





Tashalie Vorster PRACTICAL PORTFOLIO

TABLE OF CONTENT

ABSTRACT	p4
1. INTRODUCTION	р5
A BRIEF CONTEXT REVIEW OF COFFEE PACKAGING	рб
COFFEE CONSUMPTION IN SOUTH AFRICA	р7
THE SHIFT TO GREEN COFFEE PACKAGING	p8
BACKGROUND	p9
RESEARCH JOURNEY	p9
RESEARCH PROBLEM	p11
PREMIUM VS GREEN	p12
RESEARCH QUESTION	p13
CASE STUDY	p13
TIMELINE	p15
DOCUMENT: PACKAGING DESIGN PROCESS	p16
DOCUMENTING THIS PROCESS	p19
INTERACTIVE EXHIBITION SPACE	p20
THINKING AND JUSTIFICATION	p22
CLIENT BRIEF	p22
REFERENCES	p23
2. PACKAGING REQUIREMENTS	p27
3. RESEARCH	p35
4. DESIGN DIELINE	p43
5. DESIGN CONCEPTS	p49
6. REFINEMENT	p61
7. BACK DESIGNS	p69
8. PRINTING	p77
9. MANUFATURING	p83
10. DISTRIBUTION	p91
11. SHELF PLACEMENT	p97
12. WASTE PROCESS	p105
13. DESIGN RATIONALE	p113
APPENDIX	p123

LIST OF FIGURES

Chapter 1

Fig 1: Tashalie Vorster, MOCO COFFEE photograph. 2020 (Vorster, 2020)

Fig 2: MOCO COFFEE, Pacckging photograph. 2020 (MOCO, 2020)

Fig 3: ALLPRESS, Coffee Pacckging photograph. 2020 (Allpress, 2020)

Fig 4: Tashalie Vorster, Light bulb photograph. 2017 (Vorster, 2020)

Fig 5: Maria Magdalena Oosthuizen, Oil painting of a boy and windmill. 2014 (Oosthuizen, 2014)

Fig 6: MOCO Coffee, Coffee stand at a exhibition. 2019 (MOCO Coffee, 2019)

Fig 7: Tashalie Vorster, Coffee mug photograph. 2020 (Vorster, 2020)

ABSTRACT

The research aimed to investigate how a Graphic Designer can find a balance between the multisensory premium coffee packaging and green coffee packaging attributes. To bridge the gap between the perceived idea of quality and the tangible quality of the product, while improving the shopping experience and taking care of the environment.

As part of the study, the researcher requested permission to interview and collect survey questionnaire answers of coffee consumer participants in the Pretoria East, Gauteng area between the ages of 21 to 50. The chosen method of research is conducted in the form of mix methods research. Discourse analysis is a research method for studying written or spoken language in relation to its social context. The discourse of this study forms part of 'Consumer Psychology'; therefore, this type of approach allows examining consumer's buying behaviour and their perception of premium and green packaging concepts.

The field research consisted of interviews with coffee consumers, to identify why consumers associate the quality of the coffee with their perception of premium coffee packaging. To further determine why consumers have a different perceived idea of green packaging and in which manner, designers can use this information to influence their purchasing decision to move towards greener consumption.

MOCO Coffee was chosen and consent obtained to be utilised as a conceptual client for the redesign of their packaging by incorporating more sustainable packaging elements. The process was documented and published, the process steps was posted on a continuous blog post each month, starting from August 2020 to July 2021.



Fig 1: Tashalie Vorster, MOCO COFFEE photograph. 2020 (Vorster, 2020)



Fig 2: MOCO COFFEE, Pacckging photograph. 2020 (MOCO, 2020)

INTRO DUCTION

A BRIEF CONTEXT REVIEW OF COFFEE PACKAGING

Packaging is defined as the process of planning and creating the outer layer which is designed to have the following characteristics: to store, protect, describe and advertise a specific product (Ampuero & Vila, 2006; Grundey, 2010; Sivagnanasundaram, 2019). Packaging also comprises aspects from psychology, marketing, art and graphics (Harris et al., 1999). Packaging can be divided into three categories namely: primary, secondary and distribution packaging (Kotler, 2002), it can further be divided into two other categories: convenience and wasteful packaging (Copley, 2004).

At the 17th International Association of Packaging Research Institutes (IAPRI) World Conference on Packaging, a multi-cultural analysis of the influences of modern packaging design was articulated. It was expressed that packaging can add value and create cultural shock (Bloch, 1995; Chao, 2010). Furthermore, it can enhance the comprehension of client-branded commodities by taking the features of the country, district and culture into account (Chao, 2010; Hamdar et al., 2018). Packaging is a combination of wrapping the product to convey cultural information and a marketing tool (Chao, 2010; Underwood, 2003; Sivagnanasundaram, 2019). Rapid changes in packaging design are caused by cultural and social infusions of new information, creating new appearances with each new period (China Youth Press, 2002).

Packaging can encompass more than a creative, effective and appealing brand appearance (Hamdar et al., 2018). Packaging increases the buying behaviour because of the selling proposition which is communicated through the quality, colour choices, outer layer wrapping and other packaging characteristics (Hamdar et al., 2018; Parker et al., 2015; Sivagnanasundaram, 2019). Underwood et al. explain that packaging creates an exciting, emotional expectation for what is wrapped inside (Underwood, 2001; Mc Ewen, 2004).

Even though the packaging is created to protect and enable easy use, it has the potential to increase brand value through new sensory textures (Vorster, 2013). Packaging design firms use multi-sensory branding (all five senses) to form the customer perception, the perceived image of the brand, value-added and interactive experiences (Hulten, 2011).

Consumers can be defined as users of the product, unaware of the configuration or different interpretations (Moskowitz, 1985). Perception is how the consumer understands, chooses, arranges and responds to the surrounding environment in a way that adds value (Schiffinan & Kanuk, 1983). Consumers act on their perceptions, which affects consumer behaviour, buying decisions and free time (Spoeltra, 1991).

The current definition for the term PREMIUM is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). A critical aspect of consumer behaviour is the perceived idea of quality. Therefore consumer purchasing behaviour can be analysed through their perceived idea of quality (cf. Jacoby, 1971).



COFFEE CONSUMPTION IN SOUTH AFRICA

Consumers purchase coffee products based on the perception of the coffee packaging appearance and branding more than the price of the coffee. The consumer's background influences how they perceive a product-driven from various requirements and perceptions (Harith, Ting, & Zakaria, 2014).

The growth of coffee consumption continues to play an important role globally as well as in South Africa. Iain Evans states that the country has inventive styles and unique culture, motivating the land's coffee industry by carving a successful opportunity in the global market. The development of South Africa's coffee culture has created an identity of its own (Bizcommunity, 2019). According to Dylan Cumming (managing director of Beaver Creek Coffee Estate in Eastern Cape), South Africans demand a premium and highend speciality coffees and express that they are interested in more than just enjoying a beverage (Bizcommunity, 2018).

Ryler Masterton, from Masterton's Coffee and Tea Specialists, explains that South African coffee consumers want more, they crave to have a coffee experience where they are informed about the coffee, have a taste of variety while appreciating different experiences (Bizcommunity, 2018). With the demand for premium coffee growing exponentially, the marketing industry needs to guarantee that they follow the industry developments as well as the consumers' requirements and partialities changes (Bizcommunity, 2018).



THE SHIFT TO GREEN COFFEE PACKAGING

The waste of packaging influences the consumer's perception towards the brand identity (Lindh, Olsson, & Williams, 2016; Lindh, Williams, Olsson, & Wikström, 2016). This places increased pressure on manufacturers to reduce the impact of their packaging on the environment. One of their actions against this is to introduce 'greener' designed product packaging, being more sustainable. Even though the products have one aspect that is converted to be sustainable, it does not classify it as being entirely environmentally-friendly (Gershoff & Frels, 2015).

Not being entirely environmentally friendly creates a misconception, and this leaves the consumers feeling betrayed. This betrayal influences their buying behaviour to choose a different product even although the partial sustainable elements add value (Magnier et al., 2016) Companies use the graphic elements to communicate a level of sustainability through green graphics. Green graphics can be perceived as greenwashing once the consumer is misled (Magnier et al., 2016). The combined factors of partial sustainable packaging and essential product descriptions add to the perception of the consumer's view of naturalness and quality (Magnier et al., 2016).

This study explores the possibilities of increasing customer satisfaction and reducing the environmental impact of food-packaging using results from a study on consumers' demands on packaging based on Kano's Theory of Attractive Quality. It assesses the environmental effects of potential improvements in quality attributes. They are simultaneously looking at other theories such as the Multisensory Design Process, Multisensory Analysis of Product Packaging, Multisensory Premiumness, Social Environmental Manipulation and Greenwashing Marketing Strategy. The foremost theorists investigated are Charles Spence, Carlos Velasco, Dr Hendrik N. J (Rick) Schifferstein, Professor Noriaki Kano, Lise Magnier and Emo Chiellini.





BACKGROUND

- Won the 1st place in the Student Gold Pack competition in 2016.
- Gaining the 2nd place overall in redesigning packaging for an existing brand.
- Received the International Worldstar Student Certificate of Recognition.

I thrive in packaging design where I won two awards and one certificate for redesigning a package design. I was also asked to present my design thinking and the process I followed for the Student Gold Pack packaging project to the second year students of Vega Pretoria, in order to guide them with a similar assignment. My passion with this topic is driven by the idea that I can influence the process and growth of packaging design. To redirect industries towards new types of materials, techniques and styles that could revolutionise the packaging design sector.





RESEARCH JOURNEY

The progression of the research journey is explained in the paragraphs that follow: Perfume was initially chosen as the field of study, however with research progressing broadening the knowledge the choice was made to shift to coffee packaging as a larger number of consumers are within this field of study.

Printing Effects

The first research topic was to investigate the lack of using advanced printing technology for perfume packaging finishes in Graphic Design. It was considered to be of value for the Graphic Design discipline to create a unique user experience and increase the brand loyalty.

Online Unboxing Experience

The second research topic progressed to investigate the use of sensual elements to effectively create an interactive unboxing experience in the Graphic Design discipline improving client satisfaction during the online perfume shopping experience, in Pretoria East, Gauteng.

Sustainable Packaging

The waste of packaging influences the consumer's perception towards the brand identity (Lindh, Olsson, & Williams, 2016; Lindh, Williams, Olsson, & Wikström, 2016). This places increased pressure on manufacturers to reduce the impact of their packaging on the environment. One of their actions against this is to introduce 'greener' designed product packaging, being more sustainable. Even though the products have one aspect that is converted to be sustainable, it does not classify it as being entirely environmentally-friendly (Gershoff & Frels, 2015). This study explores the possibilities of increasing customer satisfaction and reducing the environmental impact of food-packaging.

Premium

Consumer purchasing behaviour can be analysed through their perceived idea of quality (cf. Jacoby, 1971). The current definition for the term Premium is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, p. 39; see also Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). This study is to determine why consumers have a different perceived idea of multisensory premium coffee packaging and in what manner can designers use this information to influence their purchasing decision.

Premium with Going Green MOCO COFFEE

The research aimed to investigate how a Graphic Designer can find a balance between the multisensory premium coffee packaging and green coffee packaging attributes. To bridge the gap between the perceived idea of quality and the tangible quality of the product, while improving the shopping experience and taking care of the environment. MOCO Coffee was chosen and consent obtained to be utilised as a conceptual client for the redesign of their packaging by incorporating more sustainable packaging elements. The process was documented and published, the process steps are posted on a continuous blog post each month, starting from August 2020 to July 2021.

The traditional function of packaging is to protect the product during delivery to retailers and prolong shelf life (Sivagnanasundaram, 2019). In the industry of coffee packaging, what a person visually experience is the most critical factor in customer experience (Hamdar et al., 2018; Sivagnanasundaram, 2019). The package must create a sensory connection between the purchased item and the customer (Sivagnanasundaram, 2019; Patti et al., 2012; Silayoi and Speece 2007). The consumer can be influenced in their purchasing decisions through the look of coffee packaging (Harith, Z. T., Ting, C. H. and Zakaria, N. N. A., 2014). Jane Skelton states that to create a package design in this modern time effectively, designers need to encourage the consumer while influencing the fundamental experience of the product itself (Skelton, 2019). Many academics in consumer marketing fields have reflected upon the requirement of multisensory aspects in the field of branding (Velasco & Spence, 2019; Schifferstein, 2011; Ksenia, 2013; Labbe et al. 2013). Collaborating on the research concepts of how the consumer brand behaviour differ in how they view, perceive and experience the brand (Haverkamp, 2014; Hultén, Broweus, & Van Dijk, 2009; Velasco, Reinoso-Carvalho, Petit, & Nijholt, 2016b). It has been proposed that multisensory packaging elements can contribute to the concept of premium branding (Wiedmann, Hennigs, Klarmann, & Behrens, 2013). Consumer purchasing behaviour can be analysed through their perceived idea of quality (cf. Jacoby, 1971). The current definition for the term Premium is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, p. 39; see also Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). This definition can be challenged by proving that coffee packaging, to be perceived as 'premium' has to incorporate green packaging elements. High-quality coffee products have shifted their focus to over time redesign coffee packaging to be more environmentally friendly, i.e. materials and packaging processes (Giang N. T. Nguyen1 and Tapan Sarker, 2018). Therefore, it may be of value to explore how a Graphic Designer can find a balance between the multisensory premium coffee packaging and green coffee packaging. To bridge the gap between the perceived idea of quality and the quality level of the product, while improving the shopping experience and taking care of the environment.



PREMIUM VS GREEN





RESEARCH QUESTION

How to design commercial coffee packaging that finds the balance between **multisensory premium** and **green packaging** components?

CASE STUDY

Allpress Espresso was created in 1989, expanding towards a global target market the need for recyclable packaging and being more sustainable or in other words eco-friendly became the forefront quest to achieve. The design journey started and the company not only found compostable materials but they have discovered a way to balance out the aesthetics on a premium level while going green. Enhancing the target market's sensory experience by both touch and sound to a magnificent premium level. The coffee bag is composed out of craft textured paper for the exterior, visually following the brand's colour palette, save removable valve, adhesives; inks and paper all compostable. Even further the interior lined material is a plant-based biopolymer which again is compostable (Allpress, 2020).



Fig 3: ALLPRESS, Coffee Pacckging photograph. 2020 (Allpress, 2020)

Allpress went the extra mile by doing further consumer research and came to the conclusion that some of their consumers do not have municipal composting in the area they are located in. On this realization they created a system where they collect the bags for their consumers. They even supply green bags for the consumer that do in fact have a municipal composting in their areas (Allpress, 2020).



Putting an end to *landfill*...



01. Adhering to the Standard EN13432 commercially compostable

02. Compostable-friendly glues, paper and inks – beautiful, strong and non-toxic

03. Lined with a certified bio-polymer with an exceptional barrier rate keeping or coffee fresh and tasting its best



TIMELINE 2021



DOCUMENT: PACKAGING DESIGN PROCESS

PREMIUM + GREEN PACKAGING DESIGN SOLUTION

1. Packaging Requirements



responsibility (Maffei & Schifferstein, 2017).

Design Process (Stewart, 1995; Maffei & Schifferstein, 2017; Morr, 2016; DesignerPeople, 2019)

3. Design Dieline

Shape
P
fo
fo
all

Premium & Green shape and size found in survey Field research and in Literature.

4. Design Concepts



Design Process (Stewart, 1995; Maffei & Schifferstein, 2017 ; Morr, 2016 ; DesignerPeople, 2019)

5. Refinement



7. Printing



Design Process (Coles, McDowell, & Kirwan, 2003 ; Maffei & Schifferstein, 2017 ; Morr, 2016 ; DesignerPeople, 2019)

9. Distribution

Process
Distribution process and set-up requirements found in interviews during field research at Distribution facilitators.

10. Shelf Placement



F

Design Process (Coles, McDowell, & Kirwan, 2003 ; Maffei & Schifferstein, 2017)

11. Waste Process



Design Process (Coles, McDowell, & Kirwan, 2003 ; Maffei & Schifferstein, 2017)

DOCUMENTING THIS PROCESS

- Document findings in a **NOTEBOOK** and post on **BLOG** each month.
- Post VIDEOS each month summarizing findings with visualize data infographics.
- Display final findings of process on an INTERACTIVE **EXHIBITION** space.
- ONLINE INTERACTIVE EXHIBITION space will link to the data findings.

INTERACTIVE EXHIBITION SPACE

Figure 4 gives inspiration to use lights as a style of putting designs on display and experimenting with the use of glass or perpex as a transparent material. Figure 5 inspires in the circular form and shapes of the windmill how it represents a process with each blade a milestone in the solution finding process. The material of tin or zinc is pliable into any form required. The windmill material has a shiny surface which can be used to the advantage of combining it with the right set of lights to create an effect. Figure 7 expresses the coffee culture of coming together around a cup of coffee. Therefore in figure 6 Moco Coffee will be sold right next to my exhibition stand, the people could buy a cup and explore the coffee packaging process. Multisensory exhibition spaces needs to be designed to be able to interact with. Therefore designing a circular blade stand with glass or perpex at the ends of the tin blades. Rotating over a light with the pull of a hand, to magnify the content compressed and printed onto glass plates. The content could be compiled out of process development.



Fig 4: Tashalie Vorster, Light bulb photograph. 2017 (Vorster, 2020)



Fig 5: Maria Magdalena Oosthuizen, Oil painting of a boy and windmill. 2014 (Oosthuizen, 2014)

Fig 6: MOCO Coffee, Coffee stand at a exhibition. 2019 (MOCO Coffee, 2019)

Fig 7: Tashalie Vorster, Coffee mug photograph. 2020 (Vorster, 2020)

Ubuntu "the belief that we are defined by our compassion and kindness towards others" (H, 2020). This belief strives to ignite and motivate all South Africans to work together to foster a better understanding of our differences and cultures through storytelling, inclusivity, positivity, inspiration, upliftment and hope. Hope is found in the young generation creations providing light in the dark.

INTERACTIVE EXHIBITION SPACE



DIGITAL EXHIBITION



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Interactive top view of exhibition process



Blog post and video links to Youtube channel

Theoretically, this study contributed to the existing literature in the field of multisensory packaging, premium packaging, green packaging and consumer purchasing behaviours in the commercial sector. Through the findings of the study, the relationship between multisensory premium packaging and green packaging attributes are found. The consumer's perceived idea of premium and green packaging are clarified. From a practical perspective, the results of the study could influence the purchasing decisions of the South African coffee consumers, therefore increase sales. Furthermore the design process will assist the packaging design industry to understand the consumer's needs and to design according to the requirements.

CLIENT BRIEF

MOCO Coffee was chosen and consent obtained to be utilised as a conceptual client for the redesign of their packaging by incorporating more sustainable packaging elements. The process will be documented and published, the process steps will be posted on a continuous blog post each month.

Add or advise on having the following details on our labels:

- 1kg or 200g (depending on the size label).
- Beans or ground
- Roast: Medium / Dark
- Origin:
- Colombia
- Honduras
- South America
- Guatemala
- Kenya
- Burundi
- Ethiopia
- Ugandan
- MoCo Africa
- Silvermist Mountain
- MOCO contact details.
- Indicate roast date.
- Add tasting notes to labels.

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2. COFFEE PACKAGING REQUIREMENTS

Packaging can encompass more than a creative, effective and appealing brand appearance (Hamdar et al., 2018; Borah & Dutta, 2019). Packaging increases the buying behaviour because of the selling proposition which is communicated through the quality, colour choices, outer layer wrapping and other packaging characteristics (Hamdar et al., 2018; Parker et al., 2015; Sivagnanasundaram, 2019).

The growth of coffee consumption continues to play an important role globally as well as in South Africa. Iain Evans states that the country has inventive styles and a unique culture, motivating the land's coffee industry by carving a successful opportunity in the global market. The development of South Africa's coffee culture has created an identity of its own (Bizcommunity, 2019). According to Dylan Cumming (managing director of Beaver Creek Coffee Estate in Eastern Cape), South Africans



Fig 8: Premium Coffee by Tashalie Vorster

demand premium and high-end speciality coffees and express that they are interested in more than just enjoying a beverage (Bizcommunity, 2018).

South Africa's coffee culture has created an identity of its own (Bizcommunity, 2019). According to Dylan Cumming (managing director of Beaver Creek Coffee Estate in Eastern Cape), South Africans demand premium and high-end speciality coffees and express that they are interested in more than just enjoying a beverage (Bizcommunity, 2018).

The current definition for the term PREMIUM is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). With the demand for premium coffee growing exponentially, the marketing industry needs to guarantee that they follow the industry developments as well as the consumer's requirements and partialities changes (Bizcommunity, 2018).

According to the International Coffee Organization, coffee is the second most purchased beverage worldwide (ICO, 2018). The coffee industry is increasingly encouraged by coffee consumers and coffee shops, to change its production approach to be more environmentally friendly and which protects our living environment (Giovannucci, 2001; Giovannucci, Potts, Killian, Wunderlich, Schuller, Soto, Schroeder, Vagneron and Pinard, 2008; Taylor, 2005).

The waste of packaging influences the consumer's perception of quality towards the brand identity (Lindh, Olsson, & Williams, 2016; Lindh, Williams, Olsson, & Wikström, 2016).

Designers, therefore, should keep in mind what happens after the packaging has fulfilled its purpose during its lifespan. Food packages become redundant immediately after consumption. Sustainability is critical to consider in the packaging design process and to reduce wastage. Packaging reduces food wastage from manufacturing to consumption (Gustavsson et al. 2011). This reduction is the reason why designers need to find the balance between the quality of the package and the impact on the environment (Maffei & Schifferstein, 2017).



MOCO Coffee was chosen and consent obtained to be utilised as a conceptual client for the redesign of their packaging by incorporating more sustainable packaging elements. The process will be documented and published, the process steps will be posted on a continuous blog post each month.

There are three questions you must have the answer to before you start designing the packaging for a product:

- ·What is the product?
- · Who's the consumer of the product?
- ·What are the brand properties?

COFFEE PACKAGING REQUIREMENTS

Coffee is one of the biggest and most important agribusiness products, it therefore requires packaging as it is globally sold (Borah & Dutta, 2019). Focussing on the design of the coffee packaging it should be a combination of simplistic packaging that utilises methods that enhances the distribution process and have a design that is perceived as premium quality (Borah & Dutta, 2019). Coffee's beverage quality is based upon the aroma and flavour which is formed during the roasting of the green beans (Borém et al., 2013). To prolong the freshness of the coffee the packaging requires properties that form a barrier to keep out the oxygen (O₂). Furthermore, the packaging should have a one-way vent where only carbon dioxide (CO₂) leaves the packaging (Kiyoi, 2010). Coffee producers tend to use several types of materials and multi-laminates to prolong and protect the coffee within the retail store, for example, polyethylene, aluminium and paper to name a few.

PRODUCT DATA		
Product name	MOCO Coffee	
Product size	250g Pouch filled with beans or ground coffee	
Seasonality	All year round	
Distribution	Gauteng	
Competition	High to Medium quality coffee retail brands	

PACKAGING REQUIREMENTS



CONSUMER PROFILE

To use packaging as the basic concept of marketing, one must first comprehend the consumer to fulfil their desired needs (Maffei & Schifferstein, 2017; Stewart, 1995). The consumer can be evaluated upon their dissection to satisfy their demands. The consumer dissections can be divided into multiple aspects such as demographics ranging from age to religion, behavioural elements such as product use and contribution, psychographic aspects such as lifestyle and character, and consumer geographical standpoint (Solomon et al. 2010).

Consumers can be further examined upon the type of consumer they are and how they influence the market itself (Maffei & Schifferstein, 2017). There are two primary consumers namely worldwide consumers that are loyal to the brand of the package and environmental consumers concerned with moral and social responsibility (Maffei & Schifferstein, 2017).

MOCO Coffee consumers would be profiled to be a combination of both as they are in search of premium quality coffee and packaging while concerned with being sustainable and environmentally friendly.

The consumer who is a green consumer citizen can be classed as a subgroup of consumers who are active in society, shown by their habits in consumption of products and being aware of the life cycle of the product from production to recycling of the waste. This action is an expression of green citizenship, and they do not function on their own (Jørgensen, 2013).



CONSUMER/ USER PROFILE		
Age	21-50	
Gender	Male and Female	
Location	Pretoria East, Gauteng	
Buying behaviour	Premium quality coffee and environmental concerned consumers	
Socio-economic groups	Upper and high middle class consumers	
Lifestyle	Wealthy	
Personality	Go getters	
Brand awareness/loyalty	High level	
Media	Well informed through news and social media platforms	



BRAND PROPERTIES

	BRAND PROPERTIES	
Colours	Black, white and light brown colour scheme	
Fonts	Calibri and Franklin Gothic Medium Condensed	
Logo	MOCO COFFEE MOBILE - CRAFTED	
Product/pack imagery	Consists of branding, images of the product used on advertising platforms.	
Advertising platforms	Digital media	
Advertising style	Sleek, modern, simplistic and premium.	



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3. COFFEE PACKAGING RESEARCH

The power of packaging is to allure, encourage and convey secure messages with the use of its function and aesthetics formed out of elements such as fonts, wordplay, colours, shape and textiles (Maffei & Schifferstein, 2017; Silayoi and Speece, 2007; Prendergast and Pitt, 1996).

Packaging, therefore, can become a paratext, giving meaning to food. The packaging of the food influences the meaning of food through the mood and materials used to create the consumers' expectations (Maffei & Schifferstein, 2017).



MARKET RESEARCH

Premium is perceived differently by different people (Cristini, Kauppinen-Räisänen, Barthod-Prothade, & Woodside, 2017; Phau & Prendergast, 2000). The concept of the premium is defined from the view of the customer. It can be measured by characteristics like quality, being unique, being authentic and the customer's willingness to purchase (Ko et al., in press).

The attributes that represent quality, such as the country where the coffee comes from, the different types of coffee, promotion of the coffee origin, and the grade of certification labels that classify them as sustainable, influence the consumer to be motivated to pay for premium coffee (De Pelsmacker, Driesen and Rayp, 2005; Donnet, Weatherspoon and Hoehn, 2007; Cranfield, Henson, Northey and Masakure, 2010; Teuber and Herrmann, 2012; Salomone, 2003).


High-quality coffee products have shifted their focus to over time redesign coffee packaging to be more environmentally friendly, i.e. materials and packaging processes (Giang N. T. Nguyen and Tapan Sarker, 2018). Companies use graphic elements to communicate a level of sustainability through green graphics. The assumption is made that customers use visual elements like colour and material to evaluate whether a package is sustainable or not. This is only true if the elements clearly show sustainability (Magnier & Schoormans, 2015).

In the multi-sensory design process, sensory elements can be adjusted to convey a specifically designed message in such a way that all the senses add to the overall message (Schifferstein 2011). It has been proposed that multisensory packaging elements can contribute to the concept of premium branding (Wiedmann, Hennigs, Klarmann, & Behrens, 2013). Therefore this multisensory process (Schifferstein 2011) can be further developed by the support of how the customer perceives the quality through the various senses' experience (Labbe et al. 2013).

DESIGN STRATEGIES

One part of the research step of the packaging design process is the design strategy. The foundation of successful packaging design is to formulate and gather the correct preference of the elements such as colour, font choice, layout, shape etc. from the participants. But first to understand these design elements one must first comprehend two concepts namely decorative semiotics and multisensory elements.

DECORATIVE SEMIOTICS

Graphic art cannot be separated from meaning found in social interaction (Panofsky, 1983). Any sign can be formulated to represent something else, therefore a sign can be seen as a symbol of an object or perception (Eco, 1976; Hoopes, 1991). 'Decorative' is a word used to express elements that enhances the appearance and therefore represent premiumness and quality. Semiotics in plain words is the study of signs and symbols to create a certain message. Ferdinand de Saussure explains in his semiotic framework the relation between the sign and the intended concept. The sign is anything that conveys meaning. This is a combination of the signifier= things that give meaning, such as a word or an image. Combined with the signified, what is evoked in the mind of the consumer, the mental concept. Saussure's semiotic theoretical framework can be seen in Figure 1.



Fig. 1: Ferdinand de Saussure, Semiotic Framework (1959).

For example the colour gold as the signifier, which could represent luxury, quality or premiumness as the signified concept. It comes down to finding the meaning from the signs and symbols, but to formulate the correct meaning one must first look at multisensory signs and symbols.

PERCEIVED IDEA OF MULTISENSORY PREMIUM PACKAGING

Multisensory is when the packaging elements are designed in such a way that the consumer simultaneously use as many human senses when interacting with the packaging elements. Resulting in an enhancement of the shopping experience and increases the concept of premiumness.

Multiple searchers have expressed the growth in demand for more quality sensory elements from the coffee consumers (Hoppert, Mai, Zahn, Hoffmann, and Rohm 2012). Nevertheless, to reply to this demand, an understanding of the consumer's perception of multisensory packaging is required. Therefore one can apply the Multisensory Analysis of Product Packaging (MAPP) framework approach. This framework can furthermore contribute to the design process of multisensory packaging. This approach furthermore expresses how various sensory signals interrelate with one another (for example, colour affects the smell experience, etc.) (Velasco & Spence, 2019). The MAPP framework approach is displayed in figure 2. When a product packaging is examined numerous high and low-level elements can contribute to the communication to a consumer's senses (Velasco & Spence, 2019), high-level elements can be seen as conceptual aspects (Thompson, 2016). Based on the response type, a similarity could be formed which could strengthen a specific message (for example, 'premiumness') (Velasco & Spence, 2019).



Fig. 2: Carlos Velasco & Charles Spence, The MAPP Framework (2019).

The value features level whether high or low (Crilly et al., 2004) could be reasoned to be described by the 3 (S) model namely sensory, semantic, and symbolic levels (Thomson, 2016). As well as the affected level where a consumer evaluates the packaging with their approximately agreement or disagreement and packaging encouragement (Velasco et al., 2016c).

On the sensory level, the standard response forms part of the sensory incentives with no clear symbolic meaning; for example, the shape of packaging, texture or sound (Velasco & Spence, 2019). The second 'S' is the semantic level that creates similarity meaning through the sensory cues for example brand quality, colours and imagery (Krishna, Elder, & Caldara, 2010; Thomson, 2016). The last 'S' is the symbolic level that is signified through marking sensory cues, for example, the logo or font choice (Velasco & Spence, 2019).

The outcome effect of the high and low-level sensory signs can be directed by the consumer's goals and then influence their evaluation and behaviour (Karnal, Machiels, Orth, & Mai, 2016). A consumer goal could be in search of a quality product and therefore, be guided by response aspects that create the perception of brand quality (Little, 2014; Bajaj & Bond, 2018).

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4. DESIGN DIELINE

Dieline can be defined as a flat shape plan showcasing how to fold and cut the packaging after printing. These dielines are seen to be created in the program Adobe Illustrator. Before the design phase can be initiated the shape and size of the packaging need to be decided and a dieline drawn up according to these requirements. The dieline is the foundation of the packaging; it is the most important as if any mistakes occur, could result in a loss of time and cost (DesignerPeople, 2019).





SHAPE

Alongside the fulfilment functionality, the size and shape play a part of the aesthetics together with colour, materials and visual elements (Ruumpol, 2014; Swasty, 2016; Velasco, Salgado-Montejo, Marmolejo-Ramos, & Spence, 2014). Consumers find the shape also known as the form of the packaging the most interesting element when it is displayed on the shelf (Swasty, Mustikawan, & Naufalina, 2020). Silayoi and Speece state that even if the shape would affect the attention of the consumer, it is when the consumer pulls the packaging off the shelf to interact with the information, only then the quality is reassured (Silayoi & Speece, 2004). The shape of the packaging is chosen to create a certain sensory effect (Bloch, 1995) and communicate a certain message (Nancarrow et al., 1998; Silayoi & Speece, 2007).

QUALITY PACKAGING SHAPE



From these findings, the following three dielines' were created:

BLOCK BOTTOM DIELINE



CYLINDER DIELINE



RECTANGULAR CUBE DIELINE



SIZE

The second visual element is the size of the packaging relating to the functionality and usability of the packaging (Silayoi & Speece, 2004). When consumers make the link between the size and shape of the packaging, it is assumed to be associated to the convenience in

use and carry aspects rather than to an aspect of communication (Silayoi & Speece, 2004). Furthermore, size is used as a visual means to simplify quantity discernments and decisions (Silayoi & Speece, 2004). Size is also seen as a scale to compare quantity against value for money (Silayoi & Speece, 2004).

Without their familiar brands, bigger packages of very low involvement items such as commodity food products tend to be chosen (Silayoi & Speece, 2004). Interestingly, consumers perceived more elongated packages to be larger, even if there was no difference in size with the less elongated packages, and even when they frequently purchased these packages and had experience using them (Silayoi & Speece, 2007). Thus, elongating the shape, within acceptable bounds, should result in consumers thinking of the package as a better value for money and result in larger sales generally (Silayoi & Speece, 2007). Product size and shape was found, by Silayoi and Speece (2004), to influence consumers' value judgments.



Most coffee brands follow the shape of a rectangular vacuumed or soft vertical extended package (Silayoi & Speece, 2007). Consumers have found that vertical or elongated packages to be perceived as larger than the rest, even when the amount is exactly the same (Silayoi & Speece, 2007). The comparison of value for money against the amount is made and are found to be better value for money as they are perceived larger as amounts of coffee (Silayoi & Speece, 2007).

Designing premium coffee packaging, the shape of the packaging should be uncomplicated while being stylish and functional. It should not be seen as an opportunity to design a gimmick (Stewart, 1995). Even when simplicity is created with the form a certain perception of being rare, higher quality or more expensive is created when the shape is more unique (Corredor, 2017; Velasco et al., 2015).

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5. DESIGN CONCEPTS

PREMIUM

'Premiumness' can be derived from various sensory elements from food and beverage packaging or characteristics, for example, the price tag or the quality (Velasco & Spence, 2019). Developers and designers will have to move from one sensory packaging element to using and researching various sensory elements and how they intertwine to represent the impression of multisensory 'premiumness' (Velasco & Spence, 2019).

The vocal elements of brands (the colour, the fonts used, the label) are essential to the customer's perception of a brand's 'premiumness' and their action based on these perceptions (Mugge, Massink, Hultink, & van den Berg- Weitzel, 2014; Crilly, Moultrie, & Clarkson, 2004; Schoormans, Berge, Laar, & Berg-Weitzel, 2010). Research has shown that the visual brand affects all from identifying the product to the perception of the quality (Allison & Uhl, 1964; Jacoby, Olson, & Haddock, 1971; Martin, 1990).

Using various visual elements that accompany the brand can show premium characteristics like being original or being unique (Silayoi & Speece, 2007). An argument could be made that a brand aiming to become a premium brand must attain a balance between consumer's preference and enchant them in a sensory way to show the product as rare or unique (Velasco et al., 2016a).



GREEN

The outer layer of packaging which has an ecological styling makes labelling the product packaging as sustainable without effort (for example coffee beans in a brown paper bag). Today many sustainable packages produced, do not display sustainability, for example, a biodegradable plastic package can be recycled but does not suggest green

packaging as they look more conventional (Magnier & Schoormans, 2015). Marketing strategies are required to verbalise these sustainable claims visually and verbally, which will persuade consumers (Eagly & Warren, 1976; Petty & Caccioppo, 1984).

The perception that influences the consumer's behaviour is driven by their previous beliefs and approaches (Magnier & Schoormans, 2015). These beliefs are called environmental concerns (Bickart & Ruth, 2012; Kilbourne & Pickett, 2008; Mohr, Eroglu, & Ellen, 1998). These customers respond more to sustainable information about the product than others (Bamberg, 2003; van Birgelen, Semeijn, & Keicher, 2009). They also focus on the information given about the sustainable status of the product and packaging (Magnier & Schoormans, 2015). The package needs to be labelled by the consumer as sustainable to contribute in a positive way to the consumer's purchasing behaviour (Carrus, Passafaro, & Bonnes, 2008; Ellen, 1994; Fraj & Martinez, 2006; Kilbourne & Pickett, 2008; Koenig-Lewis et al., 2014; Meneses, 2010).

COLOURS

The first graphical packaging element after the size and shape have been determined is colour. Colour has the power to create connotations within the boundaries of the demographical elements of the consumers (Aslam, 2006; Spence & Velasco, 2019). In terms of premium coffee products, the graphical elements are suggested to speak softly in comparison to a loud manner (Stewart, 1995). It was found that darker hues are presumed to specify 'premiumness' (Ampuero & Vila, 2006; Ares et al., 2010). Traditionally the colour forms part of the brand persona and attracts the viewers' attention (Labrecque, Patrick, & Milne, 2013, Fitzgerald Bone & Russo France, 2001; Meyers-Levy & Peracchio, 1995). Within a study completed by Schoormans and Robben (1997), consumers stated that blue coffee packaging represented cold coffee instead of a hot beverage (Schoormans & Robben, 1997).



From our survey, the consumers pointed out that gold and black colours represented premium the most and green represented going green or being eco-friendly.

FONTS

When it comes to the choice of typographic fonts, to represent premium it was found that a cursive or complex font was found to be a more unique choice (Ampuero & Vila, 2006, Gmuer, Siegrist, & Dohle, 2015). This choice furthermore contributes to differentiating the brand from others (Velasco, Hyndman, & Spence, 2018; Velasco & Spence 2019).

IMAGERY

Imagery is found to be the third packaging graphical element. It has the purpose to enhance the perception of the product in a sensory manner (MacInnis and Price, 1987). It has the ability to improve the brand's loyalty and association (MacInnis & Price, 1987; Underwood et al, 2001). The image on a package could enhance the informational aspects of the product (Fitzgerald Bone and Russo France's, 2001). Colour can be used to enhance the perception of premiumness (Dawar & Parker, 1994; Mugge et al., 2014; Spence, 2016b).

QUALITY PACKAGING IMAGERY



From the survey, it was found that the consumers prefer the brand and secondly the product in image form on the premium coffee packaging.

TEXTURE

Many materials can incorporate textures not only to enhance the visual aspects but in a touchy-feely property improving the interacting experience. Furthermore, the texture can be designed to enhance the practical grip or handling of the packaging. To design a package that is perceived as premium textures are subtle rather than used to a full (Stewart, 1995).

ICONS

To communicate the best message both symbols combined with images are used on the packaging design (Keller, 2009; Simmonds & Spence, 2017; Velasco, Woods, Petit, Cheok, & Spence, 2016c).



The above icons were mentioned from our survey participants to need to be displayed on premium and green coffee packaging.

From the findings of step 1 to 4 concept sketches were drawn and conceptualised for each of the coffee packaging shapes:

CONCEPT SKETCHES







CONCEPT MOCK-UPS



FRONT SIDE DARK ROAST BEANS 200g

Small Circles Gradient start with black to white from top to bottom

BACK SIDE DARK ROAST BEANS 200g

Small Circles Gradient start with black to white from top to bottom

CONCEPT MOCK-UPS



FRONT SIDE MEDIUM ROAST GROUND 200g

Big Circles Gradient start with white to black from top to bottom

BACK SIDE MEDIUM ROAST GROUND 200g

Big Circles Gradient start with white to black from top to bottom

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REFINE ALENT

6. REFINEMENT

After the design concepts have been conceptualized the fifth step in the packaging design process is the materials also known as the refinement step. The chosen materials for the packaging should have the ability to act as a protected layer that preserves and function as a marketing tool and distribute food (Marsh & Bugusu, 2007; Raheem, 2012). The correct material is a critical choice as the food constantly interact and come in contact with the material which can affect the product to change, until the product has been consumed (Marsh & Bugusu, 2007; Raheem, 2012). Packaging material generally consists out of two types namely flexible or rigid (Raheem, 2012). Containers categorized as rigid comprise of materials such as glass, tins, plastic, cans, wood, pottery and drums (Marsh & Bugusu, 2007; Raheem, 2012). These materials function as a physical protection outer layer. On the other hand, the flexible materials form part of the inner layer creating a seal for the food in the inside. These materials consist of options like plastic films, foil, papers, cloths and fibres made out types of vegetables (Marsh & Bugusu, 2007; Raheem, 2012).



Another aspect one has to take into consideration is the complete packaging life cycle and how it affects the environment (Silvestre et al., 2011). This life cycle stretch from the raw material obtaining to the production line, transporting and delivering systems up until the product is purchased, consumed and disposed of (Chaffee and Yoros, 2007). An aspect that builds on the life cycle evaluation is the cradle-to-cradle concept of a zero impact on the future generations, this sustainability objective focusses on material and energy recovery (McDonough and Braungart, 2002). Innovators are constantly experimenting

to develop new packaging materials to contribute to this sustainability objective (Raheem, 2012). It has been established that the foremost consumer requests are – convenience packaging that contributes to making life easier, quality in the form of product and enhanced shelf life and lastly recyclability packaging materials focusing contributing to the decrease in the environmental impact (Mergaert and Swings, 1996; Tokiwa et al., 2009; Fox, 1989).

PREMIUM

The pleasant smell of a product and its influence on 'premiumness' needs to be considered carefully (Velasco & Spence, 2019). In the case of coffee the product can be smelled through the packaging for many of the brands, however starting to add smell to the product package might create the expectation that it will influence the customer's evaluation of the brand with the condition that this sensory element must not be unpleasing can then become a specific feature of the product (Velasco & Spence, 2019).

GREEN

The influence of the environment on customers is an essential matter for business to take into consideration. In modern times all the economic entities (governments, businesses, households) taker note of environmental issues and how to solve them. Many countries have promulgated regulations and legislation on the use of materials and trade practices (Maffei & Schifferstein, 2017). The process of coffee farming has been enhanced to lessen the impact on the environment and improve sustainability in the production of coffee. This improvement process commences from the extracting of the coffee to the design of the package (Salomone, 2003). It is introducing an improved application of the coffee packaging material by using biodegradable and recycled materials that cause less pollution (Salomone, 2003).



ECO-FRIENDLY PACKAGING

Packaging classified as eco-friendly is composed out of recycling, biodegradable materials which decrease the amount of waste of ecological resources for manufacturing. Manufacturing that follows an eco-friendly process has the ability to produce a more proficient reduction of resources and harmful impact on the environment (Go Green Food Packaging, 2020).

These were the consumers' material perceptions from the survey that represents premium coffee quality packaging and consumer rated 4-star importance for smell:

QUALITY MATERIALS



THE IMPORTANCE OF SMELL THROUGH THE PACKAGING

From the coffee packaging requirements, consumer perceptions and the eco-friendly considerations, materials choices that overlap these requirements and that are found in South Africa are listed and discussed below:

GLASS

The components that are used to construct glass are limestone, soda, sand and silica, melted together and moulded while in a hot state (Welt, 2005). According to the Design for Recycling for Packaging and Paper in South Africa, it was established that glass can be recycled infinitely while it recollects the original properties during the process. It further never decays and the recycling saves energy and carbon emission reductions during the manufacturing of new glass packaging (Packaging SA, 2017).

FOIL PAPER

The naming convention of foil paper is also known as aluminium foil or tin foil in South Africa. Foil paper in its basic form is aluminium constructed into thin metal leaves. Foil paper structurally is designed for packaging to act as a protection layer against aspects such as oxygen, light, moisture, odours and germs. It has the characteristics to be easily rolled, folded or packed (Packit, 2020). Aluminium has the ability to be recycled indefinitely while keeping its inherent quality (Packaging SA, 2017).

PAPER & PAPERBOARD

The components that compose paper and paperboard are a sheet material made out of an interlaced network of cellulose fibres gathered from wood. These fibres are made into a pulped mixture further treated and bleached with chemical elements and strengthened agents (FCIS report, 2011). It is found that paper has good characteristics to be printed upon and be biodegradable (FCIS report, 2011). Three options of paper to look at are **'kraft paper'** the strongest of all papers (Raheem, 2012), **paperboard** even thicker layered paper that has a higher weight per unit (Soroka, 1999; Marsh and Bugusu, 2007), and lastly **white board** several thin layers which are typically used as the inner layer of carton (Raheem, 2012).

Paper Manufacturers Association of South Africa (PAMSA) is acknowledged as the 'voice of the pulp and paper industry' and promotes the use of paper as a renewable, recyclable and versatile material for communication, packaging and a myriad of other applications. All manufactured paper is 100% recyclable without any added foil or wax layers (Packaging SA, 2017).

RECYCLABLE PLASTIC

Recyclable plastic is a thermoplastic starch (TPS) high barrier recyclable material that is made with level 4 recyclable low-density polyethylene (LDPE) (Packaging SA, 2017). It is designed to have the same protection as flexible packaging materials keeping the product at the highest level of freshness. The recyclable plastic fulfils the requirements of food interaction regulations and has versatility in design and recyclable processes (The Pouch Shop, 2020).



WOOD CELLULOSE

Another biodegradable material is clear cellulose material made from renewable and natural FSC certified sustainable wood fibre (Green Home, 2020). This material has the ability to be heat sealed and has a high barrier to aspects such as grease, air and bacteria. This material is classified to have a lower carbon footprint than petroleum-based plastic and can further be composted from home, commercial compost facilities or worm farms (Green Home, 2020). The manufactures of this material only use sustainable tree harvesting to create this material contributing to the balance of the ecosystem (Green Home, 2020).

WAX

Another food and packaging coating layer material is wax. Most waxes are made from petroleum such as paraffin candle wax and are used to make candles, wax paper, lubricants and other products. More regular waxes are made as printing ink, coatings, adhesives, laminated paper and many other products as well. Natural wax that has a more natural toxic chemical-free characteristic are natural candle wax such as beeswax, coconut wax, soy wax and palm wax, these are found to be more expensive (Home made candle creations, 2020).



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7. BACK DESIGNS



Back labels is a platform for the graphic designer to use their creative magic to ensure that all of the legal and mandatory guidelines are followed. For example information on ingredients, barcode, nutritional facts, and packaging codes to name a few (DesignerPeople, 2019).

GREEN

Researchers investigated three types of sustainable certificates for coffee and the willingness for consumers to purchase them, namely: organic coffee certifications, fair-trade and shade-grown (Loureiro and Lotade, 2005). It was found that eco-friendly labels increase the consumer's purchasing decision (Bernard, Bertrandias and Elgaaied-Gambier, 2015).

Coffee packaging categorized as being environmentally friendly has up to seven types of certified labels (Grieg-Gran, 2005), this influences the concerned environmental consumer to evaluate the health, safety and ecological friendliness (Van Loo, Caputo, Nayga, Seo, Zhang and Verbeke, 2015).

PREMIUM

The current definition for the term premium is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). The purchase decision is influenced by the price of the product and the quality (Ksenia, 2013). Customers perceive higher-priced

coffee as of a higher quality than lower-priced coffee (Harith, Ting, & Zakaria, 2014; Holmes et al. 2012, p. 110). The consumption of coffee is driven by individual bias, financial aspects; product elements; the locality of usage; demographics and sustainable coffee (Samoggia and Riedel, 2018).

Consumer behaviour from a marketing view is often referred to as activities that follow a process (Bloch and Richins, 1983; Gardner, 1985; Vieira, 2013). In Figure 2, the influence of the package on the use of the product is depicted. The first thing that gains customer attention is the design of the product. Underwood, (2003) and Underwood & Klein, (2002) reported that when a customer is purchasing the product, he/ she can assess the smell, the look and the quality of the product by looking at a good looking packaging.





By looking at the visual aspects, the customer is judging information about the product and the content of the package (Harith, Ting, & Zakaria, 2014). The design of the package could make the customer want to buy the product and once the purchase is made the demand for the product and the strength of the product is established (Harith, Ting, & Zakaria, 2014). Information provided on the product will increase customers liking the product and make the sale more likely (Anderson, 1973; Cardozo, 1965). The conclusion from this is that branding increase product value.

INGREDIENTS

- · 100% Arabica Beans
- ·100% Organic
- · Allergens: none need to be listed.
- ·Nutritional facts: none need to be listed.

If your blend is 100% organic, you can get special certification and include this status on your stickers and labels. If your coffee is fair trade certified, this is also another great one to include on your labels

BARCODE/ BATCH NUMBER/ BEST BEFORE DATE

The barcode, batch number and best before date will be designed and placed at the bottom of the label and packaging. These numbers change constantly and need to be updated according to the store selling the product to align with their coding price system.



COFFEE ORIGIN

The client requested that a coffee origin indication should be added to the backside of the packaging design. The current coffee origin locations are Colombia, Honduras, South America, Guatemala, Kenya, Burundi, Ethiopia, Ugandan, MoCo Africa and Silvermist Mountain. The solution to this request was to design a unique map made out of these continents. The client now has the option to indicate the coffee origin with a small red sticker on the chosen continent.

CERTIFIED LABELS

Once the product and packaging fulfil the requirements to be fully sustainable and recyclable according to the Packaging SA guidelines, a certified green label can be added to the design. Sustainable, without compromise, MOCO Coffee roasters only source from sustainable and Fairtrade beans, putting the profits in the hands of the people that really benefit.

WASTE PROCESS

The waste process and recycling can be indicated with an icon and type of packaging material and further instructions can be added in the inside of the paper label for each different packaging option and materials. These instructions would best be communicated with infographical imagery or icons combined with short descriptions.

ROAST LEVEL

The roasting level is indicated in front of the packaging with the wording dark roast or medium roast. The roast level is also indicated with colour. The dark toast starts with a gradient from black to white, top to bottom, and the medium roast is indicated with a gradient from white to black, top to bottom.


ROAST DATE

The client further requested to add a personal roasting date label. This label was designed in the form of a sticker to seal the paper label once the paper label has been wrapped around the packaging. This creates an opportunity for the client to individually print the roasting dates according to the manufacturing of the product. This label and information add a personal touch to each product and packaging.





NET CONTENTS

This is the mass of product in the packaging. It could be in milliliters, grams or kilograms depending on the product. MOCO Coffee quantity is indicated at the bottom of the front side of the packaging. The two mass options are 200g and 1kg.

TASTING NOTES

On request of the client, tasting notes will be designed and added to the inside of the paper label. Further, this space can be used to inform the coffee user how the coffee can be consumed in more than one product use, for example, coffee utilized as an ingredient in a coffee cake recipe. Another concept could be MOCO Coffee's story as consumers want to know more to feel connected to the brand and their coffee identity. This information can be updated with new topic ideas as the calendar terms change with seasonal themes, for example, Christmas, etc.

CONTACT DETAILS

The client explained in his briefing session that their contact details had to be added to the back design to create an opportunity for the coffee user and MOCO Coffee to connect with one another and form part of a coffee community. This element creates once again a personal touch to the design and the consumer feels important.



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8. PRINTING



After all the design stages have been completed the client view and approve the final packaging label design. The highest quality of the artwork will be set-up to be ready for the printing stage of the packaging design process. During the printing step, the designer needs to have an understanding of the following aspects to set-up the file correctly. The first is the printing

colour process and to be able to decide whether to use CMYK (Cyan, Magenta, Yellow and Black) or Pantone colours. The second is the file-format requirements such as digital or offset printing settings, adding a bleed around the artwork and cut off dielines. The third aspect is the type of material followed by the type of inks. The designer works closely with a printing press or agencies to create the pre-press and digital-ready states of art (DesignerPeople, 2019).

COLOR OPTIONS

Different printing companies will be able to colour-match the Pantone colours but low-priced options might have limited colour choices (Morr, 2016). **Pantone** (PMS) is a catalogue of standardized printing colours. Each colour has an assigned number and can be reproduced nearly identically by any printer (Morr, 2016). **CMYK** stands for cyan (blue), magenta (red), yellow and key (black). These are the four colours used in printing. Each colour has a CYMK code that a printer will use to help colour match between your design and the finished package (Morr, 2016).

COLOUR OPTIONS



cyan (blue), magenta (red), yellow and key (black)



PANTONE (PMS)

FILE-FORMAT REQUIREMENTS

The designer needs to prepare the file to be print ready in a vector file PDF or EPS format created with programs such as Adobe Illustrator and Photoshop with the design is layers if and when printing finishes are used (Morr, 2016). Digital printing method is where the files are sent through to the printer digitally, each piece is printed individually. This printing option is ideal for small printing projects with short turn around times (Morr, 2016). Offset printing is a printing method that utilizes plates of the designs printed with CMYK colour barrels. These plates are run through large industrial printers to create large volumes of prints. This option is very costly as it requires the plates to be produced (Morr, 2016). Bleed is used to create space for a margin of error. The design is added over the edges to ensure enough space for when the design is cut to the required size as the cutting machines can make millimetre mistakes (Morr, 2016). Dielines The flattened pattern of your product packaging. Designers and printers use them to create the proper layout for a package and to identify the correct cutting lines (Morr, 2016).



MATERIALS

Eco-Friendly Paper

It is very important to determine whether the printing machines use eco-friendly paper or not. There are two aspects that needs to be taken into consideration when choosing the printers and their paper. The first aspect is where the paper comes from and the second is how the paper has been treated. The first aspect could ensure that the paper is recycled paper or sustainably farmed paper. The second aspect of how the paper is treated relies on whether the paper is chlorine-free. Elemental Chlorine Free (ECF) paper is bleached using chlorine dioxide (as opposed to chlorine gas) to create the white bright colour. It is also a reduction in the toxicity of the paper. Another option is Totally Chlorine Free (TCF) paper which is treated with a process that is complete chlorine-free (Vracar, 2012).

MATERIALS & INKS



INKS

Eco-friendly printing inks

Litho-printing is a toxic ink system that smells strongly of ink or alcohol. Those fumes that you are smelling are VOC's (volatile organic compounds) which are chemicals given off in the printing (drying) process that contribute to global warming. The new and improved eco-friendly inks are made of vegetable and soy-based inks and the printing processes do not give off these VOCs, so you won't smell that strong waft of inks (Kit, 2012).

Print It ZA eco-printing – Go a greener way

Print it ZA is an eco-friendly printing company based in Johannesburg, South Africa they offer Litho and Digital Printing. They are inspired by the core principles of eco-consciousness, they keep a close watch on every step a sheet of paper goes through within their facility. This approach allows them to:

- Reduce the use of bleaching chemicals by offering many alternative paper types (sugar cane, bamboo, etc.)
- Bid farewell to arsenic, lead and other heavy metals found in standard inks by replacing them with vegetable-based and Soy-Based Inks.

- Minimise fossil fuel and energy consumption as a result of implementing advanced green printing solutions, presses, etc.
- Prevent the overexploitation of some natural resources by turning to more accessible, renewable and biodegradable ones.
- Reduce the effects of rubbish-related chemicals and greenhouse gases thanks to the well-thought-out recycle system for all our toner cartridges, inks and supplies.
- This green approach starts with their equipment, goes to their employees and extends to the consumer business.

Go Green and Team up with Print It ZA, one of the eco-friendly printing companies that are here to turn the world into a safer place (Print It ZA, 2021).

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9. MANUFACTURING



Designers should keep in mind what happens after the packaging has fulfilled its purpose during its lifespan. Food packages become redundant immediately after consumption. Sustainability is therefore vital to consider in the packaging design process and to reduce wastage. Packaging reduces food wastage from manufacturing to consumption (Gustavsson et al. 2011). This reduction is the reason why designers need to find the balance between the quality of the package and the impact on the environment (Maffei & Schifferstein, 2017).

After all the design stages have been completed and the client approved the final packaging label design, high quality of artwork is prepared for the printing stage and is followed by the manufacturing of the packaging design process. With the continued documentation of the packaging design process, it was established that three designs options will be created to represent different aspects of sustainability and premium quality. The first is the generic coffee packaging shape in the form of recycled plastic material. The second is a cylindrical wax shape packaging that represents re-purposing and partial biodegradable aspects. The third is a dual packaging in the form of a glass bottle that can be re-used by purchasing the complete biodegradable refill sachets.



To continue with the manufacturing stage of the process, South African Product manufacturing regulations need to be taken into account.

According to the Department Of Agriculture, Land Reform and Rural Development in the Regulations Relating to Coffee, Chicory and Related Products Intended for Sale in the Republic Of South Africa, also known as the Agriculture Product Standards Act state the following container requirements:

REQUIREMENTS FOR CONTAINERS AND OUTER CONTAINERS

- (1) A container in which coffee, chicory or related products is packed shall
 - (a) Be manufactured from a material that -
 - (i) is suitable for this purpose;
 - (ii) will protect the contents thereof from contamination; and
 - (iii) will not impart any undesirable taste or flavour to the contents thereof;

(b) be so strong that it will not be damaged or deformed during normal storage, handling and transport practices;

- (c) be intact and clean; and
- (d) be closed properly in a manner permitted by the nature thereof.
- (2) If containers containing coffee, chicory or related products are packed in outer containers, such outer containers shall
 - (a) Be intact, clean, neat, suitable and strong enough; and
 - (b) Not impart any undesirable taste or flavour to the contents thereof.
 - (Department Of Agriculture, Land Reform And Rural Development, 2020)

All of the options comply with the regulations above and will be discussed in detail below. Each of the options has a one-way valve and has an eco-friendly paper label.

PACKAGING OPTION ONE

Recycled Plastic Bag

Recyclable plastic fulfils the requirements of food interaction regulations and has versatility in design and recyclable processes (The Pouch Shop, 2020). This packaging will be manufactured and purchased from The Pouch Shop. The package is made out of black recycled plastic material with a foil inlay and a one-way valve that contributes to the smell of the multisensory interaction experience. Suitable for fast turnaround products where shelf life is not an issue. They have a good water barrier and UV properties. The design is finished off with an eco-friendly paper label.

PACKAGING OPTION ONE



PACKAGING OPTION TWO

Wax Cylindrical Packaging

Packaging option two is manufactured through the brand itself with wax material which is made from petroleum such as paraffin candle wax which is the strongest type of wax and is used as the outer layer of the packaging. The wax is dyed with a black coloured oil soluble powder dye to give it an even colour another option is black crayons as it is also made out of paraffin wax. The candle has two wicks to ensure all of the candle wax is used up when lit. The first is wrapped on the inside of the candle wax shape and the second is at the bottom of the container. A foil sachet is placed on the inside of the wax container to protect the product. Covering the top of the wax container is a paperboard cap with a transparent one-way valve. As the wax is the outside layer the paper and wax sliding over one another creates a sealed barrier.

Steps to follow to manufacture the candle packaging: Melt some candle wax in a double boiler (a pot in a pot of water). Once the wax is melted you can add the black candle dye. Use a toothpick or "sosatie stick" to measure out a pinch of candle dye. This dye is highly concentrated therefore you only need a small amount. Stir gently until the candle dye has completely dissolved in the melted wax (Candle Deli, 2020). The wax is poured into a mould made out of an outer layer of glass and an inner layer cardboard container. Prep the mould with an oil layer on the glass. Wrap the long wick around the inner cardboard mould. Pour a two-finger wax amount into the glass container. Place the small wick in the middle until it completely sets. Place the cardboard mould over the wick and into the glass container. The wax is poured in a layered format with used coffee grounds in between, wait for the wax to start to set between layers. The used coffee grounds create a coffee smell sensory experience. The out layer of wax packaging will smell like the product on the inside and as the candle is lit the coffee aroma will spread through the house as a sensory reminder to the consumer to purchase the coffee again. Remove the wax packaging by placing the entire mould in an ice bath container, the wax will shrink away from the sides of the mould. After the wax packaging is removed from the mould a warm metal circle impression is pressed onto the outer layer of the wax to create a textured sensory touch experience.

The candle making supplies can be gathered from Candle Deli or The Factory Store. The foil inner layer bag can be purchased at any Plastilon or spice supply shops. The paper tube cap is made out of black 120 to 1200 grams thick paper material purchased at any craft shop with the one-way valve which can be purchased at Coffee Bags or Tricorbraun Flex, placed on the inside at the top of the cap. The design is finished off with an eco-friendly paper label.



PACKAGING OPTION TWO

PACKAGING OPTION THREE

Glass Cube Shape Packaging

Packaging option three is a glass bottle with a tin turn on cap. This packaging is manufactured by Consol. According to the Design for Recycling for Packaging and Paper in South Africa, it was established that glass can be recycled infinitely while it recollects the original properties during the process. It further never decays and the recycling saves energy and carbon emission reductions during the manufacturing of new glass packaging (Packaging SA, 2017). The transparent one-way value is added to the top tin turn on cap. The design is finished off with an eco-friendly paper label.

The refill bio-based 300ml clear wood cellulose gusseted bags are purchased from Green Home. This bag is made out of biodegradable material which is a clear cellulose material made from renewable and natural FSC certified sustainable wood fibre (Green Home, 2020).



ECO-FRIENDLY PAPER LABEL

The eco-friendly paper label can be printed at Print it ZA who is an eco-friendly printing company based in Johannesburg, South Africa they offer Litho and Digital Printing. They are inspired by the core principles of eco-consciousness, they keep a close watch on every step a sheet of paper goes through within their facility. This green approach starts with their equipment, goes to their employees and extends to the consumer business. Go Green and Team up with Print It ZA, one of the eco-friendly printing companies that are here to turn the world into a safer place (Print It ZA, 2021).

TRANSPARENT ONE-WAY VALVE

101BR

The Biotre[™] RENEW Valve is made from 100% renewable, plant-based material completely eliminating the use of fossil fuel-based plastic in the valve body. It allows the same off-gassing as their standard Heat Sealing Valves and provides the same superior freshness protection. The valve adheres to the polyethylene (PE) interior of a package via heat seal, just like our standard Heat Sealing Valves, and can be applied using existing equipment in the field. Supplied with filter (Tricorbraun Flex, 2020).

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JISTRI BUTION

10. DISTRIBUTION



Packaging can be divided into three categories namely: primary, secondary and distribution packaging (Kotler, 2002), it can further be divided into two other categories: convenience and wasteful packaging (Copley, 2004). Packaging contributes to simplifying the process of distribution of products to the consumer (Büsser & Jungbluth, 2009). Distribution has a broader approach by paying attention to the life cycle of the product within the packaging, from manufacturing to consumption to determine the entire system's environmental footprint to create a respectful sustainable production and consumption process (Büsser & Jungbluth, 2009; Kelsey, 1985).

The quality of the product can be affected during the distribution process in a chemical, biological and physical manner. Therefore the food packaging has to extend the shelf life and maintain the safety and quality of the product (Kelsey, 1985; Han, 2005).

Distribution in simple words comes down to making a product available to the target market by distributing it through elements of transportation, packaging and delivery (Sonntag, 2017). Furthermore, a distributor is a company that works on behalf of the brand by purchasing the product, gathers them in a storage facility and sells them through channels of distribution. They work between the companies that manufacture the goods and the retailers that sell the goods to the consumer (Sonntag, 2017).

SUSTAINABLE COFFEES

The sustainable coffee distribution market has expanded immensely over the last couple of years. This is the result of an increase in the number of traders, incorporating some of the largest global companies' exponentially getting involved. The retail intensive distribution supermarkets have infused themselves with speciality retailers. Broadening the exposure level to these types of coffee (Giovannucci & Koekoek, 2003). With this positive shift, the consumers are losing the personal touch and attention from the specialized retailers which

introduced them to sustainable coffees. Therefore branding, promotional and advertising strategies need to be put into place to compete with the lower-priced brands (Giovannucci & Koekoek, 2003). The retailers in the end have the power to decide which products are distributed and placed on the shelf. Some green businesses try to make the change of their position by having more sustainable coffees represent what they stand for (Giovannucci & Koekoek, 2003).

DISTRIBUTION CHANNELS

A distribution channel is described as the movement of a commercial sale between the manufacturer and consumer. There are four levels that describe this kind of sale process from manufacturer to consumer. The first level is a direct sale from the manufacturer to the client. The next level has one person in between for example the retailer. The third level has two people that work on behalf of the producer for example the wholesaler selling to the retailer. The last level has three people the only person that is added is an agent that works on behalf of the wholesaler (Sonntag, 2017).

DISTRIBUTION CHANNELS



TYPES OF DISTRIBUTION

To find the right type of distribution process one has to understand that there are three types of distributions. The first is the intensive distribution that aims to supply to as many outlets as possible and connect with as much of the market. The second is a selective distribution that focused on specific outlets within the chosen location. Creating a more customizable shopping experience. The last is an exclusive distribution with limited chosen outlets to promote luxury and exclusive brands (Sonntag, 2017). The current definition for the term Premium is a higher than normal quality product and packaging, with high prices, only offered through distribution channels of high quality and advertised on a selective basis (Quelch, 1987, p. 39; see also Anselmsson, Bondesson, & Johansson, 2014; Lyons & Wien, 2018; Sjostrom, Corsi, & Lockshin, 2016). MOCO Coffee will fall between a selective distribution and exclusive distribution.



DISTRIBUTION PACKAGING

The MOCO COFFEE brand has two distribution packaging channel options. The first is the generic distribution company that uses a square cardboard box to pack and transport the coffee bags to the retail stores, this is also known as secondary and tertiary packaging. This option will work with packaging option 1: the recycled plastic bag. But for the second and third packaging options, another packing decision needs to be made as these two are made out of a more fragile material known as wax and glass. The second distribution packaging option has to be custom made. When looking at the box or container the product needs to be transported in a reusable recycled plastic container that can be designed and created in the form of a retractable shape to become more than one size container. This will benefit any company once the amount of product distribution is increased. Added to this design are retractable sliding dividers providing support for each product.

The two distribution packaging protecting layer options will not only protect the product but facilitate the amount of time and packaging material that is being used by the distribution companies. The first design is a material known as HEXCELWRAP or FLEXI-HEX. The product is wrapped with the material and placed into a cardboard box. The second is a custom recycled plastic bottle container holder that can be reused with every delivery.

DISTRIBUTION PACKAGING



"HexcelWrap is a product made from easily recyclable and 100% biodegradable materials. It is seen to be the seamless protective packing material substitute for bubble wrap and foam" (Cartier, 2019).

HexcelWrap offers numerous advantages:

- HexcelWrap offers numerous advantages:
- It's made from Forest Stewardship Council® (FSC) certified paper.
- It reduces packing time.
- Less packaging material is required per order.
- It has a smaller storage footprint (using up to 80% less space).
- It reduces product damage.
- It's eco-friendly.

"This solution is a self-sealing, interlocking design, keeping products in place without the use of adhesive tape. The protection of this product's hexagonal cells further reduces the risk of damage. The fact that it is paper-based, reinforces reusability, compostable and recyclable aspects" (Cartier, 2019). "Its continuous perforation means that you can easily tear off the exact length of material you need. Less cubic space is required. HexcelWrap is ideal for wrapping glass or ceramic products, cosmetics, electronics and other fragile items. It offers the additional advantage of supporting smaller box sizes for reduced cubic space usage" (Cartier, 2019).

"With its unique patented honeycomb design, Flexi-Hex is a great alternative to plastic and other protective packaging solutions such as polystyrene and is much more costeffective than other paper solutions such as 'pulp' packaging" (Kite, 2020). "Extremely strong and adaptable, it is suitable for glass, bottles, homewares, ceramics and much more. Simply place the product between the two-honeycomb structures and use it in conjunction with Kites single wall outer box for the ultimate protection during transit" (Kite, 2020).

"Another option from this company is CORRUGATED SLEEVING. Designed to mould itself around a variety of shapes, this 100% recyclable and biodegradable corrugated sleeving is suitable to protect a wide range of products, from glass, bottles, ceramics, jars, homeware and many more" (Kite, 2020). "Moisture resistant, adaptable, and extremely easy to use they are a lightweight plastic-free alternative. Simply place the product in-between the cylinder shape structure and place it into postal boxes" (Kite, 2020).

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11. SHELF PLACEMENT



PACKAGING AS A MARKETING TOOL

Marketing is the tool that a business can use to reach strategic goals to survive while facing change from competitors (Stewart, 1995). From the early days, it was observed that packaging could form part of the marketing framework of consumption as the 'silent salesman' (Porter, 1999; Chao, 2010, Underwood, 2003; Sivagnanasundaram, 2019, Stewart, 1995).

Packaging as a marketing tool has transformed consumerism from traditional personal interaction to faceless un-personal persuasion through the graphic elements of the package (Maffei & Schifferstein, 2017; Baker 1989; Olins 1978). Designers have strained to use the power of packaging in a humanizing manner by adding the brand's individuality, agency and tone of voice (Baker 1989; Olins 1978; Aaker 1997; Blackston 1993).

The communication of the characteristics of products and what a brand stands for are not only done verbally or visually but can be communicated through sensory means which will add to the way customers perceive, experience and rate a product with its package (Lindstrom 2005; Schmitt 1999; Orth and Malkewitz 2008; Spence and Piqueras-Fiszman 2012). Instead of visual packaging elements (Becker et al. 2011; Mizutani et al. 2010), the customer's behaviour can furthermore be influenced by touching (Krishna and Morrin 2007; McDaniel and Baker 1977), hearing (Brown 1958), tasting and smelling elements (Schifferstein et al. 2013) that are all sensed when customers look at a package or open it.

Customers may sense inputs from non-visual senses less, but find intuition and emotions more engaging (Schifferstein and Cleiren 2005; Schifferstein and Desmet 2007). The shelf placement and the lighting of the product can draw the shopper's attention, and also the lighting type has a direct impact on the perception of the quality (Suk et al. 2012; Barbut 2001). Also, the outlet character creates an atmosphere for selecting the product and how the food is perceived when eaten (Wheatley and Chiu 1977). It is essential for food packaging to be 'in your face' on the shelves of retailers so that customers see them with ease. The way products are displayed in shops to increase sales is, however, a discipline on its own (Harith, Ting, & Zakaria, 2014).

The buying behaviour of customers was studied by testing various designs for packages on the shelves itself and in a virtual display (e.g. Burke et al., 1992; Garber et al., 2008). Food producers need designers to design attractive packages and packages that stand out on the shelves among packages of competitors. The shape and colours are paramount as customer's trolley down long aisles in the store and see the visual aspects of the package from an angle long before they can read the fine detail (e.g. Garber et al. 2008).

The result is that package design must be designed for the shelf as well as the consumer's consumption at home. Packaging researchers have underlined the significance of having an attractive quality design (Kano, 2001, Yamada, 1998) as this element has been overlooked by quality designers who instead endeavoured to correct errors in design functions (Kano, 2001).

IN-STORE PACKAGING APPEARANCE

Multiple questions need to be asked in order to create a high level of shelf impact. The first is how much of the packaging is visible on display on the shelves. The frontal view is mostly the biggest angle of the packaging, therefore it is vital that the most important information is placed in the front and centre. The second question is what kind of display it will create once the packaging is placed next to one another or on top of each other. The third question is what the display experience will look like in comparison to the competition around the product (Morr, 2016).

It was found through observation that the product that is placed on eye-level are seen first. The products that are priced at a lower amount are placed on the bottom levels of the shelves. The most expensive products are placed at the top end of the shelves. Finding the right level on the shelves is a crucial aspect in influencing the consumer's buying behaviour. It was found through literature and field research that products with unique packaging catches the viewer's eyes and intrigue them to come closer and inspect the product further. This inspection creates an opportunity for the consumer to experiences the packaging in an enhanced sensory manner.

IN-STORE PACKAGING APPEARANCE



SHELF LIFE

Shelf life comes down to the time period of which the product in its primal form and is defined to be acceptable for consumption. In other words, shelf life signifies the time period the product can continue on the retailer and consumer shelf's before unacceptableness is expressed (IFT., 1974; IFST., 1993; Labuza and Schmidl, 1988).

With time the development and increase of the manufacturing and distribution channels have necessitated extended shelf life for the roasted coffee products. With this requirement, the stability of the coffee products required the most attention. Taking these aspects into consideration the packaging materials combined with the packaging processes was reevaluated to accomplish the required shelf life. The roasted coffee's shelf life is affected by the interaction of the coffee and its packaging, which is a result of the coffee colliding with the environmental conditions in and outside the packaging (Nicoli, Manzocco and Calligaris, 2010).

Coffee from a consumer's homes perspective is almost never opened and consumed immediately after it has been purchased. With this in mind, the coffee package is regularly opened and closed which could speed up the degradation and interaction with its outer environment conditions. This is known as the secondary shelf life (Cappuccio et al., 2001). The secondary shelf life is represented by the time period the product is seen on an acceptable level after the packaging has been opened.

PACKAGING SHELF LIFE



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12. WASTE PROCESS

GREEN CITIZEN

The waste of packaging influences the consumer's perception of quality towards the brand identity (Lindh, Olsson, & Williams, 2016; Lindh, Williams, Olsson, & Wikström, 2016). This places increased pressure on manufacturers to reduce the impact of their packaging on the environment.



Recycling in the past was driven by the fact that recycling people was scarce, now it shows ownership by citizens, following social patterns and what is expected of people, to care for the environment. This group is called green consumer-citizenship. Being a citizen means that the person belongs to this community (Jørgensen, 2013). The citizen consumer becomes a member by how they display buying or not buying actions, the brands they follow, the brand communities they form or the organisations that speak for them they support (Johnston, 2008).

The consumer who is a green consumer citizen can be classed as a subgroup of consumers who are active in society, shown by their habits in consumption of products and being aware of the life cycle of the product from production to recycling of the waste. This action is an expression of green citizenship, and they do not function on their own (Jørgensen, 2013).

John Barry (a political scientist) argued that governments do not become green on their own; they need to be forced by green citizens to follow environmental processes. On the flip side, the government needs to assist and encourage citizens to form green habits and actions that are the basis of citizens showing sustainability (Barry, 2006).

The decisions to consume or recycle is based not only on the person's values but also on knowledge and facts, disposal structures, ease of obtaining a new service or product and timelines. Many other players besides the customer are involved who are the government, businesses and organizations. The analysis of Cowan's show the consume junction as the interface where technology changes social structure (Cowan, 1987). Thomas Hine (a packaging historian) argues that packaging can be powerful to communicate which need the product will satisfy, the package can also show the waste once the product has been used. The package is left as waste (Hine, 1997).

WASTE MANAGEMENT PLAN

Packaging SA was requested by the Environmental Affairs to draw up an industry waste management plan, they focused on the packaging and paper industry (2010). The draft

plan was revised in 2014 and again in 2017. This remains the main plan to guide the industry doing their part in taking care of the environment by redesigning their packaging according to the 'Design for Recycling' manual (Packaging SA, 2017). Each of the packaging design materials chosen was based on the information found in the Design for Recycling manual. See the 'design for recycling' definition according to the Packaging-SA-EPR-Plan-Volume-1-1 dated 5 September 2018, below:

Design for recycling	The strategy and/or operation to design a product or packaging in such a way, that it can be entirely recycled, and if not entirely recyclable, the share of contents that are recyclable is optimized. The designed-for-recycling method incorporates recycling and recyclability criteria (e.g. easy to dismantle, easy to remove parts/components, etc.) into the design phase of products, with the aim of making the recycling of the packaging possible or easier. Examples are the avoidance of multilayer packaging, preferring clear PET instead of using
	certain colours, avoiding full-body sleeves around bottles etc.

Packaging SA. 2018. Extended Producer Responsibility (EPR) Plan

Summary of substances that constitute waste:

Waste	Waste means any substance, whether or not that substance can be reduced, re-used, recycled and recovered –
	 a) That is surplus, unwanted, rejected, discarded, abandoned or disposed of; b) Which the generator has no further use of for the purposes of production; c) That must be treated or disposed of; or d) That is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but-
	 (i) A by-product is not considered waste; and (ii) Any portion of waste, once re-used, recycled and recovered, ceases to be waste.

Packaging SA. 2018. Extended Producer Responsibility (EPR) Plan

WASTE MANGEMENT PLAN





Move from a governmentmanaged plan

Still in progress & no final plan

Packaging SA, 2020 The Packaging SA Extended Producer Responsibility (EPR) Plan was developed to respond to the request from the National Department of Environmental Affairs (DEA) Section 28 call for Industry Waste Management Plans published on the 6 December 2017 and submitted to the DEA on 5 September 2018. This plan goes beyond the requirements for an Industry Waste Management Plan, with the aim of answering the question: "How can an EPR Plan respond to the needs of South Africa and stimulate an economy that can foster meaningful work opportunities; encourage partnerships and provide a platform for transformation?" The definition of the Industry Waste Management Plans (IndWMPS) is found below:

Industry waste	Industry waste management plans enable collective planning by industry to manage
management plans	their products once they become waste and to collectively set targets for waste
(IndWMPs)	reduction, recycling and re-use

Packaging SA. 2018. Extended Producer Responsibility (EPR) Plan

Minister of Environment, Forestry and Fisheries (DEFF) announced the decision to develop and move from a government-managed plan to industry-managed plan. This process have been expanded over more than three years. This plan is still in progress and no final plan has been submitted. The Producer Responsibility Organisations have managed to increase their year on year recycle figures over the last decade to become world recycle leaders

(Packaging SA, 2020). According to Anton "We cannot afford to gamble with the future of our environment or our industry, but need a plan that will allow us to use collection and recycling mechanisms that have already been put into place and have proven to be successful. Enabling access to better quality and quantities of recyclable waste by introducing household separation-at-source nationally, and contributing to economic growth through unlocking new opportunities," (Packaging SA, 2020). As a result to this unpublished future industry-manage plan, all packaging designers use the waste disposal process from the Extended Producer Responsibility (EPR) Plan. The infographic below explains how and where to dispose and recycle each piece of packaging material (Packaging SA, 2018).



Packaging SA. 2018. Extended Producer Responsibility (EPR) Plan
WHERE TO RECYCLE

- 1. Use the MyWaste tool.
- 2. Find a drop-off centre near you.
- 3. Support a local community centre, church or school.
- 4. Keep recyclables aside for informal collectors.
- 5. Contract the services of a small recycling business (Recycle Paper, 2018).



Please R	Enter a location			
S	EARCH			
INY WASTE Bin Separator Image: Compared by: MYWASTE COMPARED by: MYWAS				



Why Recycle?

- Preserve the world's natural resources
- Protect the world's wildlife
- Keep plastic out of the oceans
- Recycling metal means there is less need for expensive, dangerous and harmful extraction of new materials
- Making products from recycled materials requires less energy than creating them from raw materials.
 Sometimes the difference is immense, for example producing new aluminium from recycled cans and foil uses 95% less energy than starting from scratch
- Trees take years to grow but can be chopped down in just minutes. That's why planting new trees isn't enough – we also need to recycle. Making paper from pulped recycled paper uses 40% less energy than creating paper from virgin wood fibers
- Create new jobs

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GROUND 2005

100% GREEN

DESIGN RATIONALE



1 Decision

The decision to use MOCO Coffee was chosen and consent obtained to be utilised as a conceptual real client for the redesign of their packaging by incorporating more sustainable packaging elements. The process was documented in a coffee table book and published, the process steps were posted on a continuous blog and video vlog post each month, starting from August 2020 to June 2021. Practical Portfolio entitled 3 Final Redesigned MOCO Coffee Packaging Options, a Coffee Table Book design and Documented 11 Step Packaging Design Process. The process steps documented and packaging options created followed a design through research-led based approach. The final three packaging options were designed according to each step by finding the balance between premium and green elements of the process researched and decisions made based on the research findings.

In today's marketplace, image is everything. How a company looks to the outside world sets the tone for all of the interactions – with customers, partners, media and other key stakeholders. One cannot afford to present an unprofessional or inconsistent image in a competitive and crowded landscape. Especially through the best image creating tool, words. Therefore Supremacy the researcher's personal freelancing brand is defined as 'The state of being supreme, 'Premium', 'Supreme authority or power' or in other words supplying the at-most supreme quality of work. Written on a high academic writing level and design terminology used in a playful manner. The slogan 'creating your lasting legacy' express the importance of social responsibility of making a change by incorporating green sustainable elements in design. Finding the balance between premium and green design at every touchpoint.



The personal beliefs of the designer need to be brought into balance with their creative actions. Their values should be an example of the changes they would like to see in the world. Designing can be a strong means to change the world around us. Design that set ethical standards can add to the quality of life experienced by future generations (Perkins 2006). Quoting Milton Glaser who said, "Good design is good citizenship" (Swoker, 2015). Well-designed creations are a necessary duty to the society and country of which designers are part of (Swoker, 2015). Good design has elements that when used correctly add to the greater good of the citizens of a country (Swoker, 2015).



	BRAND PROPERTIES				
Colours	Black, white and light brown colour scheme				
Fonts	Calibri and Franklin Gothic Medium Condensed				
Logo	MOCO COFFEE MOBILE - CRATTEN				
Product/pack imagery	Consists of branding, images of the product used on advertising platforms.				
Advertising platforms	Digital media				
Advertising style	Sleek, modern, simplistic and premium.				

	CONSUMER/ USER PROFILE				
Age	21-50				
Gender	Male and Female				
Location	Pretoria East, Gauteng				
Buying behaviour	Premium quality coffee and environmental concerned consumers				
Socio-economic groups	Upper and high middle class consumers				
Lifestyle	Wealthy				
Personality	Go getters				
Brand awareness/loyalty	High level				
Media	Well informed through news and social media platforms				
	PRODUCT DATA				
Product name	MOCO Coffee				
Product size	250g Pouch filled with beans or ground coffee				
Seasonality	All year round				
Distribution	Gauteng				
Competition	High to Medium guality coffee retail brands				





a) The Argument

The research problem was identified as high-quality coffee products have shifted their focus on their packaging being more environmentally friendly, therefore the definition for the term 'Premium' needed to be challenged. The literature and field research found has proven the hypothesis that in order to claim that coffee packaging is perceived as 'premium' it should incorporate green packaging attributes, to fully influence the purchasing decision of the coffee consumer. The aim of the practical research was to investigate how a Graphic Designer can find a balance between the multisensory premium coffee packaging and green coffee packaging design attributes. Furthermore, "a practical design approach needed to be established in order" to bridge the gap between the perceived idea of quality and the "actual" quality level of the product. The ultimate aim is to design in such a way that improves the coffee consumers' experience and take care of the environment simultaneously.

b) The Alternative

An alternative to the chosen artefacts, would be to use multiple premium brands in the analysis of finding the balance between premium and green packaging design attributes. This option would gather more information on multiple brands and consumer perspectives.

c) The Evaluation

It was evaluated whether or not each step of the process fulfilled the requirements of levelling out the balance between premium and green attributes. As the practical project was research-led every step of the process was justified to fulfil the requirements.

d) The Criteria

Each step of the process should fulfil the requirements of levelling out the balance between premium and green attributes.

e) The Issue

Self-manufacturing of the wax packaging option were found to be troublesome. The right solution would be to find the right wax packaging manufacturer.

2 Design Artefact



11 STEP PACKAGING DESIGN PROCESS

- 1. PACKAGING REQUIREMENTS
 - o Packaging Requirements
 - o Product Data
 - o Consumer Profile
 - o Product Brand Properties

2. RESEARCH

- o Client Research
- o Market Research
- o Design Strategies
- o Decorative Semiotics Language
- 3. DESIGN DIELINE
 - o Shape
 - o Size
 - o Scale
- 4. DESIGN CONCEPTS
 - o Colours
 - o Imagery
 - o Icons

5. REFINEMENT

- o Materials
- o Textures
- o Multisensory Elements
- 6. BACK DESIGNS
 - o Legal and Mandatory Guidelines
 - o Ingredients, Barcode, Nutritional Facts
 - o Packaging Codes
- 7. PRINTING
 - o Process
 - o Colours
 - o Inks
 - o Set-up
- 8. MANUFACTURING
 - o Packaging Option 1 Process
 - o Packaging Option 2 Process
 - o Packaging Option 3 Process

- 9. DISTRIBUTION
 - o Distribution Channels
 - o Types of Distribution
 - o Distribution Packaging
- 10. SHELF PLACEMENT
 - o Packaging as a Marketing Tool
 - o In Store Packaging Shelf Appearance
 - o Packaging Shelf Life
- 11. WASTE PROCESS
 - o Green Citizen
 - o Waste Management Plan
 - o Waste Disposal Process
 - o Where to Recycle

FINAL COFFEE LABELS





PACKAGING OPTION 3 PACKAGING OPTION 2 PACKAGING OPTION 1



3 Design Intent



Through the findings of the study, the relationship between multisensory premium packaging and green packaging attributes are found. The consumer's perceived idea of premium and green packaging are clarified. From a practical perspective, the results of the study could influence the purchasing decisions of the South African coffee consumers, therefore increase sales. Furthermore the design process will assist the packaging design industry. Consumer marketing research contributes to the packaging design industry to understand the consumer's needs and to design according to the requirements.

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Article link: https://supremacy2legacy.wixsite.com/tashalie/post/design-rationale

APPENDIX

INSCAPE.

Research information for participants Project title: QRD4102_S2a_Research Design and Findings

Researcher/s: Tashalie Vorster

This is an invitation to participate in a research study that aims to form the bases of a research dissertation for the BA Honours in Design at Inscape Education Group. Elements of the research may be published.

Topic: Mediating the relationship in consumer perception between multisensory premium and green packaging for commercial coffee, in Pretoria East, Gauteng.

The research aims to investigate how a Graphic Designer can find a balance between multisensory premium coffee packaging and green coffee packaging attributes. To bridge the gap between the perceived idea of quality and the tangible quality of the product, while improving the shopping experience and taking care of the environment. As part of the study I request permission to interview and collect survey questionnaire answers of coffee consumer participants in the Pretoria East, Gauteng area between the ages of 21 to 50. The chosen method of research is conducted in the form of mix methods research. Qualitative research will be completed in the form of online interviews using emails, Microsoft Teams and Zoom meetings with Pretoria East coffee consumers, packaging experts and MOCO Coffee conceptual client. These interviews will focus on the consumer buying behaviour to determine if green packaging attributes contribute to the perceived idea of premium coffee packaging. Quantitative data will be collected in the form of an online Likert scale questionnaire, to determine why consumers associate the quality of the coffee with their perception of premium coffee packaging.

Implications;

Audio recordings, video footage and surveys of the interviews and online questionnaire will be made, and these recordings will be transcribed as Word documents. The recording and documents will be safely stored on a password protected archive like Google drive. Although the Inscape name will be used in the final publications of the research, when quoting any verbal comments made by individuals during interviews, anonymity shall apply. We will ensure that every attempt to ensure the participants / respondents anonymity.

Potential benefits;

You will be contributing to research in the field of design education and to the institution's good practice by participating in the study.

Rights;

You should not participate in the study unless you are comfortable and in agreement with all aspects required of participating. If you agree to participate but wish to withdraw consent at any point during the study, you may do so.

Ethical clearance;

Ethical clearance has been (fill in once granted by the Inscape Research Committee).

Contact details;

Please feel free to contact me regarding any questions Tashalie Vorster, Tashalie.Vorster@inscapestudent.co.za. You may contact my supervisor Courtney de Villiers, court.devilliers@gmail.com. Your participation in this research study would be greatly appreciated. Please complete and sign the attached Informed Consent document (Page 1).



Informed consent

Thereby confirm that I have been informed by the researcher/s about the nature, conduct, benefits and risks of participating in this research study. I have read and understood the information that accompanies this form and been given an opportunity to ask questions.

I am aware that the data gathered for this project will be published and therefore available to the public and hereby give consent where appropriate for my comments to be quoted and images to be used in the publication.

I understand that I am under no obligation to participate in this research study and have the right to withdraw my consent and participation at any point during the study.

I freely declare myself willing to participate in this research study and to have images of my work used in publication.

1 am 18 years or older

Research participants name				Merwe	-
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Date	28 0	october	- 20	010	

Researchers name **Researchers signature** Date

ROUGH SKETCHES

























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