

UNIVERSITY OF GHANA

**SOCIAL MARKETING ON THE CONSUMPTION OF MADE IN GHANA RICE
AMONG CONSUMERS IN ACCRA**

BY

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**THIS THESIS SUBMITTED TO THE UNIVERSITY OF GHANA BUSINESS
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DECLARATION

I do hereby declare that this thesis is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged.

I bear sole responsibility for any shortcomings.

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CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

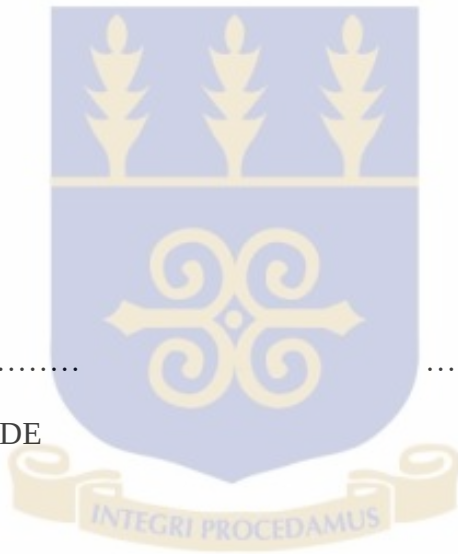
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LIST OF ACRONYMS

AMSEC	Agricultural Mechanization Services Enterprise Centers
ANOVA	Analysis of Variance
BFP	Block Farm Programme
BI	Behavioural Intention
CARD	Coalition for African Rice Development
EFA	Exploratory Factor Analysis
EPA	Economic Partnership Agreement
HBM	Health Belief Model
JHS	Junior High School
KMO	Kaiser-Meyer-Olkin
MoFA	Ministry of Food and Agriculture
NRDS	National Rice Development Strategy
SHS	Seniour High School
SPSS	Statistical Product and Services Solution
SRID	Statistics, Research and Information Directorate
TPB	Theory of Planned Behaviour
VCT	Voluntary HIV Counseling and Testing

ABSTRACT

Currently, the Government of Ghana (GoG) is encouraging consumers to patronise more locally produced items, including local rice. It is believed that this will provide economic, environmental, and social benefits to the local economy. The current study seeks to apply social marketing using a behavioural change theory (the theory of planned behaviour) to predict and understand factors influencing behavioural intention of urban consumers to purchase the locally produced rice.

A convenience-based non-probability sampling method was used for the survey. A structured questionnaire was administered to 306 rice consumers in Accra, and the results were analysed using multiple regression.

The results of the analysis reveal that all the constructs of the theory of planned behaviour (attitude, subjective norm and perceived behavioural control) were significant in predicting intention to consume the local rice. Perceived behavioural control was the most significant or important factor, followed by subjective norm and attitude. In addition, the results indicates that consumers have a positive attitude towards the local rice, and are more willing to comply with their children and partners to consume the local rice. Perceived lack of availability and lack of cooking skills were the items that mainly contributed to perceived behavioural control. The result also revealed that despite urban consumers' interest in the local rice, this did not necessarily translate into purchase behaviour. Lack of availability and difficulty in cooking the local rice were found to be the key barriers to the purchase of the local rice.

Social marketers in Ghana should work towards increasing the availability of the local rice; encourage proper merchandising and labelling of the local rice in shops and supermarkets to encourage increased levels of purchase behaviour from the urban consumer. Interventions should be designed to improve the cooking skills of the consumers. Children and partners rather than government officials should be used in promoting the made in Ghana rice.

The study is limited to the extent that only one local product (local rice) was studied in Accra. Future researchers should therefore, consider the application of social marketing techniques to other local products. Only consumers in Accra were interviewed, and therefore, not representative of all consumers in Ghana. It is therefore recommended that, future research should cover consumers from other urban centres to allow for an effective generalisation of the findings. Qualitative research is also needed to unearth other factors that may hinder the consumption of the local rice.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.0 Introduction

Social marketing is the application of marketing principles alongside other concepts and techniques to influence target audience behaviour to the benefit of society as well as the target audience (Kotler & Lee, 2008; French & Blair-Stevens, 2010). Andreasen (1994) also defined social marketing as “the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society.” Thus, in social marketing, the product is the desired behaviour the social marketer wants the target audience to adopt.

Since 1971, when Kotler and Zaltman (1971) first applied the marketing principles to the promotion of social causes (safe driving), the concept has been applied to various social issues and has been proven to be an effective means of selling desired behaviour to a target audience (Mah, Deshpande & Rothschild, 2006; Kotler, Roberto & Lee, 2002). Thus, social marketing has established itself as an effective technology for influencing target audience behaviour (Hastings, MacFadyen, & Anderson, 2000). In other words, if there is a social issue that demands behaviour change, social marketing could be counted on as an effective technology to influence that behaviour change. Currently, lack of taste for locally produced rice has become a major social issue in Ghana and most countries on the African continent.

From the 2011 report of Africa Rice Center (2011), it is evident that the lack of taste for locally produced rice has become a major social issue for most African countries, as over \$5billion is spent annually to import foreign rice to satisfy the taste of consumers. Demand for rice across the continent is rapidly growing at a rate of 6 percent per annum (the fastest anywhere in the world). This rapid growth in demand has been attributed to the changing preference of consumers, high population growth rates and urbanisation which is also growing at a faster rate of 38 percent per annum (Nwanze, Mohapatra, Kormawa, Keya & Bruce-Oliver, 2006; Africa Rice Center, 2011). Even though, rice production in sub-Saharan Africa has increased tremendously over the years, demand for the locally produced rice in most parts of the sub-region is generally low (Nwanze, et al., 2006; Diako, Sakyi-Dawson, Bediako-Amoa, Saalia, & Manful, 2010; Africa Rice Center, 2011). As a result, the majority of rice consumed on the continent is imported to meet the increasing demand leading to an import bill of approximately US 5billion dollars annually (Africa Rice Center, 2011).

In West Africa, which is considered to be the rice belt of sub-Saharan Africa, 50 percent of rice consumed in the sub-region is imported even though there are over 20 million rice farmers across the sub-region (Nwanze et al., 2006; Lançon & Benz, 2007). According to Lançon and Benz (2007), the preference of West African consumers towards the imported rice was as a result of rapid growth in rice importation which was necessitated by the food crisis in the early seventies; and is currently being fuelled by modernisation, urbanisation, convenience and income growth. Policy interventions (increased tariffs), which were implemented to reduce the consumption of the imported rice has failed to achieve their intended result. For instance, a study by Diagana, Akindes, Savadogo, Reardon, and Staatz

(1999) which examines the impact of tariff increase on imported rice in four west African countries (Senegal, Mali, Burkina Faso and Côte d'Ivoire) reveals that consumers rather reduced the consumption of other products and maintained the quantity of the imported rice consumed.

The situation is no different in the Ghanaian context. Even though the quality and quantity of the local rice have been increasing tremendously over the years, demand for the local rice remains extremely low, especially, in the urban areas where over 76 percent of total rice in Ghana is consumed (MoFA, 2013). For instance, production of the local rice has increased from 300,000 tons in 2005 to over 600,000 in 2010. Unfortunately, only 20 percent of the locally produced rice is consumed in urban areas, 70 percent in rural areas, and the remaining 10 percent is used for animal feed (MoFA, 2013).

It is also evident from previous studies that Ghanaian consumers have a higher preference for the imported rice because it is perceived to have superior cooking and sensory characteristics (Diako et al., 2010). Even though the local rice has been found to be of higher nutritional value and less acidic, these qualities are not motivating enough to persuade Ghanaian consumers to purchase the local rice (Adomako, Williams, Deacon & Meharg, 2011). For instance, a study conducted by Tomlins, Manful, Larwer and Hammond (2005) reveals that about 86 percent of consumers prefer the imported rice while only 14 percent were interested in the made in Ghana rice. Due to the lack of preference for the local rice especially by urban consumers, over 70 percent of rice needs is met through importation of foreign rice from either USA, Thailand or Vietnam with an import bill of US\$ 500 million

annually (CARD, 2010; Angelucci, Asante-Poku, & Anaadumba, 2013; MoFA, 2013). This huge expenditure on rice importation has become a major social issue as it deprives the country of hard earn currency that could be used for other developmental programs, and has a negative impact on the exchange rate and the economy at large. Additionally, the lack of demand for the local rice has made the sector unattractive for private investors (MoFA, 2013).

Unfortunately, all attempts and efforts (policies, reforms or regulations) over the years to resolve this problem has mainly focused on increasing productivity, improving the quality of the local rice or trying to coerce consumers to reduce the consumption of the imported rice by imposing high tariffs on the imported rice. Table 1.1 provides a summary of some key policies that were designed and implemented over the years. However, despite all these interventions, there seems not to be any desirable result because little or no effort has been made to change the attitude or behaviour of consumers towards the consumption of the made in Ghana rice.

In many countries around the world, support for local agriculture and the local food sector has become an important issue, especially in developing countries (Arsil, Li & Bruwer, 2014). Currently in Ghana, the government, the media and well-meaning Ghanaians are engaged in what can best be described as “cause promotion” to promote made-in-Ghana goods on social platforms, radio and television, as well as social media to encourage the consumption of local products.

This new approach is also likely not to make any headway. This is because, according to Mah et al. (2006), policies, regulations and education are not enough in achieving desired behaviour on a sustainable basis because they usually fail to address the issue of opportunity and ability. This was evident in the report by Opoku and Akorli (2009) which indicated that the high prices of the imported rice because of increase in tariffs was not enough to deter consumers from purchasing the imported rice.

Therefore, there is a need for social marketing principles and behavioural change measures to be pursued to change the behaviour of consumers towards local rice and make the sector attractive for private investors.

Table 1.1: Interventions to Address the Challenges Facing the Local Rice Sector

Year	Policy	Objective
2002	Food and Agriculture Sector Development Policy (FASDEP I)	Modernise the agricultural sector and decreasing rice importation by 30% by boosting domestic production.
2007	FASDEP II	Development along rice value chain
2007	Ghana Rice Inter-Professional Body (GRIB)	Pursue the production of quality aromatic rice and market development for the local rice.
2008	National Rice Development Strategy (NRDS)	Double local rice production and reduce the negative impact of rice importation on Ghana's economy.
2011	The Agricultural Mechanisation Services Enterprise Centers (AMSECs) program	Provide credit facilities to help private sector players set up commercial farms.

Source: Extracted from Angelucci et al. (2013)

1.1 Problem Statement

Social marketing has been demonstrated by previous research to be effective in influencing, motivating and encouraging a target audience to accept, adopt, adapt, reject, modify, or abandon a behaviour for the benefit of both the individual and the society (Kotler et al., 2002; Mah, et al., 2006; Gordon, McDermott, Stead & Angus, 2006; Sheau-Ting, Mohammed, & Weng-Wai, 2013). Since its inception in the 1970's, social marketing has been applied to various social issues such as obesity (Hoek & Gendall, 2006); HIV/AIDS (Tweneboah-Koduah & Owusu-frimpong, 2013); breast feeding (Tapp, Warren, Rhodes, Condon & Withall, 2013); energy conservation (Sheau-Ting et al., 2013); sustainable consumption (Peattie & Peattie, 2009); transport (McGovern, 2007); drunk driving (Hoek & Jones, 2011); and alcohol abuse (Wettstein, Suggs & Lellig, 2012).

Extant literature suggests that most application of social marketing to social issues was done in developed countries (Mah et al., 2006; Wymer, 2011; Luca & Suggs, 2013; Tapp et al., 2013). Even in developed countries where social marketing is mostly applied, there is scarcity of literature to show its application to the consumption of locally made products. The scarcity could be explained by the fact that in the developed and western countries where social marketing is widely applied, lack of preference for local products and foodstuff is not an issue as it is in developing countries like Ghana to demand the attention of social marketers (Tikkanen, 2014). In Ghana, the limited amount of research that has been carried out using social marketing has focused mainly on health related issues such as HIV/AIDS (Tweneboah-Koduah & Owusu-Frimpong, 2013).

The lack of taste for locally made products is a major issue of concern for the Ghanaian government, notable among them is the lack of consumers' preference for the made in Ghana rice. Previous studies and efforts have focused mainly on how to improve upon the quality or quantity of the local rice with little or no attention given to social marketing, and behavioural change approaches to change or modify the behaviour of Ghanaian consumers towards the consumption of local rice. The current study, therefore, seeks to apply social marketing using a behavioural change theory (theory of planned behaviour) to predict and understand factors that influence intention to consume local rice.

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The study seeks to use a behavioural change theory to predict the consumption intention of the local rice because, according to social marketing scholars (Andreasen, 2002; Luca & Suggs, 2013), understanding why people behave the way they do is vital to the success of social marketing intervention. Thus, social marketing in itself, cannot persuade people to change their behaviour without understanding the behaviour (McGovern, 2007). In order to understand behaviour, social marketers rely heavily on appropriate behavioural theory to identify determinants of behaviour for an effective intervention to be developed (Luca & Suggs, 2013). Previous studies to understand the lack of preference for the local rice have failed with this regard. The current study therefore, seeks to utilise the theory of planned behaviour in the Ghanaian context to identify the factors influencing the behaviour of lack of preference for the made in Ghana rice; and apply social marketing technique to modify the behaviour of consumers towards the local rice.

1.2 Purpose of the Study

The poor performance of the Ghanaian currency has mainly been attributed to excessive importation of foreign goods including rice (Hinson & Mahmoud, 2015). Currently, the country spends over US\$ 500 million annually on rice importation.

As demonstrated in the introduction, the efforts by the government to avert the situation and improve the consumption of local rice has so far not yielded any positive or desired result.

Previous studies have attributed the preference of the Ghanaian consumer towards the imported rice to such factors as urbanisation, modernisation, poor post harvest handling, and a perception of poor quality of the local rice (Opoku & Akorli, 2009; Diako et al., 2012). These studies and efforts by the central government failed to consider the behavioural aspect of the situation. The purpose of this study therefore, is to tackle the situation from a behavioural point of view to have a clearer understanding of the factors influencing the behaviour (lack of preference for the local rice) and to apply a social marketing strategy to improve the situation.

Currently, the government is embarking on a campaign dubbed “promoting made-in-Ghana goods,” and it is calling on civil society groups and industry to participate in the campaign to promote made in Ghana goods. However, as demonstrated by experts in the field of social marketing, educational campaigns only create awareness, which makes people become knowledgeable about the social issue but have little impact on changing behaviour (Mah et al., 2006). Therefore, approaching the situation from a behavioural and social marketing perspective would be the best way to proceed, which this study seeks to lead the way.

1.4 Research Objectives

1. To examine the effectiveness of the theory of planned behaviour (TPB) to predict behavioural intention and consumption behaviour of the made in Ghana rice;
2. To determine the extent to which intention influences consumption behaviour of local rice among urban consumers;
3. To measure the extent to which attitude, subjective norm, and perceived behavioural control influences intention to consume local rice; and
4. To determine the influence of demographic variables (age, level of income, and level of education) on the constructs of the theory of planned behaviour (TPB) (attitude, subjective norm, perceived behavioural control, intention and behaviour).

1.5 Research Questions

1. To what extent does the theory of planned behaviour predict behavioural intention and consumption behaviour of made in Ghana rice?
2. How does intention influence consumption behaviour of local rice among urban consumers?
3. To what extent do attitude, subjective norm, and perceived behavioural control influence intention to consume local rice?
4. What will be the influence of demographic variables (age, level of income, and level of education) on the constructs of the TPB (attitude, subjective norm, perceived behavioural control, intention and behaviour)?

1.6 Significance of the Study

The relevance of the study can be viewed from three perspectives: research, practice and policy. The study goes beyond current research on social marketing by examining the effectiveness of social marketing to promote the consumption of local foodstuff. The study has also contributed to literature on local rice in Ghana by applying a behavioural change theory to understand factors influencing the non-consumption of local rice. The effectiveness of the theory of planned behaviour to predict behaviour was tested in the context of the Ghanaian local rice and was found to be effective in predicting consumption behaviour of local rice.

Regarding practice, the study has provided guidelines to social marketers and other relevant stakeholders (the Ministry of Trade and Industry and the Ministry of Food and Agriculture), especially the newly formulated Made in Ghana Goods Committee, to design pragmatic solutions and campaigns that will motivate or encourage people to consume the local rice.

Concerning significance to policy, the study has provided guidelines to policy makers to formulate policies that will create facilitating conditions suitable for behaviour change towards the consumption of local rice.

1.7 Chapter Outline

Chapter One introduces the research; and comprises of the research background, research problem, research purpose, objectives of the study, research questions, research significance, scope and limitations of the research, and the chapter organisation of the research. Chapter

Two entails the context of the study, which provides a brief overview of the Ghanaian rice sector. The third chapter presents a review of relevant literature on social marketing and local foodstuff and develops a framework for the research based on the theory of planned behaviour.

Chapter Four deals with the methodological approaches, research strategy, the population of the study, sampling techniques, data collection instrument and method, data processing and analysis. Chapter Five entails data presentation, discussion, and analysis of findings. Finally, Chapter Six comprises the summary of the research; implications and recommendations to research, practice and policy; and the future research directions. References and appendices follow this chapter.

CHAPTER TWO

CONTEXTUAL BACKGROUND OF THE STUDY

2.0 Introduction

This chapter provides information on the rice sector of Ghana, consumption and importation of rice, rice production, and policy decisions and interventions to develop the local rice sector.

Ghana is a West African country situated along the Gulf of Guinea on about 23.9 million hectares of land. It shares borders with Burkina Faso, Côte d’voire, Togo, and the Atlantic Ocean in the north, west, east and south respectively. The country has ten administrative districts with Accra as the capital. The current population is estimated to be 26.3 million with Ashanti and Greater Accra regions being the most populated regions with 19.4 percent and 16.3 percent of the population, and with a population growth rate of 3.4 percent and 4.4 percent respectively (Ghana Statistical Service, 2014).

2.1 Consumption and Importation of Rice in Ghana

Rice has rapidly become the second most important crop in Ghana after maize due to the high demand for it particularly in urban areas (MoFA, 2009). Currently, rice accounts for the highest cereal import at 58 percent, and accounts for 11 percent of total agricultural imports from 2005 to 2009 (MoFA, 2009). Since the 1980’s, rice consumption in Ghana has been increasing steadily from about 12.4kg/person/year in 1984 to 38kg/person/year in 2011 and it is expected to reach 63kg/person/year in 2015 (Asuming-Frempong & Osei-Asare, 2007; MoFA, 2009; Amanor-Boadu, 2012;).

The rapid increase in rice consumption has mainly been attributed to an increase in income, ease of cooking, population growth, and urbanisation; as well as the influx of fast food restaurants and food vendors in the major cities and towns (Opoku & Akorli, 2009). The country currently consumes an estimated 1.8 million tons of rice annually (MoFA, 2013). However, the country's rice market is mainly driven by imported rice, mostly from Thailand, Vietnam, or the USA resulting in an importation bill of about \$500 million annually as stated in the previous chapter (MoFA, 2013; CARD, 2010).

The pattern is extreme in urban markets (such as Accra and Kumasi) which consume over 76 percent of total rice in Ghana (including both local and imported rice). However, according to the Statistics, Research and Information Directorate (SRID) of the MoFA (2013), these urban markets consume only 20 percent of the locally produced rice and 80 percent of the imported rice due to the perception that the imported rice is of higher quality. Because of the high demand for the imported rice by urban consumers, the local rice is rarely found in supermarket chains, whose shelves are dominated by varieties of imported long grain perfumed rice.

The heavy importation has serious implications for the exchange rate since a lot of the Ghanaian cedi is needed to obtain the foreign currency to import these products. Initiatives seeking to reverse this trend is highly welcomed (Hinson & Mahmoud, 2015). Considering both the population growth rate and the rate of increase in per capita consumption, rice consumption is expected to reach 2.2 million tons by 2017 (MoFA, 2013). Therefore, efforts to change the behaviour of lack of preference for local rice by urban consumers must be put

in place to increase the consumption of the local rice; otherwise, the importation of the foreign rice should be expected to grow experientially in the coming years.

2.2 Rice Production in Ghana

Oryza Sativa and Oryza are the major types of rice cultivated in Ghana (Angelucci et al., 2013). Rice production has increased significantly over the past 3 decades. Production has increased from 0.09 and 0.16 million hectares while yields fluctuated between 1.7 and 2.7 tons per hectare. However, from 2005, rice production has increased from about 300,000 tons to over 600,000 tons in 2010 (MoFA, 2013). Favourable rain patterns, fertilizer subsidy programme and the block farm programme are the principal factors contributing to this increase. Between the period of 2005 to 2010, rice production accounted for about 19 percent of cereal production (MoFA, 2013).

In Ghana, smallholder farmers do 80 percent of rice production, mostly on farmlands less than one hectare in size (Angelucci et al., 2013). Rain-fed rice production contributes 84 percent of total current production, generating average paddy yields of 1.0 - 2.4 metric tons per hectare while irrigated production accounts for just about 16 percent of production but produces the highest average paddy yields of 4.5 MT per hectare (CARD, 2010).

Due to increased investment and attention towards the local rice sector by both the government and its partners, domestic paddy rice production in Ghana has increased by 165 percent between 2007 and 2010 while yield increased by 59 percent (MoFA, 2013). In addition to the increase in production, there has been a tremendous improvement in the

finishing and the quality of the local rice over the years. For instance, Ghana can now boast of premium long grain perfume rice such as “Oman-Ba, Gold Star, Volta Star, and the Northern Star Rice”.

According to Table 2.1, even though rice is produced in all ten regions of Ghana, Northern, Upper East and Volta regions are mainly responsible for the majority of rice produced in Ghana as they accounted for nearly 80 percent of total national output and 73 percent of total production area in 2010. These three regions also fall in three of the country’s six agro-ecological zones (Coastal savanna, Guinea savanna and Sahel savanna). Average yield of 2.96 MT/Ha in these three regions exceeds the national average of 2.71 MT/Ha but is significantly lower than the average yield of 5.48 MT/Ha in the Greater Accra Region, suggesting that the right technologies and policies could enhance yields and output (Angelucci et al., 2013).

Table 2.1: Distribution of Rice Production by Region and Agro-Ecological Zones (2006)

Region	Agro-Ecological Zone	Output (MT)	Area (Ha)	Yield (MT/Ha)
Northern	Guinea Savanna	185,877	62,930	2.95
Upper East	Sahel Savanna	135,221	47,361	2.86
Volta	Coastal Savanna	67,229	21,860	3.08
Ashanti	Semi-Deciduous Rainforest	27,705	10,115	2.74
Western	Rainforest	23,022	17,130	1.34
Eastern	Semi-Deciduous Rainforest	20,703	6,630	3.12
Greater Accra	Coastal Savanna	12,741	2,323	5.48
Upper West	Sahel Savanna	7,291	4,570	1.60
Brong-Ahafo	Forest Savanna Transition	6,573	4,020	1.64
Central	Semi-Deciduous Rainforest	5,241	4,290	1.22
Total	National	491,603	181,229	2.71

Source: (Angelucci et al., 2013)

Despite the growth in production, low demand remains a major problem as Ghana still imports over 70 percent of rice consumed to satisfy the taste of consumers, especially urban consumers. For instance, between 2000 and 2009, Ghana imported 742,469 MT of rice to satisfy demand for rice (Amanor-Boadu, 2012). The over-reliance on rice imports has always been a major concern to the Ghanaian policy maker especially after the escalating food prices in 2008.

2.3 Efforts, Interventions and Policies to Reduce the Importation of Foreign Rice

In attempting to increase the consumption of the made in Ghana rice and reduce the importation of foreign rice, several policies and interventions have been implemented over the years. However, these policies and interventions have not yielded significant results in boosting the consumption of local rice, especially in urban centres. The following are some of these policy interventions.

2.3.1 National Rice Development Strategy

Ghana was the first country within the Coalition for African Rice Development (CARD) to launch its National Rice Development Strategy (NRDS) for the decade 2009- 2018 with the objective of doubling the domestic rice production by 2018 to reduce the importation of rice substantially; contribute to food security; and increased income in rice production (MoFA, 2009). Specifically, the NRDS programme seeks to increase the production of the local rice by 10 percent annually over a 10-year period through productivity-enhancing innovations of small and commercial local rice producers and entrepreneurs along the value chain.

Secondly, the programme seeks to promote the consumption of the local rice by improving its quality and engaging in marketing activities (MoFA, 2009).

2.3.2 Food and Agricultural Sector Development Policy (FASDEP I)

This was formulated in 2002 with the objective of modernising agriculture and to specifically decrease rice imports by 30 percent by 2004 by boosting domestic production levels to 370,000 tons (CARD, 2010).

2.3.3 The Second Food and Agricultural Sector Development Policy (FASDEP II)

This was developed in 2007 with the intention of developing the rice value chain (from production to marketing). It also sought to control agricultural imports by applying standards instead of quotas and import tariffs (CARD, 2010).

2.3.4 Fertilizer Subsidy Programme

The objective of this programme was to encourage the use of fertilizer among farmers to increase food production levels as the Ministry of Food and Agriculture found that Ghana had one of the lowest usage of fertilizer in the Sub-Saharan African region (MoFA, 2009).

2.3.5 The Block Farm Programme (BFP)

The objective of this programme was to provide large quantities of land in blocks for the production of selected crops in commercial quantities and enhance food security by using science and technology (Angelucci et al., 2013). Crops included in the programme are maize seed and grain; rice seed and grain; soybeans; sorghum; tomatoes; and onions. The

programme received subsidised mechanisation services and inputs in addition to extension services.

2.3.6 The Agricultural Mechanisation Services Enterprise Centres (AMSECs) Programme

This programme was set up to provide credit facility to assist the private sector players to purchase agricultural machinery to help farmers have widespread access to mechanisation services at affordable prices and to increase effectiveness and efficiency in farming and processing operations (Angelucci et al., 2013).

2.3.7 Made in Ghana Committee

The government through the Ministry of Trade and Industry has established the Made in Ghana Committee whose main objective is to promote made in Ghana products in general. The committee is expected to design policies to promote a national programme on patronising locally manufactured products. In other words, the core mandate of this committee is to promote the sense of nationalism and patriotism in Ghanaians to purchase locally produced goods.

2.4 Conclusion

Due to factors such as an increase in income, urbanisation, population growth rates, cooking convenience, and change in consumer habits, the demand for rice has rapidly grown to become the second most important crop in Ghana. Even though Ghana's rice production has been increasing steadily over the years, only 20 percent of the rice produced locally is

consumed in urban areas (MoFA, 2013). The lack of preference for the local rice, especially by urban consumers, has resulted in the importation of 70 percent of total rice consumed in the country with an import bill of US\$500 million (CARD, 2010; Angelucci et al., 2013; MoFA, 2013).

Unfortunately, previous efforts have focused mainly on increasing the quantity and quality of rice produced to the neglect of behavioural change among Ghanaian consumers towards the local rice. Therefore, addressing the situation from a behavioural and social marketing point of view will provide a better solution to reducing the high preference rate for the foreign rice by the Ghanaian consumer and thereby, reducing the rate of rice imports. The current study therefore seeks to predict how attitude, social norms and perceived behavioural control will influence intention to consume the local rice.

CHAPTER THREE

LITERATURE REVIEW

3.1 Historical Background of Social Marketing

Commercial marketing has made a remarkable achievement in influencing purchase decisions and encouraging people to buy products; thus, when applied to encourage people to adopt a desired behaviour, it is known as social marketing (Sheau-Ting et al., 2013). The root of social marketing is traced to Wiebe (1951) when he raised concerns about why marketing could not be applied to the selling of such problems as brotherhood as we sell soap. Wiebe (1951) examined four social campaigns and concluded that the more the social campaign resembles that of a product campaign, the more successful the campaign. This suggests that applying marketing principles to a social campaign will be more successful.

Kotler & Levy (1969) argue that marketers were too narrow in their application of the marketing concept and posit that marketing was about transactions or exchanges, not just product transactions. In other words, marketing is a pervasive societal activity that goes beyond just the selling of commodities such as soap to other concepts like marketing of a political candidate, fund raising, etc. Nevertheless, the social aspects of marketing are usually ignored by marketers (Kotler & Levy, 1969). In 1971, Kotler and Zaltman (1971) also asked the question: “can marketing concepts and techniques be effectively applied to the promotion of social objectives such as brotherhood, safe driving, and family planning ?” Their study ("Social Marketing: An Approach to Planned Social Change") has shown that social causes are better advanced successfully through the application of marketing concepts

and techniques. Thus, Kotler and Zaltman (1971) originally coined the phrase ‘social marketing’ to the discipline in 1971.

The social marketing fieldwork began in India in 1964 when it was first applied to the promotion of family planning (Harvey, 1999). At this initial stage, social marketing activities mainly involved simple products and the major marketing tools were conventional promotion and distribution (Andreasen, 2003). According to Andreasen (2003), the limited application of social marketing to other sectors in the 1970’s and 1980’s was because of the original definition of social marketing by Kotler and Zaltman (1971).

Social marketing has grown to become an established concept in changing behaviour and has proven to be more effective in changing behaviour relating to social issues voluntarily than the traditional public education and use of policies and regulations (Mah et al., 2006; Sheau-Ting et al., 2013). Several social marketing textbooks, devotion of journals entirely to the field (the Social Marketing Quarterly and the Journal of Social Marketing) and the wide adoption of social marketing practices by governments and non-profit organisations is an indication that the field of social marketing is at the growth stage of the product life cycle (Andreasen, 2002).

Social marketers have also accepted the fact that the fundamental objective of social marketing is influencing behaviour rather than promoting ideas as suggested by earlier scholars (Peattie & Peattie, 2009). The application of social marketing has also expanded to cover a wide range of social issues such as HIV/AIDS (Tweneboah-Koduah & Owusu-Frimpong, 2013); breast feeding (Tapp et al., 2013); energy conservation (Sheau-Ting, et al.,

2013); sustainable consumption (Peattie & Peattie, 2009); transport (McGovern, 2007); drunk driving (Hoek & Jones, 2011); and alcohol abuse (Wettstein et al., 2012).

According to Lefebvre (2011), the superiority of social marketing over health communication, community education, economic and advocacy efforts is due to its focus on target behaviour, benefits to target audience, and use of marketing strategies to change behaviour. The value of social marketing is that it pays attention to barriers preventing people from changing their behaviour and motivators that influence people to change their behaviour. It also provides strategies and techniques for overcoming the barriers and how to take advantage of motivators to achieve behaviour change (Yoder & Murphy, 2012).

As demonstrated earlier, social marketing has been proven to be the most effective means of achieving sustainable behaviour change. The evidence of successful application of social marketing to other areas is a proof that it can be successful when applied in the context of local rice promotion.

3.2 Definition of Social Marketing

Despite the rapid growth of interest in social marketing, there is still considerable disagreement about what social marketing is and how it differs from similar fields such as communications and behaviour mobilization (Andreasen, 1994). Kotler and Zaltman (1971) first defined the term social marketing as *“the design, implementation and control of programmes calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing*

research". This early definition created a lot of confusion for social marketing (Andreasen, 1994). It made it difficult for those in areas like health communication or health education to appreciate the difference between social marketing and what they were already concerned about and doing (Andreasen, 2003). This is because the objective of any health education and communication is to increase target audiences' acceptability of a social idea and if that is the main goal of social marketing, then, there is no difference.

This definition also made it difficult for people to differentiate between social marketing (which involves changing attitudes, beliefs, and behaviour of individuals for a social benefit); and societal marketing (how marketers could change consumer attitudes so that they would treat the environment better) and how commercial marketers could be induced to desist from evil practices (Andreasen, 2003). In addition, the definition limits the objective of social marketing to influencing the acceptability of social ideas (Andreasen, 2003). However, social marketing involves much more than that, with the primary objective of changing attitudes, beliefs and behaviour of target audience for a societal good (Andreasen, 1994).

In an attempt to address the limitations of the earlier definition, Kotler and Roberto (1989) broadened the definition of social marketing to "an organised effort conducted by one group (the change agent), which intends to persuade others (the target adopters) to accept, modify, or abandon certain ideas, attitudes, practices, and behaviour". This definition, although an improvement, still has some limitations and lacks clarity on issues such as the domain of social marketing, which is behaviour change as the primary objective (Andreasen, 1994).

For instance, how different is social marketing from other technologies like health education or can any activity (government regulations) aimed at changing behaviour be deemed to be social marketing?

Andreasen (2003) defines social marketing as “*the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of the society*”. This definition implies that social marketing is about applying commercial marketing techniques to influence a target audience to change their behaviour voluntarily, which is the primary objective of social marketing. As commercial marketers seek to influence voluntary consumer spending, social marketers also seek to influence target audience to change their behaviour voluntarily, not through coercion (Andreasen, 2003). Kotler and Lee (2008) define social marketing as a process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviour that benefits society (public health, safety, the environment and communities) as well as the target audience.

These definitions capture the core aspect of social marketing, which is to influence or change the behaviour of a target audience voluntarily. Sheau-Ting et al. (2013) conclude that, if a behaviour change is obtained voluntarily, it could be maintained for a longer period.

Although, these definitions were explicit on the role of marketing techniques in influencing behaviour change voluntarily, they failed to touch on the role of other important techniques such as theory in understanding behaviour. These definitions have also been criticised for failing to consider the fact that coercion in the form of regulation or laws can sometimes be a more effective means of achieving a social goal (Rothschild 1999). For instance, Rothschild (1999) argues that when persuasion fails or when people are reluctant to change their behaviour voluntarily, then the appropriate intervention is law and regulations. Hastings et al. (2000) also argue that, even though people's behaviour is not just determined by their choices but also by their social and environmental factors, social marketers tend to focus much of their attention and efforts on the factors that influence individual behaviour (downstream influences) to the neglect of environmental and social factors (upstream influences).

Other contemporary authors also argue that the application of marketing technologies alone is not enough to change behaviour effectively (Gordon et al., 2006; French & Blair-Stevens, 2010; Luca & Suggs, 2013). For instance, Gordon et al. (2006) argue that social marketing is not a theory; but rather, it is a framework or structure that draws from many other bodies of knowledge and theories such as psychology, sociology, anthropology and communications to understand how to influence people's behaviour. Luca and Suggs (2013) posits that, for an effective social marketing intervention to be developed, an appropriate behavioural change theory must be applied to understand behaviour of the target audience since understanding the target audience is vital to the success of the social marketing intervention.

According to French & Blair–Stevens (2010), social marketing is a systematic intervention designed with a combination of marketing principles and other concepts to achieve a behavioural change for a societal good.

Therefore, it could be concluded that the most appropriate definition of social marketing is the one that takes into consideration the role of marketing and other disciplines in influencing the behaviour of a target audience for the benefit of both society and the individual. For this study, social marketing is defined as the application of marketing principles alongside other concepts to achieve voluntary behaviour change towards the made in Ghana rice for the benefit of society.

Gordon et al. (2006) has proven in their study that social marketing interventions are extremely effective in influencing a target audience to adopt a new behaviour such as improving upon their diet, increasing exercise, and reducing the misuse of substances like alcohol, tobacco, and illicit drugs. Therefore, social marketing could be trusted as an effective and a reliable means to modify the attitude of Ghanaians towards local rice.

From the above discussions, it could be concluded that social marketing has five unique features. First, the main objective of social marketing is voluntary behaviour change and not coercion even though upstream measures may sometimes be applied to influence policies and regulations to create the necessary environment that will facilitate behaviour change. Second, there is a principle of exchange, which means that there is a clear benefit to the target audience if change occurs. Third, there is an application of marketing techniques to

influence people to adopt a given behaviour. Fourth, there is the application of behavioural change theory to understand the target audience. Finally, the goal is to achieve behaviour change for the benefit of both the individual and society.

3.3 Difference between Commercial Marketing and Social Marketing

Social marketing is a branch of commercial marketing that applies marketing concepts to achieve a socially desirable goal (for instance, to achieve a positive attitude towards the consumption of made in Ghana rice). In other words, social marketing is the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon a behaviour for the benefit of individuals, groups, or society as a whole (Kotler et al., 2002). Andreasen (1995) defines social marketing as “the application of commercial marketing technologies to the analysis, planning, execution and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of society”.

It is clear from the above definition that, unlike commercial marketing where the key motivation for the application of the marketing principles is to influence consumers to purchase something for a profit, the primary objective of social marketing is to influence a target audience to change their behaviour voluntarily for the benefit of society or the individual. In commercial marketing, success is measured in terms of shareholder value, sales or profitability; while with social marketing, behaviour change is the bottom line (Andreasen, 1995). In other words, performance in commercial marketing is judged based

on profit while in social marketing, performance is based on behaviour change (Andreasen, 2002).

Social marketing uses the same fundamental principles and tools of the commercial marketing framework to encourage collaboration and cooperation. Although, the main objective of social marketing is to change the behaviour of individuals, it can also be applied to influence policy makers to formulate policies that could help modify or maintain behaviour in a way that commercial marketers cannot (Rothschild, 1999; Kotler et al., 2002; Grier & Bryant, 2005).

In most situations, people act primarily out of self-interest as they seek ways to optimize value by doing what gives them the greatest benefit for the least cost. Commercial marketers clearly and consistently acknowledge and pursue this self-interest. On the contrary, social marketers are working against the self-interest of the target audience (Rothschild, 1999). For instance, the commercial marketer is working alongside the consumers' interest of consuming junk food by persuading them to choose their product but the social marketer is working to stop people from enjoying junk food because of its health related effects. This difference makes the work of the social marketer more difficult.

The following sub-headings further explain the differences and similarities between social marketing and commercial marketing.

3.4 The Social Marketing Mix

Marketing could be described as a persuasion process that influences consumers to get involved in the exchange process and the marketing mix plays a critical role in this process (Meyer, Brun, Yung, Clasen, Cauley, William, & Mase, 2008). The traditional 4Ps (product, price, promotion and place) adopted from commercial marketing serves as the foundation for developing optimum social marketing mix strategies and other additional marketing mix strategies which are unique to social marketing.

Social marketers take advantage of their understanding of consumers to develop a carefully integrated strategy/intervention taking into consideration the marketing mix elements. In other words, the potential of social marketing lies in the integration of the marketing mix elements, rather than simply creating advertising campaigns or slogans (Meyer et al., 2008).

3.4.1 Product

In the social marketing context, product refers to the desired behaviour (consumption of made in Ghana rice) that the social marketer wants the target audience to adopt. Grier and Bryant (2005) define *product* in social marketing as the set of benefits that a target audience receives from the desired behaviour or service usage. Kotler et al. (2002) distinguish between the core product (the benefit people derive when they perform the behaviour) and the actual product (the desired behaviour). The product usually represents intangibles such as adoption of an idea or behaviour and not tangible products such as condoms that are used to promote/facilitate the adoption of the behaviour (Kotler et al., 2002; Grier & Bryant, 2005; Gordon, 2012; Sheau-Ting et al., 2013).

For this study, the product is the consumption of the made in Ghana rice rather than the imported rice. Like commercial marketing, consumers will buy the desired behaviour if they are satisfied with the expected benefits associated with performing a particular behaviour (Sheau-Ting et al., 2013). Therefore, research must be undertaken to understand people's aspirations, preferences, and other desires to identify which benefits have the greatest appeal to the target audience and design a product that provides those benefits. Peattie and Peattie (2009) suggest that the product in social marketing should be called proposition instead of product. They argue that all social marketing campaigns promote a particular proposition and embedded in those propositions are specific behaviour or a set of behaviour that social marketers wish to see adopted and maintained by target audience.

3.4.2 Price

In social marketing, the price is the cost or sacrifice that the target audience associates with adopting the new behaviour (Gordon, 2012). The price could be both monetary and non-monetary. The monetary cost refers to actual money spent to acquire the local rice (Peattie & Peattie, 2009; Sheau-Ting et al., 2013). Usually, the price in social marketing consists of intangible cost or barriers such as time, effort, the old habit and emotions that consumers have to overcome to adopt the desired behaviour (Grier & Bryant, 2005).

If consumers perceived the price of the local rice to be more expensive compared with the imported rice, they will be reluctant to adopt the desired behaviour, which is to have a positive attitude towards made in Ghana rice. Gordon (2012) classified this cost as psychological (perception that the local rice is of poor quality), cultural or social (e.g. peer

pressure), physical, and financial (e.g. cost of driving to specific shops to get the local rice). As with commercial marketing, consumers will resist the purchase of a product if they consider the price too high. The marketer must identify what the target audience considers as the most significant price and design the marketing mix in such a way to minimize the cost so that both monetary and non-monetary cost does not outweigh the perceived benefits of consuming made in Ghana rice (Sheau-Ting et al., 2013). Unlike commercial marketing, the concept of price in social marketing is much more holistic than that of economic price, and much in line with transaction cost theory.

3.4.3 Place

In commercial marketing, place refers to the distribution of goods and the location of sales and service encounters (Grier & Bryant, 2005). In social marketing, the place is where the target audience will perform the desired behaviour (buy the local rice), receive any related information or assistance that will enable them to perform the desired behaviour effectively (Kotler et al., 2002).

In the context of this study, the place refers to the physical shops, supermarkets and market places where the local rice could be purchased. The place where the behaviour is performed plays a critical role in influencing the decision of the target audience as to whether to perform the behaviour, perform it frequently or infrequently (Sheau-Ting et al., 2013). Like commercial marketing, accessibility and the surrounding environment are the two major strategies in the place mix to encourage consumers to perform the desired behaviour (purchase the local rice). The greater the ease and convenience in getting the local

rice, the more likely it is that the local rice would be purchased. In addition to effective distribution, a surrounding environment and an effective merchandising that encourages the purchase of the local rice is also important to foster behavioural change (Sheau-Ting et al., 2013).

3.4.4 Promotion

In social marketing, promotion is defined as “persuasive communications designed to convey and deliver product benefits to inspire a target audience to action” (Kotler & Lee, 2008). In social marketing, promotion may include offering of incentives such as discounts to enhance the attractiveness of the desired behaviour (Sheau-Ting et al., 2013). Mah et al.,(2006) argue that, like commercial marketing, the selection of the most appropriate communication channels and identifying and providing the right motivation that encourages the performance of the behaviour are the two key promotional strategies in social marketing. Unlike commercial marketing, previous literature has confirmed that relying heavily on the promotion attribute does not deliver the necessary result.

3.4.5 Post-purchase Maintenance

Post-purchase maintenance refers to the activities that are performed to sustain and maintain an adopted behaviour for a longer period (Yoder & Murphy, 2012; Sheau-Ting et al., 2013; Tweneboah-Koduah & Owusu-Frimpong, 2013). A change that only lasts during an intervention period is insufficient (Tweneboah-Koduah & Owusu-Frimpong, 2013). Sustained change is required for sustainable consumption behaviour of the local rice. Reinforcement, feedback, and reminders have been identified as the main strategies in

achieving sustainable behaviour change (Sheau-Ting et al., 2013). Reinforcement is about providing continuous pleasurable rewards to strengthen behaviour. For instance, providing varied sales promotions of the local rice on a regular basis could help stimulate interest in the consumption of the local rice. Consumers must be constantly reminded about the benefits of engaging in the desired behaviour (consuming local rice).

3.5 Exchange in Social Marketing

Exchange forms the core of all the activities in marketing as commercial marketers are constantly trying to influence or persuade consumers to voluntarily choose their product over competing brands by offering them benefits or incentives (Grier & Bryant, 2005). The exchange theory postulates that consumers' decision and choice is based on self-interest where they will conduct cost benefit analysis and compare alternatives in order to optimize their value (Grier & Bryant, 2005; Luca & Suggs, 2013).

In commercial marketing exchanges, consumers receive a product or service for money spent. On the contrary, exchange in social marketing is much more complicated as benefits received by a target audience in exchange for their old behaviour are mostly intrinsic (Rothschild, 1999). Nevertheless, the exchange theory is considered as a core component in social marketing and has considerable importance in developing the price and the product mix components of a social marketing intervention (Andreasen, 2002). The theory suggests that social marketers must provide strong incentives as benefits of the product that the consumer truly values (benefits that are so compelling and far outweigh the cost, making the behaviour easy for the target audience to perform).

In addition, the exchange theory also suggest that social marketers must recognise that consumers often pay intangible costs associated with changing behaviour; and must acknowledge that everyone involved in the exchange must receive valued benefits in return for their efforts (Grier & Bryant, 2005). According to Rothschild (1999), if the target audience can discern immediate self-interest in the desired behaviour, they are more likely to perform the behaviour: if there is no perceived benefit, exchange is less likely to occur. In situations where the target audience perceived no benefit to perform the desired behaviour, social marketers can fall on upstream measures to influence policy makers to come out with policies and regulations to enforce the performance of the behaviour in question (Rothschild, 1999). For instance, there is a law that prohibits smoking of cigarette in public places.

3.6 Competition in Social Marketing

In commercial marketing, competition refers to products and companies that try to satisfy similar wants and needs. In the social marketing framework, competition refers to behavioural options and other factors that compete for people's attention, willingness, or ability to adopt the desired behaviour. For instance, consumption of local rice versus foreign rice; or bottle-feeding versus breastfeeding (Hastings & Saren, 2003; Grier & Bryant, 2005).

Competition in social marketing also refers to any environmental or perceptual force that impedes an organisation's ability to achieve its goal. Social marketing competition also includes adverts that promote the product (advert on alcohol), enjoyment of the current behaviour, or the absence of options (Tweneboah-Koduah, Braimah, & Otuo, 2012). In other words, the competition for social marketers is most often the current or preferred behaviour

of the target market (consumption of imported rice) and the perceived benefits associated with that behaviour (consumption of imported rice).

Social marketers must, therefore, identify behaviours competing with those that they are promoting and the benefits the current behaviour offers the target audience as compared to those offered by the desired behaviour. Hastings and Saren (2003) argue that, for an intervention to be effective, it must increase the benefits of the target behaviour, decrease the benefits of the competing behaviour and decrease barriers of the desired behaviour but increase the barriers of the competing behaviours. In other words, the desired behaviour must be made more attractive than the competing behaviour.

3.7 Upstream Social Marketing

Social marketing is known for its effectiveness in changing the behaviour of individual citizens for the benefit of both the society and individuals. Thus, voluntary behaviour change has been the focal point of social marketing. However, social marketers have been heavily criticised for focusing the majority of their attention on strategies aimed at influencing individuals to change their behaviour (downstream social marketing) rather than on the underlying environmental and social causes of the problems it addresses (Wymer, 2011). Social marketers need to respond proactively to the threats and uncertainties posed by the external environment as in commercial marketing (Hastings et al., 2000). This is because, according to scholars, people's behaviour is not just determined by their own choices but also by their social context (Hastings et al., 2000; Hoek & Jones, 2011).

In recent years, there has been a call for broadening the scope of social marketing beyond the individual, to attempt to influence those that help shape the determinants of human behaviour such as policy makers, regulators, and the media (upstream social marketing) (Hastings et al., 2000; Hoek & Jones, 2011; Scott & Higgins, 2012). Upstream social marketing is the application of marketing and other techniques to influence people in authority (policy makers, regulators, opinion leaders, managers and educators) to come out with policies, regulations or laws to change the structural environment which will help address a societal problem (Gordon, 2013). With upstream social marketing, these group of people (people in authority) are treated as the target audience, and through the use of marketing techniques, advocacy, and stakeholder engagement, their behaviour can be influenced to engender pro-social outcomes; for example, through policy change (Gordon, 2013). In other words upstream social marketing is about using marketing principles to influence the behaviour of those who have the power to shape the structural and environmental conditions within society.

Wymer (2011) argues that social marketing interventions would be ineffective if the social problem requiring a remedy is not under the control of the individual. He suggests that social marketing strategies must take into consideration addressing these environmental and social influences (upstream) that are beyond the individual in order to develop an effective social marketing intervention. These environmental factors maybe lack of availability of local rice or the presence of foreign particles due to poor processing. For instance, an upstream social marketing approach could be adopted by influencing decision makers to come up with a policy which will compel every major shop/supermarket to assign a strategic

shelve for the local rice to deal with the issue of lack of availability. Wymer (2010) advised social marketers to influence changes to public policies, regulations, or laws to deal with these environmental factors through lobbying and activism.

Rothschild (1999) suggests that the most effect means of addressing public health and social issue behaviour is by using education, marketing, and law as the primary strategic tools. He also argued that, for some specific social issues, the targets may or may not have any motivation, opportunity, and/or ability to perform the desired behaviour; and just pursuing voluntary behaviour change might not provide the desired result. The major task therefore, is determining the circumstances under which education, marketing, law, or their combination is most appropriate.

Education refers to messages informing the target audience to behave voluntarily in a particular manner (Rothschild, 1999). Education can teach and create awareness about existing benefits but cannot deliver them (Rothschild, 1999). Social marketing is the application of marketing principles to promote voluntary behaviour change of a target audience by offering benefits they want, reducing barriers/cost they are concerned about, and using persuasion to motivate them to adopt the desired behaviour for the benefit of both the individual and society (Andreasen, 2002; Kotler et al., 2002).

Law, on the other hand, involves the use of coercion to achieve the desired behaviour in a non-voluntary manner or to threaten with punishment for non-compliance or inappropriate behaviour (Rothschild, 1999). Law can also be used to increase the consumption of the local

rice (by the use of price subsidies) or decrease the consumption of the imported rice (by the use of taxes, which will raise prices) (Rothschild, 1999). Thus, according to Rothschild (1999), with laws, the self-interest of both society and managers are pursued to the neglect of the individual's self-interest. However, Hoek and Jones (2011) argue that the upstream measures rather create a conducive environment for downstream interventions to flourish and should not be regarded as constraints diminishing voluntary behaviour, but instead as the pre-requisites enabling full and free choices.

According to Rothschild (1999), even though the use of law generally is thought of as coercive and punishing, it can also be positive and of assistance especially when the target audience is not willing to voluntarily change their behaviour. Nevertheless, when there is lack of opportunity (situations in which the individual wants to act but is unable to do so because there is no environmental mechanism at hand), the use of upstream marketing will be the most appropriate strategy to influence policy and laws to create the required opportunities.

Social marketers must, therefore, expand the field by first exploring upstream measures to create conducive environment for the individual before targeting them with behavioural messages (Wymer, 2010; Hoek & Jones, 2011; Scott & Higgins, 2012). This implies that downstream social marketing interventions will achieve more if upstream measures are carefully exploited to address barriers to change (Hoek & Jones, 2011).

From the above discussion, it is clear that the upstream marketing relies heavily on the use of policies, laws and regulations to manage behaviour change by coercive punishing of inappropriate behaviour without choice; whereas, the downstream marketing manages behaviour change by motivating individuals to voluntarily change their behaviour by offering incentives (benefits) and choice.

There is enough evidence from extant literature about the effectiveness of upstream social marketing in reducing the consumption of harmful alcohol and in reducing smoking (Hoek & Jones, 2011; Gordon, 2013). Hastings et al. (2000) argue that, although behaviour change is the focal point of social marketing, identifying whose behaviour to change in a particular situation is very critical to the success of social marketing intervention.

In the made-in Ghana rice context, the use of laws or policies such as embargo or high tariffs might not be the appropriate means of influencing behaviour change towards the local rice. This is because Ghana, as a country, has signed up to various international trade agreements including the recent Economic Partnership Agreement (EPA) and the increasing liberalization of these international trade agreements by WTO, EU, and World Bank (Angeluccd et al., 2013). Placing an embargo on the imported rice will attract sanctions from these organisations and member countries. However, the upstream approach could be used to influence policy about the availability of the local rice in markets, shops and supermarkets. Therefore, the downstream social marketing approach of motivating individuals to change their behaviour towards local rice would be the best approach in the

context of the made in Ghana rice. Downstream social marketing is more appropriate when dealing with volitional behaviour (Ajzen, 1985).

3.8 Theories of Behaviour Change

In order to develop a more effective social marketing solution to change human behaviour, it is important that social marketers understand how people behave under different circumstances; and also understand when, and under what conditions people are prepared to change their behaviour (Wymer, 2011). For instance, understanding why people are not consuming the made in Ghana rice is very critical to designing an effective intervention to motivate consumers to consume the local rice.

The social marketing approach heavily relies on behavioural change theories to provide a valuable framework for understanding target audience and social issues. In addition, theories also serves as an important framework for designing and evaluating social marketing interventions (Luca & Suggs, 2013). Furthermore, the use of theory helps social marketers to identify whether a particular behaviour is caused by attitudinal, normative, self-efficacy, environmental or other social considerations, or a combination of these factors (Fishbein & Yzer, 2003). Due to the critical role of behavioural change theory in understanding and designing an effective intervention, the use of theory has officially been integrated as a core component of the social marketing benchmark (Andreasen, 2002; French & Blair-Stevens, 2006).

There are a number of behavioural change theories that could be employed to design effective social marketing intervention. In the social marketing literature, the most

frequently used theories in predicting and understanding behaviour includes the diffusion theory; the stages of change/trans theoretical model; social cognitive theory; theory of planned behaviour; health belief model; and protection and motivation theory (Wymer, 2011; Luca & Suggs, 2013). As stated in the background of the study, consumers are still averse to the consumption of the local rice despite the various policies and programmes being implemented by the government. This could be as result of perceived difficulty in buying (lack of availability), perceived poor quality and the belief that the local rice is expensive, or the unpleasant physical properties (mixed with stones). The next section discusses the theories of behaviour change in detail.

3.8.1 The Theory of Planned Behaviour

According to the theory of planned behaviour, the key determinant of human behaviour is the individual's *intention* to perform or not to perform a given behaviour (Ajzen, 1985; Ajzen, 1991). Thus, people are expected to act in accordance with their intentions. Intentions refers to the motivational factors that influence a behaviour; they represent the willingness and effort people exert, in order to perform the behaviour (Ajzen, 1991). This implies that intentions usually influence a behaviour, which is under volitional control (thus, if people decide at will to perform or not perform the behaviour). The stronger the intention to engage in a behaviour, the more likely should be its performance (Ajzen, 1991; Verbeke & Vackier, 2005).

Although the motivation to engage in a given behaviour may be present, its performance, to some extent, depends on non-motivational factors such as availability of opportunities and

resources (e.g., time, money, skills, and cooperation of others). These factors represent people's actual control over their behaviour (Ajzen, 1985). The extent to which intention can influence the performance of a given behaviour depends on behavioural controls. In other words, if a person has the required ability (opportunities and resources), and intends (motivated) to perform the behaviour, he or she should succeed in doing so (Ajzen, 1991). For instance, to change the preference of consumers towards the made in Ghana rice depends on peoples' motivation (intention) and ability (behavioural control) to engage in the behaviour (consumption of local rice).

According to this theory, there are three conceptually independent determinants of intention to perform a given behaviour (Ajzen, 1985; Verbeke & Vackier, 2005; Arvola, Vassallo, Dean, Lampila, Saba, Lähteenmäki, & Shepherd, 2008; Vermeir & Verbeke, 2008). The first is the individual's attitude towards the behaviour, which reflects the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour, which is the consumption of the local rice (personal factor). The second determinant of intention is the social pressure termed subjective norm, which reflects the beliefs an individual holds regarding the expectations of others (concerning the consumption of the local rice) as well as the individual's motivation to comply with these expectations (Dunn, Mohr, Wilson, & Wittert, 2011). In other words, it is the individual's perception of what he or she thinks important others will think about him when they see him consuming local rice, and the willingness of the individual to comply with these expectations.

The third determinant of intention is perceived behavioural control, which refers to people's perception of the ease or difficulty of performing the behaviour of interest (consumption of the local rice) due to availability or lack of opportunities and resources. When people feel they lack the resources or opportunities to consume local rice, they are unlikely to form strong intentions to perform the behaviour. That is, behavioural control is about the individual's perception of the extent to which internal and external factors may facilitate or hinder his performance of a given behaviour. A person's perception of the availability of these opportunities and resources greatly influence his intention to perform the behaviour in question. Thus, an individual with a stronger behavioural control will have a stronger intention to perform the desired behaviour (Ajzen, 1985; Ajzen, 1991; Verbeke & Vackier, 2005). As a general rule, the more favourable the attitude and subjective norm with respect to a behaviour, and the greater the perceived behavioural control, the stronger should be an individual's intention to perform the behaviour under consideration (Ajzen, 1991)

In order to have a more complete understanding of human behaviour and intentions, it is important to explain why people hold certain attitudes, subjective norms, and perceived behavioural control, which in turn determine intentions and actions (Ajzen, 1985). According to the theory, behaviour is a function of salient information, or beliefs, relevant to the behaviour in question. It is these salient beliefs that are considered to be the key determinants of a person's intentions and actions (Ajzen, 1991). These beliefs have been classified by Ajzen (1991) as behavioural beliefs, which determines or influences people's attitudes toward the behaviour; normative beliefs, which influences the underlying

determinants of subjective norms; and control beliefs, which provide the basis for perceptions of behavioural control (Ajzen, 1991; Verbeke & Vackier, 2005).

The theory postulates that attitude toward a behaviour is determined by salient beliefs about the likely consequences of the behaviour, and the evaluations of these outcomes (Ajzen, 1985). Attitude towards a given behaviour is determined by the individual's evaluation of the consequences associated with the behaviour and by the strength of these associations. For instance, a person who believes that performing a given behaviour (consuming the local rice) will lead to a positive outcome will have a positive attitude toward the consumption of the local rice and vice-versa. The beliefs that determines a person's attitude toward a given behaviour is termed behavioural beliefs (Ajzen, 1985; Dunn et al., 2011).

Normative beliefs, on the other hand, is when an individual believes that specific individuals or groups think that he should or should not perform the behaviour; and the willingness to comply with these people. Generally, an individual will be under perceived social pressure to perform a given behaviour if he believes that most of the referents with whom he is motivated to comply think that he should perform the behaviour. However, if he believes that the referents think he should not perform the behaviour, he will be under pressure not to consume local rice (Ajzen, 1985; Norman, 2011).

Control beliefs deals with the individual's belief about the presence or absence of requisite resources and opportunities (such as price of the local rice, availability, cooking skills, time, etc) that are needed to successfully perform the behaviour; and the strength of each of these

beliefs determines behavioural control (Ajzen, 1991; Dunn et al., 2011). These beliefs may be formed based on past experience, information from friends and acquaintances, or by other factors that increase or reduce the perceived difficulty of performing the behaviour in question (Ajzen, 1991; Verbeke & Vackier, 2005). Ajzen (1991) argues that if individuals believe that they have more resources and opportunities, and fewer obstacles or barriers, their perceived control over the behaviour will be greater.

In summary, beliefs regarding the consequences or outcomes determines attitudes towards the behaviour; normative beliefs determines subjective norms, and beliefs about resources and opportunities are the underlying factors that determine perceived behavioural control.

Extant literature has expanded on the theory of planned behaviour to include new predictors to further explain the variance in behavioural intention and behaviour (Conner & Armitage, 1998; Verbeke & Vackier, 2005; Arvola et al., 2008). For instance, Arvola et al. (2008) examined the role of affective and moral attitude in the theory of planned behaviour and found that, moral attitude together with subjective norms explained considerable among of variances in intentions. Verbeke and Vackier (2005) have extended the theory by adding three predictors as proposed by Ajzen (1991). First, attitude was extended to include both evaluative and affective components. Evaluative judgment is about the analysis of the perceived costs/risks and benefits of performing a given behaviour; while affective judgment is the perceived positive or negative feelings an individual derives from the performance of the behaviour in question (Verbeke & Vackier, 2005).

Second, within the subjective norms, Verbeke and Vackier (2005) considered personal feelings about moral obligations or responsibility to perform, or not to perform a certain behaviour in addition to perceived social pressures. They argue that, even though social norms may force people not to perform a particular behaviour (like not to consume the local rice due to perceived disapproval from peers), the moral obligation of a person may lead to performance of the behaviour for another reason, like supporting the local economy. This could result in conflicting norms between internal moral obligation/norms (personal norm) and external expectations and demands of society (social norm). Personal norm is where individuals take responsibility for their actions and its consequences and believe that the well-being of others depends on their actions (Davies, Foxall & Pallister, 2002).

Third, past experience has also been found to be an effective determinant of later behaviour (Saba & Di Natale, 1999). For instance, a more experience consumer would have a more positive attitude towards the performance of the behaviour in questions than less experience consumers would.

Despite the proven ability of the theory of planned behaviour to explain and predict a significance amount of variance in behaviour, it has been heavily criticised for not considering the relationship between past behaviour and future behaviour. The theory has also been criticised for relying heavily on self-reports, given the vulnerability of such data to self-presentational biases (Armitage & Conner, 2001). This means that individuals may provide socially desirable answers in terms of their attitude and intention.

3.8.2 Social Cognitive Theory

The social cognitive theory provides multifaceted determinants of behaviour and the mechanism through which these factors work. According to the theory, these determinants of behaviour include *knowledge* of the risks and benefits associated with the behaviour. *Perceived self-efficacy* that they have the ability to perform the behaviour; *outcome expectations* about the expected costs and benefits of performing the behaviour; *goals* people set for themselves and the concrete plans and strategies for realizing them; and the *perceived facilitators* and social and structural *impediments* to the changes they seek (Bandura, 1986; Bandura, 2004).

Knowledge refers to the amount of information people have concerning the risk and benefits of the behaviour. Thus, if people lack awareness of the consequences of their behaviour/lifestyle, they will be less motivated to take action to change the bad habit they enjoy so much. In other words, knowledge about risks and benefits creates the precondition for behaviour change (Bandura, 1998). Additionally, the theory posits that belief about self-efficacy plays a pivotal role in behaviour change. That is, even when people are aware of the consequences of their behaviour, and the benefits of the new behaviour, and are motivated to adopt the desired behaviour, but lack confidence in their ability to take action to perform the desired behaviour, they will have little incentive to act or persevere in the face of difficulties (Bandura, 2004).

Another key determinant of behaviour according to the theory is the perceived outcomes people expect their actions will produce (Rosenstock et al., 1988). That is, the individual will be motivated to act if he or she believes that the expected positive outcomes of a given

behaviour outweigh the expected negative outcomes. Bandura (2004) asserted that there are several forms of outcome expectations. The physical outcomes deals with the pleasurable or unpleasurable outcomes of the behaviour and the accompanying material losses and benefits. Behaviour is also partly regulated by social reaction. The perceived social approval or disapproval of performing the behaviour in question is the second outcome. The third outcome is the positive or negative self-evaluative reactions from performing a given behaviour. People usually establish their personal norms based on their self-evaluative reactions and are willing to do things that give them the maximum satisfaction and refrain from behaving in ways that brings dissatisfaction (Bandura, 2004).

According to Bandura (2004) people are highly motivated to change their behaviour if they realize that their personal goal and self-interest would be achieved by adopting the behaviour in question. Even though people may be highly motivated to change, competing environmental and personal impediments can prevent the change from happening. In other words, the perceived facilitators and obstacles are another determinant of behaviour (Rosenstock et al., 1988; Bandura, 2004). Therefore, self-influence (self-efficacy) is needed to surmount these impediments to adopting the new behaviour and maintaining it. Perceived self-efficacy refers to belief in one's capabilities to overcome impediments and take necessary actions required to produce the desired behaviour (Bandura, 1998). Perceived self-efficacy together with motivation is the foundation for behaviour change.

Bandura (1986) argues that self-efficacy is derived from four main sources: enactive or performance attainments; vicarious experience; verbal persuasion; and physiological state.

Performance accomplishments are the most significant means of achieving self-efficacy because they are based on personal mastery experience or past performance of the behaviour. Vicarious experience (observational learning through modelling or imitation) gained by observing others who were successful or unsuccessful in performing the behaviour. Vicarious experience is the next most influential and, indeed, may account for a major part of learning throughout life. Verbal persuasion (or exhortation) is persuasive communications that are used to influence outcome expectation or incentives of target audience. Physiological states are feelings or mental intuitions that tell an individual that he or she is not capable of performing or maintaining a given behaviour.

In summary, the social cognitive theory posits that behaviour change is mainly influenced by factors within the individual and the environment. According to theory, if people are knowledgeable about the benefits of performing a given behaviour and perceive that they have the ability to perform the behaviour by overcoming impediments and that the expected outcome will be positive, they will take steps to perform the behaviour (Bandura, 2004). The main strength of this theory is the emphasis on the several sources of factors that determines behaviour; especially, on the sources of motivational factors and the role of observational learning through modelling (Rosenstock et al., 1988). The theory also explains in details, the pivotal role of self-efficacy and the various sources of self-efficacy (Bandura, 2004). The provision of information on the multifaceted determinants of behaviour suggests a number of potentially effective strategies for altering behaviour through modifying expectations (Rosenstock et al., 1988). The theory has been criticised for not considering the influence of personal attitude on behaviour (Rosenstock et al., 1988).

3.8.3 Transtheoretical/Stages of Change Model

The stages of change model has been one of the major behavioural change theories that social marketers use to design effective social marketing interventions (Tweneboah-Koduah & Owusu-Frimpong, 2013). This theory suggests that change is a process that occurs over time, with progress through a series of six stages. These stages include pre-contemplation, contemplation, preparation, action, maintenance, termination and relapse (Prochaska & DiClemente, 1982).

At the pre-contemplation stage, the individual do not know or feel that they have a problem and does not consider him or herself at risk, and thereby has no intention to change. This may be due to lack of information. For instance, people at this stage do not know that lack of preference in local rice is a problem and will have no intention to buy the local rice in the next 6 months. The contemplation stage is where the individual is aware of the existence of the behaviour and its consequences and is considering taking action to adopt the behaviour but have not made up his or her mind or are not yet ready to take action (Prochaska, Diclemente & Norcross, 1992; Tweneboah-Koduah & Owusu-Frimpong, 2013). People at this stage are thinking of buying the local rice. The preparation stage is when the individual becomes ready and has decided to take action in the very near future, usually measured as the next six months and learns more about what is involved. The process might stop at this point if the individual encounters many barriers to changing the behaviour. The individual at the action stage successfully performs the behaviour usually between one day and six months and determines for him or herself whether it was worthwhile (Tweneboah-Koduah, 2014). At the maintenance stage, the individual continues to perform the behaviour in the

appropriate situations. Being able to adhere to the new behaviour persistently, avoiding relapse for more than six months or a lifetime is the criteria for classifying someone as being at the maintenance stage.

The stages of change model specify strategies that must be adopted at each stage to make people feel more vulnerable so that they will move from the pre-contemplation stage to maintenance stage (Prochaska et al., 1992). The main strength for this model is that it provides a strong basis for segmenting the target audience based on their changing behaviour and associated needs (Logie-Maciver et al., 2008). Nevertheless, the model has been criticised for the difficulties in assigning people to their various stages of change and the lack of ability to measure changes in behaviour as people approach the action and the maintenance stages (White, 2004; Grønhøj, Bech-Larsen, Chan & Tsang, 2012). In addition, the stages of change model does not provide an in-depth understanding of the social and environmental factors influencing people to change from one stage to another and maintain their behaviour (Logie-Maciver et al., 2008).

3.8.4 Diffusion of Innovation Model

Diffusion is a process through which an innovation or desired behaviour is communicated among a target audience through certain channels over a period of time using members of a social system (Svenkerud, Singhal & Papa, 1998; Thomas & Rogers, 1998; Rogers, 2002). The diffusion of innovations model emphasises the critical role of social networks in influencing potential consumers or a target audience to adopt a new product or a new behaviour. An innovation is an idea or practice that is perceived by the target audience as

new and has some degree of uncertainty (Rogers, 2002). The rate at which a new idea or behaviour is adopted by the target audience is determined by the characteristics associated with the new behaviour as perceived by the members of the social system (Thomas, & Rogers, 1998).

According to the theory, five main attributes or characteristics determine the success rate of an innovation. These attributes are: (a) *Relative Advantage*, which is defined as the degree to which a new behaviour is perceived as providing better benefits than the behaviour it replaces; (b) *Compatibility*, is the degree to which the new behaviour being promoted is perceived as consistent with the existing values, experiences, and needs of potential adopters; (c) *Complexity*, the degree to which an innovation is perceived as difficult to understand; (d) *Trialability*, the degree to which an innovation may be experimented with on a limited basis; and (e) *Observability*, the degree to which the results of an innovation are visible to others (Thomas, & Rogers, 1998).

Previous findings shows that the acceptability rate of a desired behaviour is always higher when the target audience perceives that the relative advantage/benefit and compatibility of the new behaviour are greater than the complexities/barriers/cost associated with the behaviour (Thomas, & Rogers, 1998; Svenkerud et al., 1998; Ferrence, 2001). Thus, consumers will readily accept the local rice if they perceive the benefits of consuming the local rice to be greater than that of the imported rice.

There are five main concepts in the diffusion model. These concepts are communication channels, the innovation-decision process, homophily, adopter categories, and opinion leadership (Svenkerud et al., 1998) detailed as follows:

Communication channels are means through which a message about the new behaviour is transmitted to the target audience. According to Rogers (2002), mass media communication channels are most appropriate when creating awareness about a new idea. He argues that interpersonal channels are more effective in influencing attitudes and decisions to adopt an innovation. This implies that the decision to consume the local rice could be greatly influenced by subjective evaluations of near-peers who have already adopted the consumption of the local rice. However, Svenkerud et al. (1998) are of the view that the most appropriate channel depends on the target audience and the nature of the intervention.

The innovation-decision process is a sequence of decision points through which a target member passes. The process starts with the target having knowledge or awareness about the innovation. The individual then forms a favourable or unfavourable attitude towards the innovation. The next step is the decision to adopt or reject the innovation. If an adoption decision is made, the target member then implements the innovation. Finally, confirmation occurs when the individual seeks reinforcement for the innovation-decision that he or she has made (Rogers, 2002; Thomas & Rogers, 1998; Svenkerud et al., 1998). *Homophily* refers to the degree to which a target audience identifies with the person giving out the information (Svenkerud et al., 1998).

Rogers (2002) identifies five categories of innovativeness of individuals such as: (1) innovators; (2) early adopters; (3) early majority; (4) late majority; and (5) laggards. Early adopters are a more integrated part of the local system than are innovators. Whereas innovators are cosmopolites, early adopters are localities. For instance, an intervention seeking to influence the consumption of the made in Ghana rice could identify opinion leaders in a community (early adopters) and then introduce the local rice through these opinion leaders, thus speeding up the diffusion process.

Previous studies indicate that the model is particularly valuable when communicating or introducing new behaviour (Ferrence, 2001). However, the theory has been heavily criticised for its limited applicability in influencing unique populations or sub-groups (Svenkerud & Singhal, 1998). Another challenge regarding the diffusion model is the post-dictive nature of the model as contrasted to predictive in describing how or explaining why adoption occurred (Dearing, 2004).

3.9 Research Model and Hypotheses

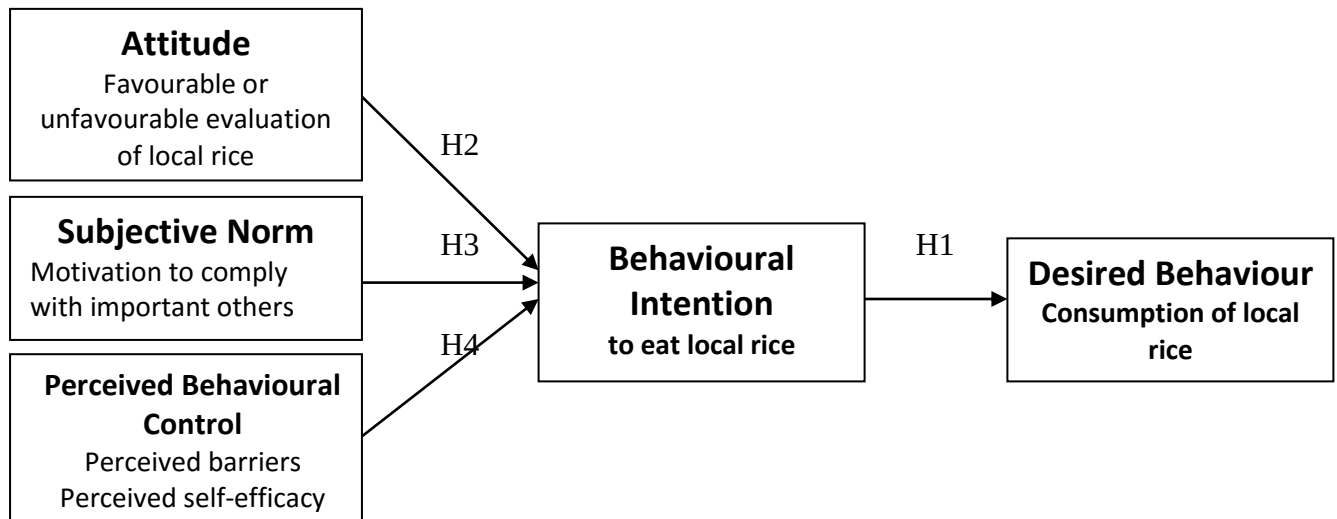
Based on the above review of literature on the theories of behaviour change, the current study employed the theory of planned behaviour (TPB) to investigate and predict the consumption behaviour of urban consumers in relation to the made in Ghana rice. This is because the study sought to examine the influence of personal characteristics, normative beliefs and perceived behavioural control on intention to consume the local rice.

The theory of planned behaviour (TPB) has been applied extensively and successfully to predict and understand human behaviour in relation to consumption and food choice by a number of studies (Verbeke & Vackier, 2005; Arvola et al., 2008; Vermeir & Verbeke, 2008; Grønhøj et al., 2012; Watanabe, Berry, Willows & Bell, 2014). The theory of planned behaviour (TPB) was also found to be an influential model by other researchers in food-related behaviour (Tarkiainen & Sundqvist, 2005; Honkanen, Olsen & Verplanken, 2005; Alam & Sayuti, 2011). The predictive power of the model has been demonstrated in a number of meta-analyses mentioned above. For example, Norman (2011) found that the TPB explained 75 percent and 35 percent of the variance in intention and behaviour respectively. A review of 185 independent studies by Armitage and Conner (2001) reveals that the theory of planned behaviour accounted for 27 percent and 39 percent of the variance in behaviour and intention respectively. Additionally, Alam and Sayuti (2011) provides empirical evidence which shows that attitude, subjective norms, and perceived behavioural control have a positive and significance influence on food purchasing intention.

Given the predictive power and the ability of the theory of planned behaviour to understand human behaviour in relation to consumption and food choice as demonstrated by previous studies above, the current study seeks to utilise this theory to predict the behavioural intention of urban consumers to consume made in Ghana rice. Aside from the effectiveness of the model in predicting behaviour, the theory was also selected because one of the key objectives of the study is to determine the influence of subjective norms (social pressure); and perceived behavioural control (belief about facilitating or impeding conditions and

ability to surmount them) on intention to consume local rice. The constructs of the theory of planned behaviour will help achieve this objective.

Figure 3.1: Theoretical Framework



Source: Ajzen (1991)

The theory posits that behavioural intention (BI) to perform a given behaviour is the major determinant of behaviour. Intention is defined as the motivation, willingness and the effort individuals make to perform a given behaviour (Ajzen, 1991). According the theory of planned behaviour, there is a positive and significant relationship between intention and behaviour (consumption of the made in Ghana rice) (Ajzen, 1991). Thus, if people form an intention to perform a behaviour (consume the made in Ghana rice), then they will take steps to engage in the behaviour and if no intention is formed, there will be no performance. The stronger the intention, the higher the likelihood that the behaviour in question will be performed (Ajzen, 1991; Grønhøj et al., 2012). In other words, there is a positive relationship between intention and behaviour. To test this assertion, the following hypothesis is formulated:

H1. *There would be a positive and significant relationship between intention to purchase the made in Ghana rice and purchase behaviour.*

Behavioural intention (BI), in turn, is seen as a function of attitudes, subjective norms and perceived behavioural control (pbc) related to that specific behaviour (Ajzen, 1991). Previous studies reported that attitude, subjective norm and perceived behavioural control had direct influence on intention to engage in a given behaviour (Verbeke & Vackier, 2005; Arvola et al., 2008; Grønhøj et al., 2012; Watanabe et al., 2014).

To examine the relationship between the independent variables (attitude, subjective norm, and perceived behaviour control) and the dependent variables (behavioural intention in purchasing the made in Ghana rice and the purchase behaviour of the made in Ghana rice), three additional hypotheses were developed. These hypotheses are based on previous research which were conducted on the basis of the theory of planned behaviour (Tarkiainen & Sundqvist, 2005; Honkanen et al., 2005; Alam & Sayuti, 2011). Therefore, this study has to find out whether there is a direct positive relationship between attitude, subjective norm, perceived behavioural control, and behavioural intention and whether there is a direct positive relationship between behavioural intention and behaviour.

Attitude refers to the extent to which an individual has favourable or unfavourable evaluation or appraisal of the behaviour in question based on their evaluative or affective judgment (Verbeke & Vackier, 2005). The theory posits that the more favourable an attitude is towards the behaviour in question, the higher the intention to perform the behaviour

(Ajzen, 1991). Verbeke & Vackier (2005) reported a positive relationship between intention and consumption frequency of fish. Therefore, attitude can be considered as an important part of predicting and describing behavioural intention. Thus, the following hypothesis needs to be substantiated in the Ghanaian context, in relation to the prediction of the consumption of the made in Ghana rice.

H2. There would be a positive and significant relationship between attitude and intention to purchase the made in Ghana rice.

The second determining factor that influences behavioural intention is subjective norms, which is perceived social pressure to perform or not to perform the behaviour and the willingness of the individual to comply with the perceived pressures (Ajzen, 1991; Verbeke & Vackier, 2005; Diteweg, Van Oostwaard, Tempelman, Vermeer, Appels, Van der Schaaf & Maree, 2013). If individuals perceive that society expects them to perform a particular behaviour, then they would be more likely to do so. Conversely, if social expectations were that people should not perform the behaviour, then the individual would be less likely to take actions to perform the behaviour (Alam & Sayuti, 2011).

In this case, if purchasing of made in Ghana rice is seen as socially desirable behaviour, based on what important others think about it, then the individual is more likely to make effort to purchase the made in Ghana rice. In this study, subjective norm is the perceived social pressure that influences consumers' decisions to purchase or not to purchase the local rice. For this context, we propose:

H3. *There would be a significant and positive relationship between subjective norm and intentions to purchase the made in Ghana rice.*

According to Ajzen (1991) the third determinant of behavioural intention is perceived behavioural control. This refers to the perceived ease or difficulty of performing the behaviour, which may come from past experience or anticipated impediments or obstacle. Perceived behavioural control, according to Ajzen (2002), is one of the major contributing factors to variance in behavioural intentions and actions. Perceived behavioural control is further divided into perceived self-efficacy, and perceived controllability.

Perceived self-efficacy is the perception regarding skills and abilities that people think they have to surmount barriers or difficulties of performing the behaviour in question. Perceived controllability, on the other hand, is the extent to which performance is up to the individual (Ajzen, 2002). The theory posits that if people are confident in their ability and skills to perform the behaviour by overcoming internal and external impediments, they will take steps to perform the behaviour (Norman, 2011). That confidence is determined by the individual's belief about the power of both situational and internal factors facilitating the performance of the behaviour. The more control an individual feels he has to perform a behaviour in question (buying the made in Ghana rice), the more likely it is, that he or she will take steps to perform that behaviour. In this study, perceived behavioural control would be the consumer's perceived ability to purchase the made in Ghana rice. To test this assertion, the following hypothesis has been formulated.

H4. *There would be a positive and significant relationship between perceived behavioural control and intention to purchase the local rice.*

3.10 Local Food Products

There is no agreement on the definition of what constitutes a local product, as authors within the food literature seem to have different perspectives as to the definition of local foods. Usually, the definition depends on the expectations of stakeholder groups involved and geographic distance. Penney and Prior (2014), suggest that a local food is a food produced and processed locally within 30 miles of a geographic radius. Jordana (2000) defines local food as a foodstuff or product, which is connected to a territory or tradition and identifies a group of people. Guerrero, Guàrdia, Xicola, Verbeke, Vanhonacker, Zakowska-Biemans and Hersleth (2009), defines a local food from a consumer point of view as a food produced within a locality, which is unique to a group of people and their culture. For this study, the made in Ghana rice is defined as rice produced and processed in Ghana.

Extant literature on rice in sub-Saharan Africa has attributed the rise in demand for rice to factors such as urbanisation; globalisation; country of origin; changes in food consumption pattern due to increasing need for convenience; and population growth (Tomlins et al., 2005; Diako et al., 2010; Anang, Adjetey & Abiriwe, 2011). Lack of availability, poor post-harvest handling and the perception that the local product has a poor quality are the major reasons why consumers in Ghana are not patronising the locally produced rice (Diako et al., 2012).

Even though there are some branded made in Ghana rice which are aromatic, their performance on the market is not encouraging because of the perception that anything made in Ghana is of poor quality (Diako et al., 2012; Bamfo, 2012). This study therefore, seeks to predict the factors influencing the lack of preference for the made in Ghana rice using the theory of planned behaviour.

Research has shown that, in the developed countries, consumers have more preference for their local foods than imported foodstuff (Qing, Lobo & Chongguang, 2012; Tikkanen, 2014; Penney & Prior, 2014). Tikkanen (2014) reports that in Europe, for instance, support for local producers and the local economy are the main factors motivating consumers to purchase local products. Health benefits, freshness, price, quality, familiarity and taste are the other factors influencing choice of foodstuff in the developed countries (Jordana, 2000; Tikkanen, 2014). In addition, consumers in developed countries perceived their local products to be of higher quality than imported goods leading to the rejection of imported products (Ahmed & Astous, 2001).

On the contrary, the reverse is the case in Ghana and other sub-Saharan Africa countries where consumers perceived foreign products to be of higher quality than local products and have higher preference for foreign product than local ones (Tomlins et al., 2005; Opoku & Akorli, 2009). In Ghana, for instance, the main factors influencing purchase decisions are country of origin, modernisation, aroma and taste (Tomlins et al., 2005; Al-Hassan, Agbekporu & Sarpong, 2009; Anang et al., 2011). According to Anang et al. (2011) price is the least important factor urban consumers in Ghana consider when making rice choice.

The willingness to patronise locally made products may explain the reason why western countries are more developed since investors are willing to invest their money only in ventures they know consumers are willing patronise. Developing the rice sector will help make the sector attractive for investors which will eventually lead to job creation and poverty reduction. Currently, most governments all over the world are encouraging consumers to buy more locally produced products as this is believed to promote economic, environmental and social benefits to local areas, leading to more sustainable patterns of consumption (Chambers, Lobb, Butler, Harvey & Traill, 2007). As a result, interest in local foodstuff/products has gained much popularity and increased media attention in recent years. Despite the rise in interest, intention-behaviour gap is still evident, as positive attitudes towards local food does not necessarily lead to actual purchase behaviour (Carrington, Neville & Whitwell, 2010; Penney & Prior, 2014). Ethical or moral obligation is one of the key factors influencing the consumption of local products. The reason for this is that when an ethical issue becomes important to an individual, it becomes part of their self-identify and subsequently the individual adapts their purchase behaviour accordingly (Penney & Prior, 2014).

A study by Weatherell, Tregear & Allinson (2003) reveals that rural consumers have greater interest in local foodstuff than urban consumers. The reason for this might be that participants from the rural area are closer to the source of food production. Therefore, the concern of local economic issues might be greater. In Ghana, 70 percent of the local rice is consumed in rural areas (MoFA, 2013). While previous studies (Tomlins et al., 2005; Opoku

& Akorli, 2009) have explored the perception, views, and preference of consumers towards local food products, there is limited research on the behavioural aspect of urban consumers as a singular focus within such studies

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3.11 Key Drivers Influencing the Consumption of Local Foodstuff

Numerous consumer studies in Europe and USA have cited beliefs about health benefits, good taste, freshness and quality of produce as key drivers for consumers when purchasing local food (Arvola et al., 2008; Pearson, Henryks, Trott, Jones, Parker, Dumaresq & Dyball, 2011; Miroso & Lawson, 2012; Arsil et al., 2014; Penney & Prior, 2014). Local foods are generally considered to be of higher quality than imported ones because of the shorter distance travelled and fewer additives (Arsil et al., 2014). Penney and Prior (2014) have identified functional drivers (health benefits, good taste, freshness and quality); and emotional drivers (such as supporting the local economy, supporting local jobs and small-scale producers) as the key factors motivating consumers in developed countries to purchase local products and foodstuff.

Chambers et al. (2007) found support for local economy and local producers as the top two reasons why consumers buy local food products. Thus, when consumers perceive local food as a driver for economic growth, they would take a keen interest to support it for these reasons. Most consumers in the UK and other European countries have become morally obligated towards the consumption of local products as they believe that the growth of the local and national economy depends on their actions (Arvola et al., 2008; Pearson et al., 2011).

In summary, support for local producers and the national economy are the top motivating factors influencing consumers in developed countries to buy locally produced products including foodstuff. Other functional factors such as health benefit, taste, and quality also played a role in influencing consumer choice but not as significantly as the emotional factors. In developing countries like Ghana, the factors influencing the choice of rice and other foodstuff range from country of origin, influence of marketing activities, perceived product quality and price (Suwannaporn & Linnemann, 2008). Country of origin plays a very significant role in influencing purchase decision especially with rice (Opoku & Akorli, 2009).

3.12 Barriers to the Purchase of Local Food

Price has been found to be one of the major setbacks for the purchase of local foods as they were generally believed to be more expensive than the imported ones especially for the lower economic class (Arsil et al., 2014; Penney & Prior, 2014). If consumers perceive the price of the made in Ghana rice to be more expensive than the imported rice, they will be reluctant to buy the local rice. The study by Chambers et al. (2007) reveals that, even though most consumers formed the intention to consume local foods, that intention could not result in actual behaviour due to the high price of local foods.

Lack of accessibility and availability and the inconvenience created in searching for local food is another major barrier preventing urban consumers from consuming local food even though they may intend to consume it (Pearson et al., 2011; Penney & Prior, 2014). The dominance of supermarkets and their lack of interest in stocking local food products was

found to be another major setback for local products since these supermarkets usually serve as a one stop shopping centres (Pearson et al., 2011).

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Introduction

This chapter presents a detailed description of the research paradigm and the design adopted for the study. The chapter further presents a discussion on the population, sample and sampling techniques, instrument and statistical procedures used for the data analysis. It also addresses issues of ethical considerations and data collection method and presents an overview of the context within which the study was carried out.

4.1 Research Paradigm

A research paradigm is a set of philosophical assumptions, concepts and beliefs which serves as a thinking framework that guides the way a research is designed and carried out (Krauss, 2005; Wahyuni, 2012; Creswell, 2013). In other words, these assumptions or claims about knowledge guides researchers as to what and how they will learn about the reality in their inquiry (Creswell, 2013). According to Krauss (2005) questions about the relationship between the knower and what is known; how do we know what we know; and what constitutes knowledge helps to understand the philosophical assumptions that underlies the various paradigms. Positivism, post-positivism (critical realism), interpretivism (constructivism) and pragmatism are the main types of research paradigms identified in the literature (Krauss, 2005; Wahyuni, 2012; Creswell, 2013).

Both positivism and post-positivism use scientific approach to develop numeric measures, which helps to generate acceptable knowledge (Wahyuni, 2012). With both paradigms

(positivism and post-positivism), hypotheses are formulated based on theory and are tested using statistical tools (Wahyuni, 2012). The qualitative methodology shares its philosophical foundation with the interpretive paradigm, which supports the view that there are many truths and multiple realities (Krauss, 2005). Subjective meanings about the object or phenomena being studied are developed by providing the participants with an opportunity to express their views (Wahyuni, 2012; Creswell, 2013). The questions are generally broad and open ended to allow the participants to construct their own meanings of the situation, usually through discussions or interactions with other people (Creswell, 2013).

Pragmatism is the philosophical assumption that underpins mixed research (Wahyuni, 2012). According to the pragmatist, knowledge about the reality originates from actions, situations, and consequences rather than antecedent conditions (Creswell, 2013). In other words, the focus is on the research problem rather than being on the method and both quantitative and qualitative data are used to better understand the social reality (Wahyuni, 2012).

The current study utilised a quantitative research approach. Quantitative research approach is based on either positivist or post-positivist philosophical assumptions of how knowledge about a phenomenon is generated (Creswell, 2013; Krauss, 2005). The positivist paradigm holds the position that there is only one truth and no matter the perception of people, that truth is an objective reality that exists (Sale, Lohfeld & Brazil, 2002). They further argue that the researcher and the researched are independent entities and therefore, the researcher can study the phenomenon independently without influencing it or being influenced by it.

(Sale et al., 2002; Krauss, 2005). In other words, the object or phenomenon under study is independent of the researcher and knowledge about the phenomenon is obtained and verified through direct observations and measurements without the researcher having a direct involvement with the object (Krauss, 2005). Thus, the data and its analysis are value-free and does not change because they are being observed. According to the positivist epistemology, deductive reasoning is used to postulate theories that can be tested, and if the results of the study do not fit the facts well, that theory must be revised to better predict reality (Krauss, 2005).

The post-positivist argue that, even though there is a possibility of an objective reality, researchers cannot totally separate themselves from the world that they are part of, and that research cannot be certain to totally uncover the reality (Creswell, 2013). Post-positivism reflects a deterministic epistemology where outcomes or effects are determined by causes and that there is a need for researchers to investigate causes that influence outcome (Creswell, 2013). For instance, what causes the lack of interest in local rice by urban consumers? They further argue that, rather than focusing on certainty and absolute truth, researchers should focus on confidence; that is, how much can their findings be relied on, or how well do they predict certain outcomes (Muijs, 2010).

The post-positivists believe that the goal of research is to achieve agreement among researchers about the perceived nature of reality (Schutt, 2011). Thus, facts are seen as unbiased observations, and if there is disagreement over facts, it is not because there are different possible interpretations, but rather because of improper use of measurement

instruments or inadequate observation (Schutt, 2011). In other words, developing accurate measures of observations are paramount to positivists. Finally, the post-positivist believe that there are theories that govern knowledge of the reality and need to be tested, verified or refined (Creswell, 2013). In other words, the study must start with a theory, collect data, analyse the data to either support or refute the theory, and then make necessary revisions before additional tests are conducted (Creswell, 2013). Coll and Chapman (2000) suggest that the choice of methodology should be based on the purpose or the objective of the study rather than commitment to a particular paradigm.

This study is in congruence with the post-positivist worldview or paradigm which holds that all measurement is fallible; and to get the best measure of what is happening in reality, it is important to employ multiple measures and observations (Creswell, 2013). With regard to this research, the goal was, therefore, to contribute to the greater research community's perception of reality by testing the predictive power of the constructs of the theory of planned behaviour to predict the consumption behaviour of the made in Ghana rice among urban consumers in Ghana.

4.2 Research Design

The research design is the actual structure that indicates: (a) the period in which data will be collected; (b) when the intervention will be implemented; and (c) how many groups will be involved in the research study (Creswell, 2013). Quantitative research is mainly about quantifying relationships between variables using such statistical measures as correlation

coefficient, mean difference, or the relative frequency of something in two groups (Hopkins, 2008).

Two main types of research design are employed in quantitative studies: cross-sectional; and longitudinal (experimental). In this study, a cross-sectional, descriptive and correlational design was used as the framework for investigating the relationships among antecedent, intervening and outcome variables related to behavioural intention and consumption behaviour of the made in Ghana rice. The design also served as a starting point for hypothesis and theory generation around the research topic.

A cross-sectional study (snapshot description at a single point in time) is the most frequently used descriptive design in most business research (Lindell & Whitney, 2001). Cross-sectional studies are most effective in: (a) determining prevalence rate; (b) identifying associations between variables; and (c) inferring causation (Lindell & Whitney, 2001; Mann, 2003). The purpose of a cross-sectional study is either to describe the incidents of phenomena, or explain how factors are related (Saunders, Lewis, & Thornhill, 2011 p.137). It also provides a useful means to examine practices, attitudes, knowledge and beliefs of a population in relation to a particular behaviour; and based on the results, appropriate interventions are designed to modify those beliefs and attitudes (Lindell & Whitney, 2001). For instance, the primary objective of the current study is to use the constructs of the TPB to predict the behavioural intention of urban consumers to consume the made in Ghana rice and suggest how marketing techniques could be used to change purchase behaviour based on the results.

Cross-sectional study is a one-time study carried out using one group usually to estimate the prevalence of an outcome within that population hence the name snapshot (Levin, 2006). Data is collected once from the respondents and multiple outcomes can be generated; and usually, questionnaires are the main instrument for collecting data from the respondents (Mann, 2003). It is, however, limited to the extent that no indication of sequence is provided since the studies are usually carried out once (Levin, 2006).

Researchers on the other hand, perceive descriptive research as an extension to a piece of explanatory or exploratory research. Descriptive study focuses more on the detailed description of the data, rather than giving mere explanation or drawing conclusions from the described data (Saunders et al., 2011). It gathers quantifiable information that can be used for statistical inference about the target audience through data analysis (Levin, 2006). In other words, descriptive research presents a picture of the phenomenon or idea and shows how things are related to each other. Nevertheless, descriptive research has a limited ability in providing in-depth insight about a phenomenon because of the use of close-ended questions (Blumberg, Cooper, & Schindler, 2005).

Extant literature posits that correlational research is conducted to collect data for the purpose of determining if a relationship exists between two or more quantifiable variables, and the degree of the relationship (Thomas, Jones, Scarinco, & Brantley, 2003; Leedy & Ormrod, 2010). It uses numerical data to explore relationships between two or more variables and the degree of the relationship is expressed in terms of the coefficient of the correlation (Leedy & Ormrod, 2010). Leedy and Ormrod (2010) further explained that with correlational studies,

data pertaining to two or more characteristics is gathered in a natural setting for conducting a specific measurement about the characteristics in question. In other words, correlational research design is more appropriate when the main objective of the research is to measure many variables and determine the relationship between them without necessarily determining cause and effect (Bluman, 2012).

Thus, correlational study does not specify cause-and-effect relationships between the variables under consideration, but merely specifies the concomitant variations in the scores of the variables. If the relationships are substantial and consistent, they enable a researcher to make predictions about the variables (Saunders et al., 2011; Bluman, 2012). Correlational studies typically examine a number of independent variables, which are expected to be related to a major (dependent) variable. Variables which are found to be related to this major variable are further analysed in a causal-comparative or experimental study so as to determine the exact nature of the relationship between them (Saunders et al., 2011). In a correlational study, hypotheses are usually formulated at the beginning of the study and are tested with measurement tools such as regression (Rogelberg, 2004).

In summary, correlational studies are conducted for the main purpose of: (a) determining whether and how a set of variables are related; and (b) testing the hypothesis of expected relationship between two or more variables. The variables selected must be based on sound theory, previous research, observation or experience (Rogelberg, 2004). In other words, there must be some logical connection between the variables so as to make interpretations of the findings of the study more meaningful, valid and scientific (Blumberg et al., 2005;

Levin, 2006; Saunders et al., 2011). This is because the ultimate objective for using correlation is to predict and provide an explanation of a phenomenon (Bluman, 2012). For instance, the current study seeks to utilise the correlational research design to predict and explain the behavioural intention to consume the made in Ghana rice using the variables of the theory of planned behaviour. Bluman (2012) posits that a major advantage of using this cross-sectional, descriptive, and correlational design is its ability to serve as a foundation for future studies. Furthermore, this type of design is more appropriate in situations where it is difficult or impossible to manipulate a variable (Saunders et al., 2011). For example, demographics such as gender and age are variables that may be used in correlational designs because manipulation is impossible or difficult to achieve.

Whereas a cross-sectional, descriptive, and correlational design fits well with the objectives and methodological framework for this study, it is not without limitations. As stated earlier, because of a lack of manipulation and control of the variables, this type of design is unable to determine causal relationships. Notwithstanding these limitations, the cross-sectional descriptive correlational design was deemed the most appropriate for this study.

4.3 Population

The target population for this study comprises of rice consumers in Accra, the capital city of Ghana with an estimated total population of about 1,688,512 (Ghana Statistical Service, 2013). The study is specifically targeting rice consumers in Accra because, according to MoFA (2013), over 76% of total rice consumed in Ghana is in the urban areas especially Accra and Kumasi.

The accessible population, however, was limited to rice buyers in two major markets in Accra (Okaishie and Agbogloshie) and two branches of a popular shopping centre (Shoprite) at West Hill Mall and Accra Mall. These locations were selected purposively to access respondents from different socio-economic backgrounds.

4.4 Eligibility Criteria

Selection of respondents was based on certain criteria. First, to be eligible for inclusion, the participant must be seen buying rice at the shops or the market centres listed above; and secondly, only those who ever bought or ate the local rice qualified to participate in the survey.

4.5 Sample and Sampling Technique

Collecting data is one of the most essential aspects of research since that is what actually contributes to the understanding of a theoretical framework (Tongco, 2007). It is, therefore, crucial that the method of obtaining the data and selecting the person from whom that data comes from be done with sound judgment (Tongco, 2007). Choosing a sample for a study is one of the most important aspects of conducting research since it is practically impossible to study the entire population (Malhotra, 2008).

Drawing a representative sample from the population is one of the major aims of a quantitative study such that the results of the study could be generalised (Marshall, 1996; Bartlett, Kotrlik, & Higgins, 2001; Malhotra, 2008). The appropriate sample size determines the accuracy and the quality of the research. According to Marshall (1996) the larger the

sample size, the less likely the possibility of making random sampling errors. In other words, the larger the sample size, the more accurate their answers reflect the views of the entire population. For this study, a sample size of 385 was selected based on a margin of error and confidence interval approach (Burns & Bush, 2010). A 5 percent margin of error with 95 percent confidence level was used. According to Burns & Bush (2010), a 5% margin of error with 95% confidence level is most appropriate for social science studies. The most desirable approach to select respondents for a survey is the random or probability sampling technique; but sometimes less rigorous methods such as incidental, quota or convenience samples may be accepted depending on the nature and aim of the study (Malhotra, 2008). A non-probability convenience sampling technique was employed in selecting the respondents for this study due to the lack of a sampling frame for rice buyers in Accra (Tongco, 2007; Opoku & Akorli, 2009; Tweneboah-Koduah & Owusu-Frimpong, 2013).

Respondents were selected based on their availability at the time of the survey and willingness to be part of the survey. In total, 306 respondents were willing and participated in the survey representing a 79.5 percent response rate. Seventy (70) of the respondents were from Okaishie, sixty - three (63) from Agbogloshie, seventy-eight (78) from Accra Mall (Shoprite) and nine-five (95) from West Hill Mall (Shoprite). There was a high rejection rate from the market places due to the inconvenience created by the scorching sun.

4.6 Survey Instruments

The following section provides detailed information on the survey instruments used in measuring the constructs in the research model. All the items intended to measure the

variables were adapted from previously validated instruments, which were based on Ajzen's (1991) theory of planned behaviour such as attitude, subjective norms, and perceived behavioural control (see Appendix II). They were modified such that the focus was on the made in Ghana rice. All the items measuring the constructs of the theory of planned behaviour (TPB) model were rated on a five- point Likert-scale ranging from 1 which indicates *strongly disagree* to 5 indicating *strongly agree*. Each scale was scored by aggregating the total scores for each question on a given measure and reporting the total score as the composite score for the measure.

In order to check the internal consistency and reliability of the measures, the Cronbach alphas were calculated. The internal reliability of the items were verified by computing the Cronbach's alpha (Nunnally & Bernstein, 1994). According to Nunnally and Bernstein (1994), a minimum alpha value of 0.6 for an instrument is sufficient for social science research. The Cronbach's alpha estimated for attitude was 0.843; subjective norm was 0.655; perceived behavioural control was 0.640; and behavioural intention scale was 0.902. As the Cronbach's alphas in this study were all much higher than 0.6, the constructs were therefore deemed to have adequate reliability.

Principal component analysis was conducted to reduce the data by excluding any redundancy occurring among the variables, and obtain a factor loading for each item in the corresponding factors (see Appendix V). Finally, the results of the factor analysis of the constructs used in the study are also presented (see Appendix VI). Relationships as hypothesised by the research model were tested through multiple regression analyses.

4.6.1 Behaviour

In the current study, the behaviour, which is the consumption of the made in Ghana rice was measured with four items adapted from Tarkiainen and Sundqvist (2005). The consumption behaviour was measured by how frequently the respondents buy the local rice (see Appendix I). A higher score of frequency of consumption indicates a higher level of performance of the behaviour.

4.6.2 Behavioural Intention

The four items measuring behavioural intention were adapted from Lu, Zhou and Wang (2009) and Taylor and Todd (1995) (see Appendix II). A higher score indicates a higher level of intention to consume the local rice. Lu et al. (2009) and Taylor and Todd (1995) reported coefficient alphas of .91 and .85 respectively in their studies. The Cronbach's coefficient alpha of behavioural intention for this study was .902 (see Appendix VI).

4.6.3 Attitude

Attitude towards the behaviour (consumption of made in Ghana rice) was measured using five items adapted from Verbeke and Vackier (2005). A higher score indicates a favourable evaluation towards the consumption of the made in Ghana rice. Verbeke and Vackier (2005) reported a Cronbach's alpha of attitude towards eating fish as 0.74. The Cronbach's alpha of attitude for this study is .843 (Appendix VI).

4.6.4 Subjective Norm

The construct of subjective norm (willingness to comply with important people) was measured with the scales from Bonne, Vermeir, Bergeaud-Blackler, and Verbeke (2007), modified so that the focus was on the purchase of the made in Ghana rice. A higher score indicates motivation to comply with important people in the individual's life. The Cronbach's alpha reported by Bonne et al. (2007) for motivation to comply (subjective norm) was 0.91. The current study reported an alpha value of .655 for subjective norms (see Appendix VI).

4.6.5 Perceived Behavioural Control (PBC)

Perceived behavioural control, which is people's perception about the ease or difficulty of performing the behaviour in question, or perception about factors that might facilitate or inhibit the consumption of the local rice; was measured using six items adapted from Tarkiainen and Sundqvist (2005) and Verbeke and Vackier (2005). The TPB posits that perceived ease or difficulty (perceived behavioural control) is directly influenced by people's belief about facilitating or impeding conditions and their confidence in their ability to surmount the impediments. In other words, people's perception about availability of resources and opportunities has an impact on their motivation to perform the behaviour in question. The Cronbach's alpha value recorded for perceived behavioural control was 0.78 and 0.80 by Tarkiainen and Sundqvist (2005) and Verbeke and Vackier (2005) respectively. The current study recorded Cronbach's alpha value of .640 (Appendix VI).

4.7 Data Collection

Data for the study were collected from primary sources. Broader depths of information on the entire parameters of concern in the study were better understood by using this main source of data. There are two basic types of data collection methods: primary data collection methods; and secondary data collection methods. Primary data was collected through structured questionnaires, which were administered using both face-to-face and self-administration (Tweneboah-Koduah & Owusu-Frimpong, 2013).

4.8 Administration of Questionnaires

Scholars prescribe that a questionnaire for a study should be pre-tested on a small sample of respondents for the purpose of revising the wordings of the items, deleting or adding new items if necessary, for easy understanding of the items by the respondents during the actual survey (Lu et al., 2009). The survey was pre-tested at the West Hill Mall branch of Shoprite to assess the survey's content and length. In total, 30 respondents participated in the pre-test (Lu et al., 2009). Following the feedback received during this phase, the questionnaire was revised to make the wordings of the items more precise.

Shoppers who were seen buying rice were approached to participate in the survey and those willing to participate took between 15 to 20 minutes to finish answering the questions. The researcher personally distributed the questionnaire to every eligible customer in the selected branches chosen for the study.

4.9 Ethical Consideration

Ethics in research refers to the norms of conduct that distinguish between acceptable and unacceptable behaviour (Rogelberg, 2004). Rogelberg (2004) admonish researchers to evaluate critically their competence in terms of their knowledge about ethical guidelines and the soundness of their research design before conducting the study in order to make their results ethically acceptable. He argued that there is a positive relationship between ethics and the scientific quality of a study, which means that low quality research designs are less likely to be ethically acceptable. Thus, one major ethical requirement is the need to have a good research design based on theory and previous work, use appropriate methods to test hypotheses, and sample from applicable populations because a poorly designed research will lead to inaccurate conclusions, which may hurt the populations to which it is applied (Rogelberg, 2004). The current study was designed based on theory and review of previous literature and the sample was drawn from an appropriate population.

Ethical consideration may further be explained under the following sub-headings:

Right to informed consent: the purpose and the objective of the study must be explained to the potential participants for them to understand and determine voluntarily to participate in the study (Rogelberg, 2004). The respondents herein were duly informed of the objectives of the study and their consent was taken before any procedures were carried out. Nobody was coerced into participating in the survey.

Permission: the researcher obtained a written introductory letter from the Department of Marketing and Customer Management introducing him and the purpose of his work to the

managers of the various shops at the market places and shopping centres. The purpose was to seek permission for the survey to be conducted at their centres.

Confidentiality and anonymity: all participants involved in this research were treated confidentially and assurances were given that all responses or information given was for academic purpose and not for any other purpose. To this end, no respondent was asked to quote his/her name and all responses were as anonymous as possible.

4.10 Data Analysis

This section discusses the descriptive and inferential statistical methods that were used to analyse the data gathered for the study. Previous studies that applied the theory of planned behaviour to predict the consumption intention of local and organic foods, mainly used regression (Alam & Sayuti, 2011), or structural equation modelling (Tarkiainen & Sundqvist, 2005; Arvola et al., 2008; Lu et al., 2009) to test the constructs as hypothesised by the theory. For this study, the survey data collected were analysed using regression. The collected data were analysed using statistical software of Microsoft Excel and IBM SPSS version 20.0 for windows. The demographic characteristics of the consumers were examined using descriptive statistics such as frequency, percentage, mean and standard deviation. Analysis of variance (ANOVA) was used to assess whether socio-demographic factors have any significant influence on the constructs of the theory of planned behaviour. Relationships as hypothesised by the research model were tested through multiple regression analyses.

CHAPTER FIVE

RESULTS AND DISCUSSION

5.0 Introduction

The results of the study are presented in this chapter and are structured into three main parts: descriptive analysis of the demographic variables; examination of the formulated hypotheses; and discussion of the findings.

5.1 Demographic Profile of the Participants

Table 5.1 shows the socio-demographic and economic characteristics of the 306 participants of the study. The respondents for the survey consisted of 87 males (28.4 percent) and 219 females (71.6 percent). The dominance of female respondents could be explained by the fact that, in Ghana, women are mostly responsible for purchasing household and food items. Regarding the age distribution of the respondents: 9.8 percent of the respondents were between the ages of 18 to 24 years; 26.6 percent of the respondents were between the ages of 25 to 34 years; 32.4 percent of the respondents were between the ages of 35 to 44 years; 20.9 percent were between the ages of 45 to 54 years; and 10.1 percent of the respondents were 55 years of age. In terms of income: 8.8 percent of the respondents earn less than GH¢ 100.00 a month; 43.5 percent of the respondents earn between GH¢ 101.00 and 500.00 a month; 26.8 percent of them earn between GH¢ 501.00 to 1,000.00 monthly; 14.7 percent of the respondents were earning between GH¢ 1,001.00.00 to 1,500.00 a month; 4.6 percent of the respondents earn between GH¢ 1,501.00 to 2,000.00 on monthly basis; while only 1.6 percent of the respondents earn above GH¢ 2,600.00. In relation to the level of education of the respondents, 14.7 percent had no formal education; 26.1 percent of the respondents had

their education up to Junior High School (JHS) level; 18 percent had Senior High School or A' Level certificate, and the majority (41.2 percent) of the respondents had tertiary education. The majority of the respondents (77.8 percent) were married and 22.2 percent of them were single.

Table 5.1: Demographic Profile of Respondents

Profile	Measurements	Frequency	Percent
<i>Gender</i>	Male	87	28.4
	Female	219	71.6
<i>Age</i>	18 – 24	30	9.8
	25 -34	82	26.8
	35 – 44	99	32.4
	45 – 54	64	20.9
	55 and Above	31	10.1
<i>Level of Income</i>	Less than 100.00	27	8.8
	101 – 500.00	133	43.5
	501 – 1,000.00	82	26.8
	1,001.00 – 1,500.0	45	14.7
	1,501 – 2,000	14	4.6
	Above 2,600	5	1.6
<i>Level of Education</i>	No formal education	45	14.7
	JHS	80	26.1
	SHS/A' Level	55	18.0
	Tertiary	126	41.2
<i>Marital Status</i>	Married	238	77.8
	Single	68	22.2

Source: Field work, 2015

5.2 Descriptive Statistics

This is a preliminary analysis conducted to inspect the data and explore the nature of the variables before any further data validation and analysis was conducted (Pallant, 2013). Thus, descriptive statistics is used to summarise data through measures of central tendency (mean, median, and mode) and normality, and measures of variability (deviations and variance) (Pallant, 2013).

Table 5.2 provides the results for the descriptive statistics relating to all the variables in the model, indicating the extent to which the respondents agreed or disagreed with the statements in the questionnaire. As stated earlier in the methodology, the questions were scaled from 1 (strongly disagree) to 5 (strongly agree). The mean results of the variables shows how each statement performed from the perspective of the 306 respondents. The attitudes, subjective norms, perceived behavioural control and behavioural intention of the respondents relating to the consumption behaviour of the local rice are summarised in the table.

The respondents reported a positive attitude, moderate subjective norms, low perceived behavioural control and high behavioural intention. The mean scores for these variables ranged from 2.7609 for perceived behavioural control to 3.7582 for behavioural intention on the five- point scale. The local rice was evaluated by most of the respondents as having high nutritional value, good taste, nice aroma and high quality. With respect to subjective norms, children and partners were perceived to exert much influence when it comes to rice choice. Government officials, opinion leaders and friends are the least to exert this kind of pressure.

This is an indication that people attach more importance to their immediate environment rather than what others think or want when making rice choice.

Respondents perceived a low level of behavioural control. Thus, they perceived lack of availability of the local rice and are not willing to go through the difficulty to look for it. They also perceived difficulty in cooking the local rice and lack of ability or the skills to prepare a good meal using the made in Ghana rice.

A high score was recorded on behavioural intention. The majority of the respondents are willing to buy the local rice next time they are buying rice, buy it frequently and recommend it to others. Extremely low score was recorded for behaviour (consumption of the local rice). This suggests an intention-behaviour gap as reported by Carrington et al. (2010) and Penny and Prior (2014).

5.3 Exploratory Factor Analysis

According to Pallant (2013), factor analysis is conducted to reduce large variables or items to smaller numbers that best describe the components by summarising the underlying patterns of correlation. Factor analysis was conducted to identify the variables that best defined or contribute to the constructs of the theory used for the study (the theory of planned behaviour).

The principal component method of data reduction was used to find a linear combination of variables that accounts for as much variation in the original variables as possible. Usually, a

few variables will account for most of the variation, and these components can be used to replace the original variables (Costello & Osborne, 2011). Twenty-nine (29) variables were factor-analysed to identify the smallest number of variables that best explains the components of the proposed framework as well as the inter-correlations among observed variables. The variables measuring these factors were found to explain a satisfactory 62.311 of the total variance.

The variables measuring the constructs used in the study framework (attitude, subjective norms, perceived behavioural control and behavioural intention) were factor analysed. Prior to the extraction of factors, the Bartlett test of Sphericity (Approx. Chi-square= 3713.331, df. 406, sig. 0.000) and the KMO measure of sampling adequacy (Value of.793) confirmed that there was significant correlation among the variables to warrant the application of exploratory factor analysis. Variables that were selected for the analysis were those with Eigen value of 1 or greater and with factor loadings of at least 0.05 and factors with a reliability threshold of 0.6 were also selected for the analysis (Nunnally & Bernstein, 1994).

5.3.1 Varimax Rotation and Reliability of the Exploratory Factor Analysis (EFA)

The twenty-nine (29) variables were later rotated using the Varimax rotation as the extraction method. The results revealed that twenty-five (25) variables loaded onto eight factors; an indication that four (4) of the initial variables failed to meet the rotation criteria. Out of the remaining 25 variables, factor one had 4 variables all relating to Intention; factor two had 5 variables out of which three were related to Behaviour and two related to Perceived Behavioural Control; factor three had 4 variables all relating to Attitude; factor four had 2 variables all relating to Subjective Norm; factor five had 3 variables all relating to

Table 5.2: Descriptive Statistics

	N	Mean	Std. Dev.
<i>Overall Attitude</i>		3.4824	
Local rice has high nutritional value	306	3.8497	1.22953
Local rice gives nice aroma	306	3.7974	3.18060
Local rice has good taste	306	3.2843	1.24171
There are particles of stone in the local rice	306	2.7876	1.68230
The quality of the local rice is high	306	3.6928	1.45661
<i>Overall Subjective Norms</i>		3.1892	
My children thinks it is good to consume the local rice	306	3.3856	1.21803
My friends like the local rice	306	2.8562	1.22230
Government officials want me to eat/buy the local rice	306	3.0294	1.32657
My partner likes the local rice	306	3.0196	1.23060
Opinion leaders in my community want me to buy the local rice	306	3.0980	1.15242
When making rice choice, I consider what my children want as very important	306	4.4673	.81818
I consider what my friends say as important when making rice choice	306	2.7647	1.38737
What my partner wants is important to me when making rice choice	306	4.1667	1.06894
I consider what government officials say as important when making rice choice	306	2.6471	1.23326
I consider what opinion leaders say when making rice choice	306	2.4575	1.29558
<i>Overall Perceived Behavioural Control</i>		2.7609	
It is easy to get the local rice	306	2.5131	1.50893
The local rice is not difficult to cook	306	2.7680	1.49811
I will look for the local rice to buy	306	2.1373	1.20414
The local rice is not expensive	306	2.9020	1.38973
I can cook the local rice very well	306	2.3203	1.33382
I can afford the local rice	306	3.9248	.88572
<i>Overall Intention</i>		3.7582	
I intend buying the local rice within the next one month	306	2.8889	1.11946
I will buy the local rice next time when buying rice	306	4.3987	.96046
I am willing to buy the local rice frequently	306	3.9281	1.11681
I will recommend the local rice to other people	306	3.8170	1.13622
<i>Behaviour</i>		2.5665	
I have been buying the made in Ghana rice for the past 3 months	306	2.7386	1.36836
I have been buying the made in Ghana rice for the past 6 months	306	2.6765	1.32933
I have been buying the made in Ghana rice for the past 1 year	306	2.2843	1.13984

Source: Field work, 2015

Subjective Norm; factor six had 2 variables all relating to Subjective Norm; factor seven had 2 variables all relating to Subjective Norm; the final factor had 3 items all relating to Perceived Behavioural Control.

This gives an indication that some modifications and re-specifications needed to be made. Consequently, factors 1 and 3 were maintained while the remaining factors were amended; factors 4-7 were merged while two items were moved from factor 2 and added to factor 8. These modifications were done on the basis of conceptual fitness appropriate to the current study (Hair, Sarstedt, Ringle, & Mena, 2012). In all, the re-specification eventually yielded 5 new component factors constituting intention, behaviour, attitude, subjective norms, and perceived behavioural control. The results of the rotation have been displayed in Table 5.3.

5.3.2 Reliability of the Exploratory Factor Analysis (EFA) and Re-specification of Factors

Reliability refers to the extent to which the scales used are free from measurement error (Nunnally & Bernstein, 1994; Pallant, 2013). For this study, reliability was assessed using internal consistency, which is the extent to which the items measure the same underlying attribute (Pallant, 2013). Cronbach's alpha coefficient (average correlation among all of the items that make up the scale), which is one of the most commonly used indicator for internal consistency was employed for this study.

The internal reliability of the five factors were all above the minimum value of 0.6 as postulated by Nunnally and Bernstein (1994). Also, in order to test the value of the variables

that were loaded onto the factors, item–to total correlation was set above 0.5 (Parasuraman, Zeithaml, & Berry 1994). As a result, the factors were re-specified to determine their

Table 5.3: Rotated Component Matrix

	1	2	3	4	5	6	7	8
I will buy the local rice next time when buying rice	.859							
I am willing to buy the local rice frequently	.839							
I will recommend the local rice to other people	.801							
I intend buying the local rice within the next one month	.799							
I have been buying the made in Ghana rice for the past 6 months		.722						
I can cook the local rice very well		.720						
I have been buying the made in Ghana rice for the past 3 months		.677						
The local rice is not difficult to cook		.632						
I have been buying the made in Ghana rice for the past 1 year		.549						
Local rice gives nice aroma			.863					
Local rice has good taste			.847					
The quality of the local rice is high			.843					
Local rice has high nutritional value			.730					
I consider what opinion leaders say when making rice choice				.858				
I consider what government officials say as important when making rice choice				.835				
When making rice choice, I consider what my family thinks as very important					.755			
What my partner wants is important to me when making rice choice					.706			
I consider what my friends say as important when making rice choice					.660			
Opinion leaders in my community want me to buy the local rice						.731		
Government officials want me to eat/buy the local rice						.722		
My friends like the local rice							.725	
My partner likes the local rice							.665	
It is easy to get the local rice								.657
The local rice is not expensive								.567
I will look for the local rice to buy								.566

Source: Field Work, 2015; Extraction Method: Principal Component Analysis; Rotation

Method: Varimax with Kaiser Normalization. A Rotation converged in 8 iterations.

Table 5.4: Internal Consistency and EFA

Factor Components	Loadings	Number of Items	Cronbach's Alpha
Factor 1 – Attitude		4	.843
Local rice gives nice aroma	.863		
Local rice has good taste	.847		
The quality of the local rice is high	.843		
Local rice has high nutritional value	.730		
Factor 2 – Subjective Norms		9	.655
I consider what opinion leaders say when making rice choice	.858		
I consider what government officials say as important when making rice choice	.835		
When making rice choice, I consider what my family thinks as very important	.755		
What my partner wants is important to me when making rice choice	.706		
I consider what my friends say as important when making rice choice	.660		
Opinion leaders in my community want me to buy the local rice	.731		
Government officials want me to eat/buy the local rice	.722		
My friends like the local rice	.725		
My partner likes the local rice	.665		
Factor 3 – Perceived Behavioural Control		5	.640
I can cook the local rice very well	.720		
The local rice is not difficult to cook	.632		
It is easy to get the local rice	.657		
The local rice is not expensive	.567		
I will look for the local rice to buy	.566		
Factor 4 – Intention		4	.902
I will buy the local rice next time when buying rice	.859		
I am willing to buy the local rice frequently	.839		
I will recommend the local rice to other people	.801		
I intend buying the local rice within the next one month	.799		
Factor 5 – Behaviour		3	.900
I have been buying the made in Ghana rice for the past 6 months	.722		
I have been buying the made in Ghana rice for the past 3 months	.677		
I have been buying the made in Ghana rice for the past 1 year	.549		

Source: Field Work, 2015

Conceptual fitness based on these two basic rules. Thus in all, twenty-five out of the original twenty-nine variables became valid for exploratory factor analysis. The results appear in Table 5.4 above.

5.4 Multiple Regression Analysis

Multiple regression analysis was performed to analyse the relationships proposed by the TPB and to test and validate the hypotheses of the study. Table 5.6 provides a summary of the results of the multiple regression analysis. Two models of multiple regression were conducted. In the first multiple regression model, the independent variables were attitude, subjective norms and perceived behavioural control and the dependent variable was behavioural intention.

The result from the first regression model indicates that a statistically significant R-square value of 0.545 was obtained when the three TPB variables were added (attitudes, subjective norms, and perceived behavioural control). In other words, when intention to consume the local rice was regressed on attitude, subjective norms, and perceived behavioural control (the original TPB constructs) simultaneously, the regression model was significant in its prediction of intention, explaining 54.5 percent of its variability. The result also shows a Sig=.000 of the F-statistics, which means that the model is statistically significant (Costello & Osborne, 2011). In addition, results from the regression also indicate that there is a strong and significant reliability between variables used for the model to represent behavioural intention to consume the local rice ($F = 17.085$, Prob.F-stats < 0.05).

All the constructs of the model were significant in predicting intention to consume the local rice. Perceived behavioural control was found to have the greatest influence on the intention to consume the local rice ($\beta = 0.249$, $t = 4.512$, $p = 0.000$, < 0.05). The second largest contributor to behavioural intention to consume the local rice is subjective norms ($\beta = 0.140$, $t = 2.559$, $p = 0.011$, < 0.05). Attitude is the third determinant of intention to consume the made in Ghana rice ($\beta = 0.128$, $t = 2.343$, $p = 0.020$, < 0.05).

Additionally, in the second regression model, when behaviour (consumption of the local rice) was regressed on intention, the regression model was significant in its prediction of the behaviour, explaining 41.7 percent of its variability.

Table 5.5 Multiple Regression

		S.E	B	T	Sig.
Model 1	(Constant) ^a	.418		2.337	.020
	Attitude	.084	.128	2.343	.020
	Subjective Norm	.097	.140	2.559	.011
	Perceived Behavioural Control	.059	.249	4.512	.000
	R	.681		S.E of estimate	.48349
	R-Square	.545		F-statistics	17.085
	Adj. R-Square	.532		Prob. (F-stats.)	.000
		S.E	B	T	Sig.
Model 2	(Constant) ^b	.167		1.368	.172
	Intention	.050	.646	14.743	.000
	R	.646		S.E of estimate	.53089
	R-Square	.417		F-statistics	217.354
	Adj. R-Square	.415		Prob. (F-stats.)	.000

^a Dependent variable: Intention

^b Dependent variable: Behaviour

Source: Field work, 2015

5.5 Anova Tests

In line with the fourth objective for the study, an analysis of variance (ANOVA) test was conducted to find out whether there is a significant difference between the age, level of income and educational level of the respondents and the constructs of the theory of planned behaviour (attitude, subjective norms, perceived behavioural control, intention and consumption behaviour). Table 5.6 shows the difference between the respondents' age and the constructs of the TPB (attitude, subjective norms, perceived behavioural control, intention and behaviour) in relation to the consumption of the made in Ghana rice. The result reveals that there is a significant difference between age and attitude towards the consumption of the local rice ($p < 0.05$ with F value of 3.959). The respondents between ages 45 and 54 (mean = 3.7227) and those between the ages of 18 and 24 (mean = 3.5250) were found to have a more positive attitude towards the local rice. This suggest that designing the right interventions especially for the 18 to 24 year group will help them develop taste for the made in Ghana rice which may last for a longer period of time.

Table 5.7 presents the result of the difference between the respondents' level of income and the constructs of the TPB. There was no significant difference between level of income and the constructs of the TPB. This suggests that level of income has no influence on consumers' decision to consume the local rice. Therefore, segmenting the target audience or designing an intervention based on income level would not yield an effective result.

Table 5.6 The difference between Age and the Constructs of the TPB

Factor	Discriminator	Mean	F	Significance
Attitude	18 – 24	3.5250	3.959	.004*
	25 – 34	3.3323		
	35 -44	3.3636		
	45 -54	3.7227		
	55 and above	3.4677		
	Total	3.4567		
Subjective_Norm	18 – 24	2.6704	1.878	.114
	25 – 34	2.7954		
	35 -44	2.9304		
	45 -54	2.9236		
	55 and above	2.9606		
	Total	2.8704		
Intention	18 – 24	2.8500	1.366	.246
	25 – 34	3.1463		
	35 -44	3.1616		
	45 -54	3.3633		
	55 and above	3.0968		
	Total	3.1626		
PBControl	18 – 24	2.7556	1.123	.346
	25 – 34	3.0081		
	35 -44	2.9899		
	45 -54	3.1719		
	55 and above	2.8817		
	Total	2.9989		
Behaviour	18 – 24	2.0889	2.309	.058
	25 – 34	2.5732		
	35 -44	2.5724		
	45 -54	2.8490		
	55 and above	2.4409		
	Total	2.5697		

Source: Field Work, 2015

Table 5.7 The difference between Level of Income and the Constructs of the TPB

Factor	Discriminator	Mean	F	Significance
Attitude	Less than 100	3.4259	.780	.565
	101 – 500	3.5263		
	501 -1000	3.4238		
	1001 – 1500	3.4111		
	1501 – 2000	3.3214		
	Above 2600	3.1000		
	Total	3.4567		
Subjective_Norm	Less than 100	2.7860	.968	.437
	101 – 500	2.8145		
	501 -1000	2.9607		
	1001 – 1500	2.8667		
	1501 – 2000	2.9921		
	Above 2600	3.0222		
	Total	2.8704		
Intention	Less than 100	3.2500	.154	.979
	101 – 500	3.1823		
	501 -1000	3.1524		
	1001 – 1500	3.1389		
	1501 – 2000	2.9821		
	Above 2600	3.0500		
	Total	3.1626		
PBControl	Less than 100	2.9259	.260	.934
	101 – 500	2.9549		
	501 -1000	3.0650		
	1001 – 1500	3.0370		
	1501 – 2000	2.9524		
	Above 2600	3.2667		
	Total	2.9989		
Behaviour	Less than 100	2.6296	.544	.743
	101 – 500	2.6642		
	501 -1000	2.4878		
	1001 – 1500	2.3704		
	1501 – 2000	2.6667		
	Above 2600	2.6000		
	Total	2.5697		

Source: Field Work, 2015

Table 5.8 Difference between Level of Education and the Constructs of the TPB

Factor	Discriminator	Mean	F	Significance
Attitude	No formal education	3.6000	1.227	.300
	JHS	3.4844		
	SHS/A' Level	3.4636		
	Tertiary	3.3849		
	Total	3.4567		
Subjective_Norm	No formal education	2.6889	5.000	.002*
	JHS	2.8264		
	SHS/A' Level	2.7616		
	Tertiary	3.0106		
	Total	2.8704		
Intention	No formal education	3.1333	.304	.823
	JHS	3.2531		
	SHS/A' Level	3.1591		
	Tertiary	3.1171		
	Total	3.1626		
PBControl	No formal education	3.0370	.055	.983
	JHS	2.9667		
	SHS/A' Level	3.0061		
	Tertiary	3.0026		
	Total	2.9989		
Behaviour	No formal education	2.7333	1.317	.269
	JHS	2.7208		
	SHS/A' Level	2.5212		
	Tertiary	2.4365		
	Total	2.5697		

Source: Field Work, 2015

Table 5.8 shows the analysis of the difference between level of education and the constructs of the TPB in relation to the consumption of the made in Ghana rice. Level of education ($F=5.000$, $p<0.05$) was found to be a significant discriminator of subjective norms (willingness to comply with society and important others). This suggests that respondents' level of education plays a significant role in determining their willingness to comply with

important others or the society. On average (mean = 2.8704), the respondents are neutral when it comes to willingness to comply with important others. Respondents with tertiary level of education are more neutral about subjective norms. However, respondents with no formal education (mean = 2.6889) are less likely to be influenced by important others.

Table 5.9: The Difference between Gender and the constructs of the TPB

Factor	Discriminator	<i>N</i>	Mean	<i>F</i>	Sig. (2-tailed)
Attitude	Male	87	3.3448	.379	.065
	Female	219	3.5011		
Subjective_Norm	Male	87	2.9234	.072	.310
	Female	219	2.8493		
Intention	Male	87	3.1580	.144	.961
	Female	219	3.1644		
PBControl	Male	87	2.9425	.394	.518
	Female	219	3.0213		
Behaviour	Male	87	2.4789	.040	.393
	Female	219	2.6058		

Source: Field Work, 2015

Additionally, an independent sample *t*-test was conducted to test whether there is a significant difference between gender and the components of the TPB in relation to the consumption of the local rice. The result shows that there is no significant difference between gender and the constructs of the theory (see Table 5.9). In other words, gender has no influence on the consumption of the local rice.

The study further conducted an independent sample *t*-test to find out whether there is a significant difference between marital status and the constructs of the TPB in relation to the consumption of the local rice. The result from table 5.10 shows that marital status is a

significant discriminator of consumption behaviour of the local rice ($F = 4.197$, $p < 0.05$). The result further reveals that, single respondents (mean = 2.2892) disagree that they consume the local rice. Married respondents (mean = 2.6499) were found to be neutral about consuming the local rice. This could be explained by the fact that, in Ghana, most single people buy food from vendors who usually do not use the local rice.

Table 5.10: The difference between Marital Status and the Constructs of the TPB

Factor	Discriminator	N	Mean	F	Sig. (2-tailed)
Attitude	Married	238	3.4916	2.540	.087
	Single	68	3.3346		
Subjective_Norm	Married	238	2.8735	.304	.860
	Single	68	2.8595		
Intention	Married	238	3.1880	.188	.416
	Single	68	3.0735		
PBControl	Married	238	2.9930	.359	.841
	Single	68	3.0196		
Behaviour	Married	238	2.6499	4.197	.025*
	Single	68	2.2892		

Source: Field Work, 2015

5.6 Discussion of Findings

The primary objective of the study was to examine the effectiveness or ability of the theory of planned behaviour (TPB) to predict the behavioural intention of urban consumers to engage in local rice consumption behaviour. The result of the study shows that all the constructs of the TPB model (attitude, subjective norms, and perceived behavioural control) are statistically significant and explains 54.5 percent and 41.7 percent of variance in behavioural intention and consumption behaviour of local rice respectively. This indicates the effectiveness of the TPB in predicting behavioural intention regarding the consumption

of local rice. This result is similar to previous studies which have also demonstrated the robustness of the theory of planned behaviour as very effective in predicting intention to engage in a behaviour (Tarkiainen & Sundqvist, 2005; Alam & Sayuti, 2011; Dunn et al., 2011; Watanabe et al., 2014). For instance, Vermeir and Verbeke (2008) found that the combination of attitude, subjective norms and perceived behavioural control was able to predict 50 percent of the variance in intention to purchase sustainable food consumption behaviour. Norman (2011) also found that the TPB model explains 75 percent of variance in binge drinking frequency.

For the current study, perceived behavioural control was found to be the most important factor predicting behavioural intention, followed by subjective norms and attitude. This finding is partially consistent with the findings of Grønhøj et al. (2012) who also found perceived behavioural control followed by attitude to be the most important components in predicting behavioural intention to healthy eating. In addition, this finding supports previous studies that found all the three constructs of the theory to be statistically significant in predicting behavioural control (Verbeke & Vackier, 2005; Vermeir & Verbeke, 2008). However, the result contradicts studies which found only one or two constructs of the model to be significant in predicting behavioural intention (Grønhøj et al., 2012).

The first hypothesis that there would be a significant relationship between intention (motivation or willingness to engage in a behaviour) to purchase the made in Ghana rice and purchase behaviour has been supported by the results of the study. This indicates that the sample respondents have the intention to buy the made in Ghana rice. According to Ajzen

(1991), the stronger the intention, the higher the likelihood that the behaviour in question will be performed. This means that, if the right interventions are designed and implemented, the intention of urban consumers to consume the local rice could be translated into real purchase behaviour of the made in Ghana rice. The majority of the respondents intend to buy the local rice next time they are buying rice; and would like to continue buying it frequently (table 5.2). The finding is consistent with Grønhøj et al. (2012) who found a positive and significant relationship between intention and healthy eating behaviour among Danish adolescents. Similarly, Verbeke and Vackier (2005) also reported a positive and significant relationship between intention and consumption frequency of fish.

The second hypothesis was that there is a positive and significant relationship between attitude and intention to purchase the made in Ghana rice. The results supported this hypothesis. This means that attitude towards the local rice is one of the strong determinants of intention to consume the local rice. In other words, favourable or unfavourable evaluation of the local rice will heavily influence the behavioural intention to consume the local rice. The result from the descriptive analysis (table 5.2) reveals that the sample respondents have a favourable evaluation for the local rice and thereby forms an intention to engage in the behaviour (consume the local rice). For instance, the result of the study indicates that the majority of the respondents evaluated the local rice as having high nutritional value and it is of high quality. This result is contrary to previous studies which found that urban consumers have a negative attitude towards the made in Ghana rice, largely because it is perceived to be of low quality (Tomlins et al., 2005; Al-Hassan et al., 2009; Diako et al., 2010).

The findings of the current study is, however, in line with previous work done by Watanabe et al. (2014) which found attitude to be a key significant predictor of intention to eat omega-3-enriched foods. In addition, the study contradicts the findings of Diteweg et al. (2013) which found no significance relationship between attitude and intention to undergo voluntary HIV counselling and testing (VCT).

The third hypothesis stated that there is a positive and significant relationship between subjective norms and intention to consume the made in Ghana rice. Consistent with the study of Alam and Sayuti (2011), the research found a positive and significant relationship between subjective norm and behavioural intention. This hypothesis was therefore, accepted.

Subjective norm is the individual's perception or belief about what society and important others in his or her life think about performing the behaviour in question (consumption of the local rice) and his willingness to comply with what they think. The result from the descriptive statistics indicates that children and partners are the key social factors that influence the behavioural intention to consume local rice. The call from opinion leaders and government officials for Ghanaians to buy made in Ghana goods does not appear to play any significant role in establishing subjective norms among urban consumers to buy the made in Ghana rice. Therefore, using government officials and opinion leaders to influence the consumption of the local rice may not be a good choice in promoting the made in Ghana rice. These findings support an existing body of knowledge. A study by Grønhøj et al. (2012) found family members as the main agents that contributes to social influence regarding healthy eating, with government officials playing minimum or no role in establishing subjective norms.

The fourth hypothesis, which states that there would be a positive and significant relationship between perceived behavioural control and intention to purchase the local rice, was found to be significant in predicting behavioural intention to consume local rice. The hypothesis was therefore accepted. Similar to the findings of Verbeke and Vackier (2005) and Grønhøj et al. (2012), behavioural control was identified as the major component influencing behavioural intentions to consume the local rice.

The results from the descriptive analyses reveal that the most significant barriers contributing to the perceived behavioural control are the perceived lack of availability of the local rice in shops and supermarkets and the difficulty in cooking the local rice. Thus, consumers are not willing; or they perceived that they do not have the ability to overcome the barrier of lack of availability or the skill to prepare the local rice very well (Dunn et al., 2011). This partially confirms the findings of Diako et al. (2010) that consumers preferred the imported rice because it has higher cooking and sensory characteristics.

With respect to price, the findings show that the majority of the respondents believe that they have the ability to afford the local rice. This is in line with previous findings, which indicates that consumers are willing to pay a premium price for locally produced food products (Chambers et al., 2007). Anang et al. (2011) also found price not to be an important determinant of rice choice. However, the result contradicts a number of studies that found no significant relationship between perceived behavioural control and behavioural intention (Tarkiainen & Sundqvist, 2005).

With regards to how demographic variables of the respondents influence attitude, subjective norms, perceived behavioural control and intention, the ANOVA results revealed that there is a significant difference between urban consumers' age and their attitude toward the local rice. Respondents between the ages of 45 to 54 and those between the ages of 18 and 24 were found to have a more favourable attitude towards the local rice. This suggest that urban consumers within these age brackets are most likely to form an intention to consume the local rice. The result is partially consistent with the findings of Penney and Prior (2014) that, urban consumers above age 45 tend to have a more favourable attitude towards locally produced products.

The result shows that respondents' level of education has a significant on their willingness to comply with social pressure to consume the local rice. More specifically, consumers with tertiary level of education are neutral to comply with important others. This suggest that with the right interventions, they could be influenced easily by important others (such as children and partners) to consume the local rice. From the descriptive statistics (table 5.2), children and partners were found to be the most social agents that mainly influence the type of rice people buy. Thus, if children and partners say they want the local rice, consumers maybe more willing to comply with what their children want. Social marketers can target children or the family setting with their interventions or campaigns. However, respondents with no formal education were found to be least influenced by social pressure to consume the local rice.

Level of income was found to have no significant influence on the consumption of the local rice. This means that, whether people will buy the local rice or not, does depend on their level of income. The result also shows that, gender has no significant influence on the consumption of the local rice. Therefore, segmenting the target audience based on these variables might not be an appropriate strategy.

The result further shows that marital status has a significant influence on the consumption behaviour of the respondents. While unmarried (single) respondents disagree that, they consume the local rice, married people were found to be neutral about the consumption of the local rice. This may be due the fact that, unmarried people mostly buy cooked rice from food vendors without considering its origin.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents a summary of the major findings, conclusions and recommendations based on the findings of the study. In addition, the chapter focuses on direction for future research and limitations of the research.

6.1 Summary of Findings

This study has, for the first time, applied a behavioural change model (TPB) to predict and understand the behavioural intention of urban consumers to engage in the consumption of locally produced food (made in Ghana rice) in the Ghanaian context. Based on the objectives of the study, the following are the summaries of the findings of the survey.

In line with the first objective, the results of the study found the TPB to be effective in explaining 54.5 percent and 41.7 percent of total variance in behavioural intention and purchase behaviour of the local rice respectively. This means that social marketers in Ghana can design an effective intervention based on the constructs of the model to increase the consumption of the made in Ghana rice. Perceived behavioural control was found to be the most significant predictor of intention to consume local rice, followed by subjective norms and attitude.

Based on the second objective, behavioural intention (motivation or willingness to perform a behaviour) was found to have a positive and significant relationship with behaviour (consumption of the local rice). This means that when consumers form the intention to buy the made in Ghana rice, they will take steps to buy it. The study reveals that urban consumers have a high intention to consume the local rice. However, the results also indicate an intention-behaviour gap, which means that even though consumers are willing to buy the local rice, they are not patronising it (Ajzen, 1991; Penny & Prior, 2014).

Regarding the third objective, attitude (favourable or unfavourable evaluation of the behaviour) was found to have a positive and significant relationship with behavioural intention to consume the local rice. Contrary to previous findings (Al-Hassan et al., 2009), the result of the current study shows that the respondents have a positive attitude (favourable evaluation) towards the local rice. The result from the descriptive analysis (table 5.2) shows that the local rice has mainly been rated as having high nutritional value, good taste, and high quality.

Additionally, the study also reveals that subjective norm (willingness to comply with what important others think about the local rice) has a positive and significant influence on behavioural intention to consume the local rice. Children and partners were found to be the most important social agents that influence subjective norms (table 5.2). The ANOVA result also shows that, consumers with tertiary level of education are most likely to comply with important others or social pressure. Therefore, a social marketing intervention programmes

that seeks to use children or partners to influence the consumption of the local rice will be a better choice.

Furthermore, perceived behavioural control (perception about barriers to performing the behaviour and ability or the skills to overcome those barriers) was found to be the most significant factor in predicting behavioural intention to consume local rice. The study also reveals that perceived lack of availability of the local rice and difficulty in cooking are the most significant barriers contributing to behavioural control. This means that urban consumers do not have confidence or the ability to surmount these barriers. This explains the intention-behaviour gap stated earlier; because, according to Ajzen (1991), if people have strong motivation to comply (intention) but lack behavioural control, it is likely they will not take steps to perform the behaviour.

With regard to the fourth objective, the study also reveals that age is a significant discriminator of attitude towards the local rice. Respondents between ages 45 to 54 and those between the ages of 18 and 24 were found to have the most favourable attitude towards the local rice. Level of income and gender has no significant influence on the factors that influence the consumption of the local rice. Level of education was found to have a significant influence on the respondents' willingness to comply with important others. Respondents with tertiary level of education are more neutral to comply with important others. Respondents with no formal education are less likely to be influenced by pressure from society to consume the local rice. Finally, marital status was found to be a significant discriminator of consumption behaviour of the local rice.

6.2 Conclusion

The theory of planned behaviour served as an effective framework for predicting and understanding the determinants of local food consumption behaviour. Thus, from a theoretical standpoint, the present findings provide empirical evidence of the applicability of the theory of planned behaviour in predicting local rice consumption behaviour among urban consumers in the Ghanaian context. All the constructs of the theory (attitude, subjective norm and perceived behavioural control) have a significant influence on intention to consume local rice. The present findings concur with previous studies that have applied the TPB to predict and understand consumption behaviour of target audience (Verbeke & Vackier, 2005).

In the current study, perceived behavioural control was found to be the most important factor in predicting or explaining intention to consume local rice, followed by subjective norm and attitude. The study further reported low levels of behavioural control, which means that the consumers perceived difficulty in engaging in the behaviour. These perceived difficulties mainly originated from lack of availability and difficulty in cooking local rice. Social pressure to comply with rice choice was mainly coming from children and partners. Perception that local rice has a high nutritional value, good taste and is of high quality were the items contributing to positive attitude.

Additionally, there is evidence of an intention-behaviour gap, suggesting that, although consumers have the intention to consume the local rice, they are not buying it. This could be attributed to the perceived lack of ability to perform the behaviour. Because, according to

literature, performance of behaviour depends jointly on motivation (intention) and ability (perceived control). In other words, intention could be high but if people do not perceive that they have the ability to perform the behaviour, they will not take action to perform the behaviour (Ajzen, 1991).

The study, therefore, concludes that an intervention or a social marketing campaign that seeks to reduce the barriers associated with the performance of the behaviour will yield a better result of increasing the performance of the behaviour (consume the made in Ghana rice).

6.3 Implications of the Study

This section provides implications of the study to social marketers and policy makers

6.3.1 Implication for Social Marketers

Based on the findings from the use of the Theory of Planned Behaviour (TPB), the current study suggests that, to be able to convert the intention to consume the local rice into action, social marketers must focus on the attitude, social norms (people consumers are willing to comply with to consume the local rice) and the barriers hindering people from consuming the local rice. Thus, social marketing is needed for the enhancement of the perceived benefits and reduction of perceived barriers associated with local rice. To achieve this, the study further suggests that social marketers should design an intervention/campaign based on the marketing mix, which are sets of variables marketers usually manipulate to influence the attitude, knowledge and behaviour of their target audience (Peattie & Peattie, 2009).

In terms of the product, which is the set of benefits people expect to get when they engage in the desired behaviour (consume local rice) (Grier & Bryant, 2005), social marketing professionals in Ghana should design interventions that focus on the benefits of consuming the local rice in order to elicit a higher positive attitude towards the local rice. Consumers will buy the desired behaviour (product) if they are satisfied with the benefits associated with the behaviour. In the current study, high nutritional value, good taste, and quality were identified as the main benefits associated with the made in Ghana rice by consumers. In other words, social marketing campaigns should dwell heavily on the nutritional value, the taste, and the quality of the made in Ghana rice. Social marketers could craft a proposition based on the health benefits of the local rice to help encourage the performance of the behaviour. The product could be positioned as a healthy way of eating; for instance, “eat healthy, eat local rice”.

With regard to the price or cost of involvement (the cost or the perceived barriers that target audience must overcome in order to perform the behaviour), study offers the following suggestions. Regarding the difficulty in getting local rice to buy, social marketing professionals in Ghana should fall on upstream measures to influence policy makers to press on major supermarkets and shops to have special shelves allocated for the local rice. With respect to the cooking difficulty, social marketers should design an intervention/campaign that seeks to teach consumers the technique of cooking local rice very well. Like commercial marketing, consumers will be reluctant to buy any product if they perceived that the price exceeds the expected value. To make the performance of the behaviour easy, social

marketers should focus on reducing the non-monetary costs (psychological cost) associated with local rice consumption behaviour.

Promotional campaigns (persuasive communication aimed at encouraging a target audience to accept, adopt, or maintain a particular social behaviour), should clearly highlight the health benefits that local rice has over the imported ones. For instance, a study by Adomako et al. (2011) found the Ghanaian rice to be generally low in potentially toxic elements, but high in essential nutrients. The current study reveals that urban consumers are more willing to comply with the rice type their children and partners want. Social marketers in Ghana should use children rather than government officials in their promotional campaigns or target children to make the local rice more appealing to them. Interventions should focus on educating consumers on how to cook the local rice very well. Cooking competitions with the local rice could also be organised and incentives given to the best cooks which could be broadcast on national TV.

In social marketing, accessibility to alternative means of achieving satisfaction is crucial to the performance of the behaviour. Social marketers should work towards making the local rice readily accessible to consumers, as this is key to converting intention to actual performance of the desired behaviour (consume the local rice). Because, the greater the ease and convenience in getting the local rice, the more likely it is that the local rice would be purchased. Providing accessible information on rice produced in Ghana and proper labelling of the Ghanaian rice is important for easy identification and choice. Social marketers should

therefore, consider merchandising shops and supermarkets where the local rice is sold to make it more visible to consumers.

6.3.2 Implications for Policy Makers

The finding from the study shows that consumers have the intention to consume the local rice. However, their inability to consume could be attributed to the non-availability of the local rice in major supermarkets and shopping centers in the capital city. Policy makers should institute interventions that will encourage most supermarkets and shopping centers to stock and allocate special shelves for the local rice. Policies should also be directed at rice producers to name rice produced locally with indigenous names instead of foreign names and provide cooking directions on the labels. These policies will help improve accessibility and identification of the Ghana rice.

6.4 Limitations of the Study and Future Research Directions

There are a number of limitations to this study. First, the study is limited to the extent that only consumers in Accra were interviewed and the findings maybe specific to urban consumers in Accra. Therefore, the findings cannot necessarily be generalised to the entire urban consumers in Ghana. It is therefore, recommended that future researchers should consider conducting similar research in other urban centres in Ghana to allow for effective generalisation of the findings.

Additionally, the study focused on only the made in Ghana rice. Future studies should consider replicating the study using social marketing techniques to cover other made in

Ghana products such as textiles, shoes, building materials etc. Furthermore, the study employed the theory of planned behaviour (TPB) to predict and understand factors that influence the behavioural intention of urban consumers to consume the local rice. Future research should employ other behavioural change models to understand the consumption behaviour of urban consumers. The current study like many others, employed quantitative research approach to measure the impact of attitude, subjective norms and perceived behavioural control on consumers' intention to consume local rice. Qualitative research is therefore needed to unearth other factors that may influence the lack of interest in the local rice.

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APPENDICES

Appendix I : Questionnaire

UNIVERSITY OF GHANA BUSINESS SCHOOL

DEPARTMENT OF MARKETING & CUSTOMER MANAGEMENT

QUESTIONNAIRE FOR DATA COLLECTION

INTRODUCTION

The researcher is a postgraduate student from the University of Ghana Business School pursuing Mphil. in Business Administration (Marketing Option). He is conducting research on the factors that influence consumers' intention to buy made in Ghana rice. This questionnaire therefore seeks for your candid opinions about the factors that may influence your intention to consume local rice. You are assured of confidentiality, as your responses to the items on this questionnaire shall be used for academic purposes only.

Thank you.

PART ONE

Please choose [✓] the category for each question that best describes you.

1. Gender: Male [] Female []

2. Age:

18 -24 [] 25 – 34 [] 35 – 44 [] 45 – 54 [] 55 and Above []

3. Level of income (GH¢)

Less than 100 [] 101 – 500 [] 501 – 1,000 [] 1,001 – 1,500 [] 1,501 – 2,000 []

2,001 – 2,600 [] Above 2,600 []

4. Level of Education:

No formal Education [] JHS [] SHS/A' Level [] Tertiary [] Others

Specify.....

5. Marital Status:

Married [] Single []

PART TWO

This section of the questionnaire seeks for your candid opinions on the factors that could influence your intention to consume local rice. This section is divided into five parts. Please choose the appropriate box [✓] from the options provided.

ANSWER KEY: SD = Strongly Disagree D = Disagree N= Neutral A = Agree SA = Strongly Agree

Section I						
The following items would like to measure your perception or what you think about made in Ghana rice. Please indicate the extent of your agreement or disagreement regarding the following statements by ticking the appropriate alternative.						
No.	Items	SD	D	N	A	SA
6	The local rice has high nutritional value					
7	The local rice does not give nice aroma/smell when cooking					
8	The local rice has a good taste					
9	The local rice is not delicious					
10	There are particles of stone in the local rice					
11	The quality of the local rice is low					
Section II						
This section seeks to measure your perception or what you think society and important people in your life thinks about the local rice and the extent to which you consider what they think when making rice purchase decision.						
	Items	SD	D	N	A	SA
12	My children thinks it is good to consume the local rice					
13	My friends do not like the local rice					
14	Government officials/president stimulates me to eat/buy the local rice					
15	My partner does not like the local rice					
16	Important people (opinion leaders) in my community think I should eat/buy the local rice					
17	When making rice choice, I consider what my children thinks as very important					
18	I consider what my friends say as an important factor when I am making rice purchase decision					
19	What my partner wants is important to me when making rice choice					
20	I consider what government officials/president says as important when making rice choice					
21	I consider what opinion leaders in my society thinks as important when making rice choice					

ANSWER KEY: SD = Strongly Disagree D = Disagree N= Neutral
 A = Agree SA = Strongly Agree

Section III						
The following items would like to measure your perception about what makes it easy or difficult for you to consume the local rice.						
	Items	SD	D	N	A	SA
22	It is difficult to get the local rice in shops and supermarkets to buy					
23	It is difficult to prepare a good meal using the local rice					
24	I will look for the local rice to buy no matter how difficult it is to find					
25	The local rice is expensive					
26	I can make a good meal with the local rice					
27	I can afford the local rice					
Section IV						
This section seeks to measure your motivation or willingness to buy the local rice and how frequently you wish to be buying it.						
	Items	SD	D	N	A	SA
28	I intend buying the local rice within the next one month					
29	I will buy the local rice next time when buying rice					
30	I am willing to buy the local rice frequently					
31	I will recommend the local rice to other people					
Section V						
This section wishes to find out whether you have been buying the local rice and the frequency of your purchase.						
	Items	SD	D	N	A	SA
32	I have been buying the made in Ghana rice for the past 3 months					
33	I have been buying the made in Ghana rice for the past 6 months					
34	I have been buying the made in Ghana rice for the past 1 year					

KEY: Section I = Attitude Section II = Subjective Norms Section III = PBC
Section IV = Intention Section V = Behaviour