporting and interpretation of results of hypotheses 7 of the study

Yenipazarli and Vakharia (2015) indicates that the moment that an individual cannot handle the factors that cause a barrier to engage in a purchase behaviour, it will allow other insignificant factors to forecast that behaviour. Chen and Chang (2013) notes that, the moment in which the consumers expectations are not in line with their past experience with the product, leads to the decreased product satisfaction and a negative effect on consumer future purchase intention. The results of this study show that perceived barriers influence the purchasing intention of green cosmetic products amongst female consumers in South Africa shows a p-value of 0.290, where the relationship was not significant. During the process of the assessing of green products, it is essential that the business attain the trust of the consumers, since this is considered to have a direct impact on consumers' perception of green products, consequently affecting the intention to purchase green products of the consumer (Gleim, Smith, Andrews and Cronin 2013).

6.2.2.8. Reporting and interpretation of results of hypotheses 8 of the study

Milovanov (2015) indicates that, the first step in sustainable consumption is developing positive attitudes, however, it is of paramount importance that marketers consider the internal stimulus of consumers, rather than the external one because consumers ought to perceive green behaviour as a personal issue instead of viewing green behaviour as an incentive. Kolar and Zabkar (2014) state that there is a correlation between attitudes and behaviour. As a result, it was revealed that attitudes are considered to be worthy predictors of behaviour when particular elements of attitudes and behaviours are the same. This is emphasised by the p-value of 0.000, showing that attitude has a significant influence on the purchasing intention of green cosmetic products amongst female consumers in South Africa. Inasmuch as consumers display positive attitudes towards green behaviour, Ng, Butt, Khong and Ong (2014) indicate that, for a consumer to display positive attitudes towards a particular green product, the products attributes or features have to actually benefitted the natural environment. However, an attitude gap is present, as 30% of participants highlight that they are concerned about the issues around being sustainable. This has not translated in a concrete way into purchase behaviour (Young, Hwang, McDonald and Oates, 2010).

6.2.2.9. Reporting and interpretation of results of hypotheses 9 of the study

According to Bukhari (2011), the consumers that had low awareness of green products are those that were not willing to part with a significant amount of money in the name of purchasing green products, when there were cheaper products in the market. Milovanov (2015) state that there is a correlation between income and environmental issues, where they stipulate that those individuals with a high income and welfare have shown a significant concern over environmental issues. These findings support the results in this study, which reveal that perceived price significantly influences the purchasing intention of green cosmetic products amongst female consumers in South Africa with a p-value of 0.000. Royne, Martinez, Oakley and Fox (2012) point out that marketers must pay special attention to the setting of the price of green products or services, while taking into account consumers' sensitivity to cost, since price plays a huge role in consumer purchase intention of

green products, even though other researchers have identified that consumers will be more than willing pay extra for green products. This is supported by Chang (2011), who points out that, based on research conducted in United States of America, 82% of the participants of the study revealed that they are more than prepared to pay more green products if there is no significant difference between green and non-green products.

6.3. Conclusion

This chapter provided the interpretation of the results that were gathered in Chapter 4. A majority of the participants had an income of R1000 or less. As a result, it was necessary to determine the factors that influence the purchase behaviour of green cosmetic products, so as to aid marketers to come up with different marketing communications that will appeal to these consumers. Out of those factors analysed, perceived price and attitude had a significant direct influence on the purchase intention of green cosmetic products, when compared to the other factors. Due to the ever-increasing unemployment rate in South Africa, the purchase intention of products that are expensive, such as green products, have significantly decreased, as young consumers do not have the funds purchase green products. This ultimately affects their attitudes towards the green cosmetic products. A further analysis was done on the factors that were analysed for the study in which a mediating variable attitude was used to fully comprehend the purchase intention of green cosmetic products, this analysis highlighted a significant relationship for each of the hypotheses. Attitude has been identified of the noteworthy predictor for these factors.

7. Chapter 7: Conclusion, Contribution and Recommendation

7.1. Introduction

Chapter 6 aims to provide conclusions, recommendations, theoretical and managerial implications from the consistency matrix, limitations of the research study and recommendations for the research study. Firstly, section 6.2. will provide the conclusive remarks for the research study. Followed by 6.3, which will make available recommendations for the research study. Theoretical and managerial implications will follow next in section 6.4. The consistency matrix will constitute section 6.5 of this chapter. Lastly, section 6.6 will present the limitations for this research study, and recommendations for future research.

7.2. Recommendation for the study for each hypothesis

1. Hypothesis 1: Awareness influence on attitude towards the purchasing intention of green cosmetic products

Since South Africa is still in the green awareness stage, marketers have to actively engage in hosting events and promotions that will ensure that the consumers learn more about green cosmetic products. As a result, it would be essential that the business positions itself in a manner that the consumers are aware that they offer green cosmetic products, so as to ensure that the consumers consider their green cosmetic products first, before any other brand.

2. Hypotheses 2: Product information influence on attitude towards the purchasing intention of green cosmetic products

South Africa is in the green awakening stage, where a business must effectively develop a marketing communication that is accessible to the target market so as to ensure that the green cosmetic products are recognised and utilised by consumers. Therefore, by providing adequate product information and educating the consumers about this information, scepticism about green claims is minimised.

3. Hypotheses 3: Product availability influence on attitude towards the purchasing intention of green cosmetic products

Company's venturing into green cosmetic must ensure that the products are easily accessible to the target market so as to remove any barrier that might hinder the consumers from engage in green cosmetic purchase behaviour. This is due to the fact that once consumers come to terms with the fact that green cosmetic products are out of stock, this discourages consumers from procuring the green cosmetic products as they will hardly find alternative stores.

4. Hypotheses 4: Environmental concern influence on attitude towards the purchasing intention of green cosmetic products

The green cosmetic businesses must provide as much information to the consumers about the product attributes and benefits to ensure that they are able to attract the consumers that have high level of environmental concern. To successfully attract the environmentally concerned consumers, marketers need to have a green certificate, as well as brand ambassadors and influencers that the target market can relate to.

5. Hypotheses 5: Perceived barriers influence on attitude towards the purchase intention of green cosmetic products

Marketers ought to ensure that they have marketing communications are not ambiguous, and should continuously endorse the green movement. As a result, businesses should follow a standard and accreditation procedure for green cosmetic products, so that they do not provide mixed messages that will result in the green cosmetic consumers being cynical about the products being put in the market.

6. Hypotheses 6: Perceived price influence on attitude towards the purchase intention of green cosmetic products

When marketing, green cosmetic products marketers need to clearly stipulate and understand their target market and positioning of products so as to justify the premium pricing. This because it was found that the level of green consciousness of consumers and the attitudes that the consumer possess

towards green cosmetic products is what will determine if a consumer is willing to pay a premium price for the green products.

7. Hypotheses 7: Perceived barriers' influence on purchasing intention of green cosmetic products

Government ought to put in place a monitoring system that will control the reliability of the messages placed on the eco-labels so as to make sure that customers can fully trust the green claims to minimise the perceived barriers.

8. Hypotheses 8: Attitude influence towards the purchasing intention of green cosmetic products

Marketers need to fully understand the green cosmetic consumer market when designing their marketing communications. This is because dark green, light green, or basic brown consumers display different attitudes towards green cosmetic products. Therefore, once consumers understand customers, they can have different marketing communications in order to address these consumers.

9. Hypotheses 9: Perceived price influence on purchasing intention of green cosmetic products

The marketers ought to conduct market research to fully understand the price consciousness of the consumers since some consumers are sensitive to price while others are seen to be unperturbed the price when they make a purchase decision.

7.3. Implications

7.3.1. Theoretical implications

South Africa is in a green awakening; therefore, this research study aids to the green literature. There is a gap that exists, where green cosmetic research mostly focuses in developed countries and a few in developing countries, and in response, this research focused particularly on the South African market. The research study expanded on alphabet theory by introducing additional elements to framework namely product availability and perceived priced. In order to fully fill the in the literature gap, the research study analysed various factors so as to fully comprehend

how these factors influence the purchase intention of green cosmetic products in South Africa and try identify probable enlightenments to the reasons to why people hardly ever walk the talk when it comes to the purchasing of green products. The results obtained indicated that only perceived price and attitude has a direct influence on purchase intention of green products. The aforementioned aids to the theory since these results contradict the other research studies that are mentioned in the literature review. Given that the results of this study highlight that awareness, product information, environmental concern, product availability and perceived barriers had a significant influence on the purchase intention when attitude was the mediating factor. These results will contribute to the theory by providing a different perspective in which researcher can use as a base for future research studies. The research examined green cosmetic products in general, where future researchers can suggest diverse frameworks, based on the results of their own research studies, while considering the results of this research study as a base.

7.3.2. Managerial implications

This research study offers useful insight for the managers and marketers who are venturing into the green cosmetic products. The study makes available a stepping stone on the purchasing behaviour intention patterns for green cosmetic products amongst consumers who possess strong environmental concerns in South Africa. This is valuable information and knowledge that marketers need in order to fully grasp the motivations and barriers that hinder consumers engage in green purchase behaviour, which can aid marketers in developing effective marketing strategies that will appeal to the female consumers. Often times, businesses are faced with the challenges that positive consumer attitudes do not lead to actual green purchase behaviour. This is partly due to lack of awareness, lack of product information, lack of product availability, and consumer scepticism of green claims and high prices.

To this end, it is necessary for those businesses to implement an integrated sustainable green marketing campaign that will be used to promote awareness of green cosmetic products, provide information on the meaning and availability of eco-labels, as well as the advantages of using the eco-labelled green cosmetic products. However, Government should also put into practice a monitoring system that will control the reliability of the messages placed on the eco-labels, so as to ensure that customers can fully trust the green claims to minimise the perceived barriers.

Various businesses that are venturing into green cosmetic products ought to make it a point that the products are conveniently available to the consumers and that there are a variety of these green cosmetic products at the locations.

7.4. Consistency Matrix

The main aim of this section is to link the secondary objective of the theoretical background and the main finding of the research study so as to identify whether the primary research objective has been accomplished. Table 5.1 below shows the relationship that exists with the different sections.

Table 5.1: The Consistency matrix

Objective	Theoretical background	Hypothesis	Main finding	Conclusion
Secondary objective 1 RO1	Chapter 2: Section 2.8.1	Hypothesis 1: H1	Section 4.7.3.1	Section 5.2.2.1
Secondary objective 2 RO2	Chapter 2: Section 2.8.2	Hypothesis 2: H2	Section 4.7.3.2	Section 5.2.2.2
Secondary objective 3 RO3	Chapter 2: Section 2.8.3	Hypothesis 3: H3	Section 4.7.3.3	Section 5.2.2.3
Secondary objective 4 RO4	Chapter 2: Section 2.8.4	Hypothesis 4: H4	Section 4.7.3.4	Section 5.2.2.4
Secondary objective 5 RO5	Chapter 2: Section 2.8.5	Hypothesis 5: H5	Section 4.7.3.5	Section 5.2.2.5
Secondary objective 6 RO6	Chapter 2: Section 2.8.6	Hypothesis 6: H6	Section 4.7.3.6	Section 5.2.2.6
Secondary objective 7 RO7	Chapter 2: Section 2.8.7	Hypothesis 7: H7	Section 4.7.3.7	Section 5.2.2.7
Secondary objective 8 RO8	Chapter 2: Section 2.8.8	Hypothesis 8: H8	Section 4.7.3.8	Section 5.2.2.8
Secondary objective 9 RO9	Chapter 2: Section 2.8.9	Hypothesis 9: H9	Section 4.7.3.9	Section 5.2.2.9

7.5. Limitations and Recommendations for future research

The study notes some of its potential limitations:

- This research only focused on the factors such as awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude that influence the green purchase behaviour for green cosmetic products for the female consumers in South Africa. Future studies can consider looking at other factors like green brand image, green satisfaction, green brand equity and green scepticism.
- This research made use of quantitative research methods to understand how awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude that influence the green purchase behaviour for green cosmetic products for the female consumers in South Africa. Therefore, future studies could make use of qualitative research methods, which will provide in-depth insight to why the aforementioned factors influence the green purchase behaviour for green cosmetic products for the female consumers in South Africa.
- The study only focused on female consumers, such that future research studies can also consider analysing the factors (awareness, product information, product availability, environmental concern, perceived barrier, perceived price, and attitude) that influence green purchase behaviour of cosmetic products for male consumers. Another recommendation for future study is that researchers consider doing a comparison for different generations, in order to analyse which generation buys green cosmetic products the most.
- The study only focused on green cosmetic products in general, where future research can look at analysing specific green cosmetic products such as skin care and hair care products as they are the top two product categories of which the female consumers in this research study were aware.
- The other limitation for the study is the sample size, as it may not be a true reflection of the results of the whole population for the female consumers in South Africa.

- While geographic limitation is another limitation due to time constraints and Covid-19, the researcher was not able to travel to different provinces to get a sample.

7.6. Conclusive remarks

21st century consumers have increased awareness and are cognisant of the roles they have to play to ensure that the environment is preserved. Green cosmetic products have managed to bring about a revolution in the way businesses and consumers engage, since raising awareness of degradation of natural resources resulting from human actions and consumption, coupled with the desire to conserve the environment, has had a snowballing effect of environmental awareness of consumers. The results in this research study are supported and consistent with the findings from the literature review that stipulated that these factors such as awareness, product information, product availability, environmental concern, perceived barriers, and perceived price require a mediating factor (attitude) in order to influence purchase behaviour of green cosmetic products amongst female consumers in South Africa.

Dearth of information, lack of availability, and lack of trust in green claims over green cosmetic products, has a domino effect on the long process that a consumer has to undergo to procure environmentally friendly products. As a result, to make certain that a business can effectively and efficiently increase their market share and reach their maximum potential of the green marketing, the organisation has to eradicate the barriers that restrict the green purchase intentions to be actual purchase actions in order to persuade consumers to mover over to a greener lifestyle.

8. References

- Abd Rahim, M.H. Zukni, R.Z.J.A., Ahmad, F. and Lyndon, N., 2012. Green advertising and environmentally responsible consumer behavior: The level of awareness and perception of Malaysian youth. *Asian Social Science*, 8(5), p.46.
- Agyeman, C.M. 2014. Consumer's Buying Behavior towards Green Products: an exploratory study. *International Journal of Management Research and Business Strategy* (online). 3(1).pp.188-197. Available at: http://www.ijmrbs.com/ijmrbsadmin/upload/IJMRBS_530
- Ali, A. and Ahmad, I. 2016. Environment friendly products: factors that influence the green purchase intentions of Pakistani consumers. *Pakistan Journal of Engineering, Technology & Science*, 2(1).
- Ali, A. and Ahmad, I. 2016. Environment friendly products: factors that influence the green purchase intentions of Pakistani consumers. *Pakistan Journal of Engineering, Technology & Science*, 2(1).
- Amberg, N. and Fogarassy, C. 2019. Green consumer behavior in the cosmetics market. *Resources*, 8(3), p.137.
- Antwi, S.K. and Hamza, K. 2015. Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management*, 7(3), pp.217-225.
- Anvar, M. and Venter, M. 2014. Attitudes and purchase behaviour of green products among generation Y consumers in South Africa. *Mediterranean Journal of Social Sciences*, 5(21), pp.183-183.
- Anvar, M. and Venter, M. 2014. Attitudes and purchase behaviour of green products among generation Y consumers in South Africa. *Mediterranean Journal of Social Sciences*, 5(21), pp.183-183.
- Anvar, M. and Venter, M. 2014. Attitudes and purchase behaviour of green products among generation Y consumers in South Africa. *Mediterranean Journal of Social Sciences*, 5(21), pp.183-183.

- Apuke, O.D. 2017. Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 33(5471), pp.1-8.
- Arifin, S.R.M. 2018. Ethical considerations in qualitative study. *International Journal of Care Scholars*, 1(2), pp.30-33.
- Arli,D., Tan,L.P., Tjiptono,F., & Yan, L. 2018. Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies*, DOI: 10.1111/ijcs.12432
- Asiamah, N., Mensah, H.K. and Oteng-Abayie, E.F. 2017. General, target, and accessible population: Demystifying the concepts for effective sampling. *The Qualitative Report*, 22(6), p.1607.
- Atkinson, K.M., Koenka, A.C., Sanchez, C.E., Moshontz, H. and Cooper, H. 2015. Reporting standards for literature searches and report inclusion criteria: making research syntheses more transparent and easy to replicate. *Research Synthesis Methods*, 6(1), pp.87-95.
- Balakrishnan, B.K., Dahnil, M.I. and Yi, W.J. 2014. The impact of social media marketing medium toward purchase intention and brand loyalty among generation Y. *Procedia-Social and Behavioral Sciences*, 148, pp.177-185.
- Barbarossa, C. and De Pelsmacker, P. 2016. Positive and negative antecedents of purchasing eco-friendly products: A comparison between green and non-green consumers. *Journal of Business Ethics*, 134(2), pp.229-247.
- Barbarossa, C. and Pastore, A. 2015. Why environmentally conscious consumers do not purchase green products. *Qualitative Market Research: An International Journal*.
- Barnham, C. 2015. Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research*, 57(6), 837-854.
- Becker, R.A. and Shadbegian, R.J. 2009. Environmental products manufacturing: A look Inside the Green Industry. *The BE Journal of Economic Analysis & Policy*, 9(1).
- Belisario, J.S.M., Jamsek, J., Huckvale, K., O'Donoghue, J., Morrison, C.P. and Car, J. 2015. Comparison of self-administered survey questionnaire responses collected using mobile apps versus other methods. *Cochrane Database of Systematic Reviews*, (7).

- Bergin-Seers, S. and Mair, J. 2008. Emerging green tourists: their behaviours and attitudes. *Refereed paper presented at BEST EN Think Tank VIII on Sustaining Quality of Life through Tourism. Izmir, Turkey June*, pp.24-27.
- Bergin-Seers, S. and Mair, J., 2009. Emerging green tourists in Australia: Their behaviours and attitudes. *Tourism and Hospitality Research*, 9(2), pp. 109-119.
- Bezawada, R. and Pauwels, K. 2013. What is special about marketing organic products? How organic assortment, price, and promotions drive retailer performance. *Journal of Marketing*, 77(1), pp. 31-51.
- Bhatia, M. and Jain, A. 2013. Green marketing: A study of consumer perception and preferences in India. *Electronic Green Journal*, 1(36).
- Bhavana, A. & Thiruchanuru, S. 2018. Green Marketing: Gap Analysis in the Decision Making Process of a Green Consumer. *Journal of Business Management & Social Sciences Research*, 7(3), pp.50-57.
- Bilgihan, A. 2016. Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and branding. *Computers in Human Behavior*, 61, pp.103-113.
- Biros, M. 2018. Capacity, vulnerability, and informed consent for research. *The Journal of Law, Medicine & Ethics*, 46(1), pp.72-78.
- Bisschoff, C.A. and Liebenberg, P. 2016. Identifying factors that influence green purchasing behavior in South Africa. *Society for Marketing Advances*, pp.174-189.
- Biswas, A. and Roy, M. 2015. Leveraging factors for sustained green consumption behavior based on consumption value perceptions: testing the structural model. *Journal of Cleaner production*, 95, pp.332-340.
- Borel-Saladin, J.M. and Turok, I.N. 2013. The impact of the green economy on jobs in South Africa. *South African Journal of Science*, 109(9-10), pp.01-04.
- Borel-Saladin, J.M. and Turok, I.N. 2013. The impact of the green economy on jobs in South Africa. *South African Journal of Science*, 109(9-10), pp.01-04.
- Borin, N., Cerf, D.C. and Krishnan, R. 2011. Consumer effects of environmental impact in product labeling. *Journal of Consumer Marketing*.

- Boztepe, A. 2012. Green marketing and Its Impact on Consumer Buying Behavior, *European Journal of Economic and Political Studies (online)*, 5(1). pp. 5-19. Available at: <http://ejeps.fatih.edu.tr/docs/articles/146.pdf> [Accessed:
- Brace, I. 2018. *Questionnaire design: How to plan, structure and write survey material for effective market research*. Kogan Page Publishers.
- Braga Junior, S., Martínez, M.P., Correa, C.M., Moura-Leite, R.C. and Da Silva, D. 2019. Greenwashing effect, attitudes, and beliefs in green consumption. *RAUSP Management Journal*, 54(2), pp.226-241.
- Braimah, M. and Tweneboah-Koduah, E.Y. 2011. An exploratory study of the impact of green brand awareness on consumer purchase decisions in Ghana. *Journal of Marketing Development and Competitiveness*, 5(7), pp.11-18.
- Braimah, M. and Tweneboah-Koduah, E.Y. 2011. An exploratory study of the impact of green brand awareness on consumer purchase decisions in Ghana. *Journal of Marketing Development and Competitiveness*, 5(7), pp.11-18.
- Braimah, M. 2015. Green brand awareness and customer purchase intention. *Management Science Letters*, 5(10), pp.895-902.
- Brécard, D., Hlaimi, B., Lucas, S., Perraudeau, Y. and Salladarré, F. 2009. Determinants of demand for green products: An application to eco-label demand for fish in Europe. *Ecological Economics*, 69(1), pp.115-125.
- Brécard, D., Hlaimi, B., Lucas, S., Perraudeau, Y. and Salladarré, F. 2009. Determinants of demand for green products: An application to eco-label demand for fish in Europe. *Ecological Economics*, 69(1), pp.115-125.
- Brosdahl, D.J. and Carpenter, J.M. 2011. Shopping orientations of US males: A generational cohort comparison. *Journal of retailing and consumer services*, 18(6), pp.548-554.
- Bukhari, S.S. 2011. Green Marketing and its impact on consumer behavior. *European Journal of Business and Management*, 3(4), pp.375-383.
- Burns, A.C., Bush, R.F. and Sinha, N. 2014. *Marketing research (Vol. 7)*. Harlow: Pearson.

- Caine, K. 2016. Local standards for sample size at CHI. In *Proceedings of the 2016 CHI conference on human factors in computing systems* (pp. 981-992).
- Carrington, M.J., Neville, B.A. and Whitwell, G.J. 2010. Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers. *Journal of Business Ethics*, 97(1), pp.139-158.
- Caruana, R., Carrington, M.J. and Chatzidakis, A. 2016. "Beyond the attitude-behaviour gap: Novel perspectives in consumer ethics": Introduction to the thematic symposium. *Journal of Business Ethics*, 136(2), pp.215-218.
- Chang, C. 2011. Feeling ambivalent about going green. *Journal of Advertising*, 40(4), pp.19-32.
- Chang, K.C., Hsu, C.L., Hsu, Y.T. and Chen, M.C. 2019. How green marketing, perceived motives and incentives influence behavioral intentions. *Journal of Retailing and Consumer Services*, 49, pp.336-345.
- Charter, M. and Polonsky, M.J. eds., 2017. *Greener marketing: A global perspective on greening marketing practice*. New York: Routledge.
- Chaudhary, R. & Bisai, S. 2018. "Factors influencing green purchase behavior of millennials in India". *Management of Environmental Quality*, 29(5), pp. 798-812. <https://doi.org/10.1108/MEQ-02-2018-0023>
- Chekima, B., Wafa, S.A.W.S.K., Igau, O.A., Chekima, S. and Sondoh Jr., S.L. 2016. Examining green consumerism motivational drivers: does premium price and demographics matter to green purchasing? *Journal of Cleaner Production*, 112, pp. 3436-3450.
- Chekima, B., Wafa, S.A.W.S.K., Igau, O.A., Chekima, S. and Sondoh Jr., S.L., 2016. Examining green consumerism motivational drivers: Does premium price and demographics matter to green purchasing? *Journal of Cleaner Production*, 112, pp.3436-3450.
- Chekima, B., Wafa, S.A.W.S.K., Igau, O.A., Chekima, S. and Sondoh Jr, S.L., 2016. Examining green consumerism motivational drivers: Does premium price and

demographics matter to green purchasing?. *Journal of Cleaner Production*, 112, pp.3436-3450.

Chen, J.L. and Dermawan, A. 2020. The Influence of YouTube Beauty Vloggers on Indonesian Consumers' Purchase Intention of Local Cosmetic Products. *International Journal of Business and Management*, 15(5), pp.100-116.

Chen, Y. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307-319. Retrieved from <http://dx.doi.org/10.1007/s10551-009-0223-9>

Chen, Y., Yan, X., Fan, W. and Gordon, M. 2015. The joint moderating role of trust propensity and gender on consumers' online shopping behavior. *Computers in Human Behavior*, 43, pp. 272-283.

Chen, Y.S. and Chang, C.H. 2013. Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of business ethics*, 114(3), pp. 489-500.

Chen, Y.S. and Chang, C.H. 2013. Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of business ethics*, 114(3), pp.4 89-500.

Chen, Y.S. and Chang, C.H. 2013. Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of business ethics*, 114(3), pp. 489-500.

Chen, Y.S. 2013. Towards green loyalty: Driving from green perceived value, green satisfaction, and green trust. *Sustainable Development*, 21(5), pp.294-308.

Chen, Y.S., Lin, C.Y. and Weng, C.S. 2015. The influence of environmental friendliness on green trust: The mediation effects of green satisfaction and green perceived quality. *Sustainability*, 7(8), pp.10135-10152.

Cheung, K.L., Peter, M., Smit, C., de Vries, H. and Pieterse, M.E., 2017. The impact of non-response bias due to sampling in public health studies: a comparison of voluntary versus mandatory recruitment in a Dutch national survey on adolescent health. *BMC Public Health*, 17(1), pp.1-10.

- Cheung, M.F. and To, W.M. 2019. An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, 50, pp.145-153.
- Chilisa, B. and Kawulich, B. 2012. Selecting a research approach: Paradigm, methodology and methods. *Doing Social Research*, 5(1), pp.51-61.
- Chin, J., Jiang, B.C., Mufidah, I., Persada, S.F. and Noer, B.A. 2018. The investigation of consumers' behavior intention in using green skincare products: a pro-environmental behavior model approach. *Sustainability*, 10(11), p.3922.
- Chkanikova, O. and Lehner, M. 2015. Private eco-brands and green market development: towards new forms of sustainability governance in the food retailing. *Journal of Cleaner Production*, 107, pp.74-84.
- Choi, D., & Johnson, K. K. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior. *Sustainable Production and Consumption*, 18, 145–155. <https://doi.org/10.1016/j.spc.2019.02.001>
- Choi, H., Jang, J. and Kandampully, J. 2015. Application of the extended VBN theory to understand consumers' decisions about green hotels. *International Journal of Hospitality Management*, 51, pp.87-95.
- Choy, L.T. 2014. The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science*, 19(4), pp.99-104.
- Cohen, B. and Muñoz, P. 2016. Sharing cities and sustainable consumption and production: towards an integrated framework. *Journal of Cleaner Production*, 134, pp.87-97.
- Coleman, L.J., Bahnan, N., Kelkar, M. & Curry, N. 2011. Walking The Walk: How The Theory Of Reasoned Action Explains Adult And Student Intentions To Go Green. *The Journal of Applied Business Research*, 27(3), pp.107-116
- Connell, K.Y.H. 2010. Internal and external barriers to eco-conscious apparel acquisition. *International Journal of Consumer Studies*, 34(3), pp.279-286.
- Connelly, L.M. 2008. Pilot studies. *Medsurg Nursing*, 17(6), p.411.

- Cranfield, J., Henson, S. and Blandon, J. 2012. The effect of attitudinal and sociodemographic factors on the likelihood of buying locally produced food. *Agribusiness*, 28(2), pp.205-221.
- D'Souza, C., Taghian, M., Lamb, P. & Peretiakos, R. 2006. "Green products and corporate strategy: An empirical investigation". *Society and Business Review*, 1(2), 144-157.
- Dagher, G.K. and Itani, O. 2014. Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour*, 13(3), pp.188-195.
- Daoud, J.I. 2017. Multicollinearity and regression analysis. In *Journal of Physics: Conference Series*, 949(1), p. 012009.
- De Jong, M.D., Harkink, K.M. and Barth, S. 2018. Making green stuff? Effects of corporate greenwashing on consumers. *Journal of Business and Technical Communication*, 32(1), pp.77-112.
- De Pelsmacker, P. & Janssens, W. 2007. A model for fair trade buying behaviour: The role of perceived quantity and quality of information and of product-specific attitudes. *Journal of Business Ethics*, 75, pp.361–380.
- Demirtas, B., 2018. Assessment of the impacts of the consumers' awareness of organic food on consumption behavior. *Food Science and Technology*, 39, pp.881-888.
- Denis, D.J. (2019). *SPSS Data Analysis for Univariate, Bivariate and Multivariate Statistics*. City: Wiley.
- Do Paço, A.M.F. and Reis, R., 2012. Factors affecting skepticism toward green advertising. *Journal of Advertising*, 41(4), pp.147-155.
- Doyle, L., McCabe, C., Keogh, B., Brady, A. and McCann, M. 2020. An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*, 25(5), pp.443-455.
- Drozdenko, R., Coelho, D. and Jensen, M. 2015. Factors Affecting the Acceptance of Green Products. In *The Sustainable Global Marketplace* (pp. 82-86). Cham: Springer.

- Eastman, J.K., Iyer, R. and Thomas, S.P. 2013. The impact of status consumption on shopping styles: An exploratory look at the millennial generation. *Marketing Management Journal*, 23(1), pp.57-73.
- Eid, M., Geiser, C. and Koch, T. 2016. Measuring method effects: From traditional to design-oriented approaches. *Current Directions in Psychological Science*, 25(4), pp.275-280.
- Elhoushy, S. and Lanzini, P. 2020. Factors affecting sustainable consumer behavior in the MENA region: A systematic review. *Journal of International Consumer Marketing*, pp.1-24.
- Elving, W.J. 2013. Scepticism and corporate social responsibility communications: the influence of fit and reputation. *Journal of Marketing Communications*, 19(4), pp.277-292.
- Etikan, I. and Bala, K. 2017. Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 5(6), p.00149.
- Etikan, I., Musa, S.A., & Alkassim, R.S. 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), pp.1-4.
- Etikan, I., Musa, S.A. and Alkassim, R.S., 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), pp.1-4.
- Fauzi, N.F.S.N. and Hashim, R.A. 2015. Generation X and purchase intention toward green cosmetic and skin care products. *OUM International Journal of Business and Management*, 1(2), pp.79-91.
- Fauzi, N.F.S.N. and Hashim, R.A. 2015. Generation X and purchase intention toward green cosmetic and skin care products. *OUM International Journal of Business and Management*, 1(2), pp.79-91.
- Feinberg, F., Kinnear, T. and Taylor, J. 2013. *Morden Marketing Research: Concepts. Methods.*
- Field, A., 2013. *Discovering statistics using IBM SPSS statistics*. London: Sage.

- Field, A. (2018). *Discovering Statistics Using IBM SPSS*. San Francisco: Sage Publications Ltd.
- Fincham, J. E. (2008). *Response rates and Responsiveness for Surveys, Standards, and the Journal*. American Journal of Pharmaceutical Education.
- Fleming, J. and Zegwaard, K.E., 2018. Methodologies, Methods and Ethical Considerations for Conducting Research in Work-Integrated Learning. *International Journal of Work-Integrated Learning*, 19(3), pp.205-213.
- Flick, U., 2015. Introducing research methodology: A beginner's guide to doing a research project.
- Gan, C., Wee, H.Y., Ozanne, L. and Kao, T. 2008. Consumers' purchasing behavior towards green products in New Zealand. *Innovative Marketing*, 4(1), pp.93-102.
- Gardiner, E. 2008. Generational Differences in Personality and Motivation: Do They Exist and What Are the Implications for the Workplace? *Journal of Managerial Psychology*, 23(8), pp.878-890
- Gelinas, L., Pierce, R., Winkler, S., Cohen, I.G., Lynch, H.F. and Bierer, B.E. 2017. Using social media as a research recruitment tool: ethical issues and recommendations. *The American Journal of Bioethics*, 17(3), pp.3-14.
- Gershoff, A.D. and Frels, J.K. 2015. What makes it green? The role of centrality of green attributes in evaluations of the greenness of products. *Journal of Marketing*, 79(1), pp.97-110.
- Ghoshal, M. 2011. Green marketing - A changing concept in changing time. *BVIMR. Management Edge*, 4(1), pp.82-92.
- Gifford, R. and Nilsson, A., 2014. Personal and social factors that influence pro-environmental concern and behaviour: A review. *International Journal of Psychology*, 49(3), pp.141-157.
- Gill, J., & Johnson, P. (2010). *Research methods for managers*. Sage.

- Gleim, M.R., Smith, J.S., Andrews, D. and Cronin Jr, J.J. 2013. Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, 89(1), pp.44-61.
- Gleim, M.R., Smith, J.S., Andrews, D. and Cronin Jr, J.J. 2013. Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, 89(1), pp.44-61.
- Göçer, A. and Oflaç, B.S. 2017. Understanding young consumers' tendencies regarding eco-labelled products. *Asia Pacific Journal of Marketing and Logistics*.
- Goh, S.K. and Balaji, M.S. 2016. Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131, pp.629-638.
- Götze, F. 2011. Understanding Chinese consumer behaviour towards new products. *Marketing: ZFP–Journal of Research and Management*, 33(2), pp.147-158.
- Govender, J.P. & Govender, T.L. 2016. The influence of green marketing on consumer purchase behaviour. *Environmental Economics*, 7(2), pp.77-85. [https://doi:10.21511/ee.07\(2\).2016.8](https://doi:10.21511/ee.07(2).2016.8)
- Hahn, T., Figge, F., Pinkse, J. & Preuss, L. 2018. A paradox perspective on corporate sustainability: Descriptive, instrumental, and normative aspects. *Journal of Business Ethics*, 148(2), pp.235-248.
- Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), pp.414-433.
- Hanson, C. B. (2013). Environmental Concern, Attitude toward Green Corporate Practices, and Green Consumer Behavior in the United States and Canada. *ASBBS E-Journal*, 9(1), 62.
- Harahap, A., Zuhriyah, A. and Rahmayanti, H., 2018. Relationship between knowledge of green product, social impact and perceived value with green purchase behavior. *E3S Web of Conferences*, 74, 04002. <https://doi.org/10.1051/e3sconf/20187404002>
- Hasan, A., Irfan, R., Shaari, Z.H. and Sharif, M.A.M. 2018. Consumers' Perception of Barriers Effecting Green Purchase Behavior: Instrument Assessment. In *SHS Web of Conferences* (Vol. 56, p. 02008). EDP Sciences.

- Hasan, M.N. 2016. Positivism: to what extent does it aid our understanding of the contemporary social world?. *Quality & Quantity*, 50(1), pp.317-325.
- Hassan, L. M., Shiu, E., & Shaw, D. (2016). Who Says There is an Intention-Behaviour Gap? Assessing the Empirical Evidence of an Intention-Behaviour Gap in Ethical Consumption. *Journal of Business Ethics*, 136(2), 219-236. doi:http://dx.doi.org/10.1007/s10551-014-2440-0
- Hassan, S.H., 2014. The role of Islamic values on green purchase intention. *Journal of Islamic Marketing*.
- He, X. and Zhan, W., 2018. How to activate moral norm to adopt electric vehicles in China? An empirical study based on extended norm activation theory. *Journal of Cleaner Production*, 172, pp.3546-3556.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. Evidence-based Nursing, ebnurs-2015.
- Hisashi, K. 2014. How does inventory pooling work when product availability influences customers' purchasing decisions?. *International Journal of Production Research*, 52(22). pp. 6739-6759.
- Hong, Z. and Guo, X. 2019. Green product supply chain contracts considering environmental responsibilities. *Omega*, 83, pp.155-166.
- Huang, Y.C., Yang, M. and Wang, Y.C., 2014. Effects of green brand on green purchase intention. *Marketing Intelligence & Planning*.
- Hulland, J., Baumgartner, H., & Smith, K. 2018. Marketing survey research best practices: Evidence and recommendations from a review of JAMS articles. *Journal of the Academy of Marketing Science*, 46(1), 92-108. DOI: 10.1007/s11747-017-0532-y
- Hume, M., 2010. Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of World Business*, 45(4), pp.385-394.
- Hur, W.M., Kim, Y. and Park, K. 2013. Assessing the effects of perceived value and satisfaction on customer loyalty: A 'Green' perspective. *Corporate Social Responsibility and Environmental Management*, 20(3), pp.146-156.

- Hussain, M.A., Khokhar, M.F. and Asad, A. 2014. Green Awareness Effects on Consumers Purchasing Decision: A Case of Pakistan. *Global Journal of Management and Business Research*.
- Hwang, J. 2016. Organic food as self-presentation: The role of psychological motivation in older consumers' purchase intention of organic food. *Journal of Retailing and Consumer Services*, 28, pp.281-287.
- Ik, M. and Azeez, A.A. 2020. Organisational green behavioural change: The role of Change Management. *International Journal of Entrepreneurial Knowledge*, 8(1), pp.34-48.
- Jaini, A., Quoquab, F., Mohammad, J. and Hussin, N., 2019. "I buy green products, do you...?": The moderating effect of eWOM on green purchase behavior in Malaysian cosmetics industry. *International Journal of Pharmaceutical and Healthcare Marketing*.
- Johnson, O. & Chattaraman, V. 2018. Conceptualization and measurement of millennial's social signaling and self-signaling for socially responsible consumption. *Journal of Consumer Behaviour*. <https://www.researchgate.net/publication/329111396>
- Johnston, M.P., 2014. Secondary Data Analysis: A Method of which the Time Has Come. *Qualitative and Quantitative Methods in Libraries*, 3, pp. 619-626. Link: <https://bit.ly/2Z5YhPo>.
- Johnstone, M.L. and Tan, L.P. 2015. An exploration of environmentally-conscious consumers and the reasons why they do not buy green products. *Marketing Intelligence & Planning*.
- Jonker, J. and Pennink, B.W. 2010. The essence of methodology. In *The Essence of Research Methodology* (pp. 21-41). Berlin, Heidelberg: Springer.
- Joshia, Y. & Rahmanb, Z. 2015. Factors Affecting Green Purchase Behavior and Future Research Directions. *International Strategic Management Review*, 3(2015), pp. 128–143:
- Kamal, S.S.L.B.A. 2019. Research paradigm and the philosophical foundations of a qualitative study. *International Journal of Social Sciences*, 4(3), pp.100-230.

- Kanchanapibul, M., Lacka, E., Wang, X. and Chan, H.K. 2014. An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production*, 66, pp.528-536.
- Kanchanapibul, M., Lacka, E., Wang, X. and Chan, H.K., 2014. An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production*, 66, pp.528-536.
- Kang, J., Liu, C. and Kim, S.H., 2013. Environmentally sustainable textile and apparel consumption: the role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*, 37(4), pp.442-452.
- Kanter, J. (2008). The Color of Consumer Consciousness: Light Green and Dark Green. Retrieved on: <https://green.blogs.nytimes.com/2008/09/29/the-color-of-conservation-light-green-and-dark-green/> [Accessed on: 16 February 2021]
- Kaufmann, H.R., Panni, M. F. A. K. & Orphanidou, Y. 2012. Factors Affecting Consumers' Green Purchasing Behavior: An Integrated Conceptual Framework, *Amfiteatru Economic Journal*, ISSN 2247-9104, *The Bucharest University of Economic Studies*, Bucharest, 14(31), pp. 50-69.
- Keser, K. and Köksal, D. 2017. Keystones of research: Epistemological and ontological analysis of educational studies. *ELT Research Journal*, 6(4), pp.294-301.
- Khan, E.A., Royhan, P., Rahman, M.A., Rahman, M.M., Mostafa, A. 2020. The impact of enviropreneurial orientation on small firms' business performance: The mediation of green marketing mix and eco-labeling strategies. *Sustain. Times* 12. <https://doi.org/10.3390/SU12010221>, 0e15.
- Khan, M.S., Saengon, P., Alganad, A.M.N., Chongcharoen, D. and Farrukh, M., 2020. Consumer green behaviour: An approach towards environmental sustainability. *Sustainable Development*, 28(5), pp.1168-1180.
- Khan, S.N. and Mohsin, M., 2017. The power of emotional value: Exploring the effects of values on green product consumer choice behavior. *Journal of Cleaner Production*, 150, pp.65-74.

- Khan, S.N., 2014. Qualitative research method: Grounded theory. *International Journal of Business and Management*, 9(11), pp.224-233.
- Khaola, P.P., Potiane, B. and Mokhethi, M., 2014. Environmental concern, attitude towards green products and green purchase intentions of consumers in Lesotho. *Ethiopian Journal of Environmental Studies and Management*, 7(4), pp.361-370.
- Khare, A. 2015. "Antecedents to green buying behaviour: A study on consumers in an emerging economy" *Marketing Intelligence & Planning*, 33(3), pp. 309 -329.
- Kim, S. and Seock, Y.K., 2009. Impacts of health and environmental consciousness on young female consumers' attitude towards and purchase of natural beauty products. *International Journal of Consumer Studies*, 33(6), pp.627-638.
- Kirmani, M.D. and Khan, M.N., 2016. Environmental concern to attitude towards green products: evidences from India. *Serbian Journal of Management*, 11(2), pp.159-179.
- Kirmani, M.D. and Khan, M.N., 2016. Environmental concern to attitude towards green products: evidences from India. *Serbian Journal of Management*, 11(2), pp.159-179.
- Klaschka, U., 2016. Natural personal care products—analysis of ingredient lists and legal situation. *Environmental Sciences Europe*, 28(1), pp.1-14.
- Kolar, T. and Zabkar, V., 2014. The effect of general consumer attitudes and personality traits on attitudes towards domestic and multinational products in the Balkan region. *Journal for East European Management Studies*, pp.58-80.
- Kolar, T. and Zabkar, V., 2014. The effect of general consumer attitudes and personality traits on attitudes towards domestic and multinational products in the Balkan region. *Journal for East European Management Studies*, pp.58-80.
- Kollmuss, A. and Agyeman, J., 2002. Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), pp.239-260.
- Kollmuss, A. and Agyeman, J., 2002. Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), pp.239-260.

- Korstjens, I. and Moser, A., 2018. Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), pp.120-124.
- Kosinski, M., Matz, S. C., Gosling, S. D., Popov, V., & Stillwell, D. 2015. Facebook as a research tool for the social sciences: Opportunities, challenges, ethical considerations, and practical guidelines. *American Psychologist*, 70(6), 543–556. <https://doi.org/10.1037/a0039210>
- Kumar, P. and Ghodeswar, B.M., 2015. Factors affecting consumers' green product purchase decisions. *Marketing Intelligence & Planning*.
- Kurnia, S.N. and Mayangsari, L. 2020. Barriers in Purchasing Green Cosmetic Products Among Indonesian Women. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 5(8), pp.72-84.
- Lancaster, K. 2017. Confidentiality, anonymity and power relations in elite interviewing: conducting qualitative policy research in a politicised domain. *International Journal of Social Research Methodology*, 20(1), pp.93-103.
- Lasuin, C. A., & Ching, N. Y. (2014). Factors Influencing Green Purchase Intention among University Students, 1(2), pp. 1–14.
- Lavrakas, P.J., 2008. *Encyclopedia of survey research methods*. California: Sage Publications.
- Le-Anh, T. and Nguyen-To, T., 2020. Consumer purchasing behaviour of organic food in an emerging market. *International Journal of Consumer Studies*, 44(6), pp.563-573.
- Lee C.C., Chuang Y.T., Huang H.C., Huang S.Y., Chen W.Y. 2013. The Impact of Performance Risk and Financial Risk on Perceived Value-A Case Study of Landscaped Houses. *Asian Journal of Empirical Research*, 3(7), pp. 870-83.
- Lee, E.J., Kwon, G., Shin, H.J., Yang, S., Lee, S. and Suh, M. 2014. The spell of green: Can frontal EEG activations identify green consumers? *Journal of Business Ethics*, 122(3), pp.511-521.
- Lee, E.J., Kwon, G., Shin, H.J., Yang, S., Lee, S. and Suh, M., 2014. The spell of green: Can frontal EEG activations identify green consumers? *Journal of Business Ethics*, 122(3), pp.511-521.

- Lehmann, D., Netzer, R. & Toubia, O. 2015. The Future of Quantitative Marketing: Results of a Survey. *Customer Needs and Solutions*, 2(1), 5-18. DOI: 10.1007/s40547-014-0034-8
- Leire, C. and Thidell, Å., 2005. Product-related environmental information to guide consumer purchases: A review and analysis of research on perceptions, understanding and use among Nordic consumers. *Journal of Cleaner Production*, 13(10-11), pp.1061-1070.
- Leonidou, L.C., Katsikeas, C.S., Fotiadis, T.A. and Christodoulides, P. 2013. Antecedents and consequences of an eco-friendly export marketing strategy: The moderating role of foreign public concern and competitive intensity. *Journal of International Marketing*, 21(3), pp.22-46.
- Liao, Y.K., Wu, W.Y. and Pham, T.T., 2020. Examining the Moderating Effects of Green Marketing and Green Psychological Benefits on Customers' Green Attitude, Value and Purchase Intention. *Sustainability*, 12(18), p.7461.
- Lin, P., Huang, Y. 2012. 'The influence factors on choice behavior regarding green products based on the theory of consumption values', *J. Clean. Prod.* 22, pp. 11-18
- Lin, Y., Yang, S., Hanifah, H. and Iqbal, Q. 2018. An exploratory study of consumer attitudes toward green cosmetics in the UK market. *Administrative Sciences*, 8(4), p.71.
- Lin, Y., Yang, S., Hanifah, H. and Iqbal, Q. 2018. An exploratory study of consumer attitudes toward green cosmetics in the UK market. *Administrative Sciences*, 8(4), p.71.
- Lin, Ying-Ching, and Chiu-chi Angela Chang. 2012. Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing* 76(5), pp.125-134.
- Liobikienė, G. and Bernatoniė, J., 2017. Why determinants of green purchase cannot be treated equally? The case of green cosmetics: Literature review. *Journal of Cleaner Production*, 162, pp.109-120.

- Liu, X., Wang, C., Shishime, T. and Fujitsuka, T. 2012. Sustainable consumption: Green purchasing behaviours of urban residents in China. *Sustainable Development*, 20(4), pp.293-308.
- Longino, H.E. 2017. Feminist epistemology. *The Blackwell Guide to Epistemology*, pp.325-353.
- Łopaciuk, A. and Łoboda, M. 2013. Global beauty industry trends in the 21st century. In *Management, Knowledge and Learning International Conference* (pp. 19-21).
- Lu, L.C., Chang, H.H. and Chang, A. 2015. Consumer personality and green buying intention: The mediate role of consumer ethical beliefs. *Journal of Business Ethics*, 127(1), pp.205-219.
- Lupberger, R. (2017). 5 Reasons Why Millennials Don't Buy Green Brands —And A Better Way To Reach Them | Conscious Company. [online] Conscious Company. Available at: <<https://consciouscompanymedia.com/sustainable-business/marketing/5-reasons-millennials-dont-buy-green-brands-better-way-reach/>> [Accessed 27 March 2021]
- Macovei, O. 2015. Applying the Theory of Planned Behavior in Predicting Pro environmental Behaviour: The Case of Energy Conservation. *Economica*, 11(4),15-32.
- Maheshwari, S.P. 2014. Awareness of green marketing and its influence on buying behavior of consumers: Special reference to Madhya Pradesh, India. *AIMA Journal of Management & Research*, 8(1/4), pp.0974-497.
- Maia, C.R., Lunardi, G.L., Dolci, D. and D'Avila, L.C. 2020. Competitive price and trust as determinants of purchase intention in social commerce. *BAR-Brazilian Administration Review*, 16.
- Manaktola, K. and Jauhari, V. 2007. Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*.
- Martin, W.E. and Bridgmon, K.D. 2012. *Quantitative and statistical research methods: From hypothesis to results* (Vol. 42). John Wiley & Sons.

- Martínez, M.P., Cremasco, C.P., Gabriel Filho, L.R.A., Junior, S.S.B., Bednaski, A.V., Quevedo-Silva, F., Correa, C.M., da Silva, D. and Padgett, R.C.M.L., 2020. Fuzzy inference system to study the behavior of the green consumer facing the perception of greenwashing. *Journal of Cleaner Production*, 242, p.116064.
- Martinko, K. (2017). More women are buying green beauty products. [online] *TreeHugger*. Available at: <https://www.treehugger.com/organic-beauty/more-women-are-buying-green-beauty-products.html> [Accessed 3 Mar. 2021].
- Mason, S., 2012. Ingredients Innovation: Inspired by Nature. *Global Cosmetic Industry*, 180, pp.44-47.
- McCarthy, R.V., McCarthy, M.M., Ceccucci, W. and Halawi, L. 2019. What do descriptive statistics tell us. In *Applying Predictive Analytics* (pp. 57-87). Cham: Springer.
- Mei, O.J., Ling, K.C. and Piew, T.H. 2012. The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science*, 8(13), p.248.
- Mei, O.J., Ling, K.C. and Piew, T.H. 2012. The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science*, 8(13), p.248.
- Milovanov, O., 2015. Marketing and sustainability: Identifying the profile of green consumers. *Strategic Management*, 20(4), pp.54-66.
- Milovanov, O., 2015. Marketing and sustainability: Identifying the profile of green consumers. *Strategic Management*, 20(4), pp.54-66.
- Mishra, P., Pandey, C.M., Singh, U. and Gupta, A. 2018. Scales of measurement and presentation of statistical data. *Annals of Cardiac Anaesthesia*, 21(4), p.419.
- Mitchell, M. L., & Jolley, J. M. (2012). *Research design explained*. Belmont: Cengage Learning.
- Mkhize, N., & Ellis, D. 2018. *Consumer Cooperation in Sustainability: The Green Gap in an Emerging Market*. DOI: 10.4018/978-1-5225-3990-2.ch005
- Mogos, D. & Pauwels-Delassus, V. (2015). The Impact of Consumer Resistance To Brand Substitution On Brand Relationship. *Journal of Consumer Marketing*, 32(1), pp.34-42. DOI: 10.1108/JCM-07-2014-1041

- Montaño, D.E. & Kasprzyk, D. 2015. Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. *Health behavior: Theory, research and practice*, 70(4), p.231.
- Morel, M. and Kwakye, F. 2012. Green marketing: Consumers Attitude towards Eco-friendly Products and Purchase Intention in the Fast Moving Consumer Goods (FMCG) sector.
- Mostafa, M.M., 2007. A hierarchical analysis of the green consciousness of the Egyptian consumer. *Psychology & Marketing*, 24(5), pp.445-473.
- Muposhi, A. 2019. Emergence of green marketing capitalism in South Africa: Implications for green economy agenda. *International Journal of Business and Management Studies*, 11(1). ISSN: 1309-8047 (Online).
- Mynewsdesk. (2018). *Ekologisk hudvård växer snabbt*. Available at: <http://www.mynewsdesk.com/se/nocsweden/pressreleases/ekologisk-hudvaard-vaexerstarkt-2551627>. Accessed 14 Feb. 2021
- Nam, C., Dong, H. and Lee, Y.A. 2017. Factors influencing consumers' purchase intention of green sportswear. *Fashion and Textiles*, 4(1), pp.1-17.
- Narenderan, S.T., Meyyanathan, S.N. and Karri, V.V.S.R. 2019. Experimental design in pesticide extraction methods: A review. *Food Chemistry*, 289, pp.384-395.
- Nastu,P.(2009). Light green consumers differ from dark green consumers. Available at: <https://www.environmentalleader.com/2009/10/light-green-consumers-differ-from-dark-green-consumers/> [Accessed 26 March 2021]
- Nasution, M.K.M., 2018, December. Ontology. In *Journal of Physics: Conference Series*, 1116(2), p. 022030. IOP Publishing.
- Nayak, J.K. and Singh, P. 2021. *Fundamentals of Research Methodology Problems and Prospects*. New Delhi: SSDN Publishers & Distributors.
- Nekmahmud, M. and Fekete-Farkas, M., 2020. Why Not Green Marketing? Determinates of Consumers' Intention to Green Purchase Decision in a New Developing Nation. *Sustainability*, 12(19), p.7880.

- Ng, P.F., Butt, M.M., Khong, K.W. and Ong, F.S. 2014. Antecedents of green brand equity: an integrated approach. *Journal of Business Ethics*, 121(2), pp.203-215.
- Nguyen, D.H., De Leeuw, S. and Dullaert, W.E. 2018. Consumer behaviour and order fulfilment in online retailing: a systematic review. *International Journal of Management Reviews*, 20(2), pp.255-276.
- Nguyen, D.H., de Leeuw, S. and Dullaert, W.E. 2018. Consumer behaviour and order fulfilment in online retailing: A systematic review. *International Journal of Management Reviews*, 20(2), pp.255-276.
- Nguyen, T.N., Lobo, A. and Nguyen, B.K., 2018. Young consumers' green purchase behaviour in an emerging market. *Journal of Strategic Marketing*, 26(7), pp.583-600.
- Nuttavuthisit, K. and Thøgersen, J. 2017. The importance of consumer trust for the emergence of a market for green products: The case of organic food. *Journal of Business Ethics*, 140(2), pp.323-337.
- Öberseder, M., Schlegelmilch, B.B., Murphy, P.E. & Gruber, V. 2014. Consumers' perceptions of corporate social responsibility: Scale development and validation. *Journal of Business Ethics*, 124(1), pp.101-115.
- Ordun,G. 2015. Millennial (Gen Y) Consumer Behavior, Their Shopping Preferences and Perceptual Maps Associated With Brand Loyalty. *Canadian Social Science*.11(4).pp.40-55.Available from: <http://www.cscanada.net/index.php/css/article/view/6697> DOI: <http://dx.doi.org/10.3968/6697>
- Ottman, J. 2011. *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding*. London: Berrett-Koehler Publishers.
- Palazon, M. and Delgado-Ballester, E. 2009. Effectiveness of price discounts and premium promotions. *Psychology & Marketing*, 26(12), pp.1108-1129.
- Palazon, M. and Delgado-Ballester, E. 2009. Effectiveness of price discounts and premium promotions. *Psychology & Marketing*, 26(12), pp.1108-1129.
- Palazon,M., & Ballester, E.D. 2009. The moderating role of price consciousness on the effectiveness of price discounts and premium promotions. *Journal of Product & Brand Management*, 18(4), pp.306-312

- Pallant, J. 2010. *SPSS: Survival manual*. 4th ed. New York: McGraw-Hill.
- Papista, E. and Krystallis, A. 2013. Investigating the types of value and cost of green brands: Proposition of a conceptual framework. *Journal of Business Ethics*, 115(1), pp.75-92.
- Park, I.K. 2008. A Study on the Naturalistic Cosmetics Purchasing Behavior and Attitudes According to Women. *Journal of Fashion Business*, 12(1), pp.63-75.
- Park, Y.S., Konge, L. and Artino, A.R. 2020. The positivism paradigm of research. *Academic Medicine*, 95(5), pp.690-694.
- Patino, C.M. and Ferreira, J.C. 2018. Inclusion and exclusion criteria in research studies: definitions and why they matter. *Jornal Brasileiro de Pneumologia*, 44(2), pp.84-84.
- Patwary, A.K., Omar, H. and Tahir, S. 2020. A conceptual model of what influences consumers when visiting green hotels in Malaysia. *International Journal of Innovation, Creativity and Change*, 11(11), pp.11-25.
- Patwary, A.K., Omar, H. and Tahir, S. 2020. A conceptual model of what influences consumers when visiting green hotels in Malaysia. *International Journal of Innovation, Creativity and Change*, 11(11), pp.11-25.
- Patwary, A.K., Omar, H. and Tahir, S. 2020. A conceptual model of what influences consumers when visiting green hotels in Malaysia. *International Journal of Innovation, Creativity and Change*, 11(11), pp.11-25.
- Paul, J., Modi, A. and Patel, J. 2016. Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, pp.123-134.
- Pawlewicz, A. 2020. Change of Price premiums trend for organic food products: The Example of the Polish Egg Market. *Agriculture*, 10(2), p.35.
- Pearl, A.W., Brennan, A.R., Journey, T.I., Antill, K.D. and McPherson, J.J. 2014. Content analysis of five occupational therapy journals, 2006–2010: Further review of characteristics of the quantitative literature. *American Journal of Occupational Therapy*, 68(4), pp.e115-e123.
- Peattie, K. 2008. Green marketing. In *The Marketing Book* (pp. 600-623), Routledge.

- Phellas, C.N., Bloch, A. & Seale, C.2011. Structured methods: interviews, questionnaires and observation. *Researching Society and Culture*, 3, pp.181-205.
- Pomering, A. and Johnson, L.W., 2009. Advertising corporate social responsibility initiatives to communicate corporate image: Inhibiting scepticism to enhance persuasion. *Corporate Communications: An International Journal*.
- Pop, R.A., Săplăcan, Z. and Alt, M.A., 2020. Social Media Goes Green—The Impact of Social Media on Green Cosmetics Purchase Motivation and Intention. *Information*, 11(9), p.447.
- Pop, R.A., Săplăcan, Z. and Alt, M.A. 2020. Social Media Goes Green—The Impact of Social Media on Green Cosmetics Purchase Motivation and Intention. *Information*, 11(9), p.447.
- Pop, R.A., Săplăcan, Z. and Alt, M.A. 2020. Social Media Goes Green—The Impact of Social Media on Green Cosmetics Purchase Motivation and Intention. *Information*, 11(9), p.447.
- Popovic,I., Bossink, B. & Van Der Sjde, P. 2019. Factors influencing consumers' decision to purchase food in environmentally friendly packaging: What do we know and where do we go from here? *Sustainability*, 11(22). pp.1-22.
- Potdar, K., Pardawala, T.S. and Pai, C.D., 2017. A comparative study of categorical variable encoding techniques for neural network classifiers. *International Journal of Computer Applications*, 175(4), pp.7-9.
- Potdar, K., Pardawala, T.S. and Pai, C.D. 2017. A comparative study of categorical variable encoding techniques for neural network classifiers. *International Journal of Computer Applications*, 175(4), pp.7-9.
- Potgieter, I., Ferreira, N. and Coetzee, M. 2019. Perceptions of sacrifice, workplace friendship and career concerns as explanatory mechanisms of employees' organisational commitment. *SA Journal of Human Resource Management*, 17(1), pp.1-9.
- Premapriya, M.S., Velaudham, C. and Baskar, P., 2016. Nature of family influenced by consumer buying behavior: multiple group analysis approach. *Asian Journal of Research in Social Sciences and Humanities*, 6(9), pp.908-915.

- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W.E., Luchs, M.G., Ozanne, L.K. and Thøgersen, J., 2011. Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30(1), pp.31-38.
- Pudaruth, S., Juwaheer, T.D. and Seewoo, Y.D., 2015. Pudaruth, S., Juwaheer, T.D. and Seewoo, Y.D. (2015), "Gender-based differences in understanding the purchasing patterns of eco-friendly cosmetics and beauty care products in Mauritius: a study of female customers", *Social Responsibility Journal*, Vol. 11 No. 1, pp. 179-198. <https://doi.org/10.1108/SRJ-04-2013-0049>
- Rada, V.D.D. and Domínguez-Álvarez, J.A. 2014. Response quality of self-administered questionnaires: A comparison between paper and web questionnaires. *Social Science Computer Review*, 32(2), pp.256-269.
- Radder, L., & Huang, W. (2008). High-involvement and low-involvement products: A comparison of brand awareness among students at a South African university. *Journal of Fashion Marketing and Management: An International Journal*, 12(2), 232-243.
- Rahi, S., 2017. Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), pp.1-5.
- Rather, R.A. and Rajendran, R., 2014. A Study on Consumer Awareness of green products and its Impact on Green Buying Behavior. *International Journal of Research*, 1(8).
- Rayapura, A. (2014). *New Nielsen Study Says Consumers Are Ready to Pay More for Social Responsibility*. Available at: http://www.sustainablebrands.com/newsandviews/stakeholder_trends_insights/aarathi_rayapura/new_nielsen_study_says_consumers_are_ready [Accessed: 01 October 2020].
- Rehman, A.A. and Alharthi, K., 2016. An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), pp.51-59.
- Ribeiro, A.S., Estanqueiro, M., Oliveira, M.B. and Sousa Lobo, J.M. 2015. Main benefits and applicability of plant extracts in skin care products. *Cosmetics*, 2(2), pp.48-65.
- Ridder, M. (2020). *Cosmetics Industry - Statistics & Facts*. Statista. Retrieved on 20 January 2021; from:

<https://www.statista.com/topics/3137/cosmeticsindustry/?fbclid=IwAR1aFXq7VsM5yYTJWgy92dDm1OtuX1dbcNwbE-twqYJQZ5fzsnOrsEvJ5lg>

- Rivaroli, S., Baldi, B. and Spadoni, R., 2020. Consumers' perception of food product craftsmanship: A review of evidence. *Food Quality and Preference*, 79, p.103796.
- Roy, H. 2013. "Effect of green marketing on consumer behaviour – a study with practical reference to West Bengal". *International Journal of Behavioural Social and Movement Sciences*, 2(1), pp. 44-55.
- Royne, M.B., Martinez, J., Oakley, J. and Fox, A.K. 2012. The effectiveness of benefit type and price endings in green advertising. *Journal of Advertising*, 41(4), pp.85-102.
- Saifullah, M.K., Kari, F.B. and Ali, M.A. 2017. Linkage between public policy, green technology and green products on environmental awareness in the urban Kuala Lumpur, Malaysia. *The Journal of Asian Finance, Economics, and Business*, 4(2), pp.45-53.
- Saifullah, M.K., Kari, F.B. and Ali, M.A. 2017. Linkage between public policy, green technology and green products on environmental awareness in the urban Kuala Lumpur, Malaysia. *The Journal of Asian Finance, Economics, and Business*, 4(2), pp.45-53.
- Sandelowski, M. 2010. What's in a name? Qualitative description revisited. *Research in Nursing & Health*, 33(1), pp.77-84.
- Sangtani, V. & Murshed, F. 2017. Product knowledge and salesperson performance: rethinking the role of optimism. *Marketing Intelligence & Planning*, 35(1). DOI: 10.1108/MIP-11-2016-0199.
- Saris, W.E. and Gallhofer, I.N. 2014. *Design, evaluation, and analysis of questionnaires for survey research*. John Wiley & Sons.
- Saxena, R. P. & Khandelwal, P. K. 2009. 'Green marketing: A challenge or an opportunity in the global environment'. *Global Studies Journal*, 2(3), pp. 59-73.
- Schäufele, I. and Hamm, U. 2017. Consumers' perceptions, preferences and willingness-to-pay for wine with sustainability characteristics: A review. *Journal of Cleaner Production*, 147, pp.379-394.

- Schäufele, I. and Hamm, U. 2017. Consumers' perceptions, preferences and willingness-to-pay for wine with sustainability characteristics: A review. *Journal of Cleaner production*, 147, pp.379-394.
- Schubert, F., Kandampully, J., Solnet, D. and Kralj, A. 2010. Exploring consumer perceptions of green restaurants in the US. *Tourism and Hospitality Research*, 10(4), pp.286-300.
- Schubert, F., Kandampully, J., Solnet, D. and Kralj, A. 2010. Exploring consumer perceptions of green restaurants in the US. *Tourism and Hospitality Research*, 10(4), pp.286-300.
- Scotland, J. 2012. Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), pp.9-16.
- Shahrin, R., Quoquab, F., Jamil, R., Mahadi, N., Mohammad, J., Salam, Z. and Hussin, N. 2017. Green "Eco-Label" or "Greenwashing"? Building awareness about environmental claims of marketers. *Advanced Science Letters*, 23(4), pp.3205-3208.
- Sharaf, M.A. and Perumal, S. 2018. How Does Green Products? Price and Availability Impact Malaysians? Green Purchasing Behavior?. *The Journal of Social Sciences Research*, 4(3), pp.28-34.
- Sharaf, M.A. and Perumal, S. 2018. How Does Green Products? Price and Availability Impact Malaysians? Green Purchasing Behavior? *The Journal of Social Sciences Research*, 4(3), pp.28-34.
- Sharan, N.N. and Romano, D.M. 2020. The effects of personality and locus of control on trust in humans versus artificial intelligence. *Heliyon*, 6(8), p.e04572.
- Sharma, G. 2017. Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), pp.749-752.
- Sheehan, K. and Atkinson, L. 2012. From the Guest Editors: Special issue on green advertising: Revisiting green advertising and the reluctant consumer. *Journal of Advertising*, 41(4), pp.5-7.

- Sheehan, K. and Atkinson, L. 2012. From the Guest Editors: Special issue on green advertising: Revisiting green advertising and the reluctant consumer. *Journal of Advertising*, 41(4), pp.5-7.
- Shiel, C., do Paco, A. and Alves, H. 2020. Generativity, sustainable development and green consumer behaviour. *Journal of Cleaner Production*, 245, p.118865.
- Shimul, A.S., Cheah, I. and Khan, B.B. 2021. Investigating Female Shoppers' Attitude and Purchase Intention toward Green Cosmetics in South Africa. *Journal of Global Marketing*, pp.1-20.
- Siedlecki, S.L. 2020. Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), pp. 8-12.
- Sileyew, K.J. 2019. Research design and methodology. In *Cyberspace*. IntechOpen.
- Silverman, B. W. 2018. *Density estimation for statistics and data analysis*. Boca Raton: Routledge..
- Sincero, S. M. (2012). Pilot Survey Retrieved 12.3, 2013, from <http://explorable.com/pilotsurvey>
- Singh, P.B. & Pandey, K.K. 2012. Green marketing: policies and practices for sustainable development. *Integral Review*, 5(1), pp.22-30.
- Singhal, A. and Malik, G. 2018. The attitude and purchasing of female consumers towards green marketing related to cosmetic industry. *Journal of Science and Technology Policy Management*.
- Soiferman, L. K. 2010. Compare and Contrast Inductive and Deductive Research Approaches. Online Submission.
- Stampa, E., Schipmann-Schwarze, C. and Hamm, U. 2020. Consumer perceptions, preferences, and behavior regarding pasture-raised livestock products: A review. *Food Quality and Preference*, 82, p.103872.
- Steinhart, Y., Mazursky, D. and Kamins, M.A. 2013. The process by which product availability triggers purchase. *Marketing Letters*, 24(3), pp.217-228.
- Su, X. and Zhang, F., 2009. On the value of commitment and availability guarantees when selling to strategic consumers. *Management Science*, 55(5), pp.713-726.

- Su, X., & Zhang, F. 2009. On the value of commitment and availability guarantees when selling to strategic consumers. *Institute for Operations Research and the Management Sciences*, 55(5), pp.713-726
- Suki, N.M., 2013. GREEN AWARENESS EFFECTS ON CONSUMERS'PURCHASING DECISION: SOME INSIGHTS FROM MALAYSIA. *International Journal of Asia-Pacific Studies*, 9(2).
- Surmiak, A.D., 2018. Confidentiality in qualitative research involving vulnerable participants: Researchers' perspectives. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 19(3).
- Sussman, R., & Gifford, R. 2019. Causality in the theory of planned behavior. *Personality and Social Psychology Bulletin*, 45(6), pp.920-933.
- Synodinos, C. & Bevan-Dye, A. 2014. Determining African Generation Y Students' Likelihood of Engaging in Pro-environmental Purchasing Behaviour. *Mediterranean Journal of Social Sciences*, 5(21). Doi:10.5901/mjss.2014.v5n21p101
- Tascioglu, M. and Rehman, F. 2016. Exploring Consumers' Attitudes towards Green Marketing and Convenience. *International Journal of Academic Research in Economics and Management Sciences*, 5(1), pp.13-26.
- Taufique, K.M.R. and Islam, S. 2021. Green marketing in emerging Asia: antecedents of green consumer behavior among younger millennials. *Journal of Asia Business Studies*.
- Taylor, G.R. ed. 2005. *Integrating quantitative and qualitative methods in research*. University Press of America.
- Tejpal, M., 2016. Green marketing: awareness and acceptability of green products and green initiatives in northern India. *MMU J Manag Technol*, 1(1), pp.1-8.
- Testa, F., Iovino, R. and Iraldo, F. 2020. The circular economy and consumer behaviour: The mediating role of information seeking in buying circular packaging. *Business Strategy and the Environment*, 29(8), pp.3435-3448.
- Thevanes, N. & Weerasinghe, K.P.W.D.R. 2019. Contribution of Green Marketing in Creating Sustainable Organization. *15th International Conference on Business Management*. <https://www.researchgate.net/publication/335976968>

- Thøgersen, J., Haugaard, P. and Olesen, A. 2010. Consumer responses to ecolabels. *European Journal of Marketing*.
- Touvier, M., Méjean, C., Kesse-Guyot, E., Pollet, C., Malon, A., Castetbon, K. and Hercberg, S. 2010. Comparison between web-based and paper versions of a self-administered anthropometric questionnaire. *European Journal of Epidemiology*, 25(5), pp.287-296.
- Tseng, S.C. and Hung, S.W. 2013. A framework identifying the gaps between customers' expectations and their perceptions in green products. *Journal of Cleaner Production*, 59, pp.174-184.
- Tucker, E.M., Rifon, N.J., Lee, E.M. and Reece, B.B. 2012. Consumer receptivity to green ads: A test of green claim types and the role of individual consumer characteristics for green ad response. *Journal of Advertising*, 41(4), pp.9-23.
- Turner, D.P. 2020. Sampling methods in research design. Wiley Online Library <https://doi.org/10.1111/head.13707>
- Uddin, S. M. F. & Khan, M.N. 2018. Young Consumer's Green Purchasing Behavior: Opportunities for Green Marketing. *Journal of Global Marketing*. DOI:10.1080/08911762.2017.1407982
- Udintsev, V.S., Danani, S., Taylor, G., Giacomini, T., Guirao, J., Pak, S., Hughes, S., Worth, L., Vayakis, G., Walsh, M.J. and Schneider, M. 2019. Progress in ITER ECE Diagnostic Design and integration. In *EPJ Web of Conferences*, 203, p. 03003.
- Van Teijlingen, E.R., Rennie, A.M., Hundley, V. and Graham, W. 2001. The importance of conducting and reporting pilot studies: The example of the Scottish Births Survey. *Journal of Advanced Nursing*, 34(3), pp.289-295.
- Vega-Zamora, M., Torres-Ruiz, F.J. and Parras-Rosa, M., 2019. Towards sustainable consumption: Keys to communication for improving trust in organic foods. *Journal of Cleaner Production*, 216, pp.511-519.
- Viljoen, C.D. and Marx, G.M., 2013. The implications for mandatory GM labelling under the Consumer Protection Act in South Africa. *Food Control*, 31(2), pp.387-391.
- Walia, S.B., Kumar, H. and Negi, N., 2020. Impact of brand consciousness, perceived quality of products, price sensitivity and product availability on purchase intention

towards 'green' products. *International Journal of Technology Management & Sustainable Development*, 19(1), pp.107-118.

Wang, H., Ma, B., & Bai, R. 2019. How Does Green Product Knowledge Effectively Promote Green Purchase Intention?. *Sustainability*, 11(93). doi:10.3390/su11041193

Wang, S. 2014. Consumer characteristics and social influence factors on green purchasing intentions. *Marketing Intelligence & Planning*, 32(7), pp. 738-753. DOI 10.1108/MIP-12-2012-0146.

Wegner, T. (2020). *Applied Business Statistics: Methods and Excel-based Applications*. 5th ed. Juta and Company Ltd.

White, K., Habib, R. and Hardisty, D.J. 2019. How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), pp.22-49.

Wijaya, B.S. 2015. The development of hierarchy of effects model in advertising. *International Research Journal of Business Studies*, 5(1).

Wood, M.E., Kadlubek, P., Pham, T.H., Wollins, D.S., Lu, K.H., Weitzel, J.N., Neuss, M.N. and Hughes, K.S. 2014. Quality of cancer family history and referral for genetic counseling and testing among oncology practices: a pilot test of quality measures as part of the American Society of Clinical Oncology Quality Oncology Practice Initiative. *Journal of Clinical Oncology*, 32(8), p.824.

Wu, S.I. and Chen, Y.J. 2014. The impact of green marketing and perceived innovation on purchase intention for green products. *International Journal of Marketing Studies*, 6(5), p.81.

Xu, D.J., & Benbasat, I. 2011. The Effects of Service and Consumer Product Knowledge on Online Customer Loyalty. *Journal of the Association for Information Systems*. DOI: 10.17705/1jais.00279

Xu, J.D., Benbasat, I. and Cenfetelli, R. 2011. The effects of service and consumer product knowledge on online customer loyalty. *Journal of the Association for Information Systems*, 12(11), p.1.

- Yadav, R. and Pathak, G.S. 2016. Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, pp.732-739.
- Yadav, R. and Pathak, G.S. 2017. Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, pp.114-122.
- Yan, Y. K., & Rashad Yazdanifard, R. 2014. The concept of green marketing and green product development on consumer buying approach. *Global Institute of Commerce and Management Perspective*, 3(2), pp. 33-38
- Yeng, W.F. and Yazdanifard, R., 2015. Green marketing: a study of consumers buying behavior in relation to green products. *Global Journal of Management and Business Research*.
- Yenipazarli, A. and Vakharia, A. 2015. Pricing, market coverage and capacity: Can green and brown products co-exist?. *European Journal of Operational Research*, 242(1), pp.304-315.
- Yenipazarli, A. and Vakharia, A. 2015. Pricing, market coverage and capacity: Can green and brown products co-exist?. *European Journal of Operational Research*, 242(1), pp.304-315.
- Young, W., Hwang, K., McDonald, S. and Oates, C.J. 2010. Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), pp.20-31.
- Żakowska-Biemans, S., 2011. Barriers to buy organic food in the context of organic food market development. *Journal of Research and Applications in Agricultural Engineering*, 56(4), pp.216-220.
- Zena, P.A. and Hadisumarto, A.D. 2013. The study of relationship among experiential marketing, service quality, customer satisfaction, and customer loyalty. *Asean Marketing Journal*.
- Zepeda, L. and Deal, D., 2009. Organic and local food consumer behaviour: Alphabet theory. *International Journal of Consumer Studies*, 33(6), pp.697-705.

Zhang, L., Li, D., Cao, C. and Huang, S. 2018. The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, 187, pp.740-750.

Zikmund, G. & Babin, B. J. (2010). *Exploring Marketing Research*. 10th ed. China: South Western.

Zikmund, W.G. & Babin, B.J. (2010). *Essentials of Marketing Research*. 4th ed. Australia: South-Western Cengage Learning.

Zulfikar, R. and Mayvita, P.A. 2018. The Relationship of Perceived Value, Perceived Risk, and Level of Trust Towards Green Products of Fast Moving Consumer Goods Purchase Intention. *JEMA: Jurnal Ilmiah Bidang Akuntansi dan Manajemen*, 15(2), pp.85-97.

9. Appendix

9.1. Appendix A: Questionnaire

Questionnaire Number:



UNIVERSITY OF CAPE TOWN
FACULTY OF COMMERCE
Igniting Knowledge and Opportunity



Dear respondent:

This research questionnaire is conducted by a Master of Business Science (Marketing) student at the University of Cape Town. The purpose of the research is to investigate the factors that influence the purchase behaviour of green cosmetic products amongst female consumers in South Africa. This research has been approved by the Commerce Faculty Ethics in Research Committee.

Note that your **participation in this research is completely voluntary**. You may choose to withdraw from the research at any time. The study will require you to provide some identifiable information, however **all responses will be confidential**. Therefore, participation in this research will remain completely anonymous. Note that your responses will be used for the purpose of this research only.

The research questionnaire will take approximately 10 minutes-15 minutes to complete.

Should you feel the need for any further questioning regarding the research, you may contact the following persons:

Researcher: Miss Vimbai Mahowa (vimbai.mahowa@gmail.com)

Supervisor: Dr. Sphiwe Dlamini (sphiwe.dlamini@uct.ac.za)

Screening Questions

1. Are you above the age of 18? (please tick)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

2. Are you a Female? (please tick)

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Other	<input type="checkbox"/>	Prefer not to answer	<input type="checkbox"/>
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Instruction to respondent: If you have answered “No”, “Other” and “Prefer not to answer” to any of the questions, thank you for your participation, you do not need to

complete the questionnaire. If you have answered “YES” you may proceed with the rest of the questionnaire.

Section A: Demographic questions

1. What is your occupation (please tick)

Student	
Employed	
Unemployed	

2. What is your monthly income? (please tick)

R 0- R1 000	
R 1 001 - R2 000	
R2 001 - R3 000	
R3 001 - R4 000	
R4 001- R5 000	
R5 000 and above	

Section B: Green Product Industry

1. Which of these green cosmetic categories are you familiar with? (tick all that apply)

Hair Care products		Skin care		Make up	
Other (specify):					
				None of the above	

2. Which of these green cosmetic categories do you use most of the time when you want to purchase green cosmetic products? (tick all that apply)

Hair Care products		Skin care		Make up	
Other (specify):					
				None of the above	

3. From the answers selected in Question B2 above, select the ONE green cosmetic category that you use most frequently when you want to purchase green cosmetic products. (tick only one)

Hair Care products		Skin care		Make up	
Other (specify):					
				None of the above	

Section C: Awareness of green products and attitude towards green products

On a scale of 1 to 7, where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements

Statements	1	2	3	4	5	6	7
I am aware of green cosmetic product safety.							
I am aware of green cosmetic product production processes and requirements.							
I am aware of impacts of green cosmetic product production and consumption on the environment.							

Section D: Product information and attitude towards green products

On a scale of 1 to 7 where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements

Statements	1	2	3	4	5	6	7
I acquire information on green cosmetics products through TV shows and radio programmes.							
I acquire information on green cosmetics products through advertisements.							
I acquire information on green cosmetics products through Internet (including YouTube, Facebook, etc.).							
I acquire information on green cosmetics products through family and friends.							

Section E: Product availability and attitude towards green products

On a scale of 1 to 7 where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements.

Statements	1	2	3	4	5	6	7
Lack of availability of green cosmetics products influences my purchase intention.							
Not much variety is available in green cosmetics products.							
I can buy green cosmetics products with							

great convenience.							
--------------------	--	--	--	--	--	--	--

Section F: Environmental concern and attitude towards green products

On a scale of 1 to 7 where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements.

Statements	1	2	3	4	5	6	7
I am very concerned about the environment.							
I would be willing to reduce my consumption to help protect the environment.							
Major political change is necessary to protect the natural environment.							
Major social changes are necessary to protect the natural environment.							
Anti-pollution laws should be enforced more strongly.							

Section G: Perceived barriers and attitude towards green products

On a scale of 1 to 7 where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements.

Statement	1	2	3	4	5	6	7
You believe that green cosmetics products environmental image is generally reliable.							
You think that green cosmetics products environmental functionality is generally dependable.							
Overall, you believe that green cosmetics products environmental claims are trustworthy.							
Green cosmetics products environmental performance meets your expectations.							

Section H: Perceived price and attitude towards green products

On a scale of 1 to 7 where 1 is 'strongly disagree' and 7 is 'strongly agree', indicate the extent to which you agree with each of the following statements.

Statement	1	2	3	4	5	6	7
The price of green cosmetics products is expensive.							

The price of green cosmetics products is costly.							
The price of green cosmetics products is higher than the ordinary product.							
The price of green cosmetics products is higher than my expected price.							

Section I : Attitude towards green products and purchasing intention of green products

On a scale of 1 to 7 where 1 is ‘strongly disagree’ and 7 is ‘strongly agree’, indicate the extent to which you agree with each of the following statements.

Statement	1	2	3	4	5	6	7
I am pleased to buy green cosmetics products.							
I am pleased to become an environment protector.							
I am satisfied in experiences of using green cosmetics products.							
I am right in buying green cosmetics products.							

Section J: purchasing intention of green products

On a scale of 1 to 7 where 1 is ‘strongly disagree’ and 7 is ‘strongly agree’, indicate the extent to which you agree with each of the following statements.

Statement	1	2	3	4	5	6	7
Over the next month, I will consider buying products because they are less polluting.							
Over the next month, I will consider switching to other brands for environmental reasons.							
Over the next month, I plan to switch to an environmentally friendly version of a product.							

9.2. Appendix B: Descriptive statistics: Familiar with

Case Summary

	Cases		
	Valid	Missing	Total

	N	Percent	N	Percent	N	Percent
\$familiarCosmetics ^a	260	85.5%	44	14.5%	304	100.0%

a. Dichotomy group tabulated at value 1.

\$familiarCosmetics Frequencies

		Responses		Percent of Cases
		N	Percent	
familiarCosmetics ^a	Which of these green cosmetic categories are you familiar with? - hair care products	213	28.7%	81.9%
	Which of these green cosmetic categories are you familiar with? - skin care	216	29.1%	83.1%
	Which of these green cosmetic categories are you familiar with? - make up	154	20.8%	59.2%
	Which of these green cosmetic categories are you familiar with? - other	158	21.3%	60.8%
Total		741	100.0%	285.0%

a. Dichotomy group tabulated at value 1.

9.3. Appendix C: Descriptive statistics: Most frequently use

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$frequentCosmetics ^a	256	84.2%	48	15.8%	304	100.0%

a. Dichotomy group tabulated at value 1.

\$frequentCosmetics Frequencies

		Responses		Percent of Cases
		N	Percent	
frequentCosmetics ^a	Which of these green cosmetic categories do you use most of the time? - hair care products	186	30.3%	72.7%
	Which of these green cosmetic categories do you use most of the time? - skin care	199	32.5%	77.7%
	Which of these green cosmetic categories do you use most of the time? - make up	111	18.1%	43.4%
	Which of these green cosmetic categories do you use most of the time? - other	117	19.1%	45.7%
Total		613	100.0%	239.5%

a. Dichotomy group tabulated at value 1.

9.4. Appendix D: Descriptive statistics: One most frequently used green cosmetic product

Statistics

Select one green cosmetic product that you use most frequently?

N	Valid	258
	Missing	46

Select one green cosmetic product that you use most frequently?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hair care products	81	26.6	31.4	31.4
	Skin care	96	31.6	37.2	68.6
	Make up	42	13.8	16.3	84.9
	Other	35	11.5	13.6	98.4
	None of the above	4	1.3	1.6	100.0
	Total	258	84.9	100.0	
Missing	Missing	46	15.1		
Total		304	100.0		

9.5. Appendix E: Reliability -Awareness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.852	3

Item Statistics

	Mean	Std. Deviation	N
I am aware of green cosmetic product safety	5.00	1.838	250
I am aware of green cosmetic product production processes and requirements	4.64	1.900	250
I am aware of impacts of green cosmetic product information and consumption on the environment	5.40	1.717	250

9.7. Appendix G: Reliability- Product Availability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.683	.685	3

Item Statistics

	Mean	Std. Deviation	N
Lack of availability of green cosmetics products influences my purchase intention	4.63	2.006	240
Not much variety is available in green cosmetics products	4.77	1.918	240
I can buy green cosmetics products with great convenience	4.05	1.988	240

9.8. Appendix H: Reliability- Environmental Concern

Reliability Statistics			Item Statistics			
	Cronbach's Alpha Based on Standardized Items	N of Items		Mean	Std. Deviation	N
Cronbach's Alpha	.912	5	I am very concerned about the environment	5.34	1.665	229
			I would be willing to reduce my consumption to help protect the environment	5.23	1.705	229
			Major political change is necessary to protect the natural environment	5.21	1.862	229
			Major social changes are necessary to protect the natural environment	5.53	1.832	229
			Anti-pollution laws should be enforced more strongly	5.65	1.817	229

9.10. Appendix J: Reliability- Perceived price

Reliability Statistics			Item Statistics			
	Cronbach's Alpha			Mean	Std. Deviation	N
	Based on Standardized Items	N of Items				
Cronbach's Alpha	.939	4	The price of green cosmetics products is expensive	4.96	1.858	234
			The price of green cosmetics products is costly	5.09	1.804	234
			The price of green cosmetics products is higher than the ordinary product	5.31	1.770	234
			The price of green cosmetics products is higher than my expected price	5.05	1.740	234

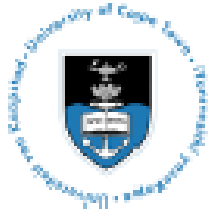
9.11. Appendix K: Reliability- Attitude

Reliability Statistics			Item Statistics			
	Cronbach's Alpha Based on Standardized Items	N of Items		Mean	Std. Deviation	N
Cronbach's Alpha	.882	4	I am pleased to buy green cosmetics products	4.96	1.647	235
			I am pleased to become an environment protector	5.34	1.611	235
			I am satisfied in experiences of using green cosmetics products	5.17	1.626	235
			I am right in buying green cosmetics products	5.27	1.659	235

9.12. Appendix L: Reliability- Purchase intention

Reliability Statistics			Item Statistics			
	Cronbach's Alpha Based on Standardized Items	N of Items		Mean	Std. Deviation	N
Cronbach's Alpha	.928	3	Over the next month, I will consider buying products because they are less polluting	4.56	2.073	239
			Over the next month, I will consider switching to other brands for environmental reasons	4.37	2.074	239
			Over the next month, I plan to switch to an environmentally friendly version of a product	4.42	2.066	239

9.13. Appendix M: Ethics Approval



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22 02 2021

Vimbal Mahowa
School of Management Studies
University of Cape Town
REF: REC 2021/02/012

Investigating the factors that influence the purchase behaviour of green cosmetic products amongst female consumers in South Africa

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid until 28-Feb-2022 .

Your clearance may be renewed upon application.

Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design, questionnaires, or choice of participants.

The ongoing ethical conduct throughout the duration of the study remains the responsibility of the principal investigator.

We wish you well for your research.

A handwritten signature in black ink, appearing to read 'Jacques Rousseau'.

2021.02.22
14:47:31 +02'00'

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9.14. Editor Certificate

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EDITING CERTIFICATE

LANGUAGE EDITING SERVICES

Date: 2021/7/25

This serves to confirm that the document entitled:

INVESTIGATING THE FACTORS THAT INFLUENCE
THE PURCHASE BEHAVIOUR OF GREEN
COSMETIC PRODUCTS AMONGST FEMALE
CONSUMERS IN SOUTH AFRICA

has been language edited on behalf of its author Vimbai Mahowa.

Genevieve Wood
PhD candidate
Wits University