



**FACTORS INFLUENCING GREEN CONSUMPTION
BEHAVIOR OF MUSLIM CONSUMERS IN
BANGLADESH: RELIGIOSITY AS A MODERATOR**

by

**MD. SHARIFUL HAQUE
(1443011472)**

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CR	Composite Reliability
DOE	Department of Environment
DV	Dependent Variable
EK	Environmental Knowledge
GCB	Green Consumption Behavior
GR	Group Recommendation
HSC	Higher Secondary Certificate
IVs	Independent Variables
NIDCH	National Institute of Diseases of Chest and Hospital
PLS	Partial Least Squares
PLS-SEM	Partial Least Squares - Structural Equation Modeling
RBV	Resource-based view
SEC	Self-efficacy
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Science
SRS	Simple Random Sampling
SSC	Secondary School Certificate
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Actions
WCG	Willingness to Consume Green products
3Rs	Reusing, Reducing and Recycling

LIST OF SYMBOLS

f^2	Effect size assessment
Q^2	Predictive relevance
R^2	Coefficient of determination
%	Percentage
>	Greater than
<	Less than
t	T statistic
p	P value
β	Path coefficient
*	Multiplication
+	Addition
->	Direction

Faktor-faktor Mempengaruhi Tingkah Laku Penggunaan Hijau Pengguna Islam di Bangladesh: Keagamaan sebagai Moderator

ABSTRAK

Penggunaan hijau yang dipanggil sebagai penggunaan mesra alam tidak dapat dielakkan untuk pembangunan yang mampan. Penyelidikan ini bertujuan untuk mencari faktor yang mempengaruhi tingkah laku penggunaan hijau pengguna di Bangladesh; dan juga cuba untuk melihat kesan moderasi keagamaan antara niat tingkah laku untuk memakan produk hijau dan kelakuan penggunaan hijau pengguna Islam. Dalam kajian ini, teori gelagat terancang, dan teori tindakan beralasan telah diambil kira untuk mengenal pasti faktor-faktor yang berkaitan dengan tingkah laku. Pembolehubah termasuk niat tingkah laku untuk menggunakan produk hijau, kerelaan untuk menggunakan produk hijau, pendidikan alam sekitar, cadangan kumpulan, dan keberkesanan diri yang dianggap mempunyai pengaruh langsung terhadap kelakuan penggunaan hijau manakala sikap religiositi telah digunakan sebagai moderator dalam hubungan antara kelima IV dengan tingkah laku penggunaan hijau. Data telah dikumpulkan daripada pelanggan daripada beberapa pusat beli-belah terpilih di Bangladesh menggunakan pelbagai peringkat prosedur pensampelan. *Partial Least Square Structural Equation Modeling (PLS-SEM)* digunakan untuk menguji hipotesis kajian ini. Telah didapati bahawa niat tingkah laku untuk menggunakan produk hijau, kerelaan untuk menggunakan produk hijau, pendidikan alam sekitar, dan keberkesanan diri adalah faktor penting dalam mempengaruhi tingkah laku penggunaan hijau. Antara faktor-faktor tersebut, niat tingkah laku untuk menggunakan produk hijau didapati menjadi faktor yang paling penting. Telah diperhatikan bahawa cadangan kumpulan kurang penting sebagai faktor yang mempengaruhi kelakuan penggunaan hijau. Dalam kesan moderasi, didapati bahawa hubungan antara niat tingkah laku untuk menggunakan produk hijau dan tingkah laku penggunaan hijau dimoderasi oleh religiositi. Kajian ini mempamerkan rangka kerja baru yang mencadangkan keagamaan sebagai moderator untuk meramalkan tingkah laku penggunaan hijau di negara-negara membangun. Ia melengkapkan bukti empirikal sedia ada untuk menangani jurang penyelidikan dan menyahut seruan untuk mengkaji tingkah laku penggunaan di negara Islam yang membangun. Keputusan yang diperoleh daripada penyelidikan ini memberikan beberapa implikasi praktikal untuk pengurus yang bekerja di industri dan perangka dasar, terutamanya dari segi cara menilai, membina dan meningkatkan kesedaran di kalangan pengguna untuk mengkonsumsi produk hijau.

Kata kunci: Kerelaan untuk menggunakan produk hijau, Pengetahuan alam sekitar, Cadangan kumpulan, Keberkesanan Sendiri, Tingkah Laku Penggunaan Hijau, Bangladesh, Keagamaan

Factors Influencing Green Consumption Behavior of Muslim Consumers in Bangladesh: Religiosity as a Moderator

ABSTRACT

Green consumption which is termed as environment friendly consumption is inevitable for sustainable development. This research aims at finding and analyzing factors affecting green consumption behavior of consumers in Bangladesh; and it also attempts to see the moderating effect of religiosity between behavioral intention to consume green products and green consumption behavior of Muslim consumers. In this study, theory of planned behavior, and the theory of reasoned action have been taken into consideration for identifying the pertinent factors relating to behavior. The variables include behavioral intention to consume green products, willingness to consume green products, environmental education, group recommendations, and self-efficacy which are deemed to have a direct influence on green consumption behavior while religiosity has been used as the moderator in the relationship between these five independent variables and green consumption behavior. Data were collected from the customers of some selected shopping malls in Bangladesh using multi-stage sampling procedure. The Partial Least Square Structural Equation Modeling (PLS-SEM) is used to test the hypotheses of this study. It was found that behavioral intention to consume green products, willingness to consume green products, environmental education, and self-efficacy were significant factors which influence green consumption behavior. Among these determinants, behavioral intention to consume green products was found to be the most significant one. It was observed that the group recommendation is less significant as a factor which influences green consumption behavior. In the moderating effect, it was found that the relationship between behavioral intention to consume green products and green consumption behavior was moderated by religiosity. This study offers a new framework proposing the religiosity as a moderator to the green consumption behavior in developing countries. It supplements the existing empirical evidence to address the research gaps and responds to the calls for examining the consumption behavior in a Muslim developing country. The results derived from this research provide several practical implications for managers working in different industries and policy makers specifically, in terms of how to evaluate, build and improve the awareness among the consumers to consume green products.

Key Words: Willingness to Consume Green Products, Environmental Knowledge, Group Recommendation, Self-efficacy, Green Consumption Behavior, Bangladesh

CHAPTER 1: INTRODUCTION

1.1 Introduction

Over the last few decades, rapid industrialization and development activities have extended a quality of life. But the development has got along with a set of ecological problems. Climate change, exhaustion of natural assets, increased pollution, etc. cause deep concern as they pose threats to the existence (Shove, Watson, Spurling, & Skillington, 2015; Wang, Liu, & Qi, 2014). Environmental drifts impend to radically change the globe threatening the lives of many species including the human species. About 6 million hectares of land that were productive turned into useless desert (Brundtland, 1987; Daly, 1990). A significant share of the forests is being transformed into low-grade farmland. The countries of Europe are being suffered by acid precipitation, their forest, lakes are being destroyed, and the resourceful, artistic and architectural heritages are being spoiled. Vast tract of soil may have acidified and it can go beyond sensible hope of repair. Carbon dioxide is put into atmosphere by the burning of fossil fuel and as a result plodding of global warming is causing. This 'greenhouse effect' cases increase in average global temperatures enough to shift agricultural production areas, raise sea levels to flood coastal cities, and disrupt national economies (Brundtland, 1987; Daly, 1990). Other form of industrial gases has been a reason of threat to diminish protective layer of planet called ozone guard in such a degree that cancers of human and animal would increase sharply, food chain of the ocean would be upset, toxic substances are being put into the food chain of human, underground water and it is going beyond the level of cleansing (Brundtland, 1987).

Rising level of human consumption secures the inclination towards potential losses in a large scale, different natural assets like land, water and forests are inflicted unendurable loads. This situation is raising risks and uncertainties about the quality of environment, availability of main resources and their sustainability into the future. Many people of less developed countries such as Bangladesh are experiencing insecure livelihood due to poverty, dependence on degradable source and weak governance (Smith, 2013). Environmental degradation still continues even though awareness of different threats of earth has increased for sure over the last couple of decades. Interest of behavioral component of environmental problem is increasing in the recent years and attesting increasing awareness that consumption behavior of human is the critical element for environment degradation (Tanner, 1999). Therefore, changes in consumption behavior for example green behavior that is environment friendly behavior may be able to make a positive contribution to the wellbeing of the environment.

In this connection, different quarters are amplifying voices to promote green behavior. As a result of the increased concern of various stakes, new initiatives are being taken. New policies and strategies are being formulated to ensure sustainability of the environment. Asian region is taking the responsibility to enhance the grade of the environment accepting the power of 'going-green' (Lee, 2008). Going green can be termed as doing environment friendly behavior. Riding bicycle, giving up smoking, avoiding plastics bags, switching off electronic devices while getting exit from house or office, are few examples of going green. In Singapore, the '3Rs' campaign has been adopted by governments for encouraging the people to reuse, reduce and recycle of domestic wastes (Pariatamby & Fauziah, 2014). On the other hand, going green concept has been involved promoting by Malaysian government through the establishment of 'The Malaysian Green

Technology Policy’ and it is the commitment of the nation to have the vision of ‘Green Malaysia’. Sustainable development and speeding up the national economy would be promoted by serving this policy and seeking to promote the proper way for use of energy. It is supposed that by maintaining the integrity of environment and increasing national economic development will ensure the quality life of Malaysian (Wong, Ngadi, Abdullah, & Inuwa, 2015).

As for Bangladesh, ‘No Plastic Bag’ policy has been adopted recently by the government for reducing plastic-waste. Not only that, the government has taken it in the level of implementation encouraging the bags made of Cotton and Jute. Grameen Phone, Dutch-Bangla Bank, Islami Bank Bangladesh Limited (IBBL) and many other corporate sectors have joined different campaigns like ‘Plant a Tree’ program and ‘Mangrove-Saving’ project. Thus, the awareness about sustainability of environment has been raised and people are willing to purchase products which are safe or that have less harmful effects on environment like green product. Many research studies show that consumers are more conscious and concerned than before about the consumption of environmental resource and impact on it. One of the studies by Dagnoli and Klein showed that large number of (around 60 to 90 percent) consumers were relating their procurements with environmental impact (Dagnoli, 1990; Klein, 1990). This research focuses on analyzing the factors influencing the green consumption behavior of Muslim consumers in Bangladesh and to see if the Muslim religiosity has any effect on their consumption behavior. Muslims are considered for study as because they constitute around 90 percent population of the country. This chapter discusses the background of this study, research problems, research questions, research objectives, research area, and definitions of key points.

1.2 Research Background

The pervasiveness of environmental matters in the social environment and media has fortified a large group of consumer to raise concerns and friendly attitude about environment and a desire to buy environment friendly products called green products and environment friendly behavior called green behavior (Bergin-Seers & Mair, 2009; Peattie, 2010). People have many trade-offs with the natural environment in particular. Saving the nature from degradation is not a choice; it is a must to ensure a safe living of lives in this earth. People's consumption behavior significantly affects environment; so, consumers need to pay attention to sustainable or green consumption behavior avoiding the conventional harmful consumption to mark a positive footprint to the environment (Wu, 2015). Marketers now respond to consumers' growing environmental awareness by promoting 'environmentally friendly' or 'green' products (Kim, 2005). Around 70 percent of Americans opined that they were in favor of environmental protection and about 49 percent reported that they would avoid buying products those are potentially injurious to the environment (Hueber, 1991). Green or fair or ethical consumption behavior of the people can give birth to a sustainable environment. A remarkable number of researches have been contributed to find the factors affecting green behavior. Some researchers (Kaufmann, Panni, & Orphanidou, 2012; Stutzman & Green, 1982; Wahid, Rahbar, & Shyan, 2011) have tested the effects of the assumed factors on green behavior.

Another aspect is religiosity that can be considered to be one of the important variables that may affect consumer behavior (Yuri Seo, Mohd Suki, & Mohd Suki, 2015). Religiosity, which is the degree of religious commitment, has been found to be a more significant predictor of consumer behavior than mere affiliation to a particular religion

(Islam, 2016). Religiosity is examined and it is found that it plays a vital role as one of the personal values and it explains the preference of consumer. If so, 'Can religiosity be a significant construct?' is a vital question. Although former researches showed that religiosity and green consumption has a positive relationship (Eid & El-Gohary, 2015). Chairy (2012) investigated about the influence on spirituality and self-transcendence for going with an intention of green purchase. The study shows that it influenced remarkably for the intention of green purchase (Chairy, 2012). Thus, the study wires an idea and it is spirituality and self-transcendence can make a bridge to a stronger willingness about consuming pro environmental product or green product. But a limited number of researches have been done to find the detail of relationship in between Muslim religiosity and green consumption behavior, or the consumption pattern of Muslim Individuals. Particularly in Bangladesh, very few researches have been done to find any such relationship when Bangladesh is highly Muslim intensive area. So, the researcher has initiated this research with a view to investigate the effect of Muslim religiosity on green consumption or green behavior of Muslim consumers in Bangladesh.

In general terms, Muslim consumers can be defined as the consumers who follow Islam as their religion and they keep the divine commandments in mind while making buying decisions. There are nearly 1.7 billion Muslim consumers who account for 30% of the emerging market (Islam, 2016). Bangladesh is a market of 148.6 million Muslim populations representing 90.4% of the total population (Nisha & Iqbal, 2017).

The outcomes of this research may help the marketers formulating their strategies if they consider the outcomes while framing their strategies. Moreover, this study will produce information regarding the patterns of green consumptions and the notions of Muslim consumer behavior relating to green consumption from Bangladesh, a developing

country, perspective. If it is revealed from this study that the religious values of Muslim consumers motivate those consuming green products, it will elicit an orientation for the business leaders to produce and promote their products considering the religious matters of Muslims while operating in the Muslim intensive markets in particular.

1.2.1 Green Products and Green Consumers – Conventional and Islamic Perspective

Generally, a green consumer is one who remains knowledgeable, careful, and concerned about the matters of environment and who becomes responsive to the wellbeing of the environment. The implication of his/her concern is 'buying things which are not hostile to the environment'. It can be said that the pro-environmental or green consumers are those who always buys products that offer low influence to environment consistently. The brands those have ecofriendly packaging, consumers like these may focus. They consider buying organic food or buying from a corporation that offer goods or service by the trade fair or environmental practices like The Body Shop and Starbucks. Makower (2011) found that younger, better educated persons are sometimes supposed to prefer green consumption than that of conventional ones. A green consumer, in Islam, is one who acts with good conscience, accountability and integrity. A person holding the proper sense of religion and who is a practicing Muslim must be pro-environmental. As it is stated in the Qur'an (Chapter 17, verse 27) that spendthrifts certainly are brothers of the devils (*Shayatin*), and the Devil is ever ungrateful to his Lord. It is seen from the opinion of Watkins attitudes to do a particular behavior work as a driving force for an individual to do that behavior (Watkins, Aitken, & Mather, 2016). However, investigating the link between sustainable consumption and moral foundations, there is insufficient literature to date.

Islam suggests an individual to do green behavior. There are a lot of instances of green consumption behavior in Islam. For example Islam greatly discourages wasteful consumption of resources. There are evidences in the Hadiths that Prophet Muhammad (peace be upon him) encouraged Muslims to plant trees and not to waste water even if one is performing ritual ablution by a flowing river. Islam says that he is not a believer who eats his fills while his neighbor remains hungry. Consider recycling, the prophet Muhammad (peace be upon him) used to repair his own shoes and sow his own garments.

Green consumption involves a wide range of activities in both the fields namely consumption and production, including the preservation of species, the efficient use of energy, the protection of environment, the recycling material and green products. Experts or Thinkers about protection of environment have designed a definition for the green consumption as the '5Rs': Reduce, Reevaluate, Reuse, Recycle, and Rescue (Ding, 2014). The products which is made up with material that is recyclable , produce least amount of wastage, and use less amount of water and energy, and produce a low amount of toxic substances are called green products (Nimse, Vijayan, Kumar, & Varadarajan, 2007).

1.2.2 Green Issues

From the above discussion it is noticed that the environment is experiencing changes in many dimensions. With the changes in environment, people need to become ever more aware of the problems that encircle it. The challenges this earth is facing currently are: i. immense incursion of natural disasters, ii. warming and cooling periods, iii. different types of weather outlines, etc. Now, the inhabitants of this earth need to become aware and they need to develop mechanism to face these challenges. Global warming is a

concern to all stakes as a fact of present livelihoods; the earth is warming up and people are surely contributing to the problem. However, this is one of the environmental problems and people should concern about it. All over the world, people are facing an inventory of problems about environment every day. Few ecosystems are affected by some of them those are small, but landscape are being changing drastically by others and people already know about it.

There are some prominent environmental issues or problems that have been published in a website namely Conserve-energy-future.com. They are i) pollution, ii) global Warming, iii) overpopulation, iv) natural resource depletion, v) waste disposal, vi) climate change, vii) loss of bio diversity, viii) deforestation, ix) ocean acidification, x) ozone layer depletion, xi) water pollution, xii) urban sprawl, xiii) acid rain, xiv) public health issues, xv) genetic engineering, etc.

1.3 Statement of Problem

The people of main cities of Bangladesh are living in pollutions of different kinds. Poverty, lack of awareness about environment and over population are the reasons for the humiliation (different natural calamities, destruction of wetlands, and erosion of soil) of environment of Bangladesh. Deforestation is also a consequence. Environment of Bangladesh cannot be stated as equilibrium. Bangladesh's economic growth, ecosystems, human health is being threatened by severe air, noise, and water pollutions. Burning of fossil fuels, associated motorization, industrialization and increase of population are the reasons for air pollution. Reasons of water pollution are unmanaged chemical dumping or trashing garbage and rubbish to the rivers and canals. The mineral water of Bangladesh

has been polluted due to the presence of arsenic. The residents of major cities of Bangladesh are also exposed to high level of noise pollution (Alam, 2009). Government take few steps with the intention of improving environmental degradation and control of pollution (Alam, 2009).

It is also explained by Alam (2009) that air pollution is a grave for the health of environment and people of Bangladesh is under the peril of it. The population is growing so fast in the city area and also associated motorization and these are the reasons for air pollution. Most of the house has poor ventilation system for the smoke, created by the use of biomass fuel, to emit out and it causes indoor air pollution. Industrial emissions and automobiles are the principle sources of outdoor air pollution. The national ambient air quality standards of Bangladesh and amount of pollutants in the air of Dhaka city is shown below:

Table 1. 1 Bangladesh National Ambient Air Quality Standards

Land use Category	8-hour average concentration in $\mu\text{g}/\text{m}^3$			
	CO	NO ₂	SPM	SO ₂
Industrial/mixed use	5,000	100	500	120
Commercial/mixed use	5,000	100	400	100
Residential/ rural use	2,000	80	200	80
Sensitive use *	1,000	30	100	30

*Sensitive areas include national monuments, health resorts, hospitals, archeological spots, and educational institutions. Source: Department of Environment (DOE), 1997.

Urban children are mostly affected by air pollution. Air pollution is a great threat for health and indoor air pollution is more harmful than outdoor air pollution. Anybody will be surprised seeing the intensity of carbon emission in Bangladesh. As per the report of

World Bank, carbon emission is increasing rapidly. The chart below shows the intensity of carbon emission from the year 1972 (Just after independence of Bangladesh) to year 2014:

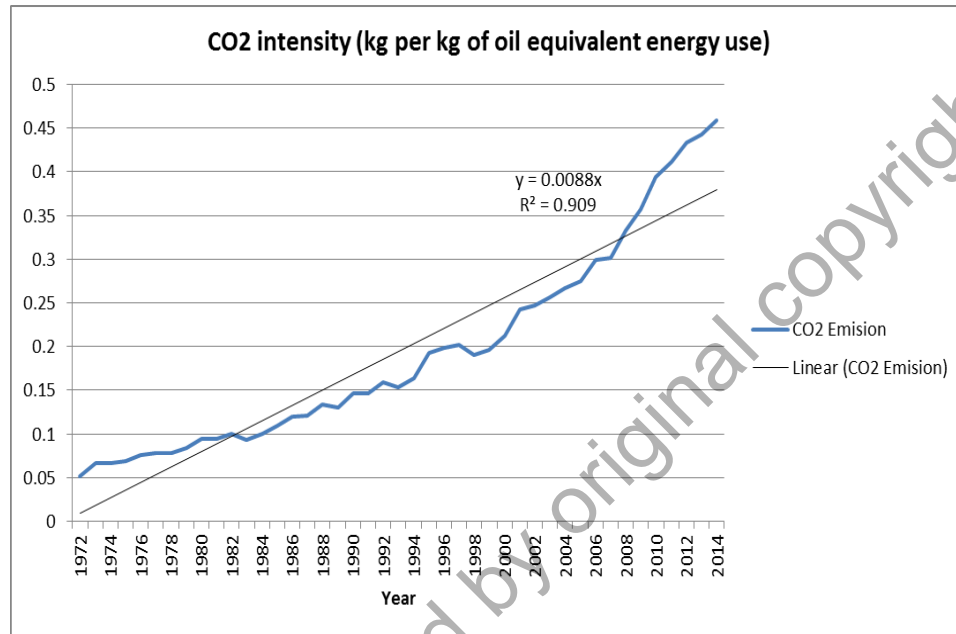


Figure 1. 1 CO₂ intensity (kg per kg of oil equivalent energy use)

In 2014 the carbon emission stands 2.066 kg per kg of oil equivalent energy use when it was 0.598 in 1972. A World Bank report released recently that says, around 15,000 Bangladeshis are being killed each year by the causes of air pollution. The report states Bangladesh could save a significant amount of currency if they could be able to reduce the air pollution of its four main cities and the amount is between \$200 million and \$800 million per year, about 0.7 to 3.0% of its gross national product. The report swells that a lot of people have to grieve for the effect of air pollution every year and the number is 6.5 million. Air pollution from vehicles causes respiratory distress in urban Bangladesh. National Institute of Diseases of Chest and Hospital (NIDCH) reports nearly 7 (seven) million people in Bangladesh suffer from asthma, more than half of them are children (Mahmood, 2011).

Mental and physical illnesses are caused among the people for noise pollution. Deafness, heart attack and many other diseases can happen due to the same. Expecting mothers would fall under severe health problem if any sort of noise smog is around her. It also results peptic ulcer, high blood pressure, tachycardia, indigestion, headache due to some other forms of environmental hazards. Environmental pollution is the reason for the death of many people every year (Saifuddin, Shahinuzzaman, Muhammad, & Quader, 2010). All these glitches are being happened due to human behavior. Human behavior is changing. Consumers are found uncaring to the environment.

Research shows there are trivial changes in the consumer behavior when an increasing concern for sustainability and environmental issues like global warming, pollution, ozone layer depletion, over-use of natural and non-renewable resources are visible (Peattie, 2010; Samarasinghe, 2015). Evidence found from research suggests that increasing numbers of consumers prone to purchase following environmental values (Peattie, 2010).

It is observed from the previous discussions that the growing picture of green consumption is of a process that is strongly influenced by consumer values, norms, and habits, yet is highly complex, diverse and context dependent (Peattie, 2010). Some research findings show that many individuals act like predators. They show their positive attitudes towards environment but they fail to translate their pro-environmental and ethical attitudes into actual behavior during decision making to do green behavior (Carrigan & Attalla, 2001; Connolly & Prothero, 2008; Kollmuss & Agyeman, 2002).

The capitalistic models or philosophies encourage materialism where there is a lack of values. So, the level of consumption in the society is high and remains prevalent (Autio, Heiskanen, & Heinonen, 2009; Peattie, 2010) and is conflicting to environmental and social

interests while some green consumption behavior (i.e., regular recycling, using reusable supermarket bags) is becoming a socially accepted and desirable norm (Carrington, Neville, & Whitwell, 2010; Haanpää, 2007). Not only that the green consumption behavior is generally accepted by all religions. The Qur'an has mentioned, *“Give the relatives their [due] right, and the needy and the traveller [as well], but do not squander wastefully. Indeed the wasteful are brothers of Satan (Devil), and Satan is ungrateful to his Lord”* (Al Qur'an, Surah Israa: Verse 26 and 27).

There has been limited number of research works on how to facilitate and impede green consumption behavior on social environment (Grønhoj, 2006; Oskamp et al., 1991). There should have been more researches about how to increase the knowledge of green consumption behavior, the 'attitude-intention-behavior' gap, and pro-environmental behavior change by considering the individual, household and societal variables that underlie and influence green consumption behavior. Skepticism is there about how loyal consumers are to green products in the real marketplace. Not all people hold positive attitude about green products consider purchase and consume products which are environmentally positioned (Kim & Choi, 2005). Researchers found several factors which influence green consumption behavior. The factors are: behavioral intention to consume green products, willingness to consume green products, group recommendation, environmental knowledge, and self-efficacy.

Environmental knowledge is an important factor which is used as an independent variable to predict behavioral intention and green consumption behavior in several researches. In some researches it is proven that this variable has strong relationship to the behavioral intention to consume green and to do environment friendly behavior (Barber et al. 2009; Flamm, 2009; Polonsky et al. 2012). There are also negative arguments and

findings which show that consumers do not respond to green products remarkably despite sound environmental knowledge (Carrete et al., 2012).

Perceived behavioral control or self-efficacy is used interchangeably in researches. Sometimes, it is also termed as perceived consumer effectiveness that is defined as consumers' perception about their determination on behaving environment friendly. This is considered as an independent variable or is found as a strong predictor to consumer behavior (Roberts 1996). It was claimed that the opinion of public regarding self-efficacy was changing due to increased coverage of media about environmental issues like disasters of different types (Maibach, 1993).

Religion is considered as one of the striking sub-cultural instrument that has historically influenced human behavior and conduct that has retained its relevance even in the rational scientific age. Academicians in the fields of psychology, sociology, anthropology etc. have broadly investigated the topic of religion and its connections in their respective fields. But, religion has not been adequately investigated in the field of marketing and consumer research (Islam, 2016). Few researchers have developed theoretical approaches that show religious factors influencing green consumption behavior. The target of this study is to get an understanding of different factors affecting green consumption behavior and to know if there is any effect of religiosity as moderating variable. More specifically, it will investigate the relationship in between willingness to consume green, group recommendation, self-efficacy, and behavioral intention to go for green and the actual behavior. Moreover, the researcher will find the moderating effects of religiosity as moderator on the link in between behavioral intention to go green and the green consumption behavior. The research done by Iqbal and Nisha (2016) shows that there

is largely a strong positive relationship in between religion and the purchase behavior of Muslim consumers.

There is a claim that the level of religious values is deteriorating which lead to an uncontrolled consumption behavior and the uncontrolled consumption is detrimental to the sustainability of global environment. Islam is not merely a religion; it is a complete code of life. Islam is termed as complete code of life as it has given solutions to every problem in human life. If a person is religious in true sense, s/he is bound to do pro-environmental behavior. But, the problem is tendency to exclude religion from daily affairs of human beings. It is observed that, marketers play a great role in shaping the culture of the people in the respective geographical area. With the increase of environmental concern and for sustainable development, it is very important to let the business community and all concerned know the behavioral patterns of customers or consumers so that the concerned can get ready with all strategic preparation to face the challenges relating to sustainability. Literature supporting pattern of consumption behavior of Muslim consumers is scarce.

Green consumption behavior consists discrepancies, contradiction and compromises (Kennedy, Beckley, McFarlane, & Nadeau, 2009). There have been several researches to understand the 'attitude behavior gap' of green consumerism and the researchers tried to explore the situation like what practical and motivational intricacy which the consumers face (Kollmuss & Agyeman, 2002; Moisander, 2007). Consumers may be influenced to turn their minds to purchase conventional products based upon price, product performance and compatibility issue of the product. There has not enough understanding about how consumer can be used to and rationalize with non-environmental behavior and it is not consistent with their pro environmental attitudes.

To date, only a small number of studies have considered religion as a moderator of consumption patterns despite having significant thrusts in the literature. Cutler (1991) revealed that the frequency with which research articles on religion were published in the academic literature- only thirty five articles had a religious focus. Thus, examining the impact of religion needs more researches. This study fills the gap by studying the above question (Ansari, 2014).

Therefore, there are significant researches in the area of understanding green consumers (Autio et al., 2009), green consumption behavior (Peattie, 2010), and the 'attitude-behavior' gap of green and ethical consumerism (Carrington et al., 2010). Researches about the green and ethical literature, most of them are conventional, there has been inadequate number of research into how a consumer's willingness and intention are guided by religiosity (Caruana, 2007; Szmigin, Carrigan, & McEachern, 2009). Understanding green and mainstream consumers' willingness and how these willingness shape, and are shaped by, individual experiences and the group recommendation, and there need further research about self-efficacy (Iqbal & Nisha).

It is reported from the green literature that the behavior of a consumer is inconsistent with his/her pro-environmental attitudes or willingness (Carrington et al., 2010; Kennedy et al., 2009). The relationship between consumer rationalizations and non-environmental behavior may explain how individuals adjust when they behave in ways inconsistent with their pro-environmental attitudes. In case of green consumption behavior, social factors are important drivers, it has inferred by quantitative research (Griskevicius, Tybur, & Van den Bergh, 2010; Lee, 2008; Young, Hwang, McDonald, & Oates, 2010). By exploring the type and nature of social and religious influence, new insight may be revealed

about how the religious knowledge and experience can encourage pro-environmental behavior change and reduce the ‘attitude-intention-behavior gap’.

Taking above into consideration, it can be said that green consumerism research, until now, has focused only on individual level and the variables available in TPB (Dolan, 2002; Moraes, Shaw, & Carrigan, 2011). Through understanding the effect of religious values particularly the values originated from Islam, better understanding will be gained by readers about green consumption. In addition, the role of religion in facilitating green consumption behavior will be unveiled.

1.4 Research Questions

On the basis of statement of the problem, some research questions have been developed which are as follows:

RQ1: What is the level of green consumption behavior among Muslim consumers in Bangladesh?

RQ2: Do willingness to consume green products, group recommendation, environmental knowledge, self-efficacy influence behavioral intention to consume green products of Muslim consumers in Bangladesh?

RQ3: Does self-efficacy influence behavior of green consumption among Muslim consumers in Bangladesh?

RQ4: Does behavioral intention to consume green products influence behavior of green consumption among Muslim consumers in Bangladesh?

RQ5: Does Islamic religiosity moderate the relationship between behavioral intention to consume green and behavior of green consumption among Muslim consumers in Bangladesh?

1.5 Research Objectives

Broadly, this study aims at identifying factors influencing Muslim consumers' behavior regarding the consumption of green products. It is important to research and understand the relationship in between the religiosity of Muslim consumers and their consumption behavior.

The specific objectives of this study are as follows:

1. To evaluate the level of green consumption behavior among Muslim consumers in Bangladesh.
2. To find out if willingness to consume green products, group recommendation, environmental knowledge, self-efficacy influence behavioral intention to consume green products of Muslim consumers in Bangladesh.
3. To test if self-efficacy influence behavior of green consumption among consumers in Bangladesh.
4. To investigate if behavioral intention to consume green products influence behavior of green consumption among Muslim consumers in Bangladesh.

5. To examine whether Islamic religiosity moderate the relationship between behavioral intention and behavior of green consumption among Muslim consumers in Bangladesh.

1.6 Scope of the Study

This research is a correlational research in the field of consumer behavior. Researches of these kinds show the cause and effect relationship of any event. This study specifically aims at analyzing factors influencing green consumption behavior of Bangladeshi consumers living in Dhaka and Chittagong cities. This study works with five independent variables namely behavioral intention to consume green products, willingness to consume green products, group recommendations, environmental knowledge, and self-efficacy. Green consumption behavior is the dependent variable. Beside these, Muslim religiosity is a component which is assumed to have moderating influence on green consumption behavior of Bangladeshi Muslim consumers. To serve the objectives of the study, data have been collected from the customers of some selected shopping malls in Bangladesh. The sample shopping malls have been chosen from two cities of the country. The cities are Dhaka (capital) and Chittagong (commercial capital). People (respondents) from different parts of the country rush in these two cities and their opinions are supposed to be greatly representative. Moreover, there are significant numbers of shops that sell green products in the shopping malls of these two cities. This study has been conducted during the year 2014 to 2018.

1.7 The Significance of the Study

In this era of globalization, multinational companies are continuously introducing new and updated products both to international and domestic markets which urges the importance of studying the relationship between religion and consumer behavior (Ansari, 2014). Studying the effects of religion on consumer behavior is crucial now among other reasons, because consumers communicate their religious identities to others and express the intensity of their beliefs through consumption choices (Coşgel & Minkler, 2004). The importance of this research springs from its anticipated theoretical contributions to knowledge and practical contributions to businesses of different nature. This is much important in Bangladesh as there are 90.4% people who are Muslims (Nisha & Iqbal, 2017).

1.7.1 Theoretical Contributions

Due to the growing significance of green or pro-environmental issues and their effects on business organizations, this study is contemporary for adding to the knowledge in the discipline of business particularly in marketing. Many scholars have conducted researches to investigate green consumption or green purchase behavior. From this study it will be possible to know and understand the factors influence one's consumption behavior and particularly green behavior. As this study attempts to unveil the moderating effect of religiosity on the relationship in between behavioral intention to consume green and consumption behavior of consumers, the stakeholders will be able to know how the levels of religiosity strengthen or weaken the relationship between behavioral intention to

consume green products and green consumption behavior of a Muslim consumers in Bangladesh. In this way, a better understanding can be developed about 'green' and 'mainstream' (i.e., not so green) consumers that how they face the tradeoffs, sacrifices, pre-conceptions, positive and negative experiences regarding green consumerism.

The contributions of this research therefore furnish better explanation of tradeoffs, sacrifice and experience that green and conventional consumers face during consumption. This study also examines how green behavior and the adoption of greener consumption habits influence individuals' consumption behavior. In this study the literatures, theories, frameworks and many facts and figures are depicted which can act as reference points for future researchers in this field of study.

1.7.2 Practical Contributions

Findings of this research can play very significant role in the practices of marketing. The results can be utilized for successfully launching green products in Muslim dominated countries like Bangladesh where there are Muslim majorities. Besides Bangladesh it can help managers understanding markets in other middle-east countries which are predominantly Muslim intensive countries.

This research is expected to enrich the performance of business people or marketers in some ways. Specially it has implications in designing advertisements and promotional strategies. The aspects of green consumption are examined in this study. This study is also supposed to unveil that the latitude of acceptance of green and not-so-green consumers are not same regards to consistency and inconsistency about green concepts. The results of this study will enhance the importance of green concept to one's identity and self-image and

individual relevance to environmental issues. This information about customers helps managers to design products and marketing policies for greater market coverage and customer satisfaction.

In addition, this research emphasizes on consumption behavior of Muslim individuals, and it examines how different factors shape the 'green' perception of mentioned consumers. This study shades light on the influence that a customer can receive by the interaction with other consumers. Individual customers may sometime consider as a part of 'greening' strategies. Using this strategy, it is expected that consumers will be more accountable in their consumption behavior- 'green' or 'non-green'. This reveals the connection between green consumption behavior and household roles; household lifecycle; & living situation. This study also explores, taking multi perspective of consumers, customers' green consumption behavior in connection to personal relationship. The managerial implication of this study would be new information on green consumption behavior which may help in examining socially constructed green consumption reality.

Finally, this study focuses on finding the effect of Muslim Religiosity as moderator on the green behavior of a Muslim consumer in Bangladesh. It is assumed that the person with a sound knowledge of Islam (a practicing Muslim) will do better pro environmental behavior or green behavior than those of non-practicing ones. The outcome of this research will be a structured comprehensive framework of green behavior of consumers in light of Muslim religiosity. The researcher of this study has worked for developing a theoretical framework which will rightly present the relationships among a set of variables influencing green consumption behavior of Muslim consumers in Bangladesh. It is believed that this framework will insist marketers to redesign their marketing campaign accommodating the religious values, particularly Islamic values which will inspire the consumers at all levels to

be more religious. The key outcomes of the research will also pose a valid and reliable measurement instrument for Muslim religiosity. This instrument will be used in judging the religiosity of people. Research of this kind is needed for different stakeholders because Bangladesh is a big and lucrative Muslim Market in Asia. It will provide inputs to the researchers, consumers, managers formulating business policies and strategies, supply chain experts who work with marketing logistics.

1.8 Definitions of the Key Terms

Understanding of any subject-matter requires proper definition of key terminologies in any study. This section contains definition of key terms used in this study. In the methodology section, definitions are given in operational manner.

1.8.1 Green

The metaphoric definition of green usually means life, resources, environment, energy conservation, environmental protection and sustainability (Dangelico & Vocalelli, 2017). McDougal (2002) denotes people, products or activities by the term 'green' which are linked to environment. By definition, green or environmentally-responsible activities minimize impact to overall ecology.

1.8.2 Green Consumption Behavior

Green consumption behavior can be defined as habits of human being who consider environment friendliness in consumption of goods and services. A green consumer takes into account energy-saving and carbon reduction, environmental resources and sustainable development (Li et al., 2016).

1.8.3 Willingness to Consume Green Product

Willingness is normally defined as the way a person shows his or her desire to do a particular behavior. If anyone wants to consume green it is very much required that the individual is willing to do so. When willingness is backed by hard determination it is called intention. An affirmative willingness may come from positive attitudes which is a relatively enduring faculty of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols (Vaughan & Hogg, 2005).

1.8.4 Behavioral Intention towards Green Consumption

Behavioral intention is stated as a summation of willingness and commitment to respond to any object. Research shows purchase or consumption decision depends upon one's intention to buy or consume. An intention is required to respond positively towards green consumption (Peattie, 2010). Previous studies have indicated that intention exerts a positive effect on recycling behavior (Runyan, Foster, Park, & Ha, 2012) and willingness

to purchase sustainable and environmentally friendly products (Chan & Lau, 2002; Vermeir & Verbeke, 2006; Yan, Hyllegard, & Blaesi, 2012) .

1.8.5 Group Recommendation

Group recommendation is termed as the reference and motivation or inspiration come from any organized group such as family members, friends, colleagues and other acquaintances to do any particular type of behavior (Zhu, Li, Geng, & Qi, 2013).

1.8.6 Environmental Knowledge

Environmental knowledge can be termed as the collection of information an individual is equipped with about environment. It is often assumed that knowledge about environment would drive to green consumption behavior (GCB) (e.g. Bartkus et al., 1999; Schlegelmilch et al., 1996); the rationalist model illustrate that if people are educated issues about environment, they will engage in more pro-environmental behavior (Kollmuss & Agyeman, 2002).

1.8.7 Self-efficacy

Self-efficacy is a component of Bandura's (1986, 1997) social cognitive theory and it is an element or a kind of personal control belief which is mentioned in the theory of planned behavior of Ajzen (1991). In another way, it can be defined as a belief or confidence level of an individual about a particular action. In case of green consumption