

**ADOPTION OF GREEN MARKETING PRACTICES
BY AGRO- PROCESSING FIRMS IN MOROGORO, TANZANIA**

JERUM WILLIAM KILUMILE

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DECLARATION

This research Project is my original work and has not been presented in any other institution for any academic award.

Signed.....

Date.....

JERUM WILLIAM KILUMILE

D65/89145/2016

This research Project has been submitted for examination with my approval as the University Supervisor.

Signed.....

Date.....

Dr. Ndambuki Muya

Lecturer

Department of Business Administration

University of Nairobi

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DEDICATION

This work is dedicated to my mother Magreth Longo, who raised me and always insisted to study and work hard.

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LIST OF ABBREVIATIONS

- AMA - American Marketing Association
- URT - United Republic of Tanzania
- FAO - Food and Agriculture Organization of United Nations
- TFDA - Tanzania Food and Drugs Regulatory Authority
- TBS - Tanzania Bureau of Standards
- SMEs - Small and Medium Enterprises
- TPB - Theory of Planned Behavior
- RDT - Resource Dependency Theory
- IT - Institution Theory
- TNEP - Tanzania National Environmental Policy
- NEMC - National Environmental Management Council
- US - United States

ABSTRACT

Green marketing is among the Contemporary issues in the field of Marketing. Most companies have been adopting green marketing as a business philosophy. Globally, many studies have been done in this field, these studies include: Why firms adopt green marketing practices, the Influence of Green Marketing practices on firm's performance. But, locally in Tanzania there is a limited literature on Green Marketing. Therefore, this study aimed at establishing the level of green marketing adoption among Agro-processing firms in the context of Tanzania. The study was carried out in Morogoro, because it's among the industrial regions in Tanzania. The study aimed at answering the following questions: What are the Green Marketing Practices adopted by Agro- Processing firms in Morogoro, Tanzania, what is the level of adoption of green marketing practices among Agro-Processing firms and what is the relationship between the firm's size and the level of adoption green marketing practices. A Cross-sectional survey design was employed to answer the research questions. The sample sizes of 120 Agro- Processing firms were selected using the purposive sampling method due to the inability of getting an accurate and updated sampling framework. Semi-structured questionnaires were distributed to firm's Owners or C.E.O, Marketing managers, or Production Operation Managers as a unit of inquiry for the sake of getting rich data. Finally, descriptive statistics such as frequencies and percentages were adopted for data analysis. Also, a Chi-Square test was used to establish the relationship between the firm's size and Green Marketing adoption Level. The statistical package of social science was used as a tool to support data analysis. It was found that the level of adoption of green marketing practices is a bit low, as most firms adopted few green marketing practices. Also, the findings report that, the association between size of the firm and adoption level of green marketing practices is significant.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The increase of environmental and health problems facing the world today has influenced the come up of green marketing as among the contemporary issues in the field of marketing. The term green marketing came into prominence in the early 1980s. Its prominence today is highly influenced also by environmental and health consciousness among business stakeholders including customers and government agencies (Polonsky et al, 1994). Looking at it from sustainable development point of view, it's clear that, marketing as a business philosophy has a greater to role to ensure the ability of future generation to meets their needs and wants is not compromised (Polonsky et al 1997). In addition to that, Robert (2011) concurs with Polonsky eta al (1997)'s arguments that, sustainable development requires sustainable marketing, that is marketing strategies and efforts have not to be only sustainable competitive but environmentally sustainable too. Indeed, marketing role in development process is significantly recognized (Kotler, 2010; Kotler & Armstrong 2014)

Following the importance of marketing in sustainable development, business stakeholders especially government authorities have been influencing firms to go green. The government has enacted various policies, rules and regulations regarding health and environmental issues. Moreover, it has been reported that, government and customer pressure have been the most motivation factors toward the adoption of green marketing practices among firms (Ashton et al 2017). Some firms are taking environmental and health problems facing the world today as an opportunity hence adopt green marketing practices and position themselves as environmental responsible organization for sustainable competitive while complying with customer needs and government regulations (Sigh and Sharma, 2015).

While other firms are going green, there are some firms still lagging behind and fail tapping the opportunities offered by green marketing practices. There are different theories explain on why some firms may adopt a new behavior or practices including green marketing practices. These theories include: Resources based theory, resource dependence theory,

and institutional theory. These theories explain better on both the internal and external forces that may influence the firm to alter a behavior including adopting green marketing practices. According to resources-based theory, green marketing practices especially green innovation is regarded as an organizational asset or a unique resource to the organization for creating a sustainable competitive and sustainable development as well. The resource dependency theory explains on how the organization behavior may be changed by the influence of value chain's member just by depending on some resources on them. In line with this theory, supplies are regarded as members of value chain that may influence an organization to adopt green marketing practices. On other hand, Institutional theory explains too on how an organization may adopt a new behavior including green marketing practices by the influence of members of supply chain or operating system. The theory considers the role of competitors, government and consumers towards green marketing practices adoption among firms.

1.1.1 The Concept of Green Marketing

For the first time the term green marketing was featured in Marketing literatures in 1975 when the American Marketing Association (AMA) held a workshop where by a green marketing book by Henion & Kinnear Was among the workshop proceedings. There is no single definition of green marketing; various scholars have provided the definition of green marketing. According to Henion and Skinner (1976), is the study of positive and negative aspects of marketing activities on energy depletion and pollution. Looking at this definition, the concept has been definition in a very narrow way. But according to Polonsky (1994) defines green marketing as; all activities designed to generate and facilitate exchanges intended to satisfy human needs or wants with minimal impacts on the environment. The definition stresses the need of using limited resources to meet the unlimited wants. Herbig et al (1993) adds that, green marketing refers to product and packages with characteristics such as less toxic, durable, contains reusable material and are made of recyclable materials. Both Polonsky (1994) and Herbig et al (1993) definitions incorporate the traditional components of marketing, meeting organization's interest, consumer's interest (including health concerns) and environmental issues. For the purpose of this study the Polonsky's definition of 1994 will be used.

1.1.2 Green Marketing Practices

There are various green marketing practices most of them revolve around the traditional marketing four ps: green product, green pricing, green promotion, green distribution (Polonsky 1994; Kinoti 2011). Different researchers have reported different green practices that have been adopted by most firms. According to Polonsky (1994) suggests that green marketing practices include product modifications, changes to the production method and process, modifying advertisement and packaging. Nevertheless, effective green marketing practices have to be based on green packaging, green branding, labeling, and advertising to create attention and demand for sustainable products (Juwaheer et al 2012). Interestingly Sarkar (2012) agreed that green marketing comprises a wide range of activities: Product modification, packaging, changes to production process, remodeling and coming with a new style as well as basing on ads that promote green consumption. In this study, green innovation, green Price, green place and green promotion will be examined to measure the extend of green marketing adoption.

1.1.3 Agro-Processing Industry in Tanzania

Agro-processing industry as a subset of manufacturing industry that processes agricultural products into final products for consumption has gone different stages in Tanzania, its history can be traced back in 1960s to 1980s during socialism under Mwl. Nyerere where by all the manufacturing firms including Agro-processing firms were under state ownership. For example, in 1968 the national milling cooperation was introduced (Isinika & Kipene, 2016). Following the inefficiency of resources allocation, low technology, and protectionism, most government owned Agro-processing firms collapsed (Isinika & Kipene, 2016). By 2001, 95% of milling firms were under the private sector (The United Republic of Tanzania – URT 2013). In 1990s it was a turning point to market led industrial growth it was where the private sector started venturing in manufacturing industry including Agro processing sector.

In Tanzania, most agro-processing firms are small and medium one, and only few large firms focus on regional and international markets (Tisimia,2014). Moreover, more than 90% of firms undertake semi processing of products which are sold in the local market, using low technology (Tiisekwa et al 2005). Inadequate and seasonal supply of raw materials and low technology contribute to low performance of the industry (Food and

Agriculture Organization of United Nations- FAO, 2008), high cost of credit, high taxes and corruption lowers the performance of registered firms (Tiisekwa et al 2005). The underperformance of this sector led to the loss of 30% of cereals, 70% of fruits and vegetables and 20% of fish in post-harvest stage (URT, 2008; URT, 2009). Generally, the sector is having a lot of opportunities and can employ a lot of people and provide a reliable market to agriculture sector which employs 70 % of Tanzanians (URT, 2012 a).

1.1.4 Agro- Processing Industry in Morogoro

Narrowing it down to the regional level, particularly in Morogoro, the region was planned as for industrial area since 1970s. The agro-processing industry has been growing year to year in Morogoro region. Its growth has been marked by number of firms operating, created jobs in the industry, level of production. For example, in Morogoro a firm is able to create sixty (60) jobs in a year by 2011 compared to 40 jobs in 2002. Most agro-processing firms venturing in rice milling, maize milling, milk processing, animal feeds, and bakery activities (Isinika & Kipene, 2016). According to Isinika & Kipene (2016) reported that, by 2011 most firms in Tanzania including Morogoro, were not complying to Tanzania Food and drugs regulatory authority (TFDA) and Tanzania bureau of standards (TBS). For example, 63 % and 77.8 % of samples agro- processing firms in Morogoro municipality and Morogoro rural respectively do not comply to TFDA and TBS regulations. This means that, up to 2011 most firms were not caring about environmental and health issues since TDFA and TBS provides some environmental and health standards to be met by manufacturing firms. The low level of compliance raises a question on whether these firms in Morogoro, Tanzania engage in green marketing practices.

1.2 Research Problem

Green marketing as marketing philosophy is among the contemporary issues in the field of marketing today (Kotler, 2010; Robert, 2011, Kotler & Armstrong, 2014). Now green marketers are coming up with eco-friendly products as a means of curbing environmental problems while making profit as well (Robert, 2011). Polonsky (2002) argues that, marketing as a business philosophy has a greater chance towards enhancing sustainable development. This will on be achieved if firms will be working sustainably. This means firms must adopt green marketing practices so as to reduce environmental problems facing the world including Tanzania. According to Porter & Linder (1995) and Robert (2011) add

that, green firm will realize both competitive advantages and profit while preserving the environment. Interestingly, Kimario (2014)'s findings reports that, green innovation has significant effect on firm's performance. Different studies have been done on the motivating factors for adoption of green marketing practices among firms. According to the study done by Nyakundi (2013) in Kenya reports that, government regulations, economic benefits, company awareness and capabilities are the major motivating factors. Unfortunately, according to Ashton et al (2017)'s findings report that, the coercive pressure from the government does not have a significant influence toward the adoption of green marketing initiatives. But financial and other informal support like technical supports does. On the other hand, Leaders especially for Small and Medium Enterprises (SMEs) have significant influence in adopting changes, including green initiatives (Johansson 2002). Empirical evidence from New Zealand, Among SMEs in New Zealand shows that, responsibility to community ranked second behind cost and financial benefits (Lewis and Cassells, 2010). Bansal and Roth (2000) argues that, activities like Volunteerism, Philanthropy towards communities' efforts on education, environmental issues demonstrate benefits to society may not have a clear direct cost benefit to the company.

Locally, the study did by Kimario (2014) reports that, relationship between customer demand, green product innovation, and between green product innovation as well as firm's performance. Unfortunately, the study focused on customer demand as influencing factor and green innovation as only the green marketing practices. In addition to that, there is a limited literature in Tanzania on adoption intensity of green marketing among Agro-processing firms. This motivates to do a study on green marketing adoption intensity among Agro-processing firms in the context of Tanzania. The study aims at answering the following question: What is the level of adoption of Green Marketing Practices by Agro processing firms in Morogoro, Tanzania.

1.3 Objective of the Study

1.3.1 General Objective

To establish the level of adoption of green marketing practices among agro processing firms in Morogoro, Tanzania

1.3.4 Specific Objectives

- i. To identify the motivating factors for Adoption of Green Marketing Practices
- ii. To establish the level of adoption of green Marketing Practices
- iii. To test if there is a relationship between firm's size and Adoption Level of Green Marketing Practices

1.4 Significance of the study

To future researcher, the study will add value to the green marketing literature in Tanzania. Since, green marketing as a business philosophy is among the contemporary issues and is having a limited literature. In addition to that, it will be a basis for other researchers to study much even on green marketing philosophy and firm's performance.

To the Agro processing firms, the research study will provide some useful insights regarding green marketing practices which may be used as a framework for bailing competitive advantage sustainably for sustainable development while complying with government requirements and other business stakeholders interest. Also, it will provide the insights to the firm as to what extend their competitors in the industry have gone so far on adopting a new philosophy of business. Finally, the findings of this study will be used as a benchmarking platform for firms in Agro processing industry.

To the government, the study will provide insights on to what extents the Agro processing industry comply to environmental and health regulations. And then will be the starting point for them to mobilize the adoption of eco-friendly marketing practices among manufacturers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains both theoretical and empirical review regarding the adoption of green marketing practices among firms.

2.2 Theoretical Review

The study will be guided by Institutional theory, resource dependency theory and resource-based theory.

2.2.1 Theory of Planned Behavior (TPB)

The theory of planned behavior (TPB) was developed by Ajzein and Fishben (1988). The theory's originality can be traced back from two different theories namely: Information integration theory (IIT) by Anderson (1971) which holds that, the intention to perform certain action – behavior is a result of attitudes that's beliefs on behaviors outcomes; the theory of reasoned action (TRA) by Ajzein and Fishben (1980). The theory improved the weakness of IIT, it holds that, the intention to perform certain action – behavior is a result of attitudes that's beliefs on behaviors outcomes and perceived Subjective Norms. It assumes that, the behavior is totally voluntary while the reality is not. Later the TPB made some modification on TRA. TPB holds that, one's behavior is a result of attitudes, subjective norms, and perceived behavior. This means a person's behavior is being influenced by the way he perceives about the action's results, how he is going to be judged by his surrounding community and perceived ability (Perceived control behavior) to actually perform the said behavior. Nevertheless, the theory stresses that, even after starting the action, there is still a possibility that the perception of one's ability to actually carry it through can still affect performance.

In line with this study, the theory could explain very well the reasons on why a firm may go green, a firm may adopt certain behavior (Green Marketing Practices) due to its (Attitudes towards green marketing) understanding and perception about green marketing practices. This includes, benefits of green marketing: Gaining Competitiveness in the market while saving the nature. Another reason could be due to (Subjective Norms) need for seeking acceptance in the community and industry, copying the industry trend, trying

to conform to customer's demands and being in line with supplier's green practices. Therefore, in this study the theory will be used to establish the reasons as to why a firm may adopt green marketing practices.

2.2.3 Institution theory (IT)

The theory explains on how organizations behavior (operating systems) may change because of external motivating factors. The theory holds that, firm's behavior is socially based and deep rooted within institutions and interconnected organizational system or network (Lin and Sheu 2012). An organization does not operate in an island; competitors, customers, government and suppliers play greater role in changing its behavior. De Boer & Zandberg (2012) argue that because of coercive forces in the form of regulations and regulatory enforcement has been the main impetus of environmental management practices.

In line with this theory, firms will seek to comply with behavior which is required in its network, since has to comply with the needs of consumers and regulators (Coercive pressure), or imitating others (such as competitors) in the industry that is mimetic pressure (Campbell, 2007). Interestingly, Bansal and Roth (2000) adds that, from institutional theory view of point, firms adopt ecological practices in order to gain confidence, legitimacy in the eyes of external stakeholders. Firms that share the same organizational field are affected in similar ways by institutional forces that originate from them. Hence competitors, customers, government, act as, imitative, normative, and coercive pressure towards adoption of green practices among firms.

2.3 Four Ps in Green Marketing

There are various green marketing practices most of them revolve around the traditional marketing four Ps: Green product, Green price, Green promotion, Green distribution (Polonsky 1994; Kinoti 2011). Different researchers have discovered different Green Marketing Practices that have been adopted by most firms. According to Polonsky (1994) suggests that green marketing practices include product modifications, changes to the production method and process, modifying advertisement and packaging. Nevertheless, effective green marketing practices have to be based on green packaging, green branding, labeling, and advertising to create attention and demand for sustainable products (Juwaheer et al, 2012). Interestingly Sarkar (2012) adds that green marketing comprises a wide range

of activities: Product modification, packaging, changes to production process, remodeling and coming with a new style as well as basing on ads that promote green consumption. In this study the Ps of Marketing were regarded as practices as well described by Polosnky (1994) and Kinoti (2014).

2.3.1 Green innovation

Green innovation has become a very strategic initiative for going green among the manufacturing firms because of the friendly (Lin and Ho, 2011). In line with green innovation Chen et al (2006) categorized green innovation into green process (for producing a green product) including the innovation in technology favorable for designing green products, using energy & water serving, water recycling, and technology to prevent pollution. Also, green innovation can be regarded as eco design as an eco-design reflects to minimize natural resources used to produce a product (Johansson 2002; Kimario 2014). Various SMEs have been adopting various green innovations or technology which supports waste reduction, energy efficiency, and recycling (Lewis & Cassels, 2010). For the purpose of this study, the definition of green innovation by Johansson (2002) and Chen et al (2006) as supported by Ox borrow (2013) will be used.

2.3.2. Green Price

Green price is the only green marketing mix which brings in the revenue to the firm. Different scholars have been revealing different views on green price. Some have been arguing that, Green price has to be premium since it considers for socio-environmental costs of production, product use and disposal, green technology, high cost for marketing, R&D, value offered might not be much valid (Polonsky 1994; Kinoti,2011). But, Williams (2011) argues that, green price should not be premium in order to boot the consumption of green products. As an alternative, companies have to charge less and sell more. For this study, both Polonsky (1994); Kinoti (2011) and Williams (2011)'s views will be used to study on how firms practice the green price concept.

2.3.3 Green promotion

From conventional marketing perspective, promotion plays greater role in creating attention, interest and persuasion to purchase a product (Kotler, 2014). According to Polonsky (1994) green promotion is an activity for promoting the eco-friendly and healthily products. Green Promotion should have one or more of these characteristics:

implicitly or explicitly addresses the relation between a product and environment, promotes green lifestyle, and promote a corporate image of environmental responsibility.

It has been discovered that most firms interpret green promotion as an art of using green label, terms such as biodegradable, recyclable, ozone and healthily friendly (Hasan and Ali, 2015). Smith et al (2013) unveiled that, green marketing goes through some challenges which comprises: misleading adverts, false promises, irregular performance, unclear labels, have caused confusion among consumers and lowered the adoption level of green products. Pillai and Patil (2012) concurs with Polonsky (1997) on green washing practices among firms. Green washing is the situation whereby a firm promotes a product and claim that it's a green one while it's not and its performance does not meet the consumer's wants and expectations. Marketers must produce and promote the green products which can perform more than conventional one (Polonsky 1997; Kinoti 2014). Being honest in promotion and branding is the only way to reduce and be free from consumer's reluctance and hence improve both economic and environmental performance (Robert 2011).

2.3.4 Green place

Produced products must be taken to the consumption point. The whole process of distribution comprises various activities which harm our ecology in one way or another. According to Rosenbloom (2008) and Kotler (2014), distribution comprises warehousing, transportation, packaging and other logistic activities. From green marketing distribution systems perspective, it's recommended that all distribution activities must be conducted at minimal impact on the environment.

The most commendable practice of green distribution is reverse channel system, whereby wastes and used products are taken back to the firm either for prefabrications or to be used as inputs for further productions using the existing distribution channel. There for now a consumer becomes a seller, while a manufacture becomes a buyer. Robert (2011) adds that, the most effective way of greening distribution activities is to adopt product cycling, use of economic means of transportation: use of energy efficiency transport, use of big track containers as a secondary package to reduce number of trips and routs.

In this study, green innovation, green price, green promotion and green distribution will be among the practices to be examined to determine its applicability among agro processing firms in Tanzania.

2.4 Empirical Review

Firms adopt green marketing practices for a variety motivating factors, these factors vary from internal to external motivating forces. The empirical review has been divided into external and internal motivating factors. The internal motivating factors include: Managers and owners influence, Need for competitive advantage, and social responsibility. But the external force may include government, customers, competitors and suppliers force as well discussed hereunder. In this study, the intensity of green marketing practices adoption is defined as the extent to which a firm is embedding marketing in its environmental degradation prevention for sustainable development.

It has been discovered that, firms adopt green marketing practices due to the need for competitive advantages. According to Dowell & Hart (2011), discovered that different firms strive to allocate wisely its resources and assets to gain and sustain competitive advantage. Bansal and Roth (2000) adds that, the competitive advantage such as cost and operational efficiency is only achieved through having a clean technology for producing green innovative products. The experience from news land unveils that, firms do adopt green marketing practices due to cost reduction and financial benefits (Lewis and Cassels 2010). Moreover, Sigh eta al (2015) and Chen (2010) findings in India and Ghana respectively support that firms do adopt green practices for the sake of remaining competitive in the market.

Also, it has been discovered that, leadership has greater influence towards adoption of green practices. Leaders especially SMEs have significant influence in adopting changes, including green initiatives (Johansson 2002). Their influence depends on their personal attitudes/ beliefs, perception, awareness, and total commitment to social and ecological issues (Lee and Klassen 2008; Lewis and Cassels (2009). This means that, managers with awareness and understanding, positive attitudes, and beliefs towards ecological issues will easily influence the adoption of green initiative, unlike the one with poor attitudes towards it. Evidence from UK SMEs, unveils that, owners and manager's attitudes and values are

the motivating factors towards adoption of green initiatives (Harwood and Woodward, 2009).

Marketers are struggling to meet the organization's goals through meeting the needs and wants of customers (Kotler 1998). On other side government intervene the marketer's activities for the customer's interest and society at large. The government intervention has greater and significant green marketing implications (Polonsky 1994). This is the reason why most countries are having policies regarding health and environmental issues. These policies guide the operations of various firms; protect the interest of consumers and public health. The rise of unethical issues including doing unfriendly business functions; marketing unhealthy products have made most countries to monitor the business operations

In Tanzania, the government has various policies which in one way or another, force marketers to adopt practices, these policies including, Tanzania National Environmental Policy (TNEP) of 1997 and Tanzania National health policy of 2007. These policies have led to the formation of National Environmental Management council (NEMC), Tanzania bureau of standards (TBS) and Tanzania food and drugs authority (TFDA) to ensure business people secure the interest of the public and environment while securing their economic interests.

The experience from US unveils that, seventy percent of firms (Particularly SMEs) responded that, government or regulatory authorities was the most influencing factor modeling their ecological behavior (Darnall 2008). This means the government force is a significant motivating factor for green adoption rather than voluntary measures. Lynchwood and Williamson (2014) argues that, even if the government pressure through its rules and regulation is among the significant force for a firm to go green, but informal forces like financial and technical support for eco-friendly business initiatives must be provided by the government to smoothen and raise the level of adoption or intensity. Intensely, the study done by Ashton et al (2017), supports that; the coercive pressure from the government does not have a significant influence toward the adoption of green marketing initiatives. But financial and other informal support like technical supports does.

Other business stakeholders like customers have greater influence too. Chaffey (2008) argues that, a customer is everything, the core objective of a firm is to recruit customers

and develop them. Kotler (2014) adds that, customers are very influential and will remain attached to your company only if are getting solutions from your offerings. In today's world, customers are more concerned about their environment and health issues (Robert, 2011). This has made the rise of green products (eco and health friendly products). Also, Peattie (2001) and Boztepe (2012) emphasize that, most consumers who aware about the importance of health and green consumption would stop or reduce the consumption of conventional products. This has made marketers to shift from conventional ps into green Ps (Golkonda 2013). The changed consumer behavior acts as driving force to the firm toward adopting green practices and improves environmental performance (Walker et al 2008; Olinjo 2017). Locally, it has been discovered consumer pressure, influences firms to adopt green practices such as packages, green label, packages and green promotion so as to remain competitive (Kimario 2014. Unfortunately, the study done by Ashton et al (2017) in US Midwestern reported that pressure from customers does not appear to be strong motivating factor for SME, unlike financial and informal pressure from stakeholders. The difference in results makes the need for confirming the power of consumers towards influencing green marketing practices adoption in the context of Tanzania.

Suppliers are among the very important members in the process of value creation. According to Rosenbloom (2008) recommends that, an organization operates in an interdependent network, where by every organization in the value chain depends from another. This imply that the behavior of an organization or firms is highly affected and shaped by other firms in the value network (Ingram and Simons 2000). Sirvastara (2007) argues that, since a firm has to depend on raw materials and other resources from the supplier, then has to be in line with supplier's behavior. Also, Backalan 2000 reported that most firms have adopted green technology due to the power of suppliers. Hayami et al (2015) argues on the power of supplier towards shaping the firms' behavior (going green), says that it will depend on the uniqueness' of its resources or raw material and number of suppliers in the industry. This view concurs with the five competitive forces as described by Michael Porter in 1980s.

The size of the firms is among the control variable towards the adoption of green marketing practices. According to Dardan et al (2007) argues that, the adoption of certain innovation

will be affected by the size of the firm. Companies with enough resources like skilled human, technology, financial will be in the passion to adopt the new innovation early and fully than the smaller one. However, looking at it from another side, a large firm will be less advantaged by structural inertia that's they tend to be less agile and flexible than small organization (Sulaiman, et al 2015). It takes a lot of time to make decision due to its management structure. Even if small firms suffer from technology and financial resources, but they will be more active and quicker to adopt and meet new needs of the market (Zhu et al, 2006). In line with this study, green marketing practices have been regarded as *innovations*, therefore, the firm size will be regarded as a control variable. The influence of size of the firm towards the adoption of green marketing practices will be studied. Moreover; in this study the size of the firm measured by number of employees and Capital in brackets, because respondents weren't free to state the exact amount of Capital invested. Those with 5 employees, 5 to 50 Employees, 50 to 100 employees, and those with more than 100 employees will be regarded as Micro, Small, medium and large enterprise respectively.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methods, procedures that were used to answer the research question. The chapter discusses the research design, target population, sampling method and sample size and methods of data collection and data analysis that were used.

3.2 Research Design

The study used a cross-sectional survey design. A cross-sectional survey collects data to make inferences about a population of interest at one point in time (Mugenda & Mugenda 2003). This was the appropriate design because it avails the descriptive data. Also, different researchers have been using this method, for example: Nyakundi (2013) when was studying the adoption of green manufacturing practices by food processing firms in Mombasa county, Kenya

3.3 Research Population

According to Saunders et al (2009) Research population is defined as total number of persons, items, events, and other objects that may be of interest to researcher. Kothari (2008) adds that, Research population is where the sample is drawn. For this study, target population includes all Agro processing firms operating in Morogoro region in Tanzania. There was no exact number of Agro processing firms (Population) operating in Morogoro due to absence of accurate and up to date data base. According to Nchimbi (2002), argues that, it's very difficult to find the exact number of population of firms in various industry due to the lack of accurate and updated data base.

3.4 Sampling design

The study employed a non-probability sampling method, which is Purposive sampling to get the sample size. The purposive sampling was used due to the inability of getting an accurate and updated sampling framework. As recommended by Nchimbi (2002) the method is very appropriate when there is no an accurate sampling framework. With this approach, efforts made to get 120 firms to provide better information for answering the research question. The said sample size was adopted from various researchers like Nyakundi (2013). As recommended by Baker (2003), the study sample should comprise

people who possess the information that the research intends to gather. Therefore, Business owners, leaders, Marketing or Operation managers were used as unit of inquiry to get the intended results.

3.5 Data Collection

The study used questionnaire to collect the primary data. According to Saunders et al (2009) defines questionnaire as a means of collecting primary data, in which each person is asked to respond to the same question in a predetermined order. The interviewer, semi-structured questionnaires were used to all respondents. To ensure the validity of the questionnaires the researcher tested the questionnaire by distributing to few persons to see if the questionnaires measures what intended to measure.

Since, the target respondents can use well Swahili than English language; the questionnaires were translated from English to Swahili language. The mixed techniques of translation were used, where by back-translation was undertaken by two independent translators, then the comparison of new source questionnaires created the final questionnaire. This ensured the best match between source (One to be translated) and target (Translated one) questionnaires. According to Usunier (1998) defines back translation as process of translating the source questionnaire into target questionnaire to source questionnaire, then the comparison of two new source questionnaires creates the final one.

3.6 Data Analysis

The data collected were analyzed using descriptive statistics including the frequencies and percentages. Also, Chi-Square will be used to establish the relationship between the Size of the firm (Micro, Small, and Medium) the size of the firm was measured against the capital invested in the business and Level of adoption of Green Marketing Practices. The level of adoption of green Marketing Practices was measured basing on number of green marketing practices adopted by firms. Whereby, less than or equal to six practices adopted was regarded as Low level of adoption while more than six practices was regarded as high level of adoption.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The study aimed at establishing the level of adoption of green marketing practices among agro processing firms. The Level of adoption gauged against the number of practices adopted out of twelve green marketing practices. The Collected data were analyzed using descriptive statistics (Frequencies and percentages), Nevertheless, Chi square test of independence was used to test the relationship between Firms size and adoption level of Green Marketing practices. Therefore, this chapter presents data analysis and interpretations of the findings.

4.2 Respondent's Position in the Firm

The question aimed at understanding the position that a respondent holds in a firm. Respondent asked to indicate whether their business owner, Managing Director or any other managerial Position. The results are presented in table 4.1.

Table 4.1: Respondents Position in the firm.

Respondent's Position	Frequency	Percent	Valid Percent
Business Owner/ C.E. O	59	49.2	49.2
Managing Director	21	17.5	17.5
Operation Manager	24	20.0	20.0
Marketing Manager	16	13.3	13.3
Total	120	100.0	100.0

Source: Research Data, 2018

Table 4.1 shows that 49.2 percent of respondents were Business owners, 17.5 percent are Managing Directors while the rest 20 and 12.3 percent were Operation and Marketing Managers respectively. None of them were from other positions like Accounting, Human Resource (HR) etc. This indicates that the data collected are rich ones since were obtained from right unit of inquiry.

4.3 Respondent's Working Period

The question aimed at understanding the span of time which the respondents have been working with their firms. Respondents were asked to indicate their category i.e. One to five years, six to ten years and above ten Category as shown in table 4.2.

Table 4.2: Respondent's working Period

Operation Period	Frequency	Percent	Valid Percent	Cumulative Percent
1-5 Years	25	20.8	20.8	20.8
6-10 Years	62	51.7	51.7	72.5
Above 10 Years	33	27.5	27.5	100.0
Total	120	100.0	100.0	

Source: Research Data, 2018

Table 4.2 above indicates that 51.7 percent of the respondents have been working with their firms for more than six to Ten years, 27.5 Percent accounts for those have been working for more than ten years while the rest 20.8 percent have been working for less than five years. This indicates that our respondents are experienced much and knows well their firms since more than 70 percent of them have been working with their organization for more than 6 years. This increases the credibility of collected data.

4.4 Business Size

The question aimed at understanding the Size of the business; the size of the business gauged against the amount of Capital (In Tanzania Shillings) invested in the business. The size of the business ranged from Micro, Small and Large Business. Table 4.3 shows the number of firms in their respective business categories.

Table 4.3: The size of the firm/Business

Size Of the Firm	Frequency	Percent	Valid Percent
Micro Business	38	31.7	31.7
Small Business	43	35.8	35.8
Medium Business	39	32.5	32.5
Total	120	100.0	100.0

Source: Research Data, 2018

According to Table 4.3 indicates that 31.7 percent accounts for Micro business those with less than Tsh. 5 million as capital invested, 35.8 percent accounts for Small business those with Tsh. 5 Million to 200Million, while the rest 32.5 Percent are Medium Business those

with more than Tsh. 200 to 800 Million as Capital Invested. This indicates that the business sizes categories are normally distributed therefore was suitable for the researcher to run a chi square test against the level of adoption (High and Low) to test its association as indicated in table 4.5.2.

4.5 Business Activities according to Products Processed

The main purpose of this question was to capture the major activities that firms are engaging with. Basically, all these activities revolve around the Agro-Processing Sector. Table 4.4 indicates various agro processing activities.

Table 4.4: Composition of firms according to their Business Activities by Percentages

Business Activities	Frequency	Percent	Valid Percent
Milk Processing	5	4.2	4.2
Rice Milling	20	16.7	16.7
Maize Milling	30	25.0	25.0
Oil extraction	20	16.7	16.7
Animal Feeds	10	8.3	8.3
Bakeries	25	20.8	20.8
Spices Processing	10	8.3	8.3
Total	120	100.0	100.0

Source: Research Data, 2018

Different firms were engaging in different activities in the Sector of agro processing. Their activities range from Milk Processing (4.2%), Rice (16.7%) and Maize milling (25.0%), Oil extraction (25.0%), Animal feeds (8.3%), Bakeries (20.8%) and Spices Processing (8.3%). But, bakeries, Maize, Oil and Rice firms rank highest than others due to availability of inputs and demand, simply because Maize and rice are staple foods in Morogoro and Tanzania in general.

4.6 Adoption of Green Marketing Practices

This question sought to establish the set of green marketing practices adopted by agro processing firms. Firms were asked and required to indicate whether they adopted or not adopted on each of practice out of twelve practices. Table 4.5 indicates the set of Green Marketing Practices adopted and not adopted.

Table 4.5: Composition of Green Marketing Practices by Adoption Counts

Green Marketing Practices	Status	Count(n)
Production of eco-friendly products	Not Practicing	13
	Practicing	107
Use of eco-friendly Packages	Not Practicing	36
	Practicing	84
Water recycling	Not Practicing	112
	Practicing	8
Use of Clean energy/Renewable (gas, biogas, solar etc.)	Not Practicing	76
	Practicing	44
Charging high Price for Green Products	Not Practicing	17
	Practicing	103
Green label usage	Not Practicing	65
	Practicing	55
Promotes Green Lifestyle	Not Practicing	51
	Practicing	69
Promotes the Benefits of Green Products	Not Practicing	45
	Practicing	75
Promotes Green Image of the Firm	Not Practicing	64
	Practicing	56
Reverse Channel system (Collecting wastes for recycling)	Not Practicing	105
	Practicing	15
Use of Economic and energy efficiency Transport	Not Practicing	65
	Practicing	55
Use of Secondary Packages (Containers)	Not Practicing	89
	Practicing	31

Source: Research Data, 2018

n-Indicates number of those who adopted and not adopted

From the Research findings above in Table 4.5, it's reported that, many firms adopted few green marketing practices. It was found that, 107 out of 120 firms engaged in Production of at least one green product, while 84 out of 120 firms used Green Package and 103 out of 120 firms was charging high price for green product (Green Price). But some green marketing practices were not adopted by many firms these includes the use of secondary packages (89/120 firms), Reverse Channel system (105/120 firms), Water Recycling (112/120 firms), and use of Renewable energy (76/120 firms). Most firms did not adopt these green marketing Practices due to Cost associated with Green Technology and low demand of green products.

4.6.1 Level of Adoption of Green Marketing Practices

Here the researcher aimed at understanding the level of Adoption of Green Marketing Practices. The level of adoption was measured against the number of practices adopted out of 12 practices i.e. less than or equal to Six practices was regarded as low extent while 7 to 12 practices was regarded as High extent of adoption as shown in Table 4.5.1.

Table 4.5.1 Adoption level of Green Marketing Practices in relation to Firm's size

Adoption Level	Frequency	Percent	Valid Percent
Low Extent (≤ 6 Practices)	81	67.5	67.5
High Extent (7 -12 Practices)	39	32.5	32.5
Total	120	100.0	100.0

Source: Research Data, 2018

It was found that 81/120 firms that's 67.5 percent had adopted at least 1 to 6 Practices (Low extent of adoption), while 39/120 firms that's 32.5 percent had adopted 9to 12 Practices (High Extent). Therefore; the adoption level of green marketing practices among agro processing firms was low, as 67.5 percent of firms adopted only below or six practices out of twelve practices tested. This might be due to Capital constraints as micro and small business had less adoption compared to Medium business.

4.6.2 The Association between firm's size and Adoption Level

The question aimed at testing if the two Variables: The sizes of the firm, adoption level are independent or there is a relationship between them. The size of the firm was measured against the capital invested and adoption level was gauged against the number of Green Marketing Practices adopted. **Table 4.5.2** shows the chi square test of Independence Output as generated from SPSS.

Table 4.5.2 Chi square Value and P value

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.359 ^a	2	.025
Likelihood Ratio	7.268	2	.026
N of Valid Cases	120		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.35. In order to ascertain the association between firm's size and adoption level the chi square of independence was performed. No any cell had expected count less than 5. The minimum

expected count was 12.35, therefore the assumption was met. The relationship between Firm's size and Adoption level of Green Marketing Practices is Significant since the P-Value is 0.025 which is less than Significance level of 0.05. Therefore, firm size and Adoption level of Green Marketing are not independent. Also, it was observed that the firm size affects the adoption level at medium level of Phi Value .248 as shown in table 4.5.3.

Table 4.5.3 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.248	.025
	Cramer's V	.248	.025
N of Valid Cases		120	

Source: Research Data, 2018

4.7 Factors for Adoption of Green Marketing by Percentages

Here the researcher aimed at understanding the factors influencing the adoption of Green Marketing Practices. Respondents were asked to rate the reasons in a likert scale of five points from strongly disagree to strongly agree. **Table 4.6** shows the findings for the reasons.

Table 4.6: Factors for Adoption of Green Marketing by Percentages

	Strongly Disagree	Disagree	Neutra l	Agree	Strongly Agree
Internal Forces:					
Desire for Cost Reduction	0.0	0.0	14.2	24.2	61.6
Desire for Product differentiation	0.0	10.8	12.5	41.7	35.0
Management's attitudes towards environment	0.0	2.5	51.7	38.3	7.5
External Forces:					
Environmental and Health rules	0.0	2.5	0.0	40.8	56.7
Government's Financial Support	65.8	30.0	1.7	2.5	0.0
Government's Technical Support	40.0	35.8	5.8	15.8	2.6
Consumer Influence/Market Demand	0.0	10.9	8.3	52.5	28.3
Supplier's Influence	10.8	49.2	24.2	11.6	4.2

Source: Research Data, 2018

Basing on table 4.6 it was found that, the following factors influenced the adoption of green marketing practices: desire for cost reduction (61.6% strongly agreed), desire for product differentiation (41.7% agreed and 35.0% strongly agreed), environmental health and rules. (40.8% Agreed and 56.7% strongly agreed), and Consumer Influence/Market Demand (52.5% Agreed and 28.3 strongly agreed). While since 51.7 percent of respondents were undecided to whether Management attitudes towards influences towards adoption of green marketing Practices. But, factors like government's financial and technical support and Suppliers' influence were found not influencing towards the adoption of green marketing practices; since, more than 50 percent of respondents were totally disagreed with the statement.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter includes a summary of a study, Discussion of the findings, Conclusion and provides recommendations for further studies.

5.2 Summary

The study aimed at establishing the level of adoption of green marketing practices among agro processing firms in Morogoro. The study answered the following research questions: What are the factors for adoption of Green Marketing Practices? What is the level of adoption of Green Marketing Practices? And is there any association between firm's size and adoption level of Green Marketing Practices? The study findings indicate that; the level of adoption Green Marketing Practices is a bit low since most firms were adopted less than or equal to six practices among 12 Practices tested. Also, the findings indicate that, the association between the size of the firm and level of adoption of green marketing practices is significant at 0.25. Moreover, factors like desire for cost reduction, Product differentiations, environmental and health rules and Consumer demand were found to be the most influencing factors for adoption of Green Marketing Practices. But, factors like government's financial and technical support and Suppliers' influence were found not influencing towards the level of adoption of green marketing practices.

5.3 Discussion

The findings show that, different Green Marketing Practices were adopted. Not all Green Marketing Practices were highly adopted; few of them were highly adopted among firms. Practices like, Green Product, Green Price, use of eco-friendly packages and Green Promotion (promoting green life style) were found to be adopted by many firms compared to others. But, Green Marketing Practices like Green Process (Water recycling, use of green energy), Green Place (Use of Secondary Packages) were found to be less adopted, since few firms adopted these practices compared to others. These practices that were less adopted was because of cost associated factors as it's very cost fully to install green technology (Polosnky, 1994; Kinoti, 2014). Moreover, it was found that, the level of adoption of Green Marketing Practices was a bit low as most firms adopted relatively few

practices, which is less than or equal to six practices. Nevertheless, Small Business (those with large Capital than Small and Micro) were found to adopt many practices than small and Micro business. This was due to Financial Power the Medium business possess as Dardan (2007) argues that, those firms with enough capital have a greater chance to go green than those with less capital due to the initial green technology Costs associated with.

Also, the researcher found that, financial and technical support from the government, suppliers; influence, and management attitudes towards environment and health issues were not influencing factors at all towards the adoption of Green Marketing Practices. The findings disagree with Backalan (2002) findings, which report that, a firm may decide to go green due to Suppliers' influence. On other side, our findings might be true as the power of supplier depends on the uniqueness of resources being supplier in the industry (Hyami et al, 2015). Nevertheless, the number of suppliers in the industry will determine the power of suppliers to shape the firm's behavior (going green) (Porter, 1980s). Moreover, most of inputs for agro processing sectors come from farmers directly which are many as suppliers. Therefore, the power of suppliers to shape their buyers become low in the industry. But factors like, need for Competitive advantages (desire for product differentiation and Cost reduction), Consumer influences, were found to be the influencing factors towards the adoption of Green Marketing Practices. The findings agree with Kimario (2014) findings on Customer influence and Bansal and Roth (2010), Lewis and Cassel (2010), Dowel and Hart (2011), and Sigh et al (2015) on Competitive advantages as reported that, Competitive advantages was found to be the influencing factor and firmest will go green so as to remain competitive in the market.

Also, it was found that, there is an association between firm's Size as a control variable with level of adoption of Green Marketing Practices since Medium size firms adopted many practices than small and micro ones. Our findings are being supported by Dardan (2007) findings, which reports that, a firm with large capital has a chance to go green than one with low capital. This is due to the initial financial resources required to be invested at initial stages.

5.4 Conclusion

Green marketing is among the contemporary issues in the field of business and marketing in particular. Its prominent in the field is attributed by environmental and health problems facing the world, especially third world countries today. Also, the change of habit of consumers and influence of government and environmental agencies are the factors. The objective of the study was to establish the level of adoption of green marketing practices. Research questions like driving forces for adoption of green marketing practices, level of adoption (number of practices) of green marketing practices and the association between firm's size and green marketing adoption. The level of adoption of green marketing practices was gauged by looking at the number of green marketing practices adopted. The findings indicate that, the adoption level of green marketing practices among agro processing firms is a bit low as most firms adopted few practices, that's six and below practices out of twelve practices tested. Also, was found that, among the practices of green marketing involved in this study green product-including green package, Green promotion (advocating for green life style, and benefits of green products) and green price were the most adopted green marketing practices compared to others like green process and green place etc. Moreover, factors like desire for competitive advantages (cost reduction and product differentiation), health and environmental rules, and customer demand were found to be the driving forces toward adoption of green marketing practices. But, factors like, governmental support (technical and financial support), Management attitude, and suppliers influence were found to be not influencing towards the adoption of green marketing practices. Nevertheless, the size of the firm as a control variable was tested to see its influence towards adoption of green marketing practices, it was found that, there is association between size of the firm and green marketing adoption level. Therefor it can be concluded that, firms with enough capital have greater chance of going green than one with small amount of capital.

5.5 Limitations

It should be noted that, while this study makes a number of contributions, there are some limitations that must be considered when interpreting these findings. The following are the limitations of this study.

The study focused only in one industry, which is agro processing industry in Morogoro region in Tanzania. There for the findings are limited to agro processing industry in Morogoro since the applicability of these findings to other industries in uncertain.

In addition to that, respondents were not conversant with the term green marketing. Therefore, a research had to explain to them about the term.

5.6 Recommendations

Basing on the findings reported, a set of recommendations is made to Marketing practitioners and policy makers/ government and to the Theory or future researchers as presented hereunder.

5.6.1 Recommendations for Practitioners and Policy Makers

The government through its health and environmental organizations like Tanzania National environmental management Committee (NEMC), Tanzania Food and Drug Regulatory Authority (TFDA) and alike have to make sure business organizations observes their rules.as it has found that, most of them had gone green because of the existing environmental and health rules. Moreover, technical and financial support has to be extended to those firms which are struggling to go green as it was found that few of them had received support from the government as is been done in other countries like New Zealand.

Marketing practitioners have to take the environmental and health problem as an advantage for them to make profit while cabbing environmental and health issues by greening marketing activities.

5.6.2 Recommendations for further studies

There is a need for another research to be done in the area of green Marketing in Tanzania as the study was done only in the industry of Agro recessing in Morogoro. Therefore, another study has to be done in other industries and other regions apart of Morogoro region for the sake of extending space for interpretations and implications of findings.

Also, the study only established the factors influencing the adoption of green marketing practices, but did not state to what extend each factor influenced the adoption level of green marketing practices. Therefore, there is a need for another study to be done and establish the extent of influence of each factor.

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APPENDIX 1: QUESTIONNAIRE

Please use [✓] to indicate your response for the following questions

Demographic Data

1.1 Respondent's Characteristics

1.1.1 What is your Position in this Firm

- a) Business Owner []
- b) C.E.O/ MD []
- c) Operation Manager []
- d) Marketing Manager []
- e) Other (Specify)] -----

1.1.2 How long have you been working with this firm?

- a) 1 -5 Years []
- b) 6- 10 Years []
- c) Above 10years []

1.2 Firms Characteristics

1.2.1 What is the Name of the Firm? -----

1.2.2 How many Employees are working with this firm?

- a) Up to 5 Employees []
- b) 5-50 employees []
- c) 50-100 employees []

1.2.3 How much has your firm invested in this business

- a) Less than or equal to 5M Tsh []

- b) 5-200M Tsh []
- c) 200-800 M Tsh []

1.2.4 What are the firm’s business activities?

- a) Milk Processing []
- b) Oil Extraction []
- c) Animal Feeds []
- d) Bakeries []
- e) Maize Milling []
- f) Rice Milling []
- g) Spices` []
- h) Others Specify] -----

2. Green Marketing Adoption Intensity/Level

Does your firm practice the following Green Marketing Practices?

[Use this scale: 0= Not Practicing; 1= Practicing] NB: (≤ 6 Practices means low extent and while 7 - 12 Practices Means High extent of adoption.

Green Marketing Practice (s)	Response	
	0	1
a) Production of eco-friendly products		
b) Use of eco-friendly Packages		
c) Water recycling		
d) Use of Clean energy/Renewable (gas, biogas, solar etc.)		
e) Charging high Price for Green Products		
f) Green label usage		
g) Promotes Green Lifestyle		
h) Promotes the Benefits of Green Products		
i) Promotes Green Image of the Firm		
j) Reverse Channel system (Collecting wastes for recycling)		
k) Use of Economic and energy efficiency Transport		

l) Use of Secondary Packages (Containers)		
m) Economic distribution network (efficiency routes)		

3. Reasons for adopting Green Marketing Practices

Kindly rate the following Reasons or factors that have influenced the adoption intensity of Green Marketing Practices by your firm.

Use a five-point scale: [1= Strongly Disagree; 2= Dis Agree; 3=Neutral; 4= Agree; 5 = Strongly Agree].

Reasons for Adopting Green Marketing Practice	Response				
	1	2	3	4	5
a) Desire for cost reduction					
b) Desire for product differentiation					
c) Top Manager's attitudes towards environment and health Matters					
d) Environmental and health's rules and regulations					
e) Financial support from the government on green initiatives					
f) Technical support from the government on green initiatives					
g) Consumers' Consciousness about health and environment (Demand for Green Products)					
h) Our Supplies Care about health and Environment					