



**Midlands State University**  
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## **FACULTY OF COMMERCE**

### **DEPARTMENT OF MARKETING MANAGEMENT**

**THE INFLUENCE OF GREEN ADVERTISING ON SUSTAINABLE PLASTIC  
PACKAGING WASTE DISPOSAL: CASE OF BEITBRIDGE URBAN  
HOUSEHOLDS.**

**BY**

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**APPROVAL FORM**

The undersigned certify that they have supervised the student dissertation entitled **THE INFLUENCE OF GREEN ADVERTISING ON SUSTAINABLE PLASTIC PACKAGING WASTE DISPOSAL. A CASE OF BEITBRIDGE URBAN HOUSEHOLDS** submitted in Partial fulfillment of the requirements of Master of commerce in marketing strategy at Midlands State University.

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Supervisor

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Date

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Chairperson

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Date Stamp

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Librarian

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Date Stamp

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## **DEDICATION**

My mum, Constanica Chibungu, you are always in my 'Hut'

My kids Kupakwashe Adelaide, Michael, Munyaradzi Robert, Stacy, Bradley and Robert Jnr (Chimdara), you always give me one more ounce of energy to push on

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I owe this piece of work to all of you, and as I look back with contentment, I realise 'we did it'.

Thank you

## ABSTRACT

As a consequence of diverse human activities such as plastic littering, the planet has suffered rampant pollution resulting in the global outcry for the reduction of carbon footprints by individuals and organisations through engaging in eco-friendly activities (World Bank, 2018). Thus, the present study was meant to examine the influence of green advertising on sustainable plastic packaging waste disposal. A Case of Beitbridge urban households. To this end the researcher incorporated green advertising variables in the conceptual framework to construct four (4) objectives to guide the research which are (1) determining the influence of emotional appeals on household recycling intention (2) examining the influence of moral appeals on recycling intention (3) ascertain the relationship between household attitude towards waste disposal and recycling intention and lastly (4) determining the effect of recycling intention on recycling behaviour. Relevant literature from various scholars on the influence of green advertising and sustainable waste disposal was scrutinized. Both theoretical and empirical literature perspectives were taken into account to identify the major ideas and concepts related to waste disposal and green advertising. Though scholars unanimously agree that waste is a huge threat to life on the planet, the major areas of argument emerged on the level of practice of proper waste disposal between developed and less developed nations. A pragmatism philosophy which incorporated both the quantitative and qualitative methods where data was collected from 377 respondents comprising households, representatives from environmental agencies and institutions responsible for garbage management in Beitbridge was adopted. A structured questionnaire based on a 5-point Likert scale was used to gather data and this was complimented with confirmatory interviews conducted through purposive sampling. Research findings show that there is a positive relationship between household attitudes, green emotional and moral appeals to recycling behaviour mediated by recycling intention. The deductions made from the findings denote the need for intensive education campaigns to close the information gap about the detrimental effects of plastic litter on the environment. Recycling facilities also need to be availed to make the recycling task feasible. The study recommends that more resources are committed to changing household attitudes so that they become more positively inclined to protecting the environment which would induce the desire to recycle for planet sustenance.

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# **CHAPTER ONE**

## **GENERAL INTRODUCTION**

### **1.0 Introduction**

As a consequence of diverse human activities such as plastic littering, the planet has suffered rampant pollution resulting in the global outcry for the reduction of carbon footprints by individuals and organisations through engaging in eco-friendly activities (World Bank, 2018). Plastic packaging is a necessary evil in today's global economy (Dutta & Choudhury, 2018). However, the poor management of plastic, post consumption is causing unprecedented levels of plastic pollution that is threatening to bury the entire planet under its weight (Wild, 2018). The need thereof, to create the balance required between the day to day use of plastic and the sustenance of the environment from which all flora and fauna draw their entire existence prompted this research. This study therefore seeks to examine if green advertising appeals can be employed to induce and reinforce households to prefer recycling as their mode of plastic packaging disposal. This introductory chapter encompasses the overview of how the research would be conducted. It consists of the background to the study, the statement of the problem and research objectives. The significance of the study and assumptions which underpin the research, delimitations and the limitations of the study conclude the outline.

### **1.1 Background to the study**

The world generates about 1, 3 billion tons of solid waste each year of which plastic packaging is a major contributor (World Bank, 2016). The figure is growing and expected to reach 4 billion tons by 2100 (Ibid). Plastic waste is generated from almost all human activities hence it is strewn everywhere including residential areas, commercial buildings, hospitals, schools, light and heavy industries, with the oceans absorbing an estimated eight million metric tonnes of plastic each year (Wegedie, 2018). The traditional role of packaging includes enabling food to travel further distances from places of production, to stay longer on the shelves and ensures that only minimal amounts of food go to waste and helps to avert starvation and deaths of millions of people (Wild, 2018). The wide use of plastic thereof has exacerbated proper waste disposal challenges because solid waste is not only rising in quantity but also changing rapidly

in composition (Brassaw, 2017). The extent of the problem is exemplified by the discovery of the Great Pacific Garbage Patch which is a stretch of garbage covering more than 3,43 million KM<sup>2</sup> (the size of Europe) by Charles Moore in the 1990s (European commission, 2011). The garbage found is mostly plastic ranging from fishing nets, plastic bottles and microplastics known as 'plastic soup' (European Commission, 2011).

It is inevitable therefore, that improper waste disposal effects on public health and its serious environmental consequences has now reached world crisis levels, especially considering that plastic is highly non-biodegradable (UN, 2018). This research was inspired from the above assertions which depict that by plastic packaging is a double-edged sword whose functions in the global economy and the environmental residue footprint thereof, after use, were antagonistic. The huge piles of untreated garbage in many countries around the world, create hubs for bacteria generation as well as unpleasant environmental aesthetics (Simmons, 2016). Less developed communities are yet to devise appropriate structures to get to grips with the loads of generated waste hence the hazards of garbage are much more magnified in these countries (UN Agency, 2016). However, there is a significant difference as compared to developed nations where great strides have been made to dispose of waste with due consideration to its consequences on the environment. The studies carried out by Molina, Sainz and Olaizola, (2013); Di Maria, (2017) compared the methods of waste disposal between developed and developing countries and the findings show that there is a gulf in knowledge, infrastructure provision, legal structure, economic framework and general disposal practice between developed and less developed countries.

The findings are reinforced by the exceptional recycling figures led by Germany with around 65%, while South Korea, Austria, Wales, Switzerland, Belgium and Netherlands record significant recycling statistics at 45% and above (Russell, 2016; Brassaw, 2017). The impressive recycling figures are a result of rigorous promotions coupled with strong government policy that help educate consumers on proper waste disposal. The realisation that proper waste disposal alone is inadequate to save the planet, waste management in developed nations has advanced towards source reduction. This is influenced by the view that unnecessary waste should never be produced in the first place because its production, handling, transportation and disposal guzzle too much resources which are costly to both the global economy and the environment (Guangyu, 2016). Companies in developed countries have



responded to the call for reduced plastic pollution with more than 150 companies pledging to reduce their plastic usage. Leading companies such as Carlsberg brewer have already actioned their pledge by phasing out plastic packaging and now use glue to hold together its beer cans, Nestle is using paper straws instead of plastic ones whilst Diageo, the Guinness brewer announced in April 2019 that they were phasing out plastic from their packaging and invested 16 million pound in 100% recyclable and biodegradable cardboard (BBC NEWS, 2019)

On the contrary, findings by Mandevere, (2015); Njeri, (2016); Chanza et al., (2017); and Abel-Shafy, (2018) all confirmed that in less developed countries, open dumps are still the main garbage destination while landfills are the most advanced disposal methods currently employed which are both not sustainable solutions. The small notable efforts to recycle in Africa are realised in Nigeria, Kenya, Senegal and South Africa (Sambyal, 2018) Though the global economy is greatly enhanced by the use of plastic to protect, preserve, transport, display information and prevent food waste, the consequences of plastic on environmental pollution and degradation cannot be overemphasised (Mills, 2019). Befitting of its importance to human, animal and environmental survival, the fight to save the planet from waste such as plastic has attracted researchers from all over the world. Yfantidou, (2018:19) postulate that if not preserved through recycling, reuse and other means, the finite resources of the planet would be exhausted to the detriment of current and future generations. Yfantidou (2018) research, however, focused on firm production activities and tend to exclude households' contribution in waste creation and disposal. On the other hand, green advertising is referred to as marketing communications that resonate with aspirations of environmentally compassionate consumers (Matthes *et al.*, 2013:2). Despite the different views on how best to deal with garbage, most researchers concur that it is an ecosystem enemy and human health hazard (Chahal and Kaur, 2015; Gould, 2016). Though similar to Ittiravivongs, (2012), whose research sought to determine the household waste recycling behaviour of all forms of solid waste in Thailand, the current research is focused particularly on plastic packaging waste because of its unique characteristics. Furthermore, the current study was conducted in a less developed economy. The vacuum in literature on the applicability of the TPB model on recycling behaviour at household level in less developed countries also adds to the motive of the research.

The daunting statistic that attributes 90% of waste in underdeveloped countries to be found in open dumps is disconcerting (World Bank, 2018). This profound garbage situation is equally

obtaining in Zimbabwe as most cities, towns and growth points lack collection and transportation of waste to disposal sites (Chanza et al, 2017). This culminates into rampant littering, non-separation of waste, burying, burning and crude dumping (EMA, 2017; Chanza et. al 2017). According to research, Zimbabwe is among the highest producers and users of plastic packaging in Africa with several manufacturing companies highly dependent on plastic packaging. Beitbridge is seized with issues of littering as it is the busiest border in Southern Africa handling substantially high traffic reaching 12000 people per day. Zimbabwe being an informal sector dominated economy, vendors from all over the country leave heaps of litter, mostly plastic packaging, at the Beitbridge bus terminus and other pick up points as they unpack and repack their merchandise from South Africa for easier loading onto buses and trucks (Chitombe, 2014). In addition, Harare produced as much as twice the volume of litter per day as Johannesburg despite its population constituting only 31% that of the South African economic capital city. Reports of animals dying after consuming plastic in Zimbabwe are common with the highlight being eight elephants that died in Victoria Falls in 2016 after consuming plastic litter from open dumps (Mudzengerere and Chingwenya, 2017). The plastic clogs drainage systems and waterways leading to flooding as well as filling up major supply dams and rivers increasing the production cost of water (Kawadza, 2019). It is therefore not surprising that Beitbridge reported 5133 cases out of the national cases of 98596 during the 2008/2009 cholera outbreak. This represents 5, 2% of the total national reported cases despite the town only accounting 0, 46% of the total Zimbabwe population illustrating the severity at which the area was hit by the outbreak. The litter that the rivers carry to the sea have the potential to strain international relations downstream.

In support of the environmental protection efforts, the President of the Zimbabwe Republic launched the nationwide clean-up campaign in December 2018. Albeit this positive development, the clean-up campaigns are not backed by disposal facilities where the waste would be properly disposed of or recycled. The Beitbridge-Harare highway is currently strewn with small heaps of litter which was put together during some of the clean-up campaigns but they are still not collected for proper disposal months later. The wind and other elements are spreading the litter again making the clean-up campaign a wasted effort. This scenario has prompted the researcher to explore ‘call to action campaigns’ to encourage households to take

responsibility through sustainable plastic litter disposal to effectively safeguard the environment and its habitats.

## **1.2 Problem statement**

Globally it is estimated that almost three hundred million tonnes of plastic is produced each year, of which eight million end up in the ocean (World Bank, 2016). Broken down plastic contaminate fish and it is projected that at this rate, by 2050, the oceans would have more plastic than fish. On top of that millions of birds, marine mammals, sea turtles, whales and dolphins perish due to plastic ingestion or become trapped in it (Ocean crusaders, 2019). The discovery of a place in the ocean as big as the European continent between California and Hawaii that is totally contaminated by floating rubbish such as fishing nets, plastic bottles and the so called ‘plastic soup’ is alarming (European commission, 2011). The world leaders during the 73<sup>rd</sup> United Nations General Assembly in USA 2018 agreed that global warming should be treated with urgency and if action is not taken within the next two years the world would face great dangers (UN, 2018). One of the major themes for the assembly was ‘efforts to protect the environment, particularly plastic pollution’ which pinnacles the problems of postconsumer plastic packaging disposal.

Wide scale pollution has turned several of the world most beautiful beaches into trash heaps like the Hawaii Kamilo beach now nicknamed ‘plastic beach’ (Werft, 2017). Evidence from research shows that the top ten most commonly found pieces of litter on world beaches is made of plastic and comes from land through wind and rivers (Werft, 2017). The problem of plastic packaging litter is acerbated by the large network of major rivers and tributaries such as the Limpopo, Buby, Mtshabezi, Shashe and Mzingwane passing through the Matebeleland south region. These rivers potentially carry most of the waste dumped carelessly in the province and deposit it directly in the sea (Mandever, 2015). Plastic litter clogs drainages, providing fertile breeding grounds for flies and mosquitos which are carriers of diseases such as cholera. It is regrettable that in Zimbabwe, 4369 people lost their lives between September 2008 and March 2009 through cholera (Cuneo, Sollom and Beyrer 2017). The international organisation for migration established that the most affected areas during the 2008/2009 cholera epidemic were Harare, Nyamapanda, Chinhoyi, and Kariba while Beitbridge suffered the greatest punch recording 5,2% of national recorded cases despite contributing a meagre 0,46% of Zimbabwe

population (Cuneo et. al, 2017; Chanza et. al, 2017). In view of the unwarranted deaths of marine life that threatens the entire planet ecosystem and food chain (Yfantidou, 2018) the pollution of hundreds of beaches around the world (Werft 2017), the greenhouse gases from garbage that is depleting the ozone layer (Jerie and Tevera, 2014) and the outbreaks of avoidable diseases that takes so many human lives (Chanza et. al, 2017; Cuneo et. al, 2017) has concerned this researcher. Equally important is the potential of garbage in souring international relations with neighbouring countries such as South Africa as well as other influential states around the world. By the same token, literature sift reveals that less developed nations are far behind developed nations in proper waste disposal. This scenario also obtains in Zimbabwe as the country still use open dumps as the main disposal method and lack a clear framework on plastic packaging disposal. Thus, the dearth of literature on the relationship between green advertising and plastic packaging waste disposal (Yfantidou, 2018) inspired this study so as to inhibit the human, marine and environmental carnage through household recycling of postconsumer plastic waste.

### **1.3 Conceptual Framework**

A conceptual framework is a complex of interconnected concepts that together provide an exhaustive understanding of a fact (Jabareen, 2009). Adom, (2018), adds that it is a structure which the researcher believes can best explain the natural progression of the phenomena to be studied. It includes the system of concepts, assumptions, expectations, beliefs and theories that supports and informs the research. (Robson, 2011). It strives to lay out the key indicator variables and the assumptions of relationships that exists between them. It incorporates the reasons why the research topic was worth studying, how it was explored, the scholars whose views agreed or disagreed with the researcher, and the asserted remedies to the problem in relation to the conceptual approach. More significantly, they are generated frameworks constructed by researchers to reflect their own worldview on the phenomenon to be investigated (Grant and Osanloo, 2014).

The constructs from the Theory of Planned Behaviour (Arzjen, 1991) in conjunction with similar researches in the past were inferred by the researcher to guide the study. The research by Ittiravivongs, (2012) under the title ‘Household waste recycling behaviour in Thailand. The

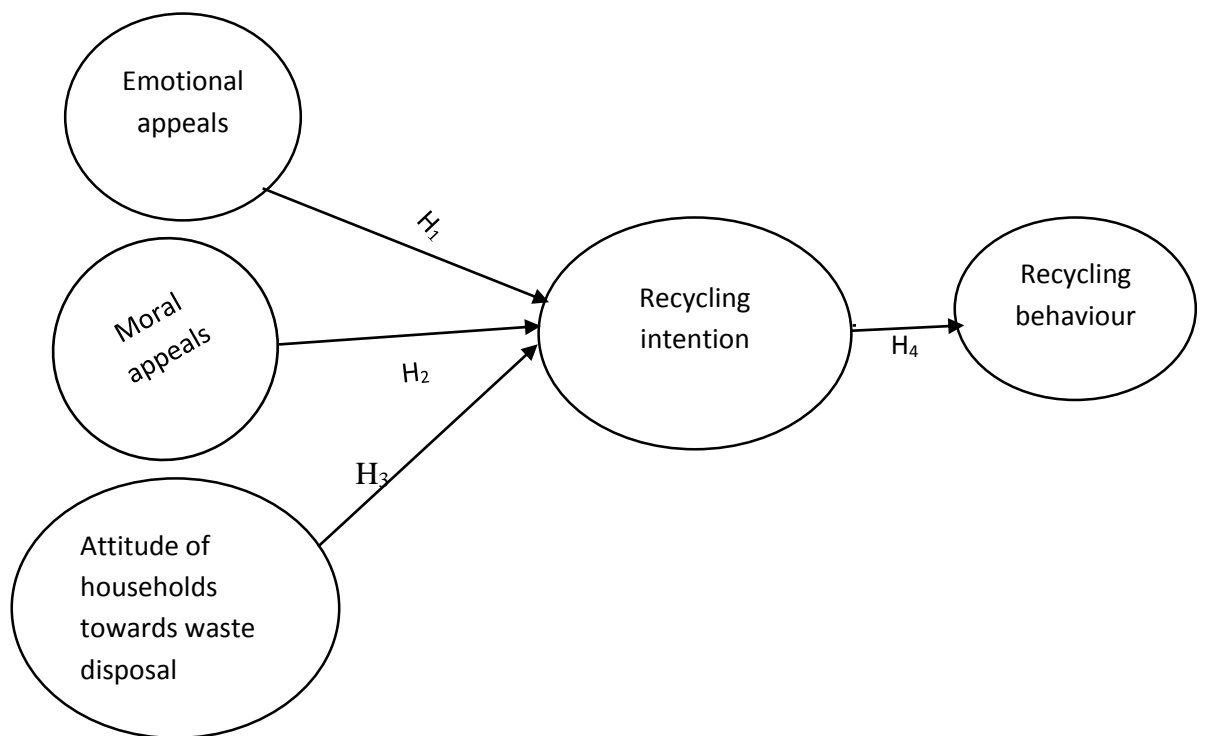
role of responsibility', shape the basic guidelines for the conceptual framework in this study. The TPB is a psychological model that instigates pathways for research in areas of performance choices (Tonglet et al., 2013). The independent green advertising appeals which comprise emotional, rational and moral appeals are intended to influence households' attitude towards plastic packaging disposal. This in turn would affect their recycling intention provided the moderating factors of facilities for recycling are present.

Based on humans' innate sense of ethics, moral appeals focus on stimulating environmental care behaviour by appealing to the consumer conscience (Chan *et al.*, 2008). Household attitudes towards plastic waste can therefore be persuaded by emphasising on consumers' moral obligation to protect the environment in order to safeguard the future of the next generations (Chen & Chai 2010). On the other hand, emotional appeals refer to the use of hedonic values such as pleasure, fun, fear and guilt in marketing messages to influence behaviour (Kotler & Keller 2012:185). Emotional appeals such as guilt and fear can be effective by triggering repentance among consumers by informing them about the consequences of their consumption behaviour such as climate change and global warming (Belz & Peattie 2009:186). The rational appeal denotes that some consumers are driven by reason and logic over other emotions. They are convinced by environmentally sound arguments to affect their conscience to act. The combined green ad appeals strive to effect household attitude change towards plastic waste disposal. The construct of attitude towards the behaviour depicts the extent to which an individual has a favourable or unfavourable appraisal of a given behaviour. The more positive the attitude change, the more likely the resultant behaviour change to recycle. The facilitating conditions in form of recycling facilities that provides for easy of performance would provide the extra motivation for households to engage in recycling behaviour.

The TPB is resultant from attitudes; subjective norm which reflects social pressure; while PBC reflects the possibility constraints to perform the chosen behaviour. The model was employed in previous researches by Tonglet, Philips and Read, (2013); Johansson, (2016) in household waste disposal behaviour. In psychology, Gopi and Ramayah, (2007) used it in predicting intention to trade online while Asare, (2015) used it to determine condom use among college students. The model was found to be useful in predicting attitude change and intention to engage in performance. This researcher would encompass eloquent green advertising

communications to change key beliefs such that performers are differentiated from non-performers. The constructs from the theory are suitable for this study as recycling intentions are derived from households which shape individual attitudes, create social pressure and determine whether the activity is within the control of the individual. The relationship between the independent and the dependant variables is illustrated on Fig. 1 below

### 1.1 Research model



**Fig. 1. The modified research model, adopted from Ajzen (1991).**

### 1.4 Broad Aim

To examine the influence of green advertising on sustainable plastic packaging waste disposal. A case of Beitbridge urban households. In order to achieve the study purpose, four specific objectives were formulated.

#### 1.4.1 Specific Objectives

- To determine the influence of emotional appeals on household recycling intention
- To examine the influence of moral appeals on recycling intention
- To ascertain the relationship between household attitude towards waste disposal and recycling intention
- To determine the effect of recycling intention on recycling behaviour

## **1.5 Research Hypotheses**

As shown on the conceptual framework on Fig. 1, the study is relational in nature hence four (4) hypotheses were preferred in examining the influence of green advertising and sustainable plastic packaging waste disposal

### **Hypothesis 1**

H<sub>1</sub> = There is a relationship between emotional appeals and household waste recycling intention

### **Hypothesis 2**

H<sub>1</sub> = There is a relationship between moral appeals and household recycling intention

### **Hypothesis 3**

H<sub>1</sub> = There is a relationship between household attitudes towards waste disposal and recycling intention

### **Hypothesis 4**

There is a relationship between recycling intention and recycling behaviour

### **Hypothesis 5**

H<sub>1</sub> = Recycling intention mediates the relationship between green advertising appeals and recycling behaviour

## **1.6 The significance of the study**

The research significance is explained under two subheadings

---

### **1.6.1 Theoretical significance**

- This research would contribute to academic discourse on the applicability of the Theory of Planned Behaviour influence on households recycling behaviour.
- Researches in green advertising and behaviour change have not been applying the mediating variable hence the inclusion of the mediating variable on the conceptual model in the present study would make significant contribution as reference for future studies.

### **1.6.2 Practical significance**

- The research study would benefit the policy makers, government, local authorities and the regulatory arm for the environment (EMA) to apply the research findings in communication campaigns aimed at not only changing society attitude but intention and implementation of proper waste management to achieve a cleaner and healthier environment.
- Companies engaged in plastic packaging production and those that use plastic packaging on their products would have statistical insight on plastic packaging management status and its effect on the environment to influence their support of postconsumer plastic packaging sustainable disposal
- Household education on environmental effects of improper plastic packaging disposal to influence their intention to recycling thereby creating sustainably cleaner and healthier communities

### **1.7 Assumptions of the study**

- The researcher assumed that the respondents would give positive and unbiased responses and that the information obtained would be a true representation of facts provided by the respondents.
- The research assumed that green advertising appeals have an influence on household recycling intention



## **1.8 Delimitations of the study**

Four (4) parameters have been considered in drawing the study delimitations. These are geographical, participant, data and theoretical delimitations.

### **1.8.1 Geographical delimitation**

The study was carried out in Beitbridge urban. This is justifiable because:

- Beitbridge was the hardest hit by the cholera outbreak of 2008/2009 because of contaminated water due to poor waste disposal.
- The town also experiences frequent flooding as a result of clogged drainages.
- Beitbridge is the major and busiest border post in southern Africa hence become the face of Zimbabwe for both tourists and business travelers hence the need for proper waste management.
- The informal sector activities which according to research produce much more litter than would the formal sector, are primarily the mainstay of Zimbabwe economy with the bulk of the trade happening through Beitbridge border post hence the need for research in Beitbridge town
- Beitbridge town has no significant industrial activity hence largely depends on informal sector making it ideal for the study

### **1.8.2 Participant delimitation**

- Study participants includes households, local authorities and environmental agencies. In order to enrich the evidence gathered from the perspectives of the household participants engaged, it would also be necessary to triangulate the data collected through reports, mainly from BTC, EMA and officials from different government ministries that deal with environment and waste management in Beitbridge town.

### **1.8.3 Data delimitation**

- The research used primary data collected from Beitbridge urban households through structured questionnaire while in-depth interviews would be employed in confirmatory interviews for this specific study. Secondary data would be gathered from previous studies, environmental and solid waste management reports from journalists, the local authorities, EMA and other stakeholders

### **1.8.4 Theoretical scope delimitation**

The research would focus on literature on the Theory of Planned Behavior (TPB) by Ajzen, (1991) and the green advertising appeals adopted from (Janssen and de Pelsmacker, 2005). The TPB is a psychological model that provides a framework for systematically investigating the factors which influence behavioural choices (Tonglet et al., 2013). On the other hand, green advertising has become the driving force behind increasing public awareness of ecological issues ((Belz & Peattie 2011:181).). The advertising appeals were therefore used in the TPB model to influence the change in plastic waste management methods

### **1.9 Study Limitations**

- The study used pragmatism research philosophy and results might somehow be different if other philosophies are used.
- The researcher used structured questionnaire as research instruments for quantitative primary data while in depth interviews were employed for qualitative data using a cross sectional design. Therefore, results may vary if the same study is done using a longitudinal design.
- This study considered responses from 377 participants where views from this sample may not necessarily be generalized for the whole population. To mitigate this limitation, the researcher used an approved model by Krejcie and Morgan (1970) in drawing the sample size which guaranteed content validity.

## **1.10 Chapter summary**

The chapter discussed the background to the study in line with the main objective of the study which entailed the influence of green of green advertising on sustainable plastic packaging waste disposal. A case of Beitbridge households. The specific objectives of the study were; to determine the influence of emotional appeals on household recycling intention, to examine the influence of moral appeals on recycling intention, to ascertain the relationship between household attitude towards waste disposal and recycling intention and to determine the effect of recycling intention on recycling behaviour.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter presents an overview of views and concepts put forward by different scholars on the subject of sustainable waste disposal and green advertising. The evaluation of literature was guided by the Theory of Planned Behaviour by Azjen (1991) whose constructs were modified to green advertising appeals of emotional, moral and household attitudes for the purposes of this study. The study focused on established associations between green advertising and environmental care through sustainable waste disposal. The chapter folds by highlighting major insights, arguments and authors cited in the review which shapes the present study contribution to the discourse of waste disposal and green advertising.

#### **2.1 The Theory of Planned Behaviour (TPB)**

In science, theory is used as a plausible general principle or body of principles offered to explain a phenomenon (Benetti, 2014). However, in social sciences, a theory can be defined as a logically interrelated set of propositions about empirical reality. It is a model capable of predicting future occurrences or observations being tested through experiment or otherwise verified through empirical observation (Benetti, 2014). The present study utilised the Theory of Planned Behaviour (TPB) in the quest to predict future occurrences of household waste management practices through applying the TPB constructs to green advertising. The TPB was developed by Azjen, (1991) in an attempt to predict human behaviour (Asare, 2015). The theory posits that attitude towards the behaviour, subjective norm and perceived behavioural control are the proximal determinants of the intention to act. By definition, a theory is a tool used by scholars in the analysis of society which is interdisciplinary in nature, drawing ideas from and contributing to disciplines such as anthropology, economics, history, mass communications, philosophy, sociology and theology. The TPB theory suggests that the combination of attitude, subjective norms and PBC form behavioural intention (Ajzen, 2002). The theory has been applied prominently to explain pro-environmental intention and behaviour (Chan and Bishop, 2013) and seems to provide a firm theoretical starting point for

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understanding determinants of recycling behaviours (Pamuk and Kahrman-Pamuk, 2019). These constructs however, have been proven in some studies not to adequately explain recycling intention and behaviour (Tonglet, 2004; Mahmud and Osman, 2013). This has led to subsequent studies extending the TPB by integrating suitable subcomponents into the original model.

Subjective norms, one of the TPB constructs relate to the perceived social pressure exerted by significant others to perform or not to perform a behaviour (Mamun, 2018). This suggests that individuals take cognisance whether their close associates approve of their performing or intention to perform a behaviour (Lee, 2009). Social norms have been proven to encourage recycling intention in previous studies. Perceived Behavioural Control (PBC) can be defined as the degree of authority that individuals perceive they command to engage in a particular behaviour (Ajzen, 1991). The ultimate performance is enabled by the control belief that individuals have in the available opportunities and resources to overcome obstacles and impediments that stand in their way to achieve their goal. In the present context therefore, PBC could be deduced to be the individual beliefs in the accessibility of opportunities and resources to perform recycling tasks. Mamun, (2018) asserts that when individuals access sufficient resources and opportunities less hurdles arise. Therefore, the more accessible the recycling facilities the more likelihood households would engage in recycling activities. Botetzagias, Dima and Malesios, (2015) proved from their study that PBC was the most important predictor of recycling intention. Similarly, Mahmud and Osman (2013) affirmed that PBC was the strongest predictor of both recycling intention and behaviour among university students. The inclusion of the PBC construct in the TPB is therefore justified as perceived control does influence both intention and actual behaviour (Ajzen, 1991; Lee, 2009).

Rhodes and Courneyas, (2003) defined attitude as the individual assessment of favourableness with regard to an object. In this study, attitude would capture the individual's orientation towards recycling behaviour. Studies in similar fields affirm that attitudes towards environmentally friendly products significantly affect intention to purchase environmentally friendly vehicles (Afroz et al., 2015). Chen and Deng, (2016) posit that green purchase attitude have a positive relationship with intention to purchase green products. Furthermore, Gopi, (2007) postulates that attitude is the most important factor in predicting behaviour intention. Favourable attitude enhances actual behaviour exhibited towards an object hence plays a

critical role in households accepting responsibility of recycling tasks. Favourable attitudes for recycling can be attained through highlighting advantages such as waste reduction, pollution prevention, natural resources and energy conservation and preserving the planet for future generations (Environmental Protection Agency, 2016). The conclusions by Gopi, (2007), Chen and Deng, (2016) and Afroz et al., (2015) facilitated the modification of the TPB model in this study. Therefore, based on the theory and existing literature, this study regard attitude towards household sustainable plastic packaging disposal as a predictor of recycling intention. The attitude construct was therefore employed to mediate the green advertising appeals in the modified TPB model in order to positively influence households recycling orientation.

### **2.1.1 Mediating effect of recycling intention between advertising appeals, attitudes and recycling behaviour**

This study intended to ascertain how recycling intention mediated the relationship between green advertising appeals and household attitude towards sustainable waste disposal on recycling behaviour. Mediation is when the independent variable first influences the mediator variable which in turn influences the dependent variable. This means there is a causal chain of effects where attitudes and green advertising appeals should be directed at households in order to influence their recycling intention to subsequently change their recycling behaviour. The nature of households depicts that the perception they hold about green advertising, their attitudes toward waste disposal and recycling behaviour help to shape their intention to engage in recycling behaviour. The mediation model is preferred for this study because it is more comprehensive, accurate and practical as in human nature people tend to consider both the dependent and independent variables before they change their course of action (Namazi & Namazi, 2015). This means before households resort to recycling behaviour their intention is shaped by their perception of green advertising, the perceived benefits from recycling activities before they commit or intent to recycle.

Behavioural intent is defined as someone's willingness to engage to various behaviours (Kim and Hunter, 1993). This notion is supported by Azjen, (1991) assertion that behaviour is dependent on one's intention to perform a behaviour. Intention therefore, is the main pillar on which the TPB theory is predicated as the most important variable in predicting behaviour. Intention, on the other hand is determined by attitudes, general societal pressure and

individuals' perception of their ability to perform (Ajzen, 1991). The proposition that intention was the best single predictor of behaviour has led to its successful use as a mediating factor in several studies (Davies, 2008). Ittiravivongs, (2012); Asare, (2015); Mamun et., (al 2018) study results all show that attitudes toward recycling, external subjective norm and perceived difficulty in performing recycling significantly explained intention to recycle and subsequently recycling behaviour. The findings by Chen and Deng, (2016); Afroz, 2017; and Mamun et., al, (2018) further elaborates that both attitudes and PBC had a positive effect on recycling intention whilst subjective norm had negative effect which means perhaps recycling was not dependant on social approval. These researches confirmed that recycling intention mediates the relationship between attitudes, subjective norms, PBC and recycling behaviour as was earlier proposed by the Azjen TPB (1991).

## **2.2 Waste disposal.**

Waste has always been generated by humans since time immemorial and represent an unavoidable product end of human activity. By definition ILO, (2007) indicated that waste represents all substances that are not prime products for which the person generating the material has no further use in terms of their own purpose of production, transformation or consumption and which he or she wants to dispose. Given the negative impact of waste on human health and safety, proper waste disposal has always been the focus of governments in both developed and developing countries. In the early days of human existence according to Njeri (2016) the negative impact of waste to human health was less felt as societies were largely Nomads with no permanent settlements. In these Nomadic societies, humans could thus afford the luxury of moving on to their next settlement places before the effects of improper waste disposals were felt. Njeri, (2016) further indicated that around 10,000 BC humans started to abandon their nomadic existence and live in communities and it was during this era where the need to properly dispose waste emerged largely being driven by the negative effect waste has to human health and environmental aesthetics. In the later years, waste generation continues to rise owing to increasing population, changing consumption patterns; economic development, increasing income; urbanization and industrialization (Tevera, *et al.* 2003). This rise in waste generation underscores the need to embrace the concept of proper waste management practices.

By definition waste disposal is the process of getting rid of waste (Qdais, Hamoda, Newham, 1997). This definition implies that waste disposal is all about removing waste, however it fails to clarify how waste is disposed or rather the activities involved in getting rid of the waste. On the other hand, Guangyu, (2015) gave a comprehensive definition of waste disposal by indicating that it is a process of isolating waste and its environmental impact from the biosphere, to limit the infection of hazardous components in wastes to be lower than acceptable levels and to guarantee safety of human health and environment. Similarly, National Solid Wastes Management Association, (2008) indicated that waste disposal means the activities to minimize the quantity of produced solid wastes, to decrease and even eliminate hazardous components in solid wastes, the activities to contain solid wastes in a location or facilities which meet environmental protecting standard without the need to isolate from the biological environment. While the later definition is more aligned to solid wastes it contains vital information that can help clarifying the concept of waste disposal. All in all, the definitions cited above seem to concur on the fact that waste disposal goes beyond its literal definition of getting rid of waste but rather entails whole set of activities of isolating waste with the aim of ensuring that such waste does not negatively affect human and animal health. More so it is evident in the above definitions that proper waste disposal should ensure that waste does not affect the environment.

The major shortfall in the above definitions however is the failure by the authors to clarify the major forms of waste disposal. This area was well captured by the work of Njeri (2016) who indicated that waste disposal takes a variety of forms including open dumping, open burning, use of garbage collection services, re-use and recycling, composting, animal feeding among others. Additionally, some authors among them Taru and Kuvarega, (2005); Manyanhaire *et al.* (2009); Saungweme, (2012) indicated that waste disposal in most developing countries included illegal burning, burying, crude dumping in open spaces, rivers and drainage basins as well as composting. It is evident from the views of the above authors that waste disposal practices are quite diverse and varied. While there are a variety of safe waste disposal methods that can be utilised, it is sad to note that many developing nations are failing to implement any of the proper disposal methods. Instead they tend to resort to crude dumping, burning and burying which contaminates soil and ground water. The atmosphere is not spared either as the gases from burning and open dumps are toxic to the ozone layer resulting in global warming



and climate change. As a direct consequence of improper waste disposal, high human deaths were being recorded in less developed countries through such avoidable diseases as cholera, malaria, typhoid and dysentery (Medina, 2002). This can also be attributable to the accelerated rate of waste generation and ever-changing composition of such waste resulting in more complex requirements in proper disposal.

### **2.2.1 Factors impacting waste disposal rates**

Failure to match waste generation and disposal rates in many developing nations have largely been attribute to a variety of factors. Macozoma, (2001) opined that proper waste management models have been in existence for a very long time but their adoption by countries has largely been low owing to logistical, financial and legal shortfalls. This view is also supported by Tevera, (1991) whose study revealed that waste disposal practices vary from country to country due to variations in resources availed, technology and also government commitment to waste management. However, it is important to note that the effects of improper waste disposal cannot be confined to the particular area where the garbage is disposed. The open dumps consist of all forms of litter including organic and non-biodegradable material like postconsumer plastic packaging waste. This has resulted in natural elements like wind carrying most of the dumped waste especially plastic because of its light weight nature and life span estimated at more than 500 years to be carried and deposited into the world oceans. Plastic waste thus is threatening the whole planet as it is estimated to fill up the sea. With plastic litter having been found on the deepest parts of the world oceans, it is estimated that by 2050 more plastic will be found in the sea than fish. On the other hand, plastic contains toxins that are continuously dissolving in water poisoning the oceans even further. The fish and other marine life dying from eating plastic waste and the toxins produced thereof is threatening the planet food chain and if left unchecked, great consequences are to be faced in the near future.

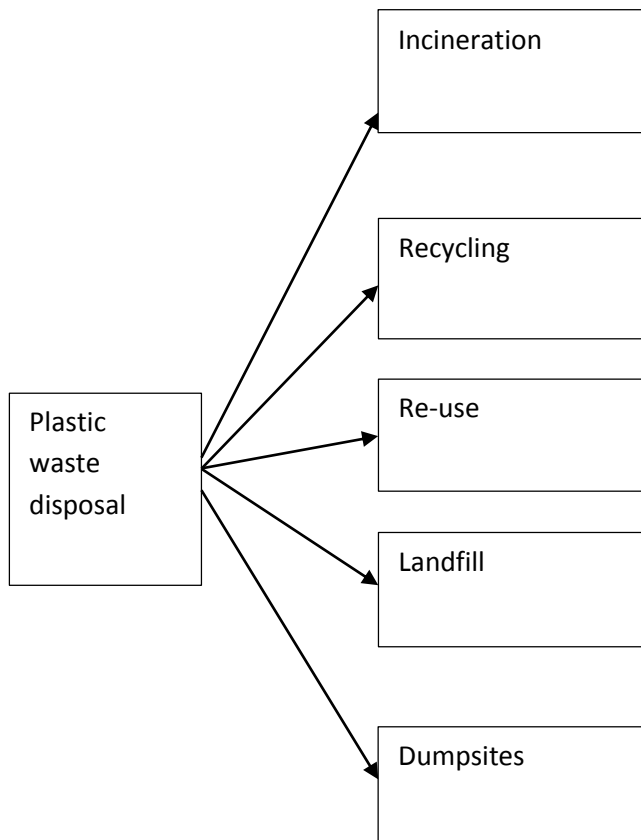
In view of the grave consequences, Taru and Kuvarega, (2005) opine that though waste disposal methods are not without shortcomings, ideally, they should not be treated in isolation but as part of a company's waste management model. Similarly, Njeri (2016) opined that waste disposal is the final stage of waste management but must be handled as part of a system not in isolation. The above authors seem to concur that waste disposal is a pivotal component of waste

management process and should be treated as an element of a process not as a stand-alone element. In order to effectively handle waste disposal ILO, (2007) cautioned that before waste management policies are crafted, careful thought must be made particularly in identifying the nature of wastes an organisation has to deal with as this holds the key in crafting effective disposal methods. This view is also supported by Macozoma, (2001) who opined that waste disposal varies with the nature of waste hence categorisation of waste is vital before waste disposal programmes are crafted. Waste in accordance with ILO, (2007) has broad range of categories, it can be divided into organic or non-organic, hazardous and non-hazardous and even domestic or industrial waste. More so the work of Medina, (2002) also indicated that waste can be categorised in solid waste or non-solid waste. While it is evident that waste and waste disposal methods are quite varied this study is restricted to plastic waste disposal by way of recycling.

### **2.1.3 Plastic packaging waste disposal.**

The call for sustainable plastic waste disposal has long been made at regional, international and more so global scale (world bank, 2016). The major reason being the unique nature of this type of waste and its rising level of generation in both developed and developing nations. According to Yfantidou (2018) in countries such as Europe, Japan and U.S.A annual generation of post-consumer plastic waste is estimated around 50 million tonnes. These statistics if viewed in light of the negative effects of plastic waste to human health it becomes apparent that sustainable disposal of this form of waste should be a priority for governments, institutions, households and individuals. Different methods of disposing plastic waste exist and these have their own shortcomings and strengths in light of the unique properties of plastic. Figure 2.1 below summarises some of the major methods utilised in disposing plastic packaging waste

## Waste disposal methods



**Fig. 2.1 showing Waste disposal methods**

**Source: Adopted from Njeri, 2016**

As observed from figure 2.1 above plastic waste disposal can be achieved through a variety of methods. Teuten et al., (2009) indicated that landfill is a common plastic waste disposal method in both developed and developing countries. Similarly Oehlmann et al. (2009) concurs that landfill is a common method for waste disposal with less environmental harm apart from long term impact of polluting the ground water. Regarding usage of this method for plastic waste Jerie (2005) indicated that utilisation of this method for disposing plastic waste is not very much encouraged given that this method does not provide for the recovery of the resources utilised in producing the plastic. More so this form of waste is so resilient that even burying it deep within the earth does not keep it from impacting the environment (Barnes,2009). From

the above contributions it is evident that landfill method of disposing plastic waste is cheap and common but however it has a shortfall of polluting ground water and also resources utilised in plastic is not at all recovered. The authors above also recognise that plastic disposal is problematic because of the unique qualities which makes it difficult to decompose.

Disposal of wastes in dumpsites is also another common disposal method. According to Mandevere (2015) almost 100% of waste generated in urban areas in developing countries end up in Dumpsites. By definition a dumpsite is an area that is designated by local authorities for waste disposal but has no measure to minimise environmental pollution or limit slope stability (Dariusz, 2003). This method according to Dariusz (2003) is the simplest, cheapest and is the most cost-effective method of disposing waste. While the above authors seem to promote the usage of this method for disposal of waste the work of Jerie (2005) has indicated that this method has numerous shortcomings which makes it less appealing for plastic waste disposal. These problems according to this author include air pollution emanating from open burning which is characteristic of this method. More so according to Allen (2004) this method results in land pollution as wind often blow all the plastic back to their original location. From the above it is evident that disposal of waste using dumpsites is not ideal for plastic packaging waste as it poses numerous problems.

Incineration also represents the other method of disposing plastic waste. According to Gilpin, Wagel and Solch (2003) this method is less prevalent than landfill because of pollution risk. These views are also supported by Andrady and Neal (2009) who revealed that incineration of plastic waste is hazardous due to release of greenhouse gases and is less popular compared to landfill and recycling. The above authors seem to concur on the fact that plastic waste disposal through incineration can result in pollution risk. Contrary to the above views there are also other authors among them Arvanitoyannis and Bosnea (2001) who are of the view that incineration should be promoted as it reduces the quantity and volumes of waste, more so this method can result in some recovery of energy utilised in production of plastics and also incineration reduces the demand of landfill space. The other method of disposing plastic packaging waste is to devise collection points for such waste upon the end of their first usage and promote their re-use. Reuse is the usage of a returned plastic material in its original form (Andrady 1994). The re-usage of plastic packaging waste is premised on the notion that plastic

has a long-life span and cannot easily decompose such that if used for once and disposed it has more time of polluting the environment than other methods of waste disposal. According to Andrady (1994) approximately 50% of plastic are used for single application and if disposed soon after usage can negatively affect humans and the environment. This view is also supported by Andrady and Neal (2009) who opined that plastic re-use should be promoted as a viable waste disposal method as most plastics are non-biodegradable and extremely durable such that majority of plastics manufactured today will persist for at least a decade or even up to several millennia. The above authors concur on the long-life properties of plastic waste which necessitates promotion of re-use as a viable waste disposal strategy. On the other hand however there are also some authors among them Oehlmann et al. (2009) who also expressed the notion that re-use as a strategy for managing plastic packaging waste is not a realistic large scale strategy but usually treated as a niche activity for small businesses. This view is well supported by Department of Environment and Heritage (Australia, 2008) which also indicated that re-use of plastic packaging has limited broader application in many countries owing to logistical challenges and in many instances collection points are distant from centralised product filling factories. The above authors seem to concur on the fact that while re-use is a strategy of plastic waste reduction, it is not widely practiced at large scale.

Apart from the above plastic waste disposal methods there have been growing calls for adopting recycling as a sustainable waste reduction strategy. In its essence Gregory (2009), highlighted that recycling merely diverts materials meant for final disposal to material recovery and aims at reprocessing materials into new products. Similarly Oehlmann et al. (2009) suggested that recycling is a waste management strategy of reducing waste by reprocessing waste into new things and the program entails collection, sorting and processing, manufacturing, and sale of recycled materials and products. The above authors seem to concur on the fact that recycling results in production of new products from waste and given the long lifespan of plastic waste highlighted in sections above this method seem ideal for the management of plastic package waste. The work of Kyrikou and Briassoulis (2007) has underscored the need for recycling infrastructural development in both developed and developing countries as a sustainable plastic waste reduction strategy. According to these authors plastic waste materials especially polymers itself may not necessarily fully degrade in a meaningful timeframe and as a result it accumulates on the surface of the earth causing

environmental damage. This view is also echoed by Gregory (2009) who urged the adoption of recycling of plastic waste relative to other disposal methods. According to this author recycling is the way to go as plastic properties makes its ultimate disposal a challenge for even degradable plastics may persist for a considerable time depending on local environmental factors, as rates of degradation depend on physical factors, such as levels of ultraviolet light exposure, oxygen and temperature. The above authors thus seem to concur on the fact that firms and corporates should adopt recycling of plastic waste as a sustainable waste control measure given the unique nature of plastic as a material.

## **2.2 Recycling intention**

Recycling is the process of collecting waste and sorting them out to be raw materials and turning them into valuable resources (Environmental Protection Agency, 2013). The above definition implies that recycling is crucial in environmental preservation discussions because of its ability to preserve the finite natural resources for future generations, saving energy and minimizing household waste dumped on the environment (Oztekin et al., 2017). Guangyu, (2015) further elaborates recycling as the transformation of the original product into secondary resources for the manufacturing of new products. This implies that recycling eliminates the waste that would have polluted the environment, turn it into new resources that is channelled back into the value chain. By recovering waste and creating raw materials out of it, individuals, organisations and governments solve several environmental problems which include preservation of natural resources, saving extraction, processing and transportation costs of new raw materials. In addition, the dirty streets, clogged drainages, illegal dump sites that facilitate breeding of disease spreading insects are eliminated. Moreover, the threat of animals dying from eating plastic especially marine life where most dumped plastic has found a destination causing complete havoc in the ecosystem is significantly reduced. Because of its non-biodegradable nature, plastic piles up in the drainages, dams, rivers and oceans. This causes siltation which in turn increases the cost of water purification. Siltation also threatens the very existence of such important water reservoirs to the detriment of humans, marine life, animals and the environment. Intention on the other hand is the motivational factors that influence a behaviour, they are indicators of how much people are willing to try and how much of an effort they are planning to exert in order to perform a behaviour (Pamuk and Kahrman-Pamuk,

2019). Intention, as initially explained in the Theory of Reasoned Action (TRA) by Ajzen and Fishbein, (1980) assumes that most behaviour is under volitional control where individuals decide at will whether or not to engage in performance. The TPB by Ajzen, (1991) is an extension of TRA which includes Perceived Behavioural Control (PBC) as an additional variable to predict human behaviour. Both TRA and TPB theories based their prediction of behaviour on the assumption that people behave rationally after considering the implications of their action and make a choice of behaviour aligned to their personal reasons. However, in reality people seem to encounter constraints which hinder either their will or actual performance of certain activities such as lack of opportunities, skills and resources. Thus, the TPB was meant to bridge the gap after realising that some activities are non-volitional. The work of Tonglet, (2004) supports this position when acknowledging that recycling requires considerable effort from individuals as household waste must be sorted, prepared and stored. The TRA and the TPB do not explain why then despite knowledge, willpower and resources, people still not engage in certain behaviours such as recycling. In explaining behavioural intention, the work of Ajzen (1991) denotes that attitude, subjective norm and perceived behavioural control are the main determinant factors. Some authors such as Tonglet, (2004); Tekkaya et al., (2011); Oztekin et al. 2017 opine that the three variables by Ajzen, (1991) do not adequately explain intention. They therefore came up with additional variables such as gender, parents' educational level, moral norm, situational factors, recycling outcomes, concern for the environment, previous recycling behaviour, concern for the community and recycling opportunities as essential in predicting behaviour. Tonglet, (2004) further argues that the application of situational factors, recycling opportunities and control factors ought to be viewed and measured differently between seasoned recyclers with access to viable recycling facilities against those who do not recycle and have no access to recycling resources. This argument would be valid in the case of Beitbridge where currently no recycling facilities exist. The furthest stage the recyclers association of Beitbridge achieves is sorting and crushing or milling before sending to recyclers in Harare or South Africa. The measure of easy, opportunity, facilitating and inhibiting factors such as inconvenience, knowledge of how, where and what to recycle and provision of recycling resources should be considered critical in recycling intention studies. In order to influence intention, Tonglet, (2004) suggests that responsible authorities should design campaigns to promote the use of recycling schemes amongst households to convert or reinforce positive attitudes towards the activities. In addition,

the overwhelming success of the leading country in recycling (Germany) was made possible by vigorous campaigns and strong government legislation in relation to household recycling practice. The current study therefore employed the green communication appeals in an effort to strongly promote recycling uptake among households. Tonglet, (2004) findings depict that perceived control and situational factors were strong determinants of recycling attitudes. Therefore, households would have positive recycling intention when they feel that it is not too complicated, inconvenient or a waste of their resources. On the other hand, they value appropriate skills, resources, and opportunities to recycle in order to perceive recycling positively. McDonald and Oates, (2003) stressed the need for well-planned recycling schemes aided by the construction of convenient and visible waste containers. In order to predict behavioural intention better, (Tonglet, 2004; Ozterkin, 2017) suggests that variables that significantly contribute to the explanation of the behaviour under investigation may be incorporated. In this study therefore, the attitude towards household plastic waste disposal mediated between green advertising rational, emotional and moral appeals and recycling intention incorporated in the modified TPB model. In addition, the study examined the extent to which the moderating effect of recycling facilities influences intention to recycling of households.

### **2.3 Recycling Behaviour.**

The work of Yasmina (2015) has put forward an assertion that for one to understand the concept of recycling behaviour there is need for one to get the meaning of environmental behaviour in general terms and also what pro-environmental behaviour is. This assertions are based on the idea that recycling as a concept is a pro-environmental behaviour. According to Stern ,(2000) environmental behaviour in general represents all those acts that change the resources of the environment and or alter the dynamics of ecosystem. Kollmuss and Agyeman, 2002 on pro-environmental behaviour indicated that these are behaviours that consciously seek to minimize the negative impact of one's actions on the natural and built-world. From the above definitions given the fact that recycling is also a pro-environmental behaviour recycling can thus be viewed as behaviour that seeks to minimise the negative impact of one's actions on the environment through recycling waste. Thogersen (1996) argued that while there are several theories that have been put forward in explain recycling behaviour there are two main theoretical



approaches. One of these perspectives supported by authors among them de Young, 1993; Porter et al 1995; Lehman and Geller, (2004) argue that humans are utility maximisers motivated by costs and benefits hence recycling behaviour can be regulated by manipulation of these costs and benefits. On the other end there is the second theoretical perspective supported by authors among them Mannetti et al 2004; Saphores et al 2006; Kurz et al 2007 as well as Ajzen's (1988) which try to explain behaviour through the attitude approach and uses attitudes and beliefs in explaining recycling behaviour .while there are many studies that can be utilised in explaining behaviour, this study is guided by the theory of planned behaviour by Ajzen's (1988).

## **2.4 Green advertising**

Green advertising is generally associated with efforts to use persuasive pro-environmental messages to develop in consumers a culture of environmental friendliness. Atkinson & Kim, (2014) refer to green advertising as promotional messages that may appeal to the needs and desires of environmentally concerned consumers. The term green implies an underlying concern for preservation of the environment including the planet earth, personal health, and animal life through a non-invasive lifestyle (Chang, 2011). Consumers may achieve this objective through behaviours such as use of recyclable products, active participation in environmental groups and political pressure. Organisations and individuals can therefore employ green claims through packaging, labelling and other promotional materials and literature to influence use, consumption or disposal of products. Green advertisements are marketing communication strategies that consists of different environmental claims, appeals and themes aimed at persuading consumers to purchase green products or engage in green consumption (Chahal and Kaur, 2015). Green consumption is a set of choices individuals can make to help resolve the environmental crisis and to help mitigate the effects of climate change (Corbett, 2005). Other researchers such as Kotler and Keller, (2012) further elaborates that marketing communications play a significant role in promoting sustainable lifestyles by stimulating green product awareness, desire and purchase intention. Sustainable lifestyles refer to the adoption of environmentally responsible behaviours that are aimed at enhancing the well-being of the environment through reduction of ecological footprints (Rahim, Zukni & Lyndon 2012). To enhance sustainable lifestyles, green advertising is emerging as an indispensable component of green marketing communications (Belz & Peattie 2011). Green advertising has

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become the driving force behind increasing public awareness of ecological issues. The media play a major role in the widespread dissemination of environmental concerns and highlighting disasters such as Cyclone Idai that gain prompt attention (Do Paco & Reis, 2012:147).

According to Ahmad, Shah and Ahmad, (2010) Green advertising refers to marketing communications that promote a pro-environmental company image and adoption of sustainable consumption patterns. The objectives of green advertising are to create awareness and recognition of green brands and facilitate the formation of positive attitudes towards green products and practices (Cavallo *et al.*, 2012; Chang 2011:23). This can be interpreted to mean that the communication strategies should not only aim at inducing product purchase but rather the messages should be designed to have a significant effect on overall consumer attitudes towards the environment. This is consistent with the assertion of the TPB theory that change in attitudes seems to have a more long-term impact on the decisions that the consumer would make in the future. This has a circular effect as research has confirmed that consumers with positive attitudes towards protecting the environment are more likely to respond likewise to communications of pro-environmental products. Yfantidou (2018) on the other hand describes green advertising as an advertisement that highlights the relationship between a product and the biophysical environment, endorses green lifestyle or builds an organizational image of responsibility. The study further elaborates that green advertising promotes the three Ts created by consumers which are; think, talk and take action. From the definition, it can be interpreted that green advertising is not only about positioning of environmentally friendly products but rather encompass all aspects of production, the product itself and its disposal. While the consumers three Ts point the finger at organisations to produce environmentally friendly products, the responsibility for proper disposal falls squarely on their feet as they are the final custodians of the wrapping paper, PET containers, scrap metal, used diapers and other waste materials in the home after consumption or use. The household implementation of recycling activity is therefore paramount to the success of greening the value chain.

The definition by Adcock, (2000) further alluded that though the objectives of advertisement are to inform, persuade and remind, green advertising further intend to forge recognition, understanding and conditional approach towards brands and organisations. Producers and marketers therefore, should not only lead consumers through the product buying process but

rather make them recognise and understand the importance of those decisions in environmental terms. This encompasses understanding product attributes and how they fit in the wider environment throughout the product's lifecycle up to safe disposal. To frame an effective sustainability message, the green advertising strategy must be structured around consumer education and empowerment (Ottman 2011). Consumer education is instrumental in creating awareness of recycling given the background that most consumers in less developed countries fail to identify the reasons and benefits of recycling (Pickett-Baker & Ozaki 2008). Consistent with the Knowledge-Attitude-Behaviour Model (Kollmus & Agyeman 2002:257), the education campaign must be aimed at translating environmental knowledge into pro-environmental attitudes and ultimately into proper waste management behavior at household level. Additionally, Linden (2012:9) pointed out that consumers lack information on the underlying causes of environmental problems and appropriate response behaviours needed to mitigate environmental problems. In an era of heightened environmental concern, green marketing communication may therefore play a critical role in conveying both the benefits and the significant contribution each household may make in environmental care (Grimmer & Wolley, 2014). Green communications to be of value therefore, need to be propelled by green products that are designed in a way that enhances both customer satisfaction and the task of recycling through their quality and attributes. To encourage recycling, organisations may also attach eco-labels to educate and increase consumer awareness about the eco-friendly methods of waste disposal (ISO, 2012). In the same token, it is imperative for green advertisements to quell the perception that proper waste disposal is too expensive because consumers make decisions based on the information they have about the consequences or outcomes of such behavior (Chen & Chang 2012).

#### **2.4.1 Green advertising appeals**

Green advertising has been defined as the advertising that emphasizes the environment-friendly attributes of the product, and green appeals can differ in their focuses such as degradability, recyclability, and lower pollution (Kong and Zhang, 2014). Advertising appeals are the persuasive pressures that stimulates the consumer to buy the product or service or engage in an activity according to their desire or want (Chahal and Kaur, 2015). Accordingly, sustainable consumption decisions are not only driven by the rational considerations, but also tend to be

influenced by social, conditional, emotional and moral values (Koenig-Lewis *et al.*, 2014:96). The greatest challenge facing marketers therefore, is how to structure green marketing messages in terms of tone, style and appeal to gain optimal buy in from consumers (Doyle 2011:3). Specifically, framing effective environmental messages that has the potential of enhancing environmental knowledge, pro-environmental attitudes and sustainable consumption patterns is of paramount importance in shaping disposal patterns (Sharples 2010). The importance of effective communication is further affirmed by Hawks, Winterich and Naylor (2013:6) study which alluded that the gap between environmental concern and waste disposal behavior show that consumers place little value on their contribution in waste management circles at household level. Governments and organisations therefore, may need to employ tactics such as the green advertising appeals in the quest to change the value that households attach to environmental protection in their consumption settings. According to research, the current green marketing communication strategies in use to elicit pro-environmental behaviour are rational, moral and emotional appeals (Linden 2012:1). Koenig-Lewis *et al.*, (2014:96) study further elaborates that consumer choices are influenced not only by functional and social values but also by the ability to satisfy emotional needs.

Emotional appeals refer to the use of hedonic values such as pleasure, fun, fear and guilt in marketing messages in order to influence purchase behaviour (Kotler & Keller 2012:185). The pervasiveness of environmental problems such as climate change and global warming makes it ideal to use fear and guilt appeals to elicit pro-environmental behaviour (Belz & Peattie 2009). On the other hand, positive emotional appeals like pleasure or fun creates attachment and harness positive attitude towards preserving the environment. Rational appeals are closely linked with the functional value which states that consumers evaluate their choices based on the cost and benefit analysis (Kotler & Keller 2012:198). The concept of functional value explains why green product purchase and recycling behaviour is primarily influenced by salient factors such as cost, environmental benefits, convenience and rewards (Paul & Rana 2012). Rational appeals therefore become particularly important for the final choice that households make in disposing of their plastic packaging waste. Based on rationale, consumers are therefore, more likely to buy into recycling or other proper waste disposal methods against dumping or burning after weighing the opportunity cost involved (Belz and Peattie, 2009).

Moral appeals can be applied to proper disposal of waste in accordance with the deontological ethical orientation which depicts that pro-environmental behaviours are driven by assessments of what is deemed right or wrong (Lindenberg & Steg 2007). In the context of green marketing, environmental morals refer to behavioural actions that are consistent with preserving the welfare of the environment (Chen and Chai, 2010). Moral appeals assume that environmental problems are moral in nature and employ the concept of social marketing to promote adoption of sustainable consumption patterns (Peattie & Peattie 2009). In addition, moral persuasion has the potential of activating group norms to enhance a group identity that is consistent with environmental values (CRED, 2001). Through the use of moral appeals, green product purchase intentions can therefore be solicited by emphasising on consumers' moral obligation to protect the environment for the sake of future generations (Chen & Chai 2010:30).

## **2.5 Household attitudes toward plastic waste disposal.**

As has been noted in above sections, many authors have called for sustainable methods of plastic waste disposal given its impact to humans and the environment. The unique properties of plastic thus make it difficult for the application of many disposal methods and only recycling has emerged as one of the most ideal methods of reducing plastic packaging waste. However, whilst it is evident that recycling is the way to go it is sad to note that regardless of many calls for such methods, nations continue to incur huge costs emanating from poor management of plastic waste (Abbott, Nandeibam, and O'Shea, 2013). The authors cited above failed to provide measures of how plastic waste disposal methods can be implemented. This area is well captured by the work of Hardoy, *et al.* (2001) which indicated that attitudes are key in promotion of sustainable plastic waste disposal. According to this author governments should aim at behavior change for sustainable plastic waste reduction. According to Hardoy *et al.*, (2001) there is generally a negative attitude for plastic waste disposal in developing countries. A significant majority of urban residents in these countries behave as if the physical environment is elastic and can receive and transform waste and in general can be used as human beings see fit without being affected (Ibid). This view is also supported by Ireen (2008) who argued that sustainable plastic waste disposal is to a larger extent hampered by household attitudes which are generally negative. Families and individuals tend to believe that the role of waste management is for the municipality and if ever they should take part they need to be given incentives to do so (Ibid). The above authors seem to concur on the fact there is a general

negative attitude among household regarding sustainable plastic waste disposal. For example, considerable household waste must be sorted in the home before it can be left at curb side collection points or drop-off centres. This sorting work is mainly carried out by the people in the individual household. Sometimes it even requires that people travel a short or a long distance by car to leave the sorted waste at special collection points. Though the above authors seem to concur on the need for sustainable plastic waste disposal and also the criticality of change of household attitudes on waste disposal they failed to provide measures that can be taken to influence household attitudes on plastic waste disposal. To cover this gap in knowledge, this study seeks to explore the nature of recycling and other plastic waste disposal practices and examine whether green advertising appeals can be utilised to effect change in household attitudes in Zimbabwe on plastic waste disposal.

## **2.6 Emotional appeals and intentions to recycle.**

As has been indicated in previous section emotional appeals represent the usage of hedonic values such as pleasure, fun, fear and guilt in marketing messages in order to influence purchase behaviour (Kotler and Keller 2012). This view is well supported by Lin and Huang (2012) who opined that emotional green advertising appeals represent the utilization of emotional values such as fear and fun in advertisements. From the above it is evident that emotional appeals as the name suggests are those adverts targeted at human emotions and utilise values such as fun, fear or guilt. A variety of authors have shown that there is a connection between emotional appeals and behavior intentions towards the environmental products. For instance, the work of Belz and Peattie (2009) has indicated that the pervasiveness of environmental problems such as climate change and global warming makes it ideal to use fear and guilt appeals to elicit pro-environmental behavior. This view is also supported by Paul and Rana (2012) who argued that positive emotional appeals like pleasure or fun creates attachment and result in individuals generating more intent to engage in preservation of the the environment. The above authors seem to concur on the fact that emotional appeals have a positive impact on human behavior intentions concerning environmental issues. As shown by Belz and Peattie, (2009) environmental problems are now very widespread to an extent that humans across the world have to some extent been affected by such problems in one way or the other. The effects of climate change and global warming are placed in adverts the world over utilizing fear and guilt

which are likely to yield positive behavior towards the environment as no one would want to be viewed as contributing to such problems.

The other link between emotional appeals and recycling intentions can also be seen from the contributions of De Young (2000) who argued that consumers engage in pro-environment behaviors in order to satisfy emotional needs. This therefore implies that if adverts target emotions, they would be more appealing to consumers resulting in them becoming more willing to engage in pro-environmental behaviour such as recycling. The above contribution can also be taken to imply that households which engage in responsible plastic waste disposal do so in order to please their emotional needs hence targeting these emotions in adverts, may to a larger extent, result in positive results. These views further resonate well with Lin and Huang, (2012) who noted that consumers who buy green products are driven by the intrinsic feelings of doing well for their own well-being and the society. This could also be taken to imply that households engaging in responsible plastic waste disposal do so to satisfy their intrinsic feeling of doing well for their societies hence appeals that targets such feelings and emotions are likely to result in individuals becoming more willing to recycle their household plastic waste.

As has been highlighted above that emotional green advertising appeals utilise the values of pleasure in marketing messages in order to influence behavior an analysis of the contributions of Kang and Park-Poaps (2009) also suggests a positive influence between emotional appeals and recycling intentions. According to Kang and Park-Poaps (2009) for there to be positive environmental behaviour humans need to be made aware of the fact that their pleasure and enjoyments from the natural environment is threatened by their own consumption and waste disposal practices. This view is also supported by Lee (2009) who opined that emotional appeal-based advertising is emerging as one of the strategies employed by water stressed municipalities to bridge the attitude-behaviour gap. In particular, emotional appeals are increasingly utilised to encourage behavioural change with regards to water consumption. However, while the above authors seem to suggest that emotional appeals have an impact on behaviour intentions on environmental issues, they failed to indicate whether such intentions can also encompass recycling. In light of the above gap this study shall explore the influence of this form of appeal on intentions in particular recycling intentions. Apart from the above E-

Jian *et al.*, (2013) also noted that the main aim of guilt appeals is to provide consumers with a sense of responsibility and control over their waste disposal behaviour. These authors highlighted that these kinds of appeals attain this goal through providing consumers with the assurance that recycling activities are viable solutions to environmental problems. Similarly, Chang, (2012) argued that guilt appeals are more effective on collectivist cultures where consumers feel guilty as a result of failing to meet social obligations especially failure to protect their environment. The above authors seem to agree on the fact that guilt appeals as an element of emotional appeals has an effect on behaviour intention of consumers on environmental protection.

The relationship between emotional appeals and recycling intentions of plastic waste can also be noted from the views proffered by Belz and Peattie (2009). According to these authors fear appeals as a sub component of emotional appeals largely aims at emphasizing negative effects that are likely to befall consumers if they fail to behave in a certain way. These authors highlighted that this form of appeal proves very effective to foster particular environmental behaviour among humans as negative effects and threats of poor plastic waste disposal are well documented including disintegrating of ecosystem and other dangers associated with global warming. Similarly, Feinberg and Willer, (2012) indicated that fear appeals are more effective in fostering a change in human behaviour towards the environment but if consumers are convinced that their well-being is seriously endangered and that they are capable of averting the danger. The above authors seem to concur on the fact that fear appeals can have a positive influence on behavior towards environmental protection. From the contributions of the authors cited above, it is evident that emotional appeals have a positive influence on recycling intentions or general environmental protection. The authors indicated that fear, fun and guilt can be positively or negatively applied to effect change in behaviour towards waste disposal. However, the above authors to a large extent failed to indicate whether their observations are applicable across the world in particular whether the positive influence of emotional appeals towards recycling intention can be the same in different countries. In light of the above gap in knowledge this current study would explore the influence of emotional appeals on recycling intentions in Zimbabwe.



## **2.7 Moral appeals and recycling intention.**

The effect of moral appeals on individuals' intentions to recycle can best be noted from the assertions of Lindenberg and Steg (2007) who opined that pro-environmental behaviour are driven by what is deemed right or wrong in a given society. Similarly, Chen and Chai, (2010) argued that moral norms present persuasive pressures on individuals to reconsider their environmental morals and then alter their behaviour towards the environment accordingly. The above authors agree on the fact that moral norms have a positive influence on household environmental behaviour. While the authors are not very specific on the particular pro-environmental behavior, it is undeniable that proper intention to engage in recycling can be regarded as one of the examples of a pro-environmental behaviour. If the above assertions are taken from this assertion, it is fair to conclude that these authors agree that moral appeals have a positive relationship with individuals' intentions to recycle. Furthermore, according to Peattie and Peattie (2009) the major assumption behind utilizing moral appeals is that environmental problems are moral in nature and social marketing concept could yield positive results in promoting sustainable consumption patterns. This view is also supported by Elliot, (2013) who argued in as much as the majority of consumers in today's societies are valuing immediacy when making decisions moral appeals continue to emerge as effective advertising strategies of affecting sustainable consumption among consumers. In similar manner Chen and Chai, (2010) further argued that moral appeal is more and more being utilised with great success by environmentalist through emphasising on consumers' moral obligation to protect the environment for the sake of future generations. The above authors thus agree that moral appeals have a positive bearing on consumer pro-environmental behaviour by bringing the concept of sustainable consumption. The concept of sustainable consumption is seen as those behaviour patterns concerned in meeting the needs of today's generation in a manner that does not affect the environment for the future generation. While the authors again are not very specific on examples of sustainable consumption patterns it is fair to cite recycling of plastic waste by households as one of the examples. From this angle the above authors thus seem to imply a positive relationship between moral appeals and behaviour intentions.

Additionally, Griskevicius, Tybur and Bergh (2010) also argued that moral persuasion has the potential of activating group norms to enhance a group identity that is consistent with environmental values. This view is also supported by CRED (2009) report where it is argued

that moral appeals can be utilised with great effectiveness in soliciting positive environmental behaviour as it is ideal in reinforcing group identity especially on societies that believe in respecting the natural environment. Furthermore, the work of Chen, Pillutla and Yao, (2009) found out that moral appeals convince individuals to restrain from selfness and pursue decisions that seek to promote the good of the society and the future generations. The above authors concur on the fact that moral appeals affect group norms and have an effect on pro-environmental behaviour that could also include proper plastic waste disposal. The above views could thus suggest that moral appeals if effectively utilised can persuade individuals to be more willing to engage in recycling. In contrast to the above views Feinberg and Willer (2012) highlighted that moral appeals may not bring the necessary change of behaviour intentions towards environmental behaviour as environmentalists often face the challenge to break the barriers that might be created by ideological disconfirmation where consumers tend to avoid messages that attempt to change their mindsets or feelings. Similarly, Hernandez and Preston (2012) argued that moral appeals can indeed fail to solicit positive environmental behaviour among consumers and further employed the term ‘dis-fluency’ to suggest that effective communication strategies should prompt consumers to re-analyze pre-existing environmental knowledge and subsequently change behavior in line with current information. The above authors thus underscore the criticality of persuading the consumers to view the positive side of a change in behavior towards positive waste disposal as key is ensuring that moral appeals bring pro-environmental behaviour among households. The views of the above authors concurred on the positive effect that moral appeals may have on recycling intentions. However, the above authors did not indicate whether the same effect can be experienced by households across different nations. Intentions to recycle plastic waste disposal towards has been noted in previous sections can greatly vary among nations. In light of this gap in knowledge this study shall explore the nature of moral appeals in the Zimbabwean context and how they affect intentions to recycle plastic waste.

## **2.9 Recycling intentions and Recycling behaviour.**

The work of Ajzen (1985) defines an intention as the motivational factors that influence behaviour more so the same author argues that intentions represents how hard people are willing to try in order to perform a behaviour. Similarly, Chan and Wong, (1999) opines that

intentions are an individual's plans to carry out the recommended response. The above authors seem to agree on the fact that intentions have a bearing on behaviour. The nature of the relationship between the two variables being that intentions come first, where an individual plan or discovers some form of motivation to act in a certain way and the moment that such an individual starts to act, it ceases to be an intention but rather a behaviour. This view is also supported by Conner and Armitage, (1998) who opines that the behaviour that people intend to perform is under the control of intention. This seem, to imply that a behaviour is more of an outward manifestation of intentions. Which further mean to say we cannot behave outside our intentions for our intentions control the way we as humans behave.

Various authors among them agree that intentions are a predictor of behaviour. More specifically the work of Mamun Mohiuddin Ahmad Thurasamy and Fazal (2018) indicated that among the variables that can predict behaviour change, intentions are the ranked first. The above authors that believe that there is a direct relationship between intentions and behaviour such that is intention are positive there is high likelihood of a positive behaviour. From environmental management perspective it could imply that is individuals have a positive intention to recycle they would end up recycling.

Furthermore, Oztekin et al, 2017; Tekkaya et al, 2011as well as Kahriman-Ozturk, 2016 also added weight on the relationship between recycling intentions and recycling behaviour. All these authors agreed also that recycling behaviour of a person relies heavily on his or her intention of the recycling. More so these authors also believe that this intention to recycle is also a function of a variety of factors among them the recycling opportunities that exist, gender or even parents' educational level. This view is also supported by Pallister (2002), who opined that recycling opportunities generates intentions to recycle which in turn positively affect reclying behaviour. According to these authors if households believe they are opportunities to recycle they tend to engage in recycling behaviour. These authors thus concur on the fact that recycling intentions does not along impact recycling behaviour but in actual fact there are some factors that pushes such intentions for it to ultimately result in recycling behaviour. However, the main shortfall of these contributions is found in the failure by the authors to indicate whether some of these factors are to be taken as universally applicable to affect intentions indifferent context. In this study efforts shall be made to explore whether some of these

variables like gender as was alluded by the above authors could also have an effect on recycling intentions in a developing country setup like Zimbabwe.

Furthermore, while agreeing that recycling intentions leads to recycling behaviour Tonglet et al., (2004) argue that environmental awareness campaigns should be conducted in order to provide benefits of recycling because the intention to recycle is generally based on an evaluation of costs and benefits. This view is also supported by Davies et al. (2002) who put forward the assertion that if an individual perceives that recycling is good to the environment and to one self he or she will be more likely to have intentions to recycle. The above authors thus seem to concur on the fact that individuals need to see the benefits of recycling for them to have intentions to recycle, which thus brings the importance of environmental educational campaigns to create awareness on citizens on the importance of protecting the environment.

Additionally other authors also Pallister (2002), also puts forward the assertion that while intentions are key determinants of behaviour when one aims at changing behaviour elements such as individuals intentions presents a lot of challenges. Intentions brings challenges according to this author in the sense that it's difficult to determine whether it is genuine intention or not. This view is also supported by Kahriman-Ozturk, (2016) who also argued that to effect behaviour change there is need to determine whether intentions exhibited are proxies for actual behaviour. Taken in the context of environmental management one can thus argue that for households to engage in recycling environmentalist utilising recycling intentions as predictors of behaviour should do it cautiously. In actual fact there is need to determine whether individuals have a genuine intention to recycle. The above authors thus seem to agree on the fact that recycling intentions have a positive effect on recycling behaviour. In actual fact the authors agree that intentions are a predictor of behaviour. This is also supported by the Theory of reasoned action by Ajzen & Fishbein, (1980), which puts intentions to perform or not to perform as the important determinant of behaviour.

## **2.10 Attitudes towards waste disposal and recycling intention.**

The work of Rhodes and Courneya, (2003) defines an attitude as an individual's assessment of favourableness with regards to an object or with regards to a behaviour. Similarly Marques, et, al (2012) indicated that attitudes represents an individual's evaluation or beliefs about a recommended response. According to the later definition attitudes in the context of this study

could imply an individuals' evaluation or beliefs about engaging in plastic waste recycling while in the first definition it means as individual's assessments of the favourableness regarding recycling plastic waste. The above authors concur on the fact that attitudes are built after a careful assessments or evaluation of situations by individuals. Kaiser; Wölfling; Fuhrer, (1999) existing studies show a lot of inconsistencies regarding environmental attitudes which makes the process of coming up with the antecedents of attitudes towards environmentally friendly products challenging. Furthermore, Mahmud and Osman, (2010) bemoans lack of consistence of past studies concerning the relationships between attitudes and environmentally friendly products and called for studies to be conducted in this area. This study thus emerges as an answer to such call where an evaluation is made regarding the effect of attitudes on plastic waste disposal and recycling intentions.

The main link between attitudes and intentions is well captured in the Theory of planned behaviour which justifies that attitudes influences individual's intention to perform a behaviour (1997). This therefore implies that attitudes towards plastic waste disposal influences individuals to engage in recycling behaviour. This view is also supported by Ajzen and Fishbein, (1977) whose study revealed that recycling –specific environmental attitudes predict recycling intention. On the other end an indirect relationship between attitudes and recycling intentions was also discovered in a study by Mahmud and Osman, (2010). According to these authors recycling attitudes indirectly predict recycling intentions. The above authors thus seem to concur on the fact that recycling attitudes have an impact of recycling intentions. This implies that if individuals' beliefs about recycling is positive, they would plan to engage in recycling.

According to Kim, and Hunter, (1993) also weighed in on the debate of the relationship between attitudes and intentions by indicating that intentions mediate the relationship between attitudes and behaviour. This author argued that efforts on behaviour change using attitudes firstly impact intentions then ultimately results in behaviour change. This view is also supported by Prochaska, Johnson, S and Lee, P. (1998) who indicated that attitudes does not directly affect behaviour but results inn behaviour intent which impacts on behaviour. The above authors thus agree that attitudes have a relationship with intentions and ultimately affect behaviour. From the above it can be said that attitudes towards plastic waste disposal results in individuals intending to engage in recycling behaviour. Herek, (1986) although acknowledged

that attitudes affect intentions went further to indicate positive environmental behaviour such as engaging in recycling could easily be attained through changing attitudes through messages that are targets emotions and focusing on changing perceptions. These views are also supported by Marques,et,al (2012) who expressed the opinion that attitudes need to be measured and attempts should be made to change them if found to be contrary in fostering intended behaviour. This author thus underscores the importance of changing the perceptions held by individual concerning environmentally friendly products such as recycling of plastic waste. However, the main shortfall of the contributions cited above is found in the failure by the above authors to provide for instance how attitude can be measured. This study shall seek to cover this gap in knowledge by trying to evaluate and measure the current attitudes towards plastic waste disposal among respondents through utilising a likert scale with statements that seeks to explore attitudes.

While the above authors underscored the importance of attitude change in order to guarantee positive intentions Marques,et,al (2012) was quick to caution that attitude is a multidimensional construct that makes efforts to control and change it more challenging. This view is well supported by a variety of authors among them Chen and Cheng (2012), Elliott and Speck (2012) as well as Fransson,and Gärling, (1999) who argued that attitude towards environmentally friendly products are determined by a host of factors among them product information in this case could be the information concerning recycling, concern for the environment as well as perceived ability. The above authors thus seem to concur on the fact determinant of attitudes on environmental products are quite varied and they need to be identified for there to be attitude change that would result in behaviour intent which would ultimately results in individuals engaging in pro-environmental behaviour such as recycling. This study will among others uncover some of the determinant of attitudes towards waste disposal. For instance, the nature of culture and whether residents in Beitbridge perceive themselves as being able to reduce plastic waste through recycling.

Additionally, other authors Alba and Hutchinson, (1999), Laroche, Toffoli, Kim and Muller, (1996) as well as Cheah, (2011) also brought the concept of eco-literary in the debate attitudes and intention debate. eco-literary according to Alba and Hutchinson, (1999) represents ecological knowledge. More specifically Cheah, (2011) opines that eco-literary represents individual's' ability to identify ecological symbols, concepts and behaviour and is very key in

promoting favourable attitudes towards green products. This view is also supported by Laroche, et, al (1996) who argued that environmental knowledge are more likely to result in individuals forming positive attitudes towards environmental products and behaviour. The above authors all agree on the role that knowledge play on influencing attitudes. It therefore goes without say that efforts to bring about behaviour change through attitudes on waste disposal should thus also target at promoting eco-literary among individuals so as to bring about intentions to recycle. This study being undertaken in developing country where eco-literary has often been cited as low (Cheah, 2011), efforts shall be made towards proffering interventions that could improve the levels of Eco literary among Beit-Bridge residents.

### **2.5.1 Rationale appeals and intention to recycle.**

The link between rational appeals and intention to recycle plastic waste can best be seen from Kotler and Keller (2012) assertions that this appeal is closely linked with the functional value which states that consumers evaluate their choices based on the cost and benefit analysis. From an environmentalist perspective costs of poor waste disposal outweighs the benefits if ever there are such benefits. This view is also supported by Paul and Rana (2012) who indicated that the concept of functional value explains why issues of waste disposal in particular recycling is greatly influenced by factors such as benefits and convenience. The above authors thus seem to suggest that rational appeals have a positive impact on behaviour intention on waste disposal due to its relationship with the functional value concept. This therefore implies that if advertisers utilize the benefits and convenience of plastic waste disposal in particular the numerous benefits that can be enjoyed through engaging in recycling initiatives there are likely the society is likely to have positive intentions and become more willing to engage in recycling. According to Belz and Peattie, (2009) based on rationale, consumers are therefore, more likely to buy into recycling or other proper waste disposal methods against dumping or burning after weighing the opportunity cost involved. Furthermore, rational appeals positively influence recycling intentions as this form of appeal provides factual information about the dangers of improper waste disposal Leonidou *et al.*, (2011). This view is also supported by CRED, (2009) report that rational appeal provides credible green marketing messages that can result in change in behaviour towards green products. More specific to the impact of this form of appeal on

plastic waste disposal, CRED, (2009) indicated that rational appeals can be utilized, for instance, to show the dangers of improper plastic waste disposal by showing dying fish and animals that ingested plastic. The above authors thus seem to concur on the fact that rational appeals have a positive effect on recycling intentions of individuals towards plastic waste as it allows relaying of credible marketing information on the dangers on improper plastic waste disposal that are likely to be accepted by consumers resulting in a behaviour change.

However, there are also other scholars among them Linden, (2012) who have also proffered the argument that rational appeals in some instances can have a negative effect on behaviour intentions. According to CRED, (2009) many environmental protection activists usually use a lot of scientific terms in their environmental messages to an extent that consumers fail to get the message. Similarly, Linden, (2012) argued that many advertisers fail to take note of the fact that cognitive analytical abilities of consumers vary hence they may fail to see the benefits being portrayed in a particular advert regarding waste disposal. This author further noted that many environmental care messages are full of technical information beyond the understanding of the ordinary person on the street who are the greatest contributors to plastic waste. More specifically the author cited words such as ozone depletion, climate change and carbon footprint which are very commonly utilised in environmental care messages. These views resonates very well with the assertions of Cheah,(2011) who argued that eco-literary should be promoted to guarantee change in behaviour intentions towards recycling. The above authors thus seem to concur on the fact that rational appeals may not be very effective on influencing intentions to recycle and ultimately recycling behaviour especially if environmental care promoters fail to take note of differences in cognitive abilities of consumers by bombarding consumers with technical terms that are not easily grasped by the common men on the street.

Ecological messages as indicated from the above authors should therefore be made clear and simple as possible to enhance understanding, support and action by the recipients. For example, the huge success achieved in Germany recycling emanates from proper sorting and placement of trash aided by the simple different trash bin colors that determines the kind of garbage to be placed inside. These trash bin colors are so popularized through marketing communications that all people living in Germany know what type of garbage the bin color represents by heart. In relation to the complication of projections about the future effects of climate change, current



and historical facts can be employed to influence attitudes. The prevalent floods, cyclones, the rising sea and the number of fish and animals dying each year from plastic ingestion or entanglement can be used to appeal to the rationale of humans to change their behavior towards sustainable plastic waste disposal (Doyle 2011:14). Rational appeals are perceived to be effective in educating consumers to engage in pro-environmental behaviour (Deshpande 2011). The primary focus of rational appeals is to narrow the information gap that characterizes the sustainability debate (Linden 2012). Rational appeals are aimed at providing factual information about the dangers of improper plastic waste disposal through detailed, specific and credible green marketing messages. The messages should be understandable to earn the trust of consumers and in turn influence their willingness or intentions to engage in recycling (Leonidou *et al.*, 2011). For instance, the dangers of improper plastic waste disposal such as the killing fish and animals may be employed to explain why it is important for consumers to adopt green disposal. In addition, incentives such income from keeping and sorting of plastic and engaging in recycling activities can be used to promote sustainable consumption and disposal patterns (CRED 2009:38).

While it is undeniable that there are more costs than benefits if societies engage in improper plastic waste disposal and also thus a rational appeal strategy could be very effective in bringing about behaviour change by highlighting numerous benefits. The work of E-Jian *et al.*, (2013) has cautioned that this form of appeal might not bring the necessary results if the advertisers expose too much information to consumers beyond their processing capacity. This view is also acknowledged by Linden (2012) who opined that there is a tendency by environmentalist utilizing rational appeals to crowd consumers with too much information which is very difficult to recall. Similarly, Gleim *et al.*, (2013) noted that in this era and age where consumers experience content fatigue and appear to have shorter attention span benefits of proper waste disposal should not be over emphasised. The above authors agree on the fact that rational appeal might have a negative influence on intentions to recycle especially if consumers are bombarded with too much information. The above authors seem to hold differing views concerning the influence of rational appeals on intentions to recycle. On one end there are those authors who have argued that this form of appeal is very effective as it relies on proving the numerous benefits of proper plastic waste disposal which are naturally more than the costs. On the other end, there are those authors who hold the view that rational appeals have often been mishandled

by environmentalists resulting in negative effects on household behaviour intentions on waste disposal. In light of the above differing views this current study would explore the Zimbabwean context to establish what sort of influence this form of appeal could have on local households' intention to recycle plastic waste.

### **2.11 Mediating effect of recycling intention between advertising appeals, attitudes and recycling behaviour**

This study intended to ascertain how recycling intention mediated the effect of household attitude towards sustainable waste disposal and advertising appeals on recycling behaviour. Mediation is when the independent variable first influences the mediator variable which in turn influences the dependent variable. This means there is a causal chain of effects where attitudes and green advertising appeals should be directed at households in order to influence their recycling intention and subsequently recycling behaviour. The nature of households depicts that the perception they hold about green advertising, attitudes toward waste disposal and recycling behaviour help to shape their intention to engage in recycling behaviour. The mediation model is preferred for this study because it is more comprehensive and accurate as it considers both the dependent and independent variables before the change in course of action (Namazi and Namazi, 2015).

Behavioural intent is defined as someone's willingness to engage to various behaviours (Kim and Hunter, 1993). This notion is supported by Azjen, (1991) assertion that behaviour is dependent on one's intention to perform a behaviour. Intention therefore, is the main pillar on which the TPB theory is predicated as the most important variable in predicting behaviour. Intention, on the other hand is determined by attitudes, general societal pressure and individuals' perception of their ability to perform (Ibid). The proposition that intention was the best single predictor of behaviour has led to its successful use as a mediating factor in several studies (Davies, 2008). Ittiravivongs, (2012); Asare, (2015); Mamun et., (al 2018) study results all show that attitudes toward recycling, external subjective norm and perceived difficulty in performing recycling significantly explained intention to recycle and subsequently recycling behaviour. The findings by Chen and Deng, (2016); Afroz, 2017; and Mamun et., al, (2018) further elaborates that both attitudes and PBC had a positive effect on recycling intention whilst

subjective norm had negative effect which means perhaps recycling was not dependent on social approval. These researches confirmed that recycling intention mediates the relationship between attitudes, subjective norms, PBC and recycling behaviour as was earlier proposed by the Azjen TPB (1991). The direct relationships therefore were not tested as the TPB theory denotes that intention is the most important variable in predicting behaviour. The researcher, depending on this assertion as a result preferred the use of recycling intention to mediate the relationship between green advertising appeals and recycling behaviour.

## **2.11 Chapter summary**

This chapter presented literature review regarding green advertising influence on sustainable waste disposal. The review was guided by the objectives which form the foundation of the study. The major dimensions of waste disposal entailed getting rid of rubbish to the 4Rs of reuse, recovery, recycling and reduction (Barnes, 2009). Moreover, various authors are in agreement that the level of pollution on the land and water bodies has now reached critical levels. Furthermore, it is widely acknowledged that the poor waste disposal methods employed in less developed nations are not sustainable hence the study to change such behaviour through the use of green marketing communications (Kotler & Keller, 2012) The next chapter presents the research methodology.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter provides the methodology used in addressing the objectives of the study. The philosophical orientations and research paradigms that guide the study are also outlined. Additionally, the research presents target population, sampling methods, data sources, research instruments, data collection plan, data presentation tools and analysis methods. The chapter concludes by highlighting the measures employed to augment reliability and validity.

#### **3.1 Research philosophy**

A research philosophy refers to a system of beliefs and assumptions about the development of knowledge. These include epistemological assumptions that are concerned about human knowledge, ontological assumptions focused on the realities encountered when carrying out a research as well as the axiological assumptions which acknowledges the extent and ways the researcher's own values influences the research process (Saunders et al., 2016). The assumptions inevitably shape how research questions are interpreted, choice of method to be used and subsequently, interpretation of findings (Ibid). On the other hand, a research paradigm is a set of beliefs that define the nature of the world, the individual's place in it and the possible relationships to that world and its parts (Bryman, 2015). Mcmillan and Schmacher, (2012) postulate that the dominant research paradigms in literature are positivist, post-positivist, constructivism and pragmatism.

The pragmatism paradigm was employed to guide the selection of the research methods as well as the ontological, epistemological and axiological assumptions of this study. According to Creswell, (2013), pragmatism is a philosophy which holds that the truth or meaning of a statement is to be determined by its practicality. The ontology of the research concerns the study of the existence and nature of reality to answer 'what is' of a certain entity independent from human conceptions and interpretations (Ormston, Spencer, Barnard and Snape, 2014). This assertion was in tandem with the researcher's post positivist view that waste is a huge problem in human societies which can be interpreted effectively through objective analysis of

families and their interaction with postconsumer packaging waste in their homes. In this study the paradigm was applied to determine and verify through objective measurement the relationship and the extent to which attitudes and green advertising appeals influence recycling behaviour among households (McMillan and Schumacher, 2012).

Contrarily, constructivism is the understanding of a phenomena through a complex social construction of meaning, value and experience from the subjective views of participants (Cresswell, 2013). Constructivist approach subscribes to the notion that knowledge is socially constructed and is dependent on the interaction between the researcher, research objects and the natural environment in which the research is conducted. The officials and stakeholders working closely with waste and environmental management were targeted for their views concerning attitudes, green marketing communications and waste management status in their areas of jurisdiction. In addition, the researcher aimed to establish the reasons for the existence of the relationships between attitudes and green communications against recycling behaviour as extracted from the questionnaire survey.

The researcher considered the participatory role that resident families play as final custodians of packaging materials after consumption, which if not properly disposed of, have dire consequences on their quality of life. Their feelings, opinions and willingness to participate in remedying the situation was therefore considered critical. In line with the notion of producing socially useful knowledge through research that answers the research questions of the study, the researcher subscribes to the notion that there are both singular and multiple realities. The strength of the pragmatic view based on the integration of both the objective and subjective data to answer the research questions influenced the study choice of research paradigm. Pragmatism was therefore suitable for this research as it allowed for a more flexible abductive approach to produce both the robust measures of association while also explicitly valuing the depth of the experiences, perspectives and histories of research participants regarding attitudes, green advertising and recycling behaviour (Wheeldon, 2010).

## **3.2 Research design**

Gupta, (2010) postulates that a research design is a blueprint that specifies the methods and procedures employed for data collection, measurement and analysis in a study. It incorporates decisions concerning what, where, when, how much and by what means the data would be collected, measured and analysed. Burns and Grove, (2011) further emphasise that a research design should put into consideration those variables that may affect the reliability and validity of the results. For the purpose of this study, the sequential explanatory research design, which combined the explanatory followed by exploratory survey was utilised. This design involved initial collection of quantitative data, followed by confirmatory interviews that sought to confirm and further explain the kind of relationships and why such relationships existed as established from the questionnaire survey.

### **3.2.1 Explanatory research design**

Explanatory research is defined as a method of research in which the predominant objective is to identify any causal links between the variables that pertain to the research problem (Burns and Grove 2011). Explanatory research design was employed in order to determine the extent to which the use of attitudes and green advertising would influence recycling behaviour among Beitbridge households. The use of explanatory design allowed the research to reveal the existence or non-existence of the causal relationship between recycling intention and recycling behaviour. Specifically, the research sought to validate how the green advertising variables of moral, rational and emotional appeals combined with household attitude towards plastic waste management relate to recycling intention and subsequently recycling behaviour

### **3.2.2 Exploratory research design**

Exploratory research also termed formative design is qualitative in nature and is mainly used to explore research questions (Sanjeev, 2010). According to Malhotra and Dash, (2011), exploratory design helps the researcher to explore a phenomenon so as to gather insights and a clear understanding of the study variables. In this study, the researcher used exploratory research to unearth important variables, build research instruments as well as formulating propositions for testing data gathered from the subsequent quantitative research. The

exploratory research was useful in defining the problem and suggesting hypotheses. The researcher sought comprehensive understanding of green advertising and postconsumer plastic packaging waste management through exploration of existing literature in journals, books, newspapers and the internet. The information available about recycling in Zimbabwe is still limited hence the researcher explored literature from developed economies to try and contribute to the discourse on proper waste disposal in less developed economies.

The information obtained from secondary sources was augmented by confirmatory interviews with officials and stakeholders from Beitbridge urban. These stakeholders provided in depth information on the current status of plastic waste disposal in their respective areas of jurisdiction as well the communication tools currently employed to effect behaviour change in these communities. The interviews provided a platform that allowed the researcher to take notice of non-verbal signals, the personal understanding of the subject by participants as well as the provision for clarification when there was need. The answers to the questions provided the platform to explain the kind of relationships that exists between attitudes, green advertising, recycling intention and recycling behaviour. Though this research area has been fairly covered in developed nations, with a number of these countries achieving remarkable levels of recycling, there is a dearth of both literature and practice of recycling in developing and less developed countries hence the inquisitive exploratory research design.

### **3.3 Target population**

Population in research is referred to as the aggregate of all the units that are eligible to participate in a study (Salkind, 2012:95). The researcher identified council employees in the Environment and Waste Management department, the officials from the Ministry of Health and Child Welfare, the Recyclers association of Beitbridge as well as Environmental Management Agency (EMA) employees for qualitative data. The urban households of Beitbridge town were selected for the questionnaire survey. The selection of the target population was based on the notion that households are the end users of packaging hence their contribution in the final disposal of plastic waste is critical. EMA and council employees are the custodians of the urban environment hence their activity, communications and enforcement of proper disposal laws may determine the level of waste management and recycling intention by the citizens. The other ministries and stakeholders included were identified as major contributors to both the

current and future state of plastic waste management in Beitbridge town and beyond hence their inclusion in the study. All the groups and individuals were selected as people of interest because they met the criteria that the study sought to achieve.

### **3.3 Sampling methods and techniques**

The selection of participants for the study is referred to as sampling. Sampling is defined as a process of selecting a group of people, events or behaviours with which to conduct a study (Wiid and Diggines, 2011). Sampling allowed the researcher to choose a fairly modest number of households and officials from the bigger characterised group for the purpose of the study based on the assumption that data accumulated from the smaller group would be a truthful reflection of the larger group. In addition, it is cost effective, allows faster collection of data as well as improving the quality of data as compared to census (Ader, Mellenbergh and Hand, 2008). Both probability and non-probability sampling techniques were employed to obtain the sample participants from whom data were collected. In probability sampling, participants are selected by chance or at random and each unit has a known chance of being selected as part of the sample whereas in non-probability sampling, the probability that a specific unit of the population is selected is not known (Wiid and Diggines, 2011). Stratified and simple random sampling were used on the selection of households while purposive non-probability sampling was employed in the selection of the officials and stakeholders to participate in the qualitative survey. Stratified sampling provided for the proportional participation of households in different suburbs classified as low, medium and high density. Simple random sampling was the conducted after the stratification to ensure that all the different suburbs were represented in the sample. On the other hand, purposive sampling was used to select officials on the basis of their ability to provide quality information on the subject under study.

#### **3.3.1 Sampling frame**

The sampling frame constitutes the list of the sample units available for selection from the target population and assumed to represent accurately the views of the population under study (Wiid and Diggines, 2011). The sample frame includes officials from Beitbridge council, EMA, Ministry of Health and Child welfare, Ministry of industry and commerce, recyclers association for confirmatory interviews. On the other hand, the Beitbridge urban households constitute the sample frame for quantitative data as listed in the table below:

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**Table 3.1 Sample frame for households**

<b>Description</b>	<b>Target population</b>
Households	22 200
<b>Total</b>	<b>22 200</b>

**Source: Municipality of Beitbridge 2018**

### **3.3.2 Sampling procedure**

Sampling procedure is the process of choosing the actual participants or the sample out of the target population from whom data would be collected to test hypotheses. Stratified followed by simple random sampling was performed in selection of households whereas purposive sampling was employed to select officials and stakeholders.

#### **3.3.2.1 Sampling households**

The researcher divided the entire household population into subgroups in Beitbridge town according to location or suburbs. The researcher obtained the list of occupied houses in Beitbridge town according to the three strata as follows; high density 4636, medium density 945 and low-density 586. The purpose for stratifying the suburbs was to reduce the chances of bias by allocating respondents to each stratum for proportional representation in the selection process. Simple random sampling was then conducted on each stratum using the percentage allocation as calculated from the proportion of households. The strata were allocated 75% high, 15% medium and 10% low density based on the housing statistics above as obtained from the municipality of Beitbridge. The researcher observed that the medium and low-density suburb areas of Beitbridge were fairly clean with no illegal dumpsite in these locations. On the contrary, the high-density suburbs of Dulibadzimu, more so the Hlalani Kuhle or MaGarikai and the Renkini had visible hips of litter and plastics all over the streets, streams, roads and business centres. In addition to the high number of houses in the high-density suburbs, the huge amounts of litter on the streets justified the high percentage of participants in this particular location. The researcher sought to establish if these residents living in close proximity to

dumpsites and dirty streets could therefore do more to make their environments more habitable through engaging in recycling activities.

### **3.3.2.3 Sampling officials and stakeholders**

The researcher also employed purposive non-probability sampling technique to select the officials and stakeholders with the ability to provide necessary data regarding waste management (Kothari, 2018). The selection of the stakeholders who directly and indirectly deal with or affected by environmental and waste management issues were selected based on their ability to provide quality information on the subject under study. This was also done with the intention to explore the depth of knowledge vested in the officials who are responsible for initiating and enforcing proper waste management practices in Beitbridge. The participants were purposively selected from the Municipality of Beitbridge Environmental and Waste management department, Ministry of Health and Child welfare environmental health department, Ministry of Industry and Commerce, Recyclers Association of Beitbridge and EMA officials.

### **3.3.3 Sample size determination**

This is the specific portion of the target population from which data, statistics and facts are collected in order to draw generalised conclusions of the entire target population (Wiid and Diggines, 2011). With respect to the in-depth interviews, respondents were interviewed until technical saturation was reached where recurrence of previously generated data occurred and no other new information could be obtained (Guest, Bunce and Johnson, 2006). In this study, saturation was considered to be achieved by the tenth interview as no new information could be generated. The selection of the sample for quantitative data was carefully performed to represent accurately the views of the target population through application of formulas by Krejcie and Morgan, (1970) to calculate the sample size. In addition, the researcher also sought guidance from previous similar studies conducted by Ittiravivongs, (2012), Mandevere, (2015), Njeri, (2016) and Wegedie, (2018) who used sample sizes of 231, 270, 96 and 196 respectively. The sample size for households for the study was adopted from the Krejcie and Morgan sample size table where 20 000 sample frame requires a sample of 377 respondents based on  $p=0.05$  where the probability of committing type 1 error is less than 5% or  $p<0.05$ .

### **3.4 Data sources**

The researcher conducted literature review prior to fieldwork to obtain background knowledge on the subject under study.

#### **3.4.1 Secondary data**

Secondary data analysis entails an objective and critical inquiry into the relevant body of knowledge on the topic to be studied (Welman et al., 2011). Optional sources such as books, journals, reports, articles, the internet and academic dissertations relating to waste management and green advertising such as solid waste issue, Abdel-Shafy (2018); municipal solid waste management in greater Harare, Rodic-Wiersma, (2004); challenges of solid waste management in Zimbabwe, Mafume et al., (2016); solid waste management, World bank, (2016); recycling intention and behaviour among low income households, Mamun et al., (2018) and, a neuromarketing perspective of green advertising, Yfantidou, (2018) were closely scrutinised as background data sources before the field study was performed.

#### **3.4.2 Primary data**

Primary data for the study was gathered through structured questionnaire and semi-structured interviews. According to Hox and Boije, (2015), primary data is freshly gathered information or data which is collected for a specific research goal. In order to provide answers to the objectives of the study, data were collected from urban households and officials from EMA, town council, Ministry of health, recyclers association, Ministry of industry and commerce and the cleaners in Beitbridge town.

### **3.5 Research instruments**

Research instruments are the tools used for gathering information from respondents (Burs and Grove, 2011). The structured questionnaire was used to collect data from households whilst the in-depth interview guide was used for EMA, municipality workers and other stakeholders.

### **3.5.1 Questionnaire**

The study utilised a structured questionnaire to gather data for the study. A questionnaire is a formalised framework consisting of a set of questions and scales designed to generate primary data (Shiu et al., 2009). The formalised structure of the instrument enabled the researcher to collect systematic and well organised data sets. The benefit associated with the closed-ended questions is that it saves completion time for the respondents (Bryman and Bell, 2011). The researcher also sought to reduce bias or influence on participants as they answered questions without the direct assistance of the researcher (Salkind, 2012). However, the questionnaire limitations which include non-response, provision of wrong answers and lack of flexibility were acknowledged. In sight of the shortcomings, the researcher put considerable effort into designing a questionnaire that motivated the respondents to participate and provide responses that addressed the research problem by way of creating short and precise questions. The questionnaire was subdivided into seven sections which consisted of a total number of thirty-three questions with section A covering the demographic and biographical aspects of respondents. Section B to E focused on each of the dependent and independent variables which constitute the objectives of the research. The instrument items used to measure the green advertising emotional, moral appeals as well as attitude towards plastic waste disposal and ultimately recycling behaviour were adopted from previous similar studies by Tonglet, Phillips and Read (2004:202); Flash Barometer, (2009:84); Leonidou, Leonidou, Kvasova, (2010:35); Lin and Huang, (2011:14); Matthes, Wonneberger and Schmuck, (2013:7) and Njeri, (2016:50)

### **3.5.2 Personal Interviews**

The study utilised interviews to explain the relationship between green marketing and waste management. The interview questions were utilised with selected officials from the Municipality of Beitbridge, Ministry of Health and Child welfare, Ministry of Industry and Commerce, EMA and the Recyclers Association of Beitbridge officials to gain comprehensive information on how waste management can be influenced by attitudes, green communications through rational, moral and emotional appeals. The interview technique is flexible and aimed to capture as far as possible the true description of the experiences lived by the participants when exposed to the subject under study (Giorgi, 2009). This technique allowed the researcher to collect data that reflected respondents' views not limited to pre-determined responses as well

as using interpersonal skills to elicit more information and higher response rate (Wegner, 2012). The researcher made appointments through the telephone or by visiting the respondents in order to expound the purpose of the interview and attain their consent.

### **3.6 Data collection procedure and administration**

The questionnaires were distributed and collected personally by the researcher with the help of one trained field worker from all households that participated. The respondents were informed that completion of the questionnaire was entirely on a voluntary basis. All questions in the instrument were adopted from previous studies hence the pilot study was not performed. The interviews on the other hand were conducted in line with ethical considerations of respect, confidentiality and anonymity (Surujval, 2011). All interviews followed the format on the interview guide where the researcher expressed appreciation for interviewee participation and requesting permission to record before the interview commenced. General broad questions started the interview to relax the interviewee. During the interviews, the researcher used probing to encourage participants to elaborate and clarify their lived experiences which contributed to the quality of the data (Bryman, 2008). The researcher collected data on audiotape as well as taking notes which enhanced the quality of data collected while at the same time providing information back up. The in-depth interviews lasted between 30 to 40 minutes as guided by the pilot study.

### **3.7 Reliability and validity of instruments**

The researcher used reliability and validity measurement instruments to enhance the quality of research findings. Reliability refers to the ability of the measurement procedure to produce consistent results if repeated under similar conditions (Weiner, 2007). On the other hand, validity is defined as the ability of a measuring instrument to measure what is intended to be measured (Gupta, 2011). In a qualitative study the researcher has the obligation to capture the lived experiences of the participants in a manner that ensures the credibility of the data (Creswell, 2009). In a qualitative study the term dependability is preferred to reliability and the researcher is referred to as the instrument. Validity seeks to measure the trustworthiness of the data from the perspective of the researcher and the participants of the study (Creswell, 2009). The results should depict the lived experiences of participants who should confirm the

transcripts as a true reflection of their views for credibility of the research (Bryman and Bell, 2011).

- Reliability and validity in quantitative research primarily assess the integrity of the measurement instrument while credibility and trustworthiness were tested for the qualitative study. Reliability is the frequency with which the measuring instrument is producing the same outcome on repetitive trials (Toke et al., 2012). Validity means that the chosen measuring instrument is the most appropriate for the object to be measured for accurate results (Gupta 2011:133).

The researcher took the following measures to ensure validity and reliability of research instruments for quantitative data as follows:

### **Reliability and validity measures adopted**

- Misinterpretation of questions was minimized through the careful selection of the items related to the present study from the previously administered questionnaires
- All the questions included in the questionnaire were adopted from previously published researches. The researcher only made minimal adjustments from the adopted questions to suit the current research objectives.
- The researcher also included 5 negatively worded questions chosen at random from each scale and applied reverse coding in capturing the responses
- The researcher performed a reliability test using Cronbach's Alpha to measure reliability where all the coefficients generated were above 0,7 thus showing reliability of the instrument.
- The researcher used a large sample of 377 respondents to ensure reliability of results. Malcolm, (2014) postulates that large samples ensures reliability of results.
- The researcher used data triangulation of the qualitative and quantitative to improve validity of research results.
- A Pilot study was conducted with six (6) respondents to ascertain if all questions are relevant so as to reduce the chances for biased responses
- Content validity was enhanced through the use of credible sources or experts such as Krejcie and Morgan, (1970) for sample size calculation, Azjen TPB theory for

conceptual framework and the supervisor who has extensively published in the area of green marketing, environmental and waste management

The following measures were instituted to ensure credibility and trustworthiness of qualitative study.

### **Credibility**

- The researcher received comprehensive training in research methodologies
- The researcher conducted all the interviews personally
- The fact that the researcher acknowledged using the pragmatism philosophy which allows the researcher to be personally involved adds to the credibility of the researcher
- The responses from the confirmatory interviews were also checked for consistency to enhance credibility
- Member checks were conducted with three (3) of the participants who all confirmed that the data represented their views.

### **Trustworthiness**

- Purposive sampling was employed to enhance the appropriateness of the sample in answering the research questions as far as possible
- The researcher employed the bracketing method to suppress all previously acquired knowledge about the subject under study and approach the research with an open mind
- The supervisor drew the same conclusions after analysing the data hence peer debriefing requirements were satisfied

### **3.8 Data analysis and presentation tools**

The questionnaire was checked for completeness before the data was grouped to facilitate analysis. Statistical Package for Social Sciences (SPSS) version 20.0 was used for quantitative data analysis and presentation (Saunders et al., 2012). The relationships between independent variables and dependent variables was tested using Spearman correlation since the data type was ordinal and since the relationship was monotonic between independent and dependent variables. Hypotheses testing through linear regression was also conducted using SPSS 20 while frequent tables were used to present data. Thematic content analysis was used to analyse

qualitative data that was collected through interviews because of its ability to categorise verbal and behavioural data. The technique also helped the researcher familiarise with the data while making it easier to perform coding and reviewing the themes making sure they fit into the data sets.

### **3.9 Ethical considerations**

Saunders, (2012) suggests that interviews should be conducted in line with ethical considerations such as informed consent, privacy, respect, honesty, confidentiality and protection against identity. The researcher employed the following measures to safeguard the ethical considerations

- Permission was sought before undertaking the research
- All respondents were requested not to provide identification information to maintain anonymity and confidentiality.
- The researcher requested interview time that was convenient with the respondents so as not to interrupt day to day organizational operations.
- 

### **3.10 Chapter summary**

The chapter highlighted the principles of the pragmatism research philosophy which make the pillars of this study. The target population, data sources and instruments for collecting data were discussed. The Statistical Package for Social Sciences version 20.0 and thematic content analysis were used as statistical tools for data analysis. Measures undertaken to enhance reliability and validity concluded the chapter. The next chapter presents the findings that emanated from the study.



## CHAPTER 4

### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.0 Introduction

The findings of the study are presented in line with the sequential mixed methods methodology outlined in the previous chapter. The first section of this chapter presents the quantitative data as computed by the SPSS 20.0 for descriptive statistics, correlation, regression, validities and reliabilities of all the constructs under study. For the qualitative study, results administered through content and thematic analysis are provided. Quantitative data collected from the questionnaire is presented using tables while qualitative data from the personal interviews was presented in continuous paragraphs and supported by direct quotes from the respondents.

#### 4.1 Response rate

The table 4.1 illustrates the questionnaires that were administered to households in response to the influence of green advertising on sustainable plastic packaging waste disposal in Beitbridge urban.

**Table 4.1 Response rate**

Description	Questionnaires distributed	Questionnaires returned	Percentage
Beitbridge urban households	377	353	94%
<b>Total</b>	<b>377</b>	<b>353</b>	<b>94%</b>

**Source:** *Survey data 2019*

As shown in table 4.1, out of the 377 questionnaires that were administered 353 were returned thereby yielding 94% response rate. Of the 24 questionnaires that were not returned, the researcher advised the participants to destroy them for academic purposes. A high response

rate of 94% was achieved in this study as the researcher gave the respondents enough time to fill the questionnaires and collected them after 5 days. According to Saunders (2012) researches are prone to biases but they need to be minimised to ensure reliability of results. The 94% response rate is adequate as this is above the 80% de facto standard response rate (Johnson and Owens, 2016).

## 4.2 Demographic analysis

The demographic profiles of the respondents in terms of their age group, gender as well as their highest level of qualification is illustrated in the table 4.1 below. The information was deemed important for validation of the quality of data.

### 4.2.1 Gender

Table 4.1 clearly shows gender characteristics of the participants in relation to demographic analysis

**Table 4.1 Gender**

Description	Frequency	Percentage
Males	200	57%
Females	153	43%
<b>Total</b>	<b>353</b>	<b>100%</b>

**Source:** *Survey data 2019*

Table 4.1 illustrates the gender characteristic of the participants in Beitbridge urban who took part in this study. Majority of the respondents were males as they had a 57% response rate whilst the remaining 47% were female. The male dominated informal cross border trading which is the main economic sector in Beitbridge is reflective of the population demographics according to the analysis (Newsday 2016).

### 4.2.2 Age

Table 4.2 clearly shows age characteristics of the participants in relation to demographic analysis

**Table 4.2 Age**

Age	Frequency	Percentage
Below 30 years	100	28%
20 to 40 years	200	57%
40 years and above	53	15%
<b>Total</b>	<b>353</b>	<b>100%</b>

Source: Survey data 2019

As shown in table 4.2 responses to age of the participants who took part in this study were as follows; 28% of the respondents were aged 30 and below, 57% of the respondents being the modal class of this study were aged between 20 to 40 years, while the least participant group who took part in this research were 40 years and above. According to Joana and Gumas (2015) the life expectancy has shifted overtime to the extent that economic active group of today lies between 20 to 40 and this is also in line with the findings from this study.

#### 4.2.3 Highest qualification

Table 4.3 clearly shows highest qualification as characteristics of the participants in relation to demographic analysis.

**Table 4.3 Highest qualification**

Highest qualification	Frequency	Percentage
Ordinary level	250	71%
Tertiary diploma	50	14%
First degree	30	8%
Post graduate	23	7%
<b>Total</b>	<b>353</b>	<b>100%</b>

Source: Survey data 2019

As shown in table 4.3 the minimum educational qualifications of the respondents were an ordinary level certificate entailing that all the respondents were educated enough to understand

and answer the questions in the questionnaires. Of the 353 respondents, O level certificate holders constitute the majority at 71% whilst participants with tertiary diploma constitute 14% of the respondents. First degree holders constituted 8% and respondents with post graduates encompassed 7%. According to the statistics by Zimbabwe national employment council (2018) majority of the people who live and work in Beitbridge hold ordinary level qualification due to the nature of their job which is mainly transportation and smuggling of goods on the border which does not require more of tertiary qualification.

### 4.3 Reliability test

Cronbach`s alpha test was employed to measure the internal consistency of the Likert scale in the research instrument. An alpha coefficient of 0.7 and above attest that the instrument was reliable in measuring the constructs, (Cronbach, 1951). Furthermore, convergent validity was assessed by inspecting the inter- item correlation matrix values. Pollant (2011) attested that values or inter-item correlation coefficients greater than 0.3 communicate convergent validity. Table 4.4 below shows the Cronbach`s alpha coefficients for the -constructs measured in the study.

**Descriptive table: 4.4 Cronbach`s Alpha test**

Research construct		Descriptive statistics		Cronbach's Alpha value
		Variable	Mean	
<b>Emotional appeals</b>	EMOTAPP1	4.17	0.728	0.833
	EMOTAPP2	4.18	0.747	
	EMOTAPP3	4.38	0.709	
	EMOTAPP4	4.36	0.705	
	EMOTAPP5	4.50	0.699	
<b>Moral appeals</b>	MORAPP1	4.32	0.881	0.825
	MORAPP2	4.23	0.889	

	MORAPP3	4.12	0.885	
	MORAPP4	4.06	0.909	
	MORAPP5	3.91	0.911	
<b>Attitudes towards waste disposal</b>				
	RATATT1	4.28	0.839	0.842
	RATATT2	4.24	0.827	
	RATATT3	4.25	0.916	
	RATATT4	4.08	0.953	
	RATATT5	4.01	0.824	
	RATATT6	4.42	0.852	
	RATATT7	4.43	0.853	
	RATATT8	3.95	0.860	
	RATATT9	4.08	0.900	
	RATATT10	4.30	0.875	
<b>Recycling intentions</b>				
	RECYINT1	4.10	1.072	0.829
	RECYINT2	4.03	1.015	
	RECYINT3	4.19	1.086	
	RECYINT4	4.04	1.024	
	RECYINT5	4.30	1.083	
<b>Recycling behaviour</b>				
	RECYBEH1	4.67	0.897	0.875
	RECYBEH2	4.93	0.815	
	RECYBEH3	4.94	0.800	
	RECYBEH4	4.55	0.833	
	RECYBEH5	4.42	0.774	

**Source: SPSS 20 output**

The questions asked on each of the five constructs namely emotional appeals, moral appeals, attitudes towards waste disposal, recycling intentions and recycling behavior are 0.833, 0.825, 0.842, 0.829 and 0.875 respectively. The five Cronbach's alpha coefficient provided evidence that the scale measurements were reliable as the alpha coefficients are all above 0.7.

Table 4.4 on emotional appeals, shows mean values ranging from 4.18 to 4.50 indicating that most of the 353 respondents were agreeing to the five questions posed on emotional appeals in the measurement instrument. The standard deviations values ranging from 0.699 to 0.747 confirmed that most of the 353 respondents' responses were similar hence they were concentrated close to the mean and depicts very few if any outliers in the data set. This depicts that the sample population had homogeneous opinion about the subject under study.

**Table 4.5 Inter item correlation matrix for emotional appeals**

**Inter-Item Correlation Matrix**

	EMOTAPP1	EMOTAPP2	EMOTAPP3	EMOTAPP4	EMOTAPP5
EMOTAPP1	1.000	.720	.560	.524	.361
EMOTAPP2	.720	1.000	.508	.587	.329
EMOTAPP3	.560	.508	1.000	.564	.507
EMOTAPP4	.524	.587	.564	1.000	.447
EMOTAPP5	.361	.329	.507	.447	1.000

**Source:** SPSS version 20

Table 4.5 shows depicts positive inter item correlation coefficients ranging above 0.3 indicates that all the five questions on emotional appeals were assessing the same content on emotional appeals hence, communicating convergent validity.

Table 4.4 on moral appeals, shows mean values ranging from 3.91 to 4.32 indicating that most of the 353 respondents were agreeing to the five questions posed on moral appeals in the measurement instrument. The standard deviations values ranging from 0.881 to 0.909 confirmed that most of the 353 respondents' responses were similar, hence there were no outliers.

**Table 4.6 Inter item correlation matrix moral appeals**

**Inter-Item Correlation Matrix**

	MORAPP1	MORAPP2	MORAPP3	MORAPP4	MORAPP5
MORAPP1	1.000	.509	.435	.397	.451
MORAPP2	.509	1.000	.416	.491	.348
MORAPP3	.435	.416	1.000	.477	.366
MORAPP4	.397	.491	.477	1.000	.570
MORAPP5	.451	.348	.366	.570	1.000

Source: SPSS version 20

Table 4.6 depicts positive inter item correlation coefficients ranging above 0.3 indicates that all the five questions on moral appeals were assessing the same content on moral appeals.

Table 4.4 on attitudes towards waste disposal, shows mean values ranging from 3.95 to 4.42 indicating that most of the 353 respondents were agreeing to the ten questions posed on attitudes towards waste disposal in the measurement instrument. However, there were a significant small portion of respondents were neutral to the questions asked on attitudes towards waste disposal. The standard deviations values ranging from 0.824 to 0.916 confirmed that most of the 353 respondents' responses were similar, hence there were no outliers.

**Table 4.7 Inter item correlation matrix on attitudes towards waste disposal.**

**Inter-Item Correlation Matrix**

	RATAT T1	RATAT T2	RATAT T3	RATAT T4	RATAT T5	RATAT T6	RATAT T7	RATAT T8	RATAT T9	RATATT 10
RATATT 1	1.000	.684	.656	.544	.454	.460	.523	.427	.470	.471
RATATT 2	.684	1.000	.634	.625	.474	.455	.319	.521	.452	.376
RATATT 3	.656	.634	1.000	.596	.513	.476	.311	.458	.408	.502
RATATT 4	.544	.625	.596	1.000	.611	.349	.453	.481	.497	.537
RATATT 5	.454	.474	.513	.611	1.000	.588	.479	.383	.319	.397
RATATT 6	.460	.455	.476	.349	.588	1.000	.681	.321	.378	.378
RATATT 7	.523	.319	.311	.453	.479	.681	1.000	.336	.441	.445
RATATT 8	.427	.521	.458	.481	.383	.321	.336	1.000	.420	.374
RATATT 9	.470	.452	.408	.497	.319	.378	.441	.420	1.000	.483
RATATT 10	.471	.376	.502	.537	.397	.378	.445	.374	.483	1.000

Source: SPSS version 20

Table 4.8 shows depicts positive inter item correlation coefficients ranging above 0.3 indicates that all the ten questions on attitudes towards waste disposal were assessing the same content on household attitudes towards waste disposal hence the similar scores. Thus, all the ten questions measuring household attitudes towards waste disposal were related and therefore confirming convergent validity.

Table 4.4 on recycling intentions, shows mean values ranging from 4.03 to 4.19 indicating that most of the 353 respondents were agreeing to the five questions posed on recycling intentions in the measurement instrument. The standard deviations values ranging from 1.015 to 1.086 confirmed that most of the 353 respondents' responses were similar, hence there were no outliers.

**Table 4.9 Inter item correlation matrix on recycling intentions**

	RECYINT1	RECYINT2	RECYINT3	RECTINT4	RECYINT5
RECYINT1	1.000	.617	.482	.340	.439
RECYINT2	.617	1.000	.559	.486	.371
RECYINT3	.482	.559	1.000	.615	.519
RECTINT4	.340	.486	.615	1.000	.555
RECYINT5	.439	.371	.519	.555	1.000

**Source:** SPSS version 20

Table 4.8 shows depicts positive inter item correlation coefficients ranging above 0.3 indicates that all the five questions on recycling intentions were assessing the same content on recycling intentions.

Table 4.4 on recycling intentions, shows mean values ranging from 4.42 to 4.94 indicating that most of the 353 respondents were agreeing to the five questions posed on recycling behavior in the measurement instrument. The standard deviations values ranging from 0.774 to 0.897 confirmed that most of the 353 respondents' responses were similar indicating the absence of outliers.



**Table 4.10 Inter item correlation matrix for recycling behavior**

	RECYBEH1	RECYBEH2	RECYBEH3	RECYBEH4	RECYBEH5
RECYBEH1	1.000	.568	.543	.488	.536
RECYBEH2	.568	1.000	.687	.617	.574
RECYBEH3	.543	.687	1.000	.643	.612
RECYBEH4	.488	.617	.643	1.000	.600
RECYBEH5	.536	.574	.612	.600	1.000

Source: SPSS version 20

Table 4.8 shows depicts positive inter item correlation coefficients ranging above 0.3 indicates that all the five questions on recycling behavior were assessing the same content on recycling behavior.

#### 4.4 Correlation analysis

Correlation analysis was employed to determine the degree to which the association between the two concepts of the main research objective are monotonic.

##### 4.4.1 The influence of emotional appeals on recycling intentions.

Table 5.2 below shows a spearman correlation coefficient of 0.432 between emotional appeals and household recycling intentions. The correlation coefficient 0.432 attests a moderate positive linear relationship between emotional appeals and recycling intentions. Therefore, any inflation in emotional adverts will respectively enhance household recycling intentions.

**Table 4.11 Spearman correlation coefficient of emotional appeals and recycling intentions**

		EMOTAPP	RECYINT
EMOTAPP	Correlation Coefficient	1.000	.432**
	Sig. (2-tailed)	.	.000
	N	353	353
RECYINT	Correlation Coefficient	.432**	1.000
	Sig. (2-tailed)	.000	.
	N	353	353

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

Source: SPSS version 20

#### 4.4.2 The influence of moral appeals on recycling intentions

A spearman correlation coefficient of 0.367 between moral appeals and household recycling intentions indicates existence of a relationship as depicted in table 5.3 below. The correlation coefficient entails a positive moderate linear association between the independent variable and dependent variable. Thus, increased reach of moral promotions will correspondingly elevate recycling intentions.

**Table 4.12 Spearman correlation coefficient of moral appeals and recycling intentions**

		MORAPP	RECYINT
Spearman's rho	Correlation Coefficient	1.000	.367**
	MORAPP Sig. (2-tailed)	.	.000
	N	353	353
	Correlation Coefficient	.367**	1.000
	RECYINT Sig. (2-tailed)	.000	.
	N	353	353

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

Source: SPSS version 20

#### 4.4.3 The relationship between household attitude towards waste disposal and recycling intentions.

Table 5.4 below reflects a spearman correlation of 0.468 between the attitudes towards waste disposal and recycling intentions. The positive correlation coefficient asserts that there is a positive linear relationship between the two constructs that is moderate. Therefore, an intensification in households` attitudes towards waste disposal directly enhances recycling intentions.

**Table 4.13 Spearman correlation coefficient between household attitudes towards waste disposal and recycling intentions.**

		RATAPP	RECYINT
Spearman's rho	Correlation Coefficient	1.000	.468**
	RATAPP Sig. (2-tailed)	.	.000
	N	353	353
	Correlation Coefficient	.468**	1.000
	RECYINT Sig. (2-tailed)	.000	.
	N	353	353

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

#### 4.4.4 The effect of recycling intentions on recycling behaviour.

Table 5.5 below depicts that there is low negative linear association between the predictor variable, recycling intentions and the response construct, recycling behaviour shown by the spearman correlation coefficient of -0.032. Therefore, recycling intentions negatively affect recycling behaviour.

**Table 4.14 Spearman correlation coefficient between recycling intentions and recycling behaviour**

		RECYINT	RECYBEH
Spearman's rho	Correlation Coefficient	1.000	-0.032
	RECYINT Sig. (2-tailed)	.	.000
	N	353	353
	Correlation Coefficient	-0.032	1.000
	RECYBEH Sig. (2-tailed)	.548	.
	N	353	353

#### 4.5 Multicollinearity

The Spearman correlation coefficients were 0.432, 0.367, 0.468 and 0.432 and all were below 0.8. This communicated that there was lack of very high intercorrelation among the independent variables. Therefore, changes in paired independent and dependent variables did not influence changes in other independent variables.

## 4.6 Regression analysis

Regression analysis was done to determine the cause and effect relationship between green advertising variables and recycling intentions. The regression analysis served also to ascertain the extent of the influence of the independent variables on the recycling intentions and quantifying the causal relationship between the independent and dependent variables. Table 5.6 below depicts the summary of the regression analysis.

**Table 4.15 Summary of the regression analysis**

Variables		Regression coefficient	R Square value	Adjusted R Square	Standardized coefficient (Beta)	Sig. level
Independent	Dependent					
EMOTAPP	RECYINT	0.377	0.142	0.139	0.377	0.000
MORAPP	RECYINT	0.423	0.179	0.176	0.423	0.000
RATATT	RECYINT	0.541	0.293	0.291	0.541	0.000
RECYINT	RECYBEH	0.006	0.080	-0.003	0.006	0.459
EMOMORATTRECYINT	RECYBEH	0.432	0.185	0.181	0.432	0.015
RECYBEH	EMOMORATTRECYINT	0.018	0.000	-0.00.	0.018	0.732

### 4.6.1 The effect of emotional appeals on recycling intentions

Table 5.6 shows a regression coefficient of 0.377 between emotional appeals and households recycling intentions which reflects existence of causal relationship between the two variables as the regression coefficient is not zero. This also confirms that emotional appeals positively affect recycling intentions. The R square value of 0.183 entailed that emotional appeals influenced recycling intention by 18.3% only. Additionally, a significant value of 0.000

resulted in the H<sub>0</sub> hypothesis being relegated while the H<sub>1</sub> hypothesis was adopted. This is so because the figure depicts a significant relationship between emotional appeals and households recycling intentions.

#### **4.6.2 The influence of moral appeals on households recycling intentions**

The regression coefficient of 0.423 between moral appeals and households recycling intentions shows existence of a causal relationship since the coefficient is not equal to zero as shown in table 5.6., this means therefore that the moral appeals positively influence the households recycling intentions. The R square value of 0.179 indicates that moral appeals influences recycling intentions by 17.9% only. Additionally, a significant level of 0.000 implies that there is a significant relationship between moral appeals and household recycling intentions which compelled the researcher to reject the null hypothesis H<sub>0</sub>.

#### **4.6.3 The relationship between household attitudes towards waste disposal and recycling intention.**

Table 5.6 shows a regression coefficient of 0.541 between households` attitudes towards waste disposal and households recycling intentions which reflects existence of causal relationship between the two variables. The regression coefficient of 0.541 also complements the correlation results in attesting existence of a positive association between the two variables. The R square value of 0.293 entailed that households` attitudes towards waste disposal influenced recycling intention by 29.3% only. Additionally, a significant value of 0.000 resulted in the H<sub>0</sub> hypothesis being rejected. This is because the value entail there exists a significant positive relationship between households` attitudes toward waste disposal and households recycling intentions.

#### **4.6.4 The effect of recycling intentions on recycling behaviour**

Table 5.6 shows a regression coefficient of 0.006 between recycling intentions and recycling behaviour which points out the existence of an insignificant causal relationship between the two constructs. The R square value of 0.08 shows that recycling intentions influences recycling behaviour by 8% only. Additionally, a significant level of 0.459 which is way above 0.05

resulted in the  $H_0$  hypothesis being accepted. The value signifies that there is no significant relationship between recycling intentions and recycling behaviour.

#### **4.5.5 The mediating effect of households` recycling intentions on the relationship between advertising appeals and recycling behaviour.**

Table 5.6 shows a regression coefficient of 0.432 between advertising appeals and recycling behaviour which reflects existence of a relationship. Advertising appeals and the recycling intention mediating factor combine to influence recycling behaviour by 18.5% as shown by an R squared value of 18.5. However, reverse regression between advertising appeals and recycling behaviour produced a regression coefficient of 0.018. on the other hand, the insignificant level of 0.459 and the R square value of 0.000 on reverse regression means that recycling intention is mediating the relationship between advertising appeals and recycling behaviour which depicts that the  $H_0$  hypothesis was rejected.

Table 5.6 depicts that, emotional appeals, moral appeals and attitudes towards waste disposal had beta coefficients of 0.377, 0.423 and 0,541 respectively. This revealed that household attitudes towards waste disposal had the most influence on recycling intentions at 54.1%

### **4.7 Results and discussion of the qualitative study**

The researcher takes the necessary steps to consolidate the data. The data is then arranged in comprehensible order

#### **4.7.1 Steps for analysing qualitative data**

##### **4.7.1.1 The six-stage process by Braun and Clarke (2006)**

- The researcher read through the notes transcripts and listened to the recorded interviews
- Open coding was performed in order to group homogeneous ideas into clusters
- Thematic analysis was employed to convert the clustered messages into themes that were in line with the research objectives

- Theme refinement or axial coding was employed where the themes and sub themes were further scrutinised and merged where they were too similar
- Mapping was done to define the themes so as to ascertain and capture all the data relevant to such theme
- All the themes were matched to the relevant research questions so as to facilitate deductions and conclusions

#### 4.7.2 Sample composition

The total of eleven questions were administered with ten participants for the in-depth interviews. The participants comprised nine officials and stakeholders who deal directly with waste management in the different government departments in Beitbridge. The tenth participant was a private stakeholder who is the chairperson for the Beitbridge recyclers association. Out of the ten participants, three (30%) were female while seven (70%) were male. The respondents' age was between 29 and 59, with a resultant mean of 43 years. The table below illustrates the participants demographics with pseudonyms used to uphold ethical considerations of confidentiality and anonymity.

**Table 4.16 Participant Demographics**

<b>Name</b>	<b>Age</b>	<b>Gender</b>	<b>Education</b>
Justin	47	Male	Undergraduate
Sharon	42	Female	Post graduate
Thandeka	41	Female	Undergraduate
Henry	51	Male	Postgraduate
Pearson	44	Male	Postgraduate
Shelton	36	Male	Postgraduate
Robert Jnr	29	Male	Postgraduate
Bradley	46	Male	Undergraduate
Takudzwa	35	Female	Undergraduate
Edgar	59	Male	Diploma

The interviews were structured around the research objectives based on waste disposal and green communications. The interviewees provided their views on the current status of waste disposal, the challenges the community faces in implementing sustainable waste disposal and suggested solutions to eradicate environmental pollution through proper waste disposal. The qualitative interviews were designed to probe the explanation for the relationships that exists between the independent and dependent variables in the quantitative study hence the responses are also categorised in relation to the study objectives. These are rational influence, emotional influence, moral or social pressure, recycling intention and recycling behaviour.

#### **4.7.3 Emotion influence**

The emotion that accompanies environmental pollution vary from person to person or area to area depending on the individual or such community priorities. This was exemplified in the response below:

*People don't feel bad or guilt as long the garbage is out of their gates. The people who indiscriminately throw away plastic do not own a single animal. It is you and me who own cattle who suffer' ....[Sharon]*

Emotion has a substantial influence on the cognitive processes in humans, including perception, attention, learning, memory, reasoning, and problem solving (Chang, 2012). Throwing away plastic litter has negative impact on climate change and global warming which makes it ideal to use emotional appeals to advocate behaviour change as people fear the implications of these phenomenon. The guilt appeals provide consumers with a sense of responsibility and control over their garbage disposal hence recycling can be initiated as it is within their control (E-Jian et al., 2013). Positive emotional appeals such as fun and pleasure can also be used effectively to change ecological behaviour by stressing that the enjoyment associated with the natural environment is threatened by the people's consumption and disposal behaviour (Kang and Park-Poaps, 2009). Emotion also facilitates encoding and helps retrieval of information efficiently (Lee, 2009).



#### **4.7.4 Moral and social influence**

Moral influence emanates from the assertion that environmental care behaviour is triggered by what humans deem to be right or wrong (Lindenberg and Steg, 2007). Furthermore, Chen, Pillutla and Yao, (2009) posit that moral appeals help individuals engage in selflessness activities and pursue those decisions that benefits society and future generations. Below are the narratives that capture these sentiments from the study.

*When we talk green, we talk of the environment for future generations. We want our children and grandchildren to enjoy what we have and even better through our environmental care activities [Sharon]*

*It is like when these people abuse bottles by urinating in them and throw them on the street, they do not realise that it is the same containers that vendors collect and refill with water for resale..... At the end of the day you will be drinking from your own urine bottle when you buy the water on the streets [Sharon]*

*Don't do something for yourself, people need to start being considerate because we need to realise that we do not live in a vacuum. It's a symbiotic kind of life that we live. Yeh, everyone benefits from what everyone does [Sharon]*

*Children get hurt from sharp objects such as glass and other sharp objects.....Used condoms are a huge problem as children get curious and touch or even blow them which poses a huge health dangers to them [Shelton]*

Therefore, people have to exercise the societal marketing concept that encompasses the good of individuals and organisations, the society and its natural environment. To this end, Griskevicius, Tybur and Bergh, (2010) put forward that moral persuasion has the potential of catalysing group standards that are harmonious with environmental values.

#### **4.7.5 Attitude towards waste disposal**

Behaviour change is hugely influenced by the attitude of the individuals towards that behaviour. Hardoy, (2001) opine that attitudes are fundamental in the implementation of proper waste disposal. Ireen, (2008) further articulate that the negative attitudes towards waste

disposal in less developed and developing countries make sustainable plastic waste reduction and proper disposal a real nightmare. These views are also reflected from the incepts below:

*As an official, I would say Beitbridge is generally not clean because when you go around you see a lot of litter in undesignated areas. Council designed areas for waste but people opt for nearest bushes to dump their waste [Robert Jnr]*

*Beitbridge has a challenge in waste generation and disposal. I think being a border town.....we have a floating population of over 10 000 people on a daily basis.....and this non resident population have high litter generation than the municipality capacity to clean [Takudzwa]*

*The owners of Beitbridge are clean especially the older generation who were born here. However, the young people who come here from other areas such as Harare, Gweru, Masvingo to make money do not care about the state of the streets. Add to those who cross the border everyday to South Africa and back, then it becomes a mess [Henry]*

It is evident from the sentiments above that Beitbridge is failing to reach cleanliness standards required for a safe environment for residents. It can be deduced however, that this problem is mainly caused by the throwaway culture amongst the households and passers-by. This may be influenced by the household's belief that waste management is the responsibility of the municipality and residents can only take part if they are incentivised to do so (Ireen, 2008).

#### **4.7.5.1 Rational influence**

The study sought to discover to what extend residents waste disposal characteristics was influenced by their logical disposition. To this end, most of the interviews concurred that plastic was a serious environment polluter with its effects likely to be felt by generations and generations to come especially because of its non-biodegradable nature. One such respondent stressed that

*'Plastic is not biodegradable hence its on the environment for quite a long time, becomes an eyesore, clogs drainages and water systems.....littered environments scare investors and tourists.....'* [Thandeka]

*Undesignated dumpsites promote fly breeding and these flies are carriers of pathogenic organisms that cause diseases such as cholera and typhoid.....If you look at plastic, it is made up of various materials,.... You burn plastic, you see a lot of smoke which contain carbon that then affects the ozone layer....[Justin]*

*The only way to destroy plastic is through burning which is not good because of its air pollution and climate change effects.....[Sharon]*

Waste management literature support that waste disposal behaviour is influenced by the functional value system hence the benefits of preserving the environment should be stressed in green communications in order to change behaviours (Paul and Rana, 2012). Belz and Peattie. (2009) further suggest that based on rationale, consumers may engage in proper waste disposal after weighing the costs of ozone layer depletion and its climatic conditions consequences. In addition, the threat of recurrence of outbreaks of diseases such as malaria, typhoid and cholera which most people who lived in Beitbridge in 2008 and 2009 would need no reminders as to its devastating effects is likely to trigger positive action.

The sentiments of the interviewees show that there is lack of knowledge about the devastating effects of litter on the quality of life for the residents as well as the environment as illustrated by the following quotes

*.....There is need for training and workshops because they don't even know, so they throw litter everywhere...[Pearson]*

*We need intensive education, intense awareness campaigns to engage, advocate and then demonstrate the usefulness..... because there is value in waste...[Sharon]*

According to Deshpande (2011), rational appeals are effective in educating consumers to engage in pro-environmental activities. Linden, (2012) further supports this notion by saying that the primary focus of rational appeals is to narrow the information gap that characterises the sustainability debate by providing factual information about the consequences of improper disposal of waste especially plastic

#### **4.7.6 Recycling intention**

The motive behind recycling is to keep the environment while at the same time reducing the drawing of new raw materials from the same environment which causes rapid resource depletion. The responsible authorities must therefore promote the use of recycling schemes amongst households to convert or reinforce positive attitudes towards recycling activities [Tonglet, 2004]. However, to motivate such behaviour, opportunities to recycle must be provided through easy and accessible facilities, convenience, knowledge of how, where and what to recycle [Ibid]

*If organisations tell people that their containers are recyclable, people of Beitbridge would respond emphatically. We have got all the potential but we do not have the necessary knowledge and resources [Edgar]*

*The biggest challenge that waste pickers and recyclers is the cost of transportation to Harare where there are just a handful recyclers who pay meagre returns. Local recycling would encourage more people to engage in recycling [Thandeka]*

In order to increase the change of mindset to more recycling there is need for authorities to attract more investments towards availing facilities to recycle locally. McDonald and Oates reiterate that there is need for well-planned recycling schemes aided by the construction of convenient and visible waste containers.

#### **4.7.7 Recycling behaviour**

Recycling helps reduce litter substantively in order to minimise its impact on the environment through sustainable disposal of waste. To facilitate recycling behaviour, the interviewees offered the following:

*Informal recyclers come and buy plastic and cans that we keep for recycling [Proud]*

*Informed residents have no problem sorting their litter for recycling only the majority know nothing about it [Sharon]*

*Recyclers make floor polish from plastic and sell at schools [Thandeka]*

The above statements show that the recycling levels in Beitbridge are at infant level and a lot needs to be done to improve the situation to sustainable means of plastic waste disposal such as recycling. Informed residents have a greater input as far as waste collection and disposal is concerned hence it makes easier for companies that practise recycling. Earning income would also act as an incentive for household participation

#### **4.8 Chapter summary**

In this chapter, field results were obtained, presented in tables and interpreted with aid of the SPSS 20.0 software. Frequency tables were the only diagrams utilized to present data in a clear and orderly fashion. The structured questionnaires produced consistent results attested by Cronbach`s alpha coefficients at average 0.84. Furthermore, all green advertising variables had a significant positive linear relationship with recycling intentions. All green advertising constructs had causal relationship with households recycling intentions while recycling intentions mediated the relationship between advertising appeals and recycling behaviour. Household attitudes toward wasted disposal at 54,1% influenced recycling intentions more than any other variable. Thematic analysis was used to interpret the confirmatory interviews and the results show that though households have positive emotional, moral and attitude inclination towards waste disposal, they lack knowledge, expertise and resources to engage in recycling activities. Chapter 5 presents the results, recommendations and conclusions to the research study.

## CHAPTER 5

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Summary

As a consequence of diverse human activities such as littering, the planet has suffered rampant pollution resulting in the global outcry for the reduction of carbon footprints by individuals and organisations through engaging in eco-friendly activities. Thus, the present study was meant to examine the influence of green advertising on sustainable plastic packaging waste disposal. A Case of Beitbridge urban households. The research was inspired by the realisation that plastic packaging is a double-edged sword whose functions in the global economy and the environmental residue footprint thereof, after use, were antagonistic. To this end the researcher incorporated green advertising variables in the conceptual framework to construct four (4) objectives to guide the research which are (1) determining the influence of emotional appeals on household recycling intention (2) examining the influence of moral appeals on recycling intention (3) ascertain the relationship between household attitude towards waste disposal and recycling intention and lastly (4) determining the effect of recycling intention on recycling behaviour. The research objectives were guided by the Theory of Planned Behaviour. Relevant literature from various scholars on the influence of green advertising and sustainable waste disposal was scrutinized. Both theoretical and empirical literature perspectives were taken into account to identify the major ideas and concepts related to waste disposal and green advertising. Though scholars unanimously agree that waste is a huge threat to life on the planet through pollution, climate change and global warming effects, the major areas of argument emerged on the level of practice of proper waste disposal between developed and less developed nations. Whereas developed countries have made strides to devise environmentally friendly methods of disposal, less developed counterparts' strategies of landfilling, dumping and burning are causing serious damage to the ecosystem, ozone layer and speeding up global warming hence the main literature gap in the current study. A more positivist philosophy which allowed a sequential mixed method design where both quantitative and qualitative methods were adopted in gathering data from 377 respondents comprising households, representatives from environmental agencies and institutions responsible for garbage management in Beitbridge was adopted. A structured questionnaire based on a 5-point Likert scale was used to gather data and

this was complimented with confirmatory interviews conducted through purposive sampling. The SPSS 20.0 was used to analyse quantitative data. The major findings are as follows

## **5.1 Major findings**

From the analysis, the following findings were generated

### **5.1.1 The influence of emotional appeals on household recycling intention**

The findings exhibit the results run on SPSS 20. The results show that there is a significant relationship between emotional appeals and recycling intention as exhibited by the 0.000 significance level value which is far below the 0.05 as prescribed by (Pallant 2007). The correlation coefficient of 0.432 attests a moderate positive linear relationship between emotional appeals and recycling intentions. On the other hand, the regression coefficient of 0.377 reflects the existence of a causal relationship between the two variables. This also confirms that emotional appeals positively affect recycling intentions. The R square value of 0.183 entailed that emotional appeals influenced recycling intention by 18.3% only.

### **5.1.2 The influence of moral appeals on recycling intention**

**From the analysis performed using SPSS 20, moral appeals have a significant relationship with recycling intention at P-value of 0.000 which is below the 0.05 threshold (Pallant, 2007).** The correlation coefficient of 0.367 between moral appeals and household recycling intentions indicates existence of a positive moderate linear association between the morals and recycling. In addition, the regression coefficient of 0.423 shows the existence of a causal relationship between the two variables meaning therefore that moral appeals positively influence the households recycling intentions. The R square value of 0.179 indicates that moral appeals influences recycling intentions by 17.9% only.

### **5.1.3 The relationship between household attitudes towards waste disposal and recycling intention**

**The SPSS 20 analysis revealed that the relationship that exists between household attitudes and recycling is highly significant at 0.000 (Pallant, 2007).** The correlation

coefficient of 0.468 between the attitudes towards waste disposal and recycling intention asserts that there is a positive linear relationship between the two constructs that is moderate. The regression coefficient of 0.541 reflects existence of causal relationship between the two variables. Both regression and correlation results attest the existence of a positive association between the two variables. The R square value of 0.293 entailed that households` attitudes towards waste disposal influenced recycling intention by 29.3% only.

#### **5.1.4 The effect of recycling intention on recycling behaviour**

The SPSS analysis results confirm that the relationship that exists between intention and behaviour is highly insignificant at 0.459 which is way above the 0.05 threshold (Pallant, 2007) The results depict that there is low negative linear association between the predictor variable, recycling intentions and the response construct, recycling behaviour shown by the spearman correlation coefficient of -0.032. The regression coefficient of 0.006 between the two show existence of an insignificant causal relationship between the two constructs. The R square value of 0.08 shows that recycling intentions influences recycling behaviour by 8% only.

### **5.2 Study Conclusions**

The researcher drew the following conclusions as guided by the research findings

#### **5.2.1 The influence of emotional appeals on household recycling intentions**

Based on the coefficient value of 0.377 and R-square of 0.142, the study concludes that emotional appeals have an influence on recycling intention. This means that an increase in emotional green appeals communications would trigger a corresponding increase in the recycling intentions of households. The extent of the emotional appeals` influence is however limited to 37.7% only whilst 62.3% is attributed to independent factors of the predictor construct.

#### **5.2.2 The influence of moral appeals on recycling intentions.**

Following the findings of 0.423 and 0.179 coefficient and R-square values respectively, the conclusion that moral appeals have an influence on households recycling intention was drawn.



Moral appeals such as caring for the environment to benefit future generations may therefore be employed to positively influence households to practice sustainable plastic packaging waste disposal. However, moral appeals only influence households recycling intentions by 42.3% and the 57.7% is accounted to extraneous factors outside the current research topic scope.

### **5.2.3 The relationship between households' attitude towards waste disposal and recycling intentions.**

The study findings denote that households' attitudes toward waste disposal significantly influence behaviour as shown by the regression coefficient of 0.541 and R-square of 0.293. Therefore, attempts to change household attitudes on eco-friendly behaviours may yield strong positive results according to the findings. It can therefore be concluded that attitudes have influence on recycling behaviour with the potential to increase the rate of recycling or convert non recyclers to recycling behaviour.

### **5.2.4 The effect of recycling intention on recycling behaviour.**

The results show reveal that there is a very weak relationship between households recycling intentions and recycling behaviour hence recycling intention insignificantly influences recycling behaviour as evidenced by the very low regression coefficient of 0.006 denoting a lowly 6% influence. This depicts that recycling intention only have an extremely low chance of being converted into recycling behaviour. This may be explained to mean that even if households intent to recycle, there might be other more important factors they would need to consider before turning such intention into behaviour

### **5.2.5 The mediating effect of household recycling intentions on the relationship between advertising appeals and recycling behaviour.**

Research findings demonstrated that recycling intentions partially mediated the relationship between advertising appeals and recycling behaviour at 0.432 regression coefficient and R-square value of 0.185. This was evidenced by the regression tests which show that without the mediator variable of recycling intention, a relationship exists directly between green advertising appeals and recycling behaviour. Where the relationship ceases to exist after the

mediator variable is controlled, the resultant scenario is termed full mediation. A mediator variable is therefore much more significant where the direct relationship between the dependant and independent variable does not exist, meaning only the mediator can bridge the relationship to function between the two variables.

### **5.3 Recommendations**

Based on the findings and conclusions, the following recommendations are preferred:

#### **5.3.1 The influence of emotional appeals on recycling intention**

The green emotional appeals are shown to be effective in capturing attention and influencing behavior change from the research findings. This resonates with Feinberg & Willer (2012) whose assertion that fear appeals are effective in fostering behaviour change when people are convinced that their well-being is under serious threat and they are capable of averting the danger. Though both the negative or 'sick baby' and positive or 'well baby' emotions may be employed, the positive emotions such as pleasure and fun have been empirically tested as more effective in environmental care and ecological behavior (Yfantidou, 2018). The sick baby connotations such as global warming and climate change need to be applied sparingly to avoid disengaging people while the well-baby approach may be applied relatively more to motivate behaviour change. If effectively employed, emotional appeals have the potential to accumulate up to 37,7% recycling behaviour change among households. It is therefore recommended that emotional appeals are applied selectively in marketing communications aimed at changing behaviour towards more sustainable modes of waste disposal as they may yield the desired effect.

#### **5.3.2 The influence of moral appeals on recycling intention**

Moral appeals depict a significant positive relationship with recycling intention. As reflected in the findings, the green moral appeals may therefore influence change in behaviour by 42.3% if the marketing communications are efficiently and effectively crafted and transmitted to the correct target households. The assertion that if households are educated on their moral obligations to preserve the environment for the sake of future generations, they are likely to

respond positively to recycling, supports the study findings (Chen & Chai, 2010). Chen, Pillutla & Yao, (2009) further elaborates that moral appeals apply to the people's conscience of what is wrong or right and compel them to act for the good of society hence it works better in societies that exercise collectivism. It is therefore recommended that moral appeals are applied moderately to communications aimed at changing households' behaviour to engage in sustainable methods of waste disposal. The communication strategies may be focused on the bad or good activities that households may engage in, or on the positive or negative effects such actions may have to the animals, people and the environmental health at large.

### **5.3.3 The relationship between household attitudes towards waste disposal and recycling intention**

A strong positive relationship exists between household attitudes and recycling intention. This depicts that the change in attitude have a high 54.1% chance of converting and reinforcing recycling behaviour among households. Rhodes & Courneya (2003) indicate that attitude is concerned with individual assessment of favourableness of a behaviour. Knowledge or education was observed as the most likely path to forming positive attitudes (Cheah, 2011). Benefits and convenience of recycling are likely to influence and speed up the rate of adoption of recycling behaviour (Kotler & Keller 2012). This depicts that people carry out a cost-benefit analysis which shapes their attitudes to recycle or not. Responsible authorities therefore need to avail recycling facilities at convenient places, in the right sizes and height to enable people to deposit litter. The litter deposit bins or bags should be close enough to where the people live so they do not incur huge transport costs. Recyclers may also provide incentives for those who bring trash for recycling. As this is the single most important variable at 54,1% in converting and reinforcing intention, authorities responsible for waste management may need to pay particular attention to changing household attitudes. It is therefore recommended that the most significant budget on recycling behaviour may be allocated to communications that target the change to a more favourable attitude towards recycling. The attitude construct has the potential to achieve significant change in behaviour if communications are crafted diligently, and effectively reach the targeted group.

### **5.3.4 The effect of recycling intention on recycling behaviour**

The study reveals a very weak relationship between households recycling intentions and recycling behaviour hence recycling intentions insignificantly influences recycling behaviour. This shows that recycling intention is not a reliable predictor of behaviour (Chen and Deng 2016). The responsible authorities need to put insignificant effort if any, to build intention. The effort put into building intention may all be put to waste or yield insignificantly low returns hence focus should be placed on other potentially rewarding constructs such as changing attitudes and moral care.

### **5.3.5 The mediating effect of recycling intention between green advertising and recycling behaviour**

Research findings demonstrated that recycling intentions partially mediated the relationship between advertising appeals and recycling behaviour. Though the relationship exists, the contribution of intention variable in the model may not be too significant as the independent variable directly relates to the dependent variable of recycling behaviour (Hayes, 2013). Therefore, organisations and individuals may reduce costs by directly influencing behaviour through the use of green advertising variables. This means that the resources meant to be used to build household intentions are better of used on attitudes, moral and emotional appeals to directly influence recycling behaviour

## **5.4 Recommended area of further research**

Basing on the findings of the study future studies may focus on finding out the other factors that influence recycling behaviour as green advertising only influences recycling by 43.2%. this means that there are other factors that were not accounted for in this research that explain the remainder of 56.8%

Since the mediating factor only yielded a lowly 8% influence on recycling behaviour, future studies may focus on finding out the direct relationship between green advertising and recycling intention without the use of mediation

## References

Abbott.D.G(2013)Research methods and ethics. The marketing book.5th Edition.

Abdel, E.G. (2004); Vaklieva-Bancheva, N.G. Environmentally friendly management of diary supply chain for designing a green products' portfolio. J. Clean. Prod. 2017, 167, 493–504.

Ader,B., Mellenbergh R. and Hand, L (2008), "Modelling Consumer Satisfaction Processes Using Experience-Based Norms," Journal of Marketing Research, 20 (August), 296-304

Adom, J. G. (2018). Dimethyl ether: A fuel for the 21st century. Studies in Surface Science and Catalysis, 107, 117-125.

Ahmad, N (2010) .Determinants which influence the consumers' green purchase intention. An empirical study of consumers' buying intention toward ecofriendly printer in the Swedish Market.

Alba, M.A., Suh, J. (1999), "Transaction-specific satisfaction and overall satisfaction: an empirical analysis", Journal of Services Marketing, Vol. 14 No.2, pp.147-5.

Allen, X(2004)The research analysis of the green labels impact on the consumer purchase behaviour. Turku University of applied sciences. China.

Andrady, L and Neal, U (2009).Green marketing: Marketing strategies for the Swedish Energy companies. International Journal of Industrial Marketing .Vol 1.No.2.

Arzjen, P. M. (1991). The role of integrated marketing communications in sustainability marketing. ASBBS Annual

Asare, D., Z. (2016). A theoretical approach to concept of green marketing. Interdisciplinary Journal of Contemporary Research in Business, 3(2), 1808-1814.

Asare, J. (2017), "Exploratory examination of whether marketers include stakeholders in the green new product development process", Journal of Cleaner Production, Vol. 6 No.3, pp.269-75.

Asare, K., & Charter, M. (2015). Green marketing. In Baker, M. J (Eds.), *The Marketing Book* (pp. 726-755). Great Britain, UK: Butterworth-Heinemann.

Atkinson, J and Kim, K (2007) .Colouring the workplace green: Considering the shade employees see .International conference on sustainability in Business.Kuala Lumpur Malaysia.

Australia, C, (2008) "Re-evaluating green marketing strategy: a stakeholder perspective", European, Journal of Marketing, Vol. 41 Issue: 11/12, pp.1328 – 1358

Azjen, P. (1991). Caveat emptor – let the buyer beware! Environmental labelling and the limitations of ‘green’ consumerism. *Business Strategy & the Environment*, 15(1), 15-29. doi:10.1002/bse.434

Barnes, K. (2009), "Green and competitive: influences on environmental new product development performance", *Journal of Business Research*, Vol. 56 No.8, pp.657-71.

Belz L(2011).Communicating sustainability for the Green economy.Society for consumer psychology.ME Sharpe Inc,New York(United States of America).

Belz, L. A., & Peattie, K. E. (2009). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *The Journal of Consumer Affairs*, 35(1), 45-72.

Benetti, S. (2014). Employee ownership: A conceptual model of process and effects. *Academy of Management*, 16(1), 121-144. doi: 10.5465/amr.1991.4279000

Bosnea N(2001).Impact of green marketing on consumer purchase intention. Mediterranean journal of social sciences MCSER publishing, Rome Italy volume 4

Brassaw, I. (2017). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, 17(8), 51-56.

British broadcasting corporation 2019

Bryman P., E (2008).; Tech University Kosice, FAC Economics, Inst Regional & Community Dvelopment: Kosice, Slovakia, 2009; pp. 901–905.

Bryman, R.A. (2015), "Modelling the determinants of customer satisfaction for business-to-business professional services", Journal of the Academy of Marketing Science, Vol. 25 No.1, pp.4-17

Burns, J.H., Groove, C. (2011), **research methods**, Pearson printers, London.

Cavallo A.(2012).Green marketing and its impact on consumer buying behaviour.

Chahal H and Kaur,V (2015).An environmental protection tool:Green marketing and its effect on consumer buying behaviour.Management Department and MTU Noida ,India.International journal of Emerging research in Management and Technology.

Chahal, B. and Kaur, P. A (2015). "Do green lifestyle consumers appreciate low involvement green products?" Marketing Management Journal, Vol.21, Issue 2. p35-45.

Chan, D. (2008). Green consumer behavior: an experimental analysis of willingness to pay for remanufactured products. Business Strategy & the Environment, 20(6), 408-420. doi:10.1002/bse.703

Chang E(2011).Influences of packaging attributes on consumer purchase decisions for fresh produce .School of packaging ,Michigan State University,USA

Chanza, A. (2017). Green Marketing and its impact on consumer buying behavior. European Journal of Economic and Political Studies, 5(1).

Cheah, S.A. (2011), "Ecologically concerned consumers: who are they?" Journal of Marketing, Vol. 38 No.April, pp.20-4.

Chen A.K, Chang S.M S(2012).Green marketing and Indian consumer. International journal of Engineering science and Innovative technology. Volume 2,Issue 2.

Chitotombe, Y. (2014). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. Journal of Business Ethics, 93(2), 307-319.

Churchill, Gilbert A. Jr. and Carol Surprenant (1982), "An Investigation into the Determinants of Customer Satisfaction," Journal of Marketing Research, 19 (November), 491 -504.

Conner, J.J and Armitage, T.M.G. (1998), "Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service encounters", *Journal of Retailing*, Vol. 76 No.2, pp.193-218

Courneya, W. (2003), *Dirección y Marketing Ecológicos*, Ediciones Deusto, Madrid,

Cuneo, M. R. (1973). Environmental information versus environmental attitudes. *Journal of Environmental Education*, 3(2), 5-8.

Dash, W.D. (2011), "Useful correlates of pro-environmental behavior", in Goldberg, M.E., Fishbein, M., Middlestadt, S.E. (Eds), *Social Marketing, Theoretical and Practical Perspectives*, Lawrence Erlbaum, Mahwah, NJ, pp.91-109

Davies .G.M, Mamani N.M (2008) Green Marketing and its relationship to the purchase decision: An empirical study on students from King Abidal Aziz University in Jeddah. Internal Refereed Research Journal Vol-V5, Issue 2

Davies, D.A. (2002), *Sustainable Marketing*, Sage Publications, Thousand Oaks, CA.

Deng, P. K. (2016). Green marketing - emerging dimensions. *Journal of Business Excellence*, 2(1), 18-23.

Deshpande, J. (2011), *Green Marketing: Opportunity for Innovation*, 2nd ed., NTC/Contemporary Books, Lincolnwood, IL,

Di Maria, V. Olaizola, N. (2017). A blueprint for green product development. *Industrial Management*, 35(2), 4.

Dima, A. and Malesios N. (2015). Green branding and eco-innovations for evolving a sustainable green marketing strategy. *Asia-Pacific Journal of Management Research and Innovation*, 8(1), 39-58. doi: 10.1177/2319510X1200800106

Doyle E (2011). Green Marketing: The case of Greece in certified and sustainable managed timber products. *Enrolmed journal of business*. Volume Number 2

European commission 2011

European journal of Economic and Political studies. Fatih University.



Fishbein .A,YusofJ.M,Singh G.K.B (2015).Purchase intention of environment –Institute of business excellence ,Faculty of management,University of technology MARA,Shahalam 40450,Malaysia.Elsevier Ltd.

Fransson, (1999) "Re-evaluating green marketing strategy: a stakeholder perspective", European Journal of Marketing, Vol. 41 Iss: 11/12, pp.1328 – 1358

Geller, M.A(2004).The role of green marketing in development of consumer behaviour towards green energy. International Marketing Master thesis.School of sustainable development of society and technology.

Gleim, A. (2013), "Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy", Journal of Marketing, Vol. 61 No. January, pp.51-67.

Global Responsibility Report Goals & Progress 2012. (2014). Retrieved from the Starbucks company website:

Gopi, M. E. (2007). A cross-national comparative study of new product development processes: Japan and the United

Gragory, J,Oates (2009).Sustainability:consumer perceptions and marketing strategies .Volume 15.Issue 3.

Grant, K and Osanloo, R., (2014). Case study: The Toyota Prius.

Gregory, B.T (2009).Exploring consumers'' green purchase behaviour towards online green advertising. The Macro theme review, A multidisciplinary journal of global macro trends. Centre for Tourism, Hospitality and Culinary Management, Sunway University Business school, Malaysia.

Grimmer B(2014).Effect of green marketing on consumer purchase behaviour,Department of business management ,Rasht branch ,Islamic Azad University,Iran.Qscienceconnect,A Qatar foundation Academic Journal.

Guangyu, C. S. (2015). Environmental labeling and consumers' choice-an empirical analysis of the effect of the Nordic Swan. *Journal of Environmental Economics and Management*, 47(3), 411-434. Retrieved from <http://dx.doi.org.ezproxy.snhu.edu/10.1016/j.jeem.2003.06.002>

Guest, J. (2006) Strategic use of green public procurement in the bus sector: Challenges and opportunities. 2017, 164, 250–257.

Haung S.M (2012) Packaging factors deterring consumer buying decision. *International journal of humanities and management sciences*. Volume 1.Issue 5.

Hawks, H.C(2013).Consumer awareness :Motivations and buying intention of ecofriendly fast moving consumer goods .An empericalstudy,Purvanchal .University ,Jaunpur.India.

Hox, B.B (2015). Corporate Social Responsibility—Evolution of a Definitional Construct. *Bus. Soc.* 1999, 38, 268–295.

International Labor Organization 2007

International labour organization 2007

Ittiravivongs, G. (2012). Targeting consumers who are willing to pay more for environmentally friendly products. *The Journal of Consumer Marketing*, 18(6), 503-518.

Jabareen,. O. (2009). Green buyer behavior: Evidence from Asia Consumers. *Journal of Asian and African Studies*, 48(4), 413-426. doi: 10.1177/0021909613493602

Jerie, J. Tevera,J. (1993). Strategies for environmental advertising. *The Journal of Consumer Marketing*, 10(2), 19.

Jian, R.N. (2013), "A dynamic model of the duration of the customer's relationship with a continuous service provider: the role of satisfaction", *Marketing Science*, Vol. 17 No.1, pp.45-65

Joana, Irv, ParrsC.(2017)The Business Benefits of Going Green.” *Eco Strategy Group*. “The Tao of Green Marketing.”

Joana, K and Gumas, I (2015). *Marketing and Sustainability*; Brass Centre: Cardiff, UK, 2012; p. 306, ISBN 1-904393-4.

Johansson, C. L. (2016). Avoiding green marketing myopia. *Environment*, 48(5), 22-36,2.

Kahrman, J.M and Ozturk, A.N. (2016), "Analysis and synthesis of research on responsible environmental behavior: a meta-analysis", *Journal of Environmental Education*, Vol. 18 pp.1-8

Kaiser, K. (2010), *Mineral Fertilizer Distribution and the Environment*, International Fertilizer Industry Association, UNEP, Paris, March.

Kawadza, L. (2019). "Green marketing- A new corporate social responsibility". *ASM's International E-Journal of Ongoing Research in Management and IT*. Retrieved from <http://www.asmgroupp.edu.in/incon/publication/incon13-mkt-022.pdf>

Kim, H and Hunter, D. (1993). Indian scenario. In Vyas, H. D (Eds.), *Consumer behavior* (pp. 11-24). Jaipur, IND: Global Media.

Kong, M and Zhang, C (2014).Wine consumers' environmental knowledge and attitudes: Influence on willingness to purchase targeting environmental consumers. *International journal of Wine Business Research*.

Kothari, Y (2018), "A Critical Review of Consumer Satisfaction," in *Review of Marketing*. Valerie A. Zeithaml, ed., Chicago: American Marketing Association, 68-123.

Kotler, P and Keller, T (2012) *Introduction to marketing management*, McGraw Hill, London.

Kurz S, Achchuthan S, Umanakenan R (2007). Green Marketing practises that customers satisfaction. A special reference to leather goods. *Global Journal of management and business research accounting and auditing* vol13, Issue 3. Global Journal Inc (USA)

Kyrikou, K and Briassoulis, L (2007) The main factors influencing purchase behavior of organic products in Malaysia. *Interdisciplinary journal of contemporary research in business*. University of Iran Volume 4.No.1.

Lee, A. (2009), "Mapping the green product development field: engineering, policy and business perspectives", *Journal of Cleaner Production*, Vol. 10 pp.409-25.

Lee, N. R. N. A. (2009). Awareness of eco-label in Malaysia's green marketing initiative. *International Journal of Business and Management*, 4(8).

Leonidou, A. (2011), "The impact of environmental issues on marketing and politics in the 1990s", *Journal of the Marketing Research Society*, Vol. 33 No.3, pp.205-17.

Lewis, N (2014). Investigation of green marketing tools effect on consumers purchase behavior.Suplico LT. Impact of green marketing on the students purchase decision.*JInt Bus Res* 2009;8(2):71–81

Lieskovska, V. *Zeleny Marketing*; Ekonóm: Bratislava, Slovakia, 2010; p. 157, ISBN 978-80-225-3047-7.

Lin, B. (2012)The impact of green advertising on consumer purchase intention of green products. *World review of business research*, vol3 Issue no 3. Department of Marketing, Assumption University, Thailand.

Linden L(2012).B2B green marketing and innovation theory for competitive advantage. Department of marketing, College of Business and public Administration ,Kean University Union, New Jersey (United States of America). Emerald publishing group.

Lindenberg, K and Steg L. Jenkins (2007), "Expectations and Norms in Models of Consumer Satisfaction," *Journal of Marketing Research*, 24 (August), 305-314

Macozoma, C. (2001). Researching and Writing a Dissertation: A Guiding Book for Business students.

Mamun, H. C. (2012). Product positioning and consumer attitude towards eco-friendly labeling and advertisement: An analytical study. *Journal of Management Research*, 12(3), 153-162.

Mandever, B (2015), Role of packaging on consumers' buying decisions-A case study of Panipat city. Volume 1. Issue 8. *International journal of research in Finance and marketing*.

Mathez, C. (2013). Design for the environment: A quality-based model for green product development. *Management Science*, 47(2),

McDonald, J(2003).Gaining competitive advantage through green marketing.How green marketing is used as a competitive advantage. School of Business and Engineering.

Mcmillian, S.J. (2014), "An examination of the conserving consumer: implications for public policy formation in promoting conservation behavior", in Polonsky, M.J.,

Medina M.H(2002).Effects of demographic characteristics on consumer's choice of buying green products.An empirical study of Swedish Electricity Market. School of sustainable development of society and technology. University of Sweden.

Mills, N. (2019). Green marketing and CSR. International Journal of Research in Finance & Marketing, 1(6). Retrieved from <http://www.euroasiapub.org/IJRFM/Oct2011/5.pdf>

Mudzengerere, H and Chingwenya,J (2017). Green marketing: A study of consumers' attitude towards environment friendly products. Asian Social

Namazi and Namazi (2015).Effect of green marketing on consumer purchase intentions with regard the the company's image as a mediator in the retail setting. International journal of Academic research in business and social sciences.

Namazi, H. P. (2015). The effects assessment of firm environmental strategy and customer environmental conscious on green product development. Environ Monit Assess, 184, 4435-4447. doi: 10.1007/s10661-011-2275-4

Naylor S, (2016).Green marketing and its impact on consumer behaviour, SMVD

Newham, C. J. (1997). Sustainable consumption: Green consumer behavior when purchasing products. Sustainable development, 18, 20-10. doi: 10.1002/sd.394

Njeri, I. E. (2016). The impact of green marketing on customer satisfaction and environmental safety.

Oehlmann, H (2009).The impact of green perceived value and green perceived risk on green purchase behaviour of Iranian consumers. International journal of Management and Humanity sciences.Volume 3.

Ottman I.E.(2011).The impact of green marketing on customer satisfaction and Environmental safety. International conference on computer communication and management. Vol 5.IACSIT Press,Singapore.

Ottman, J. A. (2011). The new rules of green marketing: Strategies, Tools, and Inspiration for Sustainable Branding.

Ottman, J., Terry, V. (1998), "Strategic marketing of greener products", The Journal of Sustainable Product Design, Vol. 5 No. April, pp.53-7.

Oztekin .H.K(2017).Aspects of green marketing: A prospect for Bangladesh.Premier University Bangladesh.

Pallister L. (2002), "Towards a Process Model of Consumer Satisfaction," Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction. H. Keith Hunt, ed. Cambridge, MA: Marketing Science Institute, 153-183.

Pamuk, J. M. (2019). An introduction to green marketing. Electronic Green Journal, 1(2), 1-10.

Paul, A.F and , M (2012). Influence of made with renewable energy appeal on consumer behavior. Mark. Intell. Plan. 2017, in press.

Paul, K (2009).Marketing management :A South Asian perspective .13th Edition ,India.Prentice Hall.

Peattie, K. (2001). Towards Sustainability: The Third Age of Green Marketing. Marketing Review, 2(2), 129.

Pillutla, R.M.; Yao, (2009). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. J. Clean. Prod. 2017, 165, 1263–1279.

Preston, D., Winward, J. (2012), "Information failures in green consumerism", Consumer Policy Review, Vol. 1 No.2, pp.83-6.

Rahim K. Zukni, G. and Lyndom, W. (2012). "Go Green! Should Environmental Messages Be So Assertive?".Journal of Marketing.Vol 46, pp. 95-102.

Rhodes, K and Courneyas, Y. (2003). Changing consumer behavior with respect to green marketing- A case study of consumer durables and retailing.

Rhodes, S,Ogden T(2003).Analysing the impact of green marketing strategies on consumer purchasing patterns in Mauritius.Emerald publishing group.

Robson, S. B. (2011). Bioproducts: Consumers' perception and buying behavior. Retrieved from

<http://ezproxy.snhu.edu/login?url=http://search.proquest.com/docview/1467529738?accountid=3783> Green Product Development. (2014).

Russell, Z., Chaipoopirutana, S., & Brassaw, H. (2016). Green product consumer buyer behavior in China. *Journal of Business*

Salking M. (1981), **Quantitative research approach**, Oxford printers, London

Sambayal, R. Y. K. (2018). Consumer responses to environmental advertising in china. *Marketing Intelligence & Planning*, 22(4), 427-437.

Sammer, K., & Wüstenhagen, R. (2006). The influence of eco-labeling on consumer behavior – results of a discrete choice analysis for washing machines. *Business Strategy & the Environment*, 15(3), 185-199. doi:10.1002/bse.522

Saunders (2012) Research methods, Pearson, London.

Saunders, C. (2016), "The correlation between service quality, satisfaction and loyalty", *Australian & New*

Saungweme, L. (2012). Green advertising and the reluctant consumer. *Journal of Advertising*, 24(2), 1.

Shiu, B.S.; Baawain, M.; Al-Zeidi, K.; Al-Nofli, H (2012). Citizen perception on environmental responsibility of the corporate sector in rural areas. *Environ. Dev. Sustain.* 2017, 19, 2565–2576.

Taru, L(2005).The level of awareness of green marketing and its managerial implications amongst selected South African Manufacturing Small, Medium and Micro

Enterprise(SMMEs)in kwaZuluNatal.Journal of Economics and behavioral sciences. Volume 6.No.8.(pp625-635).

Tauten, N, Temperly J, Pavicic J (2009). Comparative perceptions of consumer goods packaging :Croation consumers ' perspectives .International journal of management .Leeds Metropolitan University.

Tfantidou, S, Khan A.M (2018) A study of factors that influence green purchase .Umea school of business and economics. Sweden

Toke, J.M (2012). Assessing Corporate Sustainability integration for corporate self-reflection. *Resour. Conserv. Recycl.* 2017, 127, 132–147.

Tonglet M (2004). Role of packaging on consumer buying behaviour. Global journal of management and business research. Volume 12, issue 10. Global journals Inc., United States of America.

Tonglet, C, McDonald K, Hwang CW (2010). Sustainable consumption: green consumer behaviour when purchasing products. Sustainable Development. Universities of Leeds, Sheffield and York. White rose research online.

Tonglet, J. (2013). Green marketing and advertising. In May, S., Cheney, G., & Roper, J (Eds.), *Debate Over Corporate Social Responsibility* (pp. 365-378). New York, NY: Oxford University Press.

United Nations non-biodegradable Report, 2018

United Nations Report of 2018 accessed on 5 June 2019

Wagner, M (2012). The green issue of postal industry in Europe. In *International Conference Proceedings—Young Scientific Articles, Proceedings of the 3rd Central European Conference in Regional Science, Kosice, Slovakia, 7–9 October 2009.*

Washington, S.M (2017). Investigating the preference for green packaging in consumer product choices: A choice –based conjoint approach. Graduate school of Business, University of Malaysia, 1180 USM, Penang, Malaysia. Volume 3, No.2

---



Wegedie, R. (2018). Green marketing: Impact of green advertising on consumer purchase intention. *Advances in Management*, 6(9), 14-17.

Welman, A (2011). Modeling the impact of the human activity, behavior and decisions on the environment. *Marketing and green consumer. J. Environ. Manag. (Spec. Issue) 2017*, 204, 813–844.

Werft, M. J. (2017). *Sustainable Communication: A Study of Green Advertising and Audience Reception within the growing arena of*

Wheeldon, A.T. (2010), *Environmental Marketing: Strategies, Practice, Theory, and Research*, The Haworth Press, New York, NY, pp.77-99.

Wiid, K and Diggines, F (2011). "Cause-related marketing: a coalignment of marketing strategy", *Journal of Business Research*, Vol. 31 No.2, pp.93-105.

Wild, R. (2018). How green marketing can create a sustainable competitive advantage for a business. *International Business Research*, 7(1), 130-137.

Wolley, C.Y (2014). Customers' purchase intention of green product: An investigation of the drivers and moderating variable. Graduate school of business, University of Malaysia. *Elixir International Journal*.

World Bank Report 2016

World Bank Report of 2016 accessed on 5 June 2019

Yasmina .N.A (2015). Awareness of ecolabel in Malaysia's green marketing initiative. *International Journal Business Management* .

Yfantidou, M. (2009), Green marketing: A new dimension in the marketing field. *Economic Challenger*. Retrieved from <http://search.proquest.com/docview/216798453?accountid=3783>

Zhou, J (2016). *Succesful competitive positioning :The key for entry into European consumer market*. *European business review*. Emerald publishing. Volume 13.No 4.

## APPENDICES

### Appendix A: Questionnaire for Households

My name is Robert Chibungu, a Master of commerce in marketing strategy student at Midlands State University. I am conducting research on *'THE INFLUENCE OF GREEN ADVERTISING ON SUSTAINABLE PLASTIC PACKAGING WASTE DISPOSAL. A CASE OF BEITBRIDGE URBAN HOUSEHOLDS'*. Your responses are a critical part of my research. I appreciate your willingness and effort to help me in my research through answering all the questions as candidly and completely as possible. The information gathered will be treated with confidentiality and used for purely academic purposes. Participation is voluntary, however, your contribution would be greatly appreciated

#### Instructions

1. Please do not write your name on the questionnaire
2. Please respond by ticking where appropriate
3. Kindly attempt all questions

**Section A: Demographic profile of respondent.**

1 May you please indicate your gender?

Male  1

Female  2

2 May you indicate your age category?

Below 30  1

30 to 40 years  2

Above 40 years  3

3. May you indicate your highest qualification?

'O' level  1

Tertiary Diploma  2

First Degree  3

Post graduate  4

Other specify.....

**General instruction (Section B to Section F)**

Using the scale provided below please tick appropriate response to indicate your personal view on the extent to which.....

1= strongly disagree 2=disagree 3=neutral 4= agree 5= strongly agree

**Section B: Emotional Appeals**

<b>Code</b>	<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
EMOTAPP1	I would feel guilty if I did not recycle my household waste					
EMOTAPP2	Not recycling my household waste makes me feel bad					
EMOTAPP3	I fear for the future generations if I did not recycle my household waste					
EMOTAPP4	I feel great pleasure when I recycle my household solid waste					
EMOTAPP5	I feel do not pain when I see animals and fish dying from eating plastic litter					

## Section C: Moral Appeals

Code	Statement	1	2	3	4	5
MORAPP1	Recycling creates a better environment for future generations					
MORAPP2	Everybody should share the responsibility to recycle their household waste					
MORAPP3	Buying environmentally friendly packaged products <b>does not</b> set a good example					
MORAPP4	Society would think it is a good thing if I purchase environmentally friendly packaged products					
MORAPP5	My friends/family/colleague's positive opinion influence me to purchase green packaged products					

## Section D: Attitude on PWD

Code	Statement	1	2	3	4	5
RATATT1	I am not very concerned about the environment					
RATATT2	I think environmental protection effort is worthwhile					
RATATT3	I would donate part of my own money for recycling to protect the environment					
RATATT4	Recycling my household waste is a necessity					
RATATT5	I would be willing to reduce my use of plastic packaging to help protect the environment					
RATATT6	Recycling helps to protect the environment					
RATATT7	Recycling preserves natural resources					
RATATT8	Recycling reduces the amount of waste that goes into open dumps and landfills					
RATATT9	Recycling saves energy					
RATATT10	It is acceptable to pay more for products that are produced, processed and packaged in an environmentally friendly way					

## Section E: Recycling intention

Code	Statement	1	2	3	4	5
RECYINT1	I am willing to buy products with recyclable plastic packaging					
RECYINT2	I would not change my principal products towards more recyclable packaged products					
RECYINT3	When I have to choose between two similar products, I choose the one with more recyclable packaging material to enable recycling					
RECYINT4	I avoid buying household products with packaging that is less likely to be recycled					
RECYINT5	I am willing to participate in recycling activities					

**Section F: Recycling behaviour**

<b>Code</b>	<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
RECYBEH1	I collect used plastic for recycling					
RECYBEH2	I set a good example for my friends when I participate in recycling activities					
RECYBEH3	I have sold my plastic bottles for recycling recently					
RECYBEH4	I sort and separate my plastics for recycling					
RECYBEH5	I participate in recycling activities in my community					