



# **Impact of Green Sustainable Development Factors on Firms Performance in Pakistan**

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## **CERTIFICATE**

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**Fatima Malik**

## **DEDICATION**

I want to dedicate my this research work to  
my respected and loving parents as well as to my entire caring family.

## **DECLARATION**

I hereby declare that this research “**Impact of Green Sustainable Development Factors on Firm’s Performance in Pakistan**” thesis is the result of my individual research and that it has not been submitted concurrently to any other university for any other degree.

**Fatima Aziz Malik**

## **ABSTRACT**

This study investigates the impact of three determinants (of the green marketing practices on Firms performance (Marketing Strategy, Innovation Strategy, Promotion Strategy) in the context of Pakistan manufacturing firms. A sample of 169 respondents was collected from the manufacturing industry in different cities. By using descriptive correlation and regression analysis, the results indicate that green marketing practices have been found statistically significant to predict firms' performance. Therefore, the managers of the manufacturing firms should not only implement eco-design in their marketing strategies and supply chain but also concentrate on proper monitoring and implementation of green information systems to increase their firms' performance. In addition, this study also discussed research limitations, areas for future research and implications for practitioners.

**Keywords:** Green marketing strategy, innovation, promotion and sustainability, Manufacturing Sector

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# CHAPTER 1 - INTRODUCTION

## 1.1 - Background of the Study

Modern industrial advancement has prompted negative natural effects, including the over-utilization of assets, lethal contaminations and ozone depleting substance. Worldwide environmental change has just affected the planet. It is perceived as the most noteworthy natural issues confronting mankind today (Dou, 2013).

The impacts of environmental change on organizations are developing each day (Lee, 2012). Therefore, increasing concerns for the earth and social duty in the course of the most recent couple of years, including weight from clients, controllers, and different partners, have driven organizations to think about maintainability as a component of their vital administration (Sprenkel and Busch, 2011).

It has now turned out to be increasingly normal and acknowledged learning that for organizations to stay focused, a legitimate parity of financial, natural and social needs should be overseen in their worldwide tasks (Cherrafi et al., 2016b). Along these lines, deciding how to advance maintainability is at present one of the most significant issues being examined in both hypothesis and practice (Dou, 2013).

Sustainable advancement and ecological protection are the topics of the day. Most organizations ecological issues have turned into a noteworthy point. Bai et al. (2015) point out that adjusting ecological and financial execution has turned out to be increasingly huge for organizations confronting administrative, aggressive and network weights. Achievement in satisfying ecological concerns may offer new opportunities to make an incentive to key business programs just as extraordinary open doors for rivalry in the present quickly changing business condition (Tseng et al., 2015).

Polonsky (1994) communicated that green promotion contains modification, changes to the production strategy and method, packaging and modifying promotion. Juwaheer, Pudaruth, and Noyaux (2012) endorsed that green displaying philosophy should be furthermore made on green stamping, packaging, naming and promotion to make enthusiasm for the green products.

Chamorro and Banlegil (2006) stated that the objective of the green marketing is to lessen the impact on the natural environment during the process of planning and implementation of

product or services, promotion, place and price and Mourad & Ahmed (2012) point out that the point of going green marketing is to maintain the social responsibility and to create profit.

Interestingly, Hastings, Carrigan & Gordon (2011) supported that green marketing includes from production to post purchasing services with the goal to protect the environment and balance the company's profit as well. Sarkar (2012) also agreed that green marketing contains a broad range of comprising product alteration, modification to the production processes, formalizing and modeling, variations to the production processes. On the whole, green marketing can be applicable to consumer goods and services, industrial goods.

Irregular performances, deceitful promises, distorted advertisements and misleading labels have increased misperceptions among consumers, which leads to decreased number of green products launched. This instance is known as "green washing". Patil and Pillai (2012) stated that "greenwashing" is a state when firms claim that a product is environmentally-friendly product, but in truth doesn't perform what it promised.

The consumer cynicism on green product statements have inclined their approaches towards green products and breeds confusion among customers supported by Gangadharbatla, Nyilasy and Paladin (2013). Hence, this theoretical study is substantial because it will travel around several green marketing strategies approved by Malaysian certified ISO EMS firms.

Constrained learning of the accessibility and advantages of green strategies for generation, for example, leads numerous directors to see 'being green' as a steady expense as opposed to a potential advantage, and they may not see how their utilization of ordinary options impacts the earth. Juwaheer, Pudaruth, and Noyaux (2012) suggested that powerful green marketing technique ought to be additionally created on green marking, bundling, naming and promoting to make interest for the green products.

## **1.2 - Problem Statement**

This conceptual study is intended to investigate the impacts of green marketing strategy on the firms' performance through an analysis on the sustainability, green innovation and green promotion in manufacturing sector of Pakistan.

### **1.3 - Research Gap and Purpose**

This study focuses on the gap of marketing innovations activities and business model objectives. As described by *Oslo Manual*, marketing innovations involve changes in product design, promotion, placement and pricing. Cai, W., Lai, (2019).

This study contributes to the innovation as well as green management and sustainability literatures by offering a framework in which to analyze firm innovation and green management and by showing future gap that how firms pursue prosperity and sustainability under specific environmental conditions Zhou, & Gao, S. (2019).

This study suggests that firm's size and age and size do not pose significant restrictions to the introduction of new marketing innovations in manufacturing or service sectors. In contrast, the business model objective to enter a new market is a significant driver of marketing innovations in most cases. Molina-Castillo, & López-Nicolás, C. (2019).

Green practices have been adopted by organizations in order to achieve more environmentally sound operations and to manage their relationships with suppliers in the context of supply chain management . The green paradigm is perceived to reduce waste (and consequently to reduce costs), to ensure better use of resources, to improve quality and productivity and to deliver value to customers. The green paradigm seeks to lower negative environmental impacts and environmental risks while eliminating waste and improving ecological efficiency.

### **1.4 - Research Objectives**

- To find the impact of green marketing strategy on manufacturing firms' performance in Pakistan.

- To find the impact of green innovation strategy on manufacturing firms' performance in Pakistan.
- To find the impact of green promotion strategy on manufacturing firms' performance in Pakistan.

## **1.5 - Research Questions**

- What is the impact of green marketing strategy on manufacturing firms' performance in Pakistan?
- What is the impact of green innovation strategy on manufacturing firms' performance in Pakistan?
- What is the impact of green promotion strategy on manufacturing firms' performance in Pakistan?

## **1.6 - Significance of the study**

Globalization has made the two drivers and pressure for fruitful organizations to improve their business execution just as environmental performance. Green practice is rising as a basic methodology for revenue driven making organizations to accomplish sustainable development and improve firm's performance.

This study will address these issues by focusing on the practices adopted by the senior level marketing professionals and by researching on the level of consensus reached by such professionals on sustainable practices. Furthermore, how have the marketing professionals managed to achieve a balance between the impact of sustainability and the marketing methodologies and practices that have developed in Pakistan.

The exploration will be lead to the required results in order to distinguish the pertinent variables for change in embracing manageability as a remarkable segment of the advertising worldview and practice in Pakistan.

## **CHAPTER 2 - LITERATURE REVIEW**

## 2.1 – Sustainability

The term 'sustainable' has turned into a prevalent and dominant term in the ongoing inscription. It talks about the fundamental reason, that organizations have an obligation to fulfill the human needs and wants while, at the same time, safeguarding nature. The present environmental challenges require the administrators to devise a plan in systems that controls the pollution, impurities, and contaminations and save the natural, prevailing assets.

Millar, Hind, and Magala (2012) expressed that to coordinate sustainability into the organization is still a test and hard for some pioneers, as Saxena and Khandelwal, (2012b) discussed that green economy is a beneficial sector that contains green product, organic agribusiness, sustainable energy, clean innovation/technology and natural assets, which propose that advertiser must take advantage of this opportunity so as to increase the competitive advantages and benefits that are derived from them. Thus, numerous industries are taking up green business practices and procedures to guarantee sustainable development through including and embracing the green trademark in their business tasks.

Despite the fact that it is an intentional premise, an ever increasing number of organizations are showing this drive and turned it into a principle plan. The astounding development of new green enterprises showed a positive consideration by the advertisers. There is some proof that different kinds of organizations convert to embrace green ways of thinking, for example, conventional assembling organizations became progressively beneficial subsequent to adhering to green assembling framework (Taylor, Chuang, and Yang, 2013).

The retail outlets are endorsing the green ideology as well (Yusof, Musa, and Rahman, 2012). The agriculture industry also responds in manufacturing food items without harming either the consumers' health or the environment (Pellegrini and Farinello, 2009). The tourism industries and hotels are associated with changing their business towards green hoteling and eco-tourism (Graci and Dodds, 2008; Punitha and Mohd Rasdi, 2013; Chan, 2013).

Furthermore, the idea of buying green products became well known as the volume of customers that are keen to buy products that are environmentally friendly is expanding. Dangelico and Pujari (2010) detailed that the size of the green markets is likewise expanding and will likely get bigger in near future.

The green business industry has also demonstrated constructive and developing patterns as Saxena and Khandelwal (2010) found that individuals in India have high worries for greener environment and are moving their inclinations from gray products to green products. So also, Tiwari, Tripathi, Srivastava, and Yadav (2011) asserted that the green marketing is still in its

earliest stages and has a great deal of research that needs to be done. Chabowski, Mena, and Gonzalez-Padron (2011) braced that marketing does a significant job in driving the organizations performance. Henceforth, this suggests the contribution of green advertising is, vital, essential and unavoidable.

## **2.2 - Sustainable Development**

As time has seen various stages of marketing strategies, the idea of sustainability has developed as a key component in the field (Kumar et al., 2012). It is a region that is investigated by organizations for growth, development, improvement and growth (Kumar et al., 2012; Mokthsim & Salleh, 2014). In addition, the idea of sustainability acts around the 'Triple Bottom Line', i.e., people, profit and planet, and is viewed as a long term vision that manages the growth of a strategy centered around the honorable and ethical principles (Kumar et al., 2012; Mokthsim and Salleh, 2014).

The notion of sustainability isn't just restricted to environmental sustainability, but, in addition, also includes social and economic issues (Mariadoss et al., 2011; Kumar et al., 2012; Mokthsim & Salleh, 2014). Furthermore, the primary objective of sustainability is to move societies beyond continuous consumption at not beyond the present level, and doing this without yielding the prospective for the future (Khavul & Bruton, 2013).

Mariadoss et al. (2011) claim that Sustainable Development involves sustainable utilization on political, economic and social issues. The authors also remarked that actions conducted at the government, community, individual household and business levels will bolster and support the utilization of products and services that respond to essential needs and bring improved quality of life. This thusly may limit the utilization of toxic materials, natural assets, emission of waste (Mariadoss et al., 2011).

The notion of a future viable, sustainable society is one that put in more than it takes away and passes to the forthcoming generation at least as much as it has inherited from earlier generations (Khavul and Bruton, 2013). The concepts 'Corporate Social Responsibility' (CSR), 'Going Green' 'Corporate Social Performance, 'Sensibility' and the 'Triple Bottom Line' and 'all signify organizations growing their long-term economic, social and environmental performance (Galpin et al, 2015). Nevertheless, the term 'development' has gone through numerous phases, some more prosperous than others (Lessen & Wesssenhove, 2012).

Lessen & Wassenhove (2012) gave details that prior to 1960s development aid mostly comprised of a tool used by nation states for numerous geopolitical drives where the fresh mind-set was

“development through economic growth”. The authors additionally discuss the subsequent period of the global development that it was dealt with the belief that growth would follow the satisfaction of basic nonmaterial and material needs of people. Through the 1960s, the theory of Sustainable Development arose and symbolized a fresh way of thinking.

The Millennium Development Goals (MDGs) were also outlined and accepted as a call and response for the global actions. In the present times ‘Sustainability’ or ‘Sustainable Development’ is viewed as a wide-ranging and complete concept that is referred to as a type of progress that meets the present era’s needs without jeopardizing the capabilities of future generations to meet their own needs (Mokhtsim & Salleh, 2014; Gumeni &Gorcia, 2014). Regardless of the progress being made since the concept Sustainable development was established, researchers claim that owing to the large scale of challenges met, it might already be a “little too late” (Lenssen &Wassenhove,2012).

The enlarged worldwide demand has left more than a few global foundations suggesting a codified set of laws, guidelines, and other CSR rules so as to enable organizations move towards sustainable advancement (Giuliani, 2014).

### **2.3 - Millennium Development Goals (MDGs)**

The Millennium Summit ended when the Millennium Declaration was set up by the United Nations (UN) and its 190 individuals was marked in year 2000 (millenniemålen, 2015). By passing the declaration, leaders of the world swore to "create an environment, at national and global levels, conducive to development and to eliminate poverty" (Addo-Atuah, 2014; Akinboade and Kinfack, 2014).

So as to encourage the accomplishment of the Millennium Declaration, eight objectives known as the “Millennium Development Goals” were outlined (Addo-Atuah, 2014). The fundamental objective of the MDGs is to improve and better the lives of individuals in developing nations (Okpala and Ekpemiro, 2012).

The eight goals form an outline approved to by all the world's countries and development institutions where endeavors are made to address the needs of the world's least poorest countries (un.org, 2015). Besides, the MDGs are altogether interconnected; as one objective is achieved, development towards the following objective is advanced as well (Akinboade and Kinfack, 2014).

An outline of this is given by the authors, where access to clean and safe drinking water will positively affect health related issue. Similarly, achieving universal primary education will thus



guarantee higher gender equality as more young girls are registered in schools (Akinboade and Kinfack, 2014).

## **2.4 - Green Marketing**

Bhatia, Mayank Amit & Jain (2013) concluded that green marketing refers to all marketing activities which are responsive towards protecting the environment. There is much avoidable confusion regarding the term green marketing, as people loosely classify it with various phenomena in the present era. Some attribute it as being responsive towards climate change and global warming, while others believe being in conformity with environmental standards as green marketing. Another group of people perceive recycling as intrinsic in green marketing while the majority of consumers and marketers alike simply identify green marketing as something that involves of promoting products emphasizing their contribution towards environment (Baker, 1999).

Since marketing is seen as a process whereby the marketing mix (Product price, promotions & place) is used to respond to the needs and wants of customers while achieving business objectives many marketers have seen green marketing as simply another way of satisfying consumer needs under the same marketing mix .

However a closer look at the concept of green marketing shows a distinct variation that has transformed the traditional marketing thinking (Kotler, 1997).

The term green marketing itself has experienced numerous progressions with various wording, for example, environmental Marketing and ecological Marketing being dubiously utilized. The word green promoting started to rise to the top in the 1980's since there was developing familiarity with the worldwide network in regards to the environmental dangers and approaching pollution. It was in this setting environmentalists started to apply business firms to limit the ecological contamination in the generation of goods and services. The organizations also have reacted in equivalent measure by stressing and joining these ecological issues in their business exercises (Grant, 2007).

Today the idea of green advertising involves certain crucial components. Advertising products which are naturally sheltered; creating and marketing products to limit ecological risks; produce, advance, and bundle products in a way befitting in order to secure the earth are a few qualities of Green promoting as the term is comprehended in the present business world setting (Ottman, 1998).

Green advertising includes building up a connection between the business and client; and this procedure involves an all-encompassing methodology since business will normally need to incorporate every one of its exercises in accordance with natural concerns. As a methodology, green promoting includes vital choices, for example, Green products, Green packaging, Green prices and Green communication (Ottman, 1998).

Change is inescapable in any circle of discipline and advertising is no special case. The developing concern among customers towards condition has constrained business associations to make changes in their promoting methodologies. Green Marketing system includes two fundamental attributes; Firms should take care so as to build up an products that would fulfill purchasers' needs agreeably with least negative effect on condition; combined with this is the formation of an observation in the psyches of the clients in order to underline the nature of the product and the organization's responsibility towards the environment (Menon et al., 1997).

A green promoting system realizes a subjective change in the connection among clients and a business association. When fulfilling consumer needs utilizing green marketing system, the useful just as passionate advantages of an products should be featured since most ecological concerns include profound needs of individuals. A green advertising procedure varies from a traditional promoting methodology since it has more do with being proactive, Value based; long term situated, coordinated methodology and all the more critically the lives of individuals which are integral to all activities (De Bakker and Frank, 2009).

In advancing a Green promoting procedure to infer competitive edge an organization needs to do its own home work by being sure about what it should do. This perspective should be given idea since accomplishing targeted objectives; would not just bring about benefits; rather they include making a positive commitment towards the environment. So as to procure advantage, a green marketing technique needs to address some major regions of significance, for example, advertise division, market segmentation, developing a green product, green positioning, setting green prices, application of green logistics, proper waste management, launch of green promotion, forging green partnerships and in essence having the right green marketing mix” (Peattie, 1999).

An organization in any case needs to choose the client group or the business plan which should be outfit to achieve profitable targets. A few organizations like to enjoy advancing their products through pro-environmental media to contact environment cognizant groups of clients (Staib, 2009).

Most clients are worried about the plan of the item since numerous natural dangers can be followed to the structure some portion of the item. Subsequently it is occupant upon an organization to make fundamental modifications in the item configuration to be in congruity with

condition. This may require putting resources into new item improvement and looking for methods for presenting new structures in products. Having planned or created products, they should be situated properly (Singh, 2004).

The estimating variable has a noteworthy impact of green promoting system since it is the money related worth paid by the client. There is a propensity among clients to pay a top notch cost for green products thinking about the positive effect. Then again creating green products would have put tremendous aggregate of cash as far as innovative work, wastage the executives, reusing and fusing other outside expenses. In the light of these actualities some green products may have more expensive rates while a few products would convey low procedure inferable from the bringing down of bundling cost (Keegan et al., 2000).

Successful green advancement is generally a result of choosing the correct method of methods, channels and messages at the perfect time to contact the planned gathering of clients. One needs to hold up under as a main priority that no advancement would be fruitful except if what is being spread isn't rehearsed at the business. In straightforward language this alludes to walk the discussion; that is doing what you state you will do. This is a zone where the validity of business is surveyed by the clients. One of major blemishes that have reverse discharges in green showcasing procedures in the past is the nonappearance of interpretation of words into deeds (De Bakker and Frank, 2009).

Going into vital associations with different organizations so as to acknowledge green advertising goals has turned into a backbone of organizations. It very well may be seen that some business firms need ability or some might not have the essential positive picture to begin off with a green showcasing procedure. A perfect cure is structure unions with colleagues to advance goals. This would come convenient if the accomplices have a demonstrated reputation of being earth cognizant all through. Such key associations would be commonly useful since there is a stream or trade of learning and pooling of assets together (Zintom et al., 2001).

## **2.5 - Green Innovation**

As indicated by Chen, Lai, and Wen (2006), green advancement can be divided into green products and procedures, incorporating the development in advances that are associated with the structure of green products, utilizing the vitality sparing, squander reusing, and innovation to anticipate the contamination. Green advancement has turned out to be one of the significant key

apparatuses to get financial improvement in assembling ventures as a result of the expanding natural weight (Chang, 2011).

For a Small Medium Enterprises (SMEs), green advancement incorporate into the improvement of new more ecologically inviting products and changing procedure or creation technique (Oxborrow and Brindley, 2013). Green advancement is firmly recognized with the new item improvement. The force of worldwide challenge and changes in the buyer inclinations authorize the need of new item advancement (NPD).

Pujari, Wright, and Peattie (2003) allude the green item advancement as ecological new item improvement (ENPD) which acclimatizes the natural issues into the item structure. In this manner re-structure the current products by utilizing the characteristic assets, material, transfer or generation with the expect to diminish the effect on situations can likewise be considered as a green item. Then again, Johansson (2002) utilized the terms green advertising in clarifying the item that reflect (minimization of unfavorable impacts) on the ecological effects without bargaining the item criteria, for example, quality and execution.

Ar (2012) inferred that all advancements and advancement which have built up another item or administrations that give positive natural advantages is the key factor to maintainability for firms. Seeking after this further, more organizations are eager to contribute and put more endeavors on creating green developments. Consequently, creating green advancements is a success win answer for the contention between financial improvement and natural assurance (Chang, 2011).

Bansal (2002) prescribed that organizations need to embrace item and procedure advancement all together moderate the effect of the item and administrations on the earth. Pujari et al. (2003) likewise featured on item stewardship endeavors which covers all parts of overseeing products, their presentation and effects. It demonstrated that the green item development is commonly emphatically influencing firm execution and focused capacity (Ar, 2012).

Notwithstanding, it is critical to feature that, in spite of the approach of green item in the market, Mei, Ling, and Piew (2012) uncovers that there are a few disadvantages on green showcasing practice that reason the disappointment of green promoting. The advertisers must be made in charge of the cases on the green products and administrations that they are not deluding to the purchasers. This is to guarantee the customers truly profited by the cases.

So as to discover the effect of green development on firms' presentation, the Diffusion of Innovation Theory is relevant to help the connection between the green advancement and firms' exhibition. The hypothesis discloses on the best way to build the pace of reception of green products, administrations and procedures to assist the organizations with getting upper hand (Vaccaro, 2009).

In this manner, the green development ought to be seen as having a better an incentive than the current products which contain the dissemination qualities; relative bit of leeway, discernibleness, similarity, unpredictability and preliminary capacity. Regardless, Graci and Dodds (2008), identifies with the Resource-based view hypothesis to help the association to separate the organizations from its rivals in the green market fragment. Also, Resource-based view is created by Hart in 1995 and it clarifies that the obtaining of the special, uncommon, non-substitutable, profitable, and hard to impersonate assets will bring about a progressively effective item, administrations and assembling forms. Henceforth, the green development can be considered as one of a kind assets have by the organizations which empowers a firm to increase upper hand and all the while improve firms' presentation.

## **2.6 - Green Promotion**

Green advertisement are compelling instruments to advance products, administrations, thoughts and associations' endeavors to demonstrate the issue and their drives to secure and protect the earth. Besides, it is likewise an apparatus utilized by the organizations to share and educate the job that of the organizations, as they are additionally straightforwardly affected by the worldwide issues, parallel with cognizance shown by the social orders. Other than that, the administration likewise utilizes the green advertisement to advance the green condition idea to build the degree of attention to ensure nature (Abd Rahim, Ahmad Zukni, Ahmad, and Lyndon, 2012).

Ann, Zailani, and Abd Wahid (2006) suggested that the ecological names ought to know and remain noticeable so as to impact buy from the shopper. By and large, it very well may be reasoned that green advertisement must probably convey the connection between an products or administrations with the earth, fill in as a crusade to advance a green way of life, lastly can upgrade the corporate picture of the organizations.

The colossal development of green brands in the market because of the customer request has urged the green promoting to show up into an increasingly key way (Taghian, 2005).

Consequently, there will be a parallel ascent in ecological promoting so as to build the degree of familiarity with shoppers. The terms utilized in the advertisement, for example, biodegradable, recyclable, and ozone safe have turned into a prevalent in green promotions. In any case, there are a few kickbacks on the green adverting claims that reason disarray among the shoppers. Counting analysis consolidating the misty importance of the terms utilized in the advertisement, for example, 'biodegradable', and some apparent that the term requires specialized and logical information so as to comprehend the message. For example, the expressions "manageability",

"green" and "natural" appended as an accreditation programs and limited time methodologies in the travel industry products and goal isn't clear and uncertain to the shoppers (Graci and Dodds, 2008).

Green promoting must be lawful and reliable with the earth guideline. Nyilasy et al. (2013) propose that moral green promoting/showcasing is helpful for good business results. In this manner, an advertiser who is presenting the naturally agreeable item should have a technique on the best way to convey their products in an all the more engaging way. In the event that advertisers can address the quality of the new development item and procedure, the quality worries of the item, the presentation and advantages that related with the green attributes in this manner, "greenwashing" exercises could be kept away from.

Creating or selling of green products would bring about a wonderful business condition with decrease in tumultuous business exercises. This would improve the climate and solid workplace. Since the way toward advancing a green promoting includes a comprehensive methodology adjusting every one of the elements of the business, a vital consistency can be accomplished. Aside from this, the technique plan would manufacture better associations with workers as their interest is looked for. Representative commitment would increment and there would be a common comprehension between various partners of a business (Zintom et al., 2001).

A business would remain to pick up mileage on the off chance that it acquaints an inventive environmental item with the market. A green advertising technique would bring about a success win circumstance for business partners, on the grounds that, in the process there would pool together of one another's abilities, capacities and assets which are moved. At last purchaser fulfillment increments since clients would most likely get top notch products at sensible costs. This would build the general welfare of an economy and a practical improvement would result from green showcasing activities (Baker, 1999).

## **2.7 - Firms' Performance**

The organizations' exhibition is reflected from the apparent advantages which are normal from the mix of ecological administration in their business activity. As upheld by Psomas, Fotopoulos, and Kafetzopoulos (2011), the organizations can upgrade their ecological exhibition and business productivity by actualizing the ISO 14001 EMS. Among of the apparent advantages talked about in the writing are; improve great corporate picture, decreasing waste, limiting cost, increment consumer loyalty, increment efficiency, better altruism, increment piece of the pie, and obviously productivity.

Chen et al. (2006) accepts that the speculation of the green item advancement and green procedure development contribute a positive effect to the organizations. As indicated by Johansson (2002), the item improvement venture achievement is estimated by the benefit, deals and piece of the overall industry.

Doran and Ryan (2012) inferred that an eco-advancement has a positive and huge effect on the organizations' exhibition. Different examination (Ann et al. 2006; Hwee Nga, 2009) talks about whether organizations that execute the ecological system and affirmation of ISO 14001 EMS, it impacts the organizations' presentation. Nonetheless, in spite of the quantity of concentrates here, none underscore because of green advancement and green advancement on the organizations' exhibition in subtleties.

Punitha and Mohd Rasdi (2013) featured on the advantages and bit of leeway that the organizations will accomplish as it includes in the green organizations for example, unrivaled money related and showcase execution. Writing in Malaysia demonstrates that normal advantages, for example, cost reserve funds, advertising openings and monetary comes back from the clearance of green products speak to the significant drivers for green activities (Eltayeb, Zailani, and Jayaraman, 2010).

Agbejule, Fernandez, and D'Espiney (2004) viewed that the green products, procedure and administrations have turned into a focal business technique which is driven by the focused weights and client prerequisites. Ann et al. (2006) claims that the accreditation of ISO 14001 positively affects firms' exhibition including apparent monetary effect, saw ecological effect and saw consumer loyalty.

Rajendran, P.Padma, and Chandrasekharan (2008) inferred that organizations can profit by the ISO 14001 EMS execution by continuing their focused position and improving the natural execution. Rajendran et al. (2008) featured eight factors to gauge the hierarchical presentation including consumer loyalty, worker spirit, development in fares, benefit, profitability, decrease in quality cost, monetary execution and natural execution.

As indicated by Ledwith and O'Dwyer (2009), new item advancement achievement can be estimated regarding business sector level, budgetary measures, client acknowledgment measures, item level measures and timing measures.

Martinez, Ramirez, Cronin, Gleim, and Smith (2011) expressed that picking up the budgetary impetuses is significant as to rouse the organizations to use the "green" as a promoting system.

Laosirihongthong, Adebajo, and Tan (2013) featured that natural execution, financial execution and impalpable execution were utilized to gauge by and large hierarchical execution. Fraj, Martínez, and Matute (2011) likewise utilize three elements of execution in his examination; natural execution, monetary execution and showcasing execution.

Gholami, Sulaiman, Ramayah, and Molla (2013) characterize the ecological presentation as the association performs requiring little to no effort activities, decrease vitality utilization, use reusing waste so as to save and ensure the earth. Budgetary execution shows an association's business execution as far as rate of profitability (ROI), inward pace of return and piece of the pie. Operational execution is utilized a marker of an organizations' presentation whether the organizations use its assets viably so as to accomplish targets

## **2.8 - Sustainability as a part of Business Curriculum**

With understanding the starting points of supportability and its association with advertising order and practice, just as understanding the effect of promoting on shaping utilization designs, a sensible outcome is to look through approaches to build mindfulness and the resulting activities of showcasing leaders. Mulder (2014) communicates the dread that mix of manageable improvement points has not been perfect, and frequently it relies upon the enthusiasm of the individual instructor.

Doh and Tashman (2014: 140) have communicated comparable thoughts and reason that financial improvement has been actualized in business colleges educational plans "... with uneven records of selection and assorted strategies for execution by staff".

Cordano, Ellis and Scherer (2003) demonstrated that presenting natural subjects in a business colleges' educational plan actuates more noteworthy degrees of ecological worries among understudies. In any case, we must know, as Thomas (2005: 188) contends, that tending to understudies' affectability to natural issues does not really prompt changes in conduct "... the understudy may be touchy, and even thoughtful, to the requirement for ecologically capable administration rehearses, yet at the same time may think about them fringe, or even contradictory, to the achievement of the firm."

## **2.9 - Sustainable Development in Developing Countries**



Progressively, enormous number of associations enters and work in creating nations, and in spite of this reality, there is still little understanding in regards to the present and future duties of business (in ecological and financial improvement (Lenssen and Wassenhove, 2012; Kumar et al., 2012). Issues associated with nourishment, destitution, wellbeing and instruction just as issues in regards to defilement and pay off all interest earnest activity (Lenssen and Wassenhove, 2012).

In addition, a regular case of a sectoral part of Sustainable Development is given by the assembling business, which is frequently dynamic in supportability banter over every one of the three components of manageability; i.e., financial, social, and natural (Luken and Castellanos-Silveria, 2011).

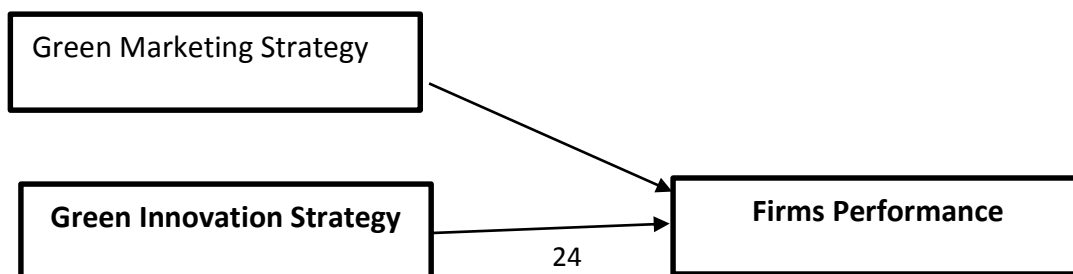
Therefore, as of late, the issue of keeping up a sustainable business improvement in assembling has turned into a crucial subject because of the different natural effects, for example, quakes, fear mongering, and tropical storms to give some examples (Gunasekaran and Spalanzani, 2012). Subsequently, it is never again believed a choice to be effective absolutely in one's the same old thing, these days it has turned into a commitment to secure the earth, just as guaranteeing wellbeing and welfare for those alive today and for who and what is to come (Gunasekaran and Spalanzani, 2012).

As per Mani et al. (2014) makers must expand adaptability, provider systems, and speed of generation frameworks, while simultaneously decrease vitality utilization and natural effects so as to remain all around focused.

Lenssen and Wassenhove (2012) contended that financial assembling is associated with the assets required for gathering Asian vitality necessities and utilization. The creators further examine that if producing in Asia is framed in an unsustainable manner, it will globally affect request and asset supply, conveyance and vitality age, and market estimating.

Besides, as supportability is legitimately connected to the common habitat and destitution issues of creating nations, displaying manageable assembling that limits the negative ecological effect and preserves vitality and characteristic assets are viewed as safe for workers, networks and purchasers, and is accepted to be financially solid (Khavul and Bruton, 2013; Mani et al., 2014).

## 2.10 – Conceptual Framework



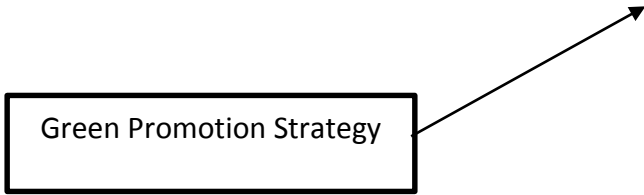


Figure 2.1

## **2.11 – Hypothesis**

**H<sub>1</sub>:** There is a positive impact of green marketing strategy on manufacturing firms' performance in Pakistan.

**H<sub>2</sub>:** There is a positive impact of green innovation strategy on manufacturing firms' performance in Pakistan.

**H<sub>3</sub>:** There is a positive the impact of green promotion strategy on manufacturing firms' performance in Pakistan.

## **CHAPTER 3 - RESEARCH METHODOLOGY**

This section clarifies the research design and how this plan prompted the gathering of data. It demonstrates the reason for picking the population, inquire about sample, testing strategies and gathering of information. It likewise clarifies the factors used in order to complete this study.

### **3.1 - Research Design**

The research design comprises of:

- Sample
- Data
- Strategies

It explains the data collection techniques and its evaluation. This research is based on primary data, which has been gathered by means of standardized questionnaires. Questionnaires have been used after a few alterations according to the requirements of the current study in perspective of Pakistan's scenario.

### **3.2 - Quantitative Approach**

The research is based on the quantitative approach. By using quantitative research. This research ties to investigate the connection between dependent variable and Independent variables. This approach has enabled the application of statistical technique to evaluate the results.

### 3.3 Research Measures

Explanatory research has been used to examine the relationship between independent and dependent variable. Thus, it will also help to identify the cause of certain actions and present theories and predictions.

### 3.4 Population

The population consists of manufacturing sector, managerial level employees who are currently working in marketing, supply chain and production department in Lahore, Islamabad, Rawalpindi and Mirpur (AJK). 300 questionnaires were distributed, among those 210 were received back properly, after scrutiny 169 were critically scrutinized and entered for calculation.

| <b>Sector</b>            | <b>Population</b> | <b>Sample</b>  |
|--------------------------|-------------------|--|
| Marketing Sector         | 120               | At confidence Level 95% and confidence interval level 5%, the calculated sample size |
| Production Sector        | 60                |  |
| Supply chain Sector      | 70                |  |
| Service Providing Sector | 50                |  |
| Total                    | 300               | 169  |

**Table 3.1: Population/Sample**

### 3.5 – Sample/ Sampling Techniques

The purpose of study was academic in nature and owing to the time limitation, non-probability sample design with convenience sampling technique has been applied. This is not only a quick, convenient, and less expensive technique, it is also the most easily accessible technique to get respondents as members/subjects.

### 3.6 – Participants

Questionnaires were circulated amongst the participants in printed form - to take accurate response about the research, and through online posts; almost 30-35 responses were provided through e-mail, Facebook, Google docs.

### 3.7 – Instrumentation

A standardized adopted questionnaire has been used for data collection, which has been used for data collection; which has been taken from related past literature that endeavours to collect data about all the variables. Responses has been collected by hand, through postal service and e-mails. Secondary data has been collected through published articles and journals, etc.

**Table 3.2: Likert Scale**

| <b>STRONGLY DISAGREE</b> | <b>DISAGREE</b> | <b>NEUTRAL</b> | <b>AGREE</b> | <b>STRONGLY AGREE</b> |
|--------------------------|-----------------|----------------|--------------|-----------------------|
| 1                        | 2               | 3              | 4            | 5                     |

### 3.8 Data Collection

Primary data has been collected through structured questionnaires consisting of three independent variables (performance (Marketing Strategy, Innovation Strategy, and Promotion Strategy) and one dependent (having 4 determinants in conceptual model).

“Secondary data has been used for updating Literature Review and evaluating results with previous researches .

## **CHAPTER 4 - RESULTS and DISCUSSIONS**

### 4.1 - Overview

Quantitative data analysis was used for this research. Raw data was set and inputted to generate descriptive statistics, which include:

- Mean

- Standard deviation
- Correlation coefficient.

To test the relationship between the independent variables and dependent variables, statistical analysis was prepared using SPSS 21.

## 4.2 Reliability

However, the question of reliability rises as the function of scales is stretched to encompass the realm of prediction. One of the most popular reliability statistics in use today is Cronbach's alpha (Cronbach, 1951).

**Table 4.1: Reliability Analysis Statistics**

| <b>Dimensions</b>   | <b>items</b> | <b>Cronbach's Alpha</b> |
|---|--------------|-------------------------|
| Green Promotion Strategy  | 6            | 0.714                   |
| Green Product Innovation & Firm Performance                         | 9            | 0.789                   |
| Green Marketing Strategy & Consumer Awareness (Marketing Practices) | 14           | 0.766                   |

Table 4.1 shows all items had Cronbach's alpha values greater than '0.6' which revealed that all variables as per their respective items have good internal consistency and the responses were reliable.

## 4.3 Demographics

The data has been collected from different manufacturing companies of Pakistan. While collecting the information on different independent and dependent variables, demographic information of the respondent has also been collected. This collected information has been summarized in the Table 4.2.

**Table 4.2: Demographic Statistics**

| Demographics           |                   | Frequency  | Percentage |
|------------------------|-------------------|------------|------------|
| Gender                 | Male              | 125        | 73.96      |
|                        | Female            | 44         | 26.04      |
|                        | <b>Total</b>      | <b>169</b> | <b>100</b> |
| Occupation             | Senior Manager    | 36         | 21.30      |
|                        | Manager           | 49         | 28.99      |
|                        | Assistant Manager | 31         | 18.34      |
|                        | Engineer          | 18         | 10.65      |
|                        | Supervisor        | 35         | 20.71      |
|                        | <b>Total</b>      | <b>169</b> | <b>100</b> |
| Age                    | 25~30             | 54         | 31.95      |
|                        | 31~35             | 29         | 17.15      |
|                        | 36~40             | 25         | 14.79      |
|                        | 41~45             | 45         | 26.62      |
|                        | 46~50             | 11         | 6.5        |
|                        | 50+               | 5          | 2.9        |
|                        | <b>Total</b>      | <b>169</b> | <b>100</b> |
| Academic Qualification | DAE               | 35         | 20.71      |
|                        | Bachelor          | 22         | 13.01      |
|                        | Master            | 26         | 15.38      |
|                        | MS/M. Phil        | 11         | 6.5        |
|                        | Matriculation     | 44         | 26.03      |
|                        | FA/FSc            | 31         | 18.34      |

|               |                         |            |            |
|---------------|-------------------------|------------|------------|
|               | <b>Total</b>            | <b>169</b> | <b>100</b> |
| <b>Sector</b> | Supply Chain Management | 44         | 26.03      |
|               | Production              | 56         | 33.13      |
|               | Distribution            | 28         | 16.56      |
|               | Manufacturing           | 35         | 20.71      |
|               | QA/QC                   | 6          | 3.55       |
|               | <b>Total</b>            | <b>169</b> | <b>100</b> |

#### 4.4 Regression Analysis

There is an additional assumption that the dependent variable should be quantitative. This requirement is also satisfied because the data for the dependent variable Performance is numeric and quantitative. Thus we can run the regression analysis to check the effects of independent variables.

##### 4.4.1 Model Summary

The Table 4.3 presents the results summary for fitted model in which organizational Performance is dependent variable and Green Marketing strategy, green innovation strategy and green promotion strategy are independent variables.

**Table 4.3: Model Summary**

| <b>Model</b> | <b>R</b>           | <b>R Square</b> | <b>Adjusted R Square</b> | <b>Std. Error of the Estimate</b> |
|--------------|--------------------|-----------------|--------------------------|-----------------------------------|
| 1            | 0.412 <sup>a</sup> | 0.170           | 0.125                    | 0.43580                           |

a. Predictors: (Constant), Green Promotion Strategy, Green Product innovation & Firm Performance & Marketing Strategy and Consumer Awareness (Marketing Practices)



The value of  $R^2$  shows the variation in dependent variable due to variation in the independent variables. In the case of our model,  $R^2$  is 0.17 which indicates that 17% of variation in the dependent variable i.e. Organizational Performance happened due to the variation in the independent variables i.e. Processes, Practices, and Activities.

#### 4.5 - Analysis of Variance

Analysis of Variance is a technique which helps us to verify whether our regression model is appropriate. We can decide this, with the help of its results, that the variables included in the model do have their effect on the dependent variable. Analysis of Variance results for our fitted model are presented in the Table 4.4

**Table 4.4: Analysis of Variance Results**

| <b>Model</b> | <b>Sum of Squares</b> | <b>Df</b> | <b>Mean Square</b> | <b>F</b> | <b>Sig.</b>        |
|--------------|-----------------------|-----------|--------------------|----------|--------------------|
| Regression   | 2.171                 | 3         | 0.724              | 3.810    | 0.015 <sup>b</sup> |
| Residual     | 10.636                | 165       | 190                |          |                    |
| Total        | 12.807                | 168       |                    |          |                    |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), IVs

The p-value for regression in the above ANOVA Table is 0.015 which is less than 0.05 and thus significant on 5% level of significance. It means that there is at least one variable in our model which has a significant impact on the dependent variable Organization Performance.

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**Table 4.5: Regression Coefficients <sup>a</sup>**

| Model   | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|---|-----------------------------|------------|---------------------------|-------|------|
|   | B                           | Std. Error | Beta                      |       |      |
| (Constant)                                      | 3.048                       | .785       |                           | 3.883 | .000 |
| Green Promotion Strategy                        | .125                        | .147       | .114                      | .851  | .399 |
| Green Product Innovation & Firm Performance     | .128                        | .189       | .109                      | .678  | .501 |
| Green Marketing Strategy and Consumer Awareness | .285                        | .148       | .288                      | 1.927 | .059 |

a. Dependent Variable: Performance

Table 4.5 demonstrates the effects of independent variables on the dependent variable. The second column of the above Table provides the regression coefficients (B). The regression coefficients are telling that the variables Green Promotion Strategy, Green Product Innovation & Firm Performance & Green Marketing Strategy and Consumer Awareness (Marketing Practices) do have positive impact on the Performance.

#### 4.6 – Correlation Analysis

Correlation is another technique which sheds light upon the relationship between different variables. Correlation verifies from -1 to +1. The coefficient with less value than zero indicate negative relationship whereas if it is greater than zero, then it shows a positive relationship between two variables.

**Table 4.6: Correlation Results**

|  |  | V1 | V2 | V3 | Performance |
|--|--|----|----|----|-------------|
|  |  |    |    |    |             |

|  |                     |         |          |          |   |
|--|---------------------|---------|----------|----------|---|
| <b>Green Promotion Strategy</b>                        | Pearson Correlation | 1       |          |          |   |
|  | Sig ( 2 – tailed)   |         |          |          |   |
| <b>Green5Product Innovation &amp; firm Performance</b> | Pearson Correlation | 0.421** | 1        |          |   |
|  | Sig ( 2 – tailed)   | 0.021   |          |          |   |
| <b>Green Marketing and Consumer Awareness</b>          | Pearson Correlation | -0.227  | -0.580** | 1        |   |
|  | Sig ( 2 – tailed)   | 0.081   | 0        |          |   |
| <b>Firm Performance</b>                                | Pearson Correlation | 0.225   | -0.324*  | -0.377** | 1 |
|  | Sig ( 2 – tailed)   | 0.083   | 0.012    | 0.003    |   |

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

\*. Correlation significant at the 0.05 level (2-tailed).

Sig

If we see the correlation between the dependent variable and the independent variables, then three of the independent variables have significant correlation with the dependent variable.

## **CHAPTER 5 - CONCLUSION and RECOMMENDATIONS**

### **5.1 – Conclusion**

The findings indicate that green marketing strategy and practices are significant factors in predicting organizational performance. The result also reveals that green marketing implementation is an essential key predictor for organizational performance.

Green marketing not only supports the environmental sustainability and firms' environmental performance, but also builds a competitive advantage and improves financial performance in the long run.

Governments and regulatory authorities are encouraging green marketing products, and on the other hand, in some countries, custom policies are very strict and create barriers for pollutant products.

Today's consumers are more aware of pollution and harmful effect created by manufacturing firms in Pakistan. But unfortunately, government and regulatory authorities don't have any significant compensation for green firms such as tax exemptions or subsidies.

On the other hand, the importing and purchasing of green materials are much more expensive than non-green materials and these huge costs incur in the overall supply chain systems, which create negative effect on an enterprise's financial performance.

Green promoting not just backings the environmental sustainability and firms' performance, yet, in addition, constructs a business edge and improves financial conditions over the long period of time.

Governments and administrative specialists are empowering green advertising items, and then again, in certain nations, custom arrangements are severe and make hindrances for poison items.

Today's consumers are increasingly mindful of harmful impact and contamination made by manufacturing firms, in Pakistan. The government and administrative specialists don't have any noteworthy subsidies for green firms, for example, tax exemptions.

Then again, the buying of green materials are significantly more costly than non-green materials and these gigantic expense impose negative influences.

The outcomes have verified that green promoting methodology and practices of assembling significantly affects hierarchical execution. Firms can't execute green manufacturing without greening all procedures. Subsequently, with greening the assembling forms, firms are likewise reengineering the procedures and killing the loss from their manufacturing forms.

## **5.2 - Recommendations**

Firms implement green practices to fulfill the customers' demand and out of fear of losing their businesses to competitors in international arena.

In the long-run, green firms can have significant positive impacts:

- creating positive image, good reputation in domestic and international markets,
- attracting customers' sympathy,
- competitive advantage

As a consequence of environmentally friendly initiatives, green firms have extensive worldwide markets to trade their products in, compared to non-green firms.

Green marketing strategy and practices not only decrease harmful effect of manufacturing activities but also create competitive superiority.

Greening different phases of a supply chain will directly or indirectly lead to enhanced financial/economic performance of the firms.

It is highly suggested that the manufacturing firms in Pakistan ought to adopt green Supply chain practices in order to increase their overall organizational performance.

### **5.3 - Implications for Practitioners**

- It is claimed that sustainable and environment-friendly policies are Supply Chain level imperative and evidence is offered for supporting the necessity for manufacturing firms to execute green supply chain management practices in coordination and collaboration with suppliers and customers.
- The managers of manufacturing firms have to build supply chain management skills and knowledge structure, in addition to the skills and knowledge that are required at the firm level.
- The managers must emphasize on enhancing the Supply Chain in order to enhance the firms' performance.
- It is of key importance that firms implement supply chain management strategies and work towards enhancing the processes that fit in throughout the supply chain, and will result in meeting the needs of the final customers in a satisfying manner.
- Therefore, from a practical viewpoint, managers are held responsible for the performance of their firms. If enhancing the supply chain and making strategies that will satisfy the needs of the customers and will result in improved overall firm' performance, the managers will adopt such an approach.
- The implementation of green practices enhances the firms' capabilities to sustain the environment and to strengthen the firms' financial viability. Many manufacturing firms have begun to adopt comprehensive programs to administer green practices throughout their Supply Chain.
- *Evidence supports the need for manufacturing firms to execute green supply chain management in coordination and cooperation with their clients and providers.*

- The directors must highlight on improving the Supply Chain so as to upgrade firms' presentation.
- The execution of green practices improves the organizations' capacities to continue nature and to fortify the firm monetary reasonability. Many assembling firms have started to receive extensive projects to control green practices all through their Supply Chain.

#### **5.4 - Short Cummings of the study and Future Research**

The limitations in this study are as follows:

- Only Pakistan's manufacturing firms are included in this research, with a sample size of 169 respondents in selected cities. However, future researchers may conduct research in different industries to find whether this model has positive or negative effect on organizational performance.
- In this research, we have included only three independent variables (green Marketing strategy, green innovation strategy and green promotion strategy) with one dependent variable (organizational Performance). But, future researches may include more independent variable including green distribution, investment recovery, internal environmental management, and green transportation in the model to test the relationship with organizational performance.

#### **5.5 - Reflection of the Study**

This research has addressed these issues by approaching senior level Marketing professionals and investigating how comfortable they are with sustainability ideas and how they perceive the impact of sustainability in creating marketing strategies in Pakistan. The research has been conducted in order to identify the relevant factors for change in adopting sustainability as a salient component of the marketing paradigm and practice in Pakistan.

In this study, it has been argued that marketing has a significant role in shaping consumption patterns, and therefore can be employed in pursuit of more sustainable business practices (supply side) and the more sustainable consumption and the life-styles (demand side).

This study investigates the impact of three determinants of the green marketing practices on Firm's performance in the context of Pakistan's manufacturing firms. A sample of 169 respondents was collected from the manufacturing industry in different cities. By using statistical tests i.e. reliability analysis, correlation and regression analysis.

The results indicate that green marketing practices have been found statistically significant to predict firm's performance. Therefore, the managers of the manufacturing firms should not only implement eco-design in their marketing strategies and supply chain but also concentrate on proper monitoring and implementation of green information systems to increase their firms' performance. In addition, this study also discussed the research limitations, areas for future research, and implications for practitioners.



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# APPENDIX

## QUESTIONNAIRE

Dear Respondent;

Researcher is a student of Master of Science (Management Sciences) at National University of Science and Technology (NUST), Islamabad and is conducting research on **“Impact of Green Sustainable Development Factors on Firm’s Performance in Pakistan ”**, In this regard; your cooperation in terms of providing insight on the provided questionnaire is required. The answers provided by you would be kept strictly confidential and will be used for academic purpose only.

**Student**

**Supervisor**

### PART A

#### Demographic Information:

Name:

Gender:

Age:

Academic Qualification:

Occupation:

Address:

Contact No. (M):

Email ID:

### PART B

#### A. Company’s Profile (**Green Promotion Strategy**)

Our firm has been doing this business since the year: \_\_\_\_\_

The main business activity of our firm is: \_\_\_\_\_

The total number of full time employees in our firm is: \_\_\_\_\_

Our firm operates

|            |            |                 |
|------------|------------|-----------------|
| Regionally | Nationally | Internationally |
|------------|------------|-----------------|

How does the market environment (e.g. increasing labor and material cost, changing government policy) affect the company decisions? How does your company cope with this?

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What are your company's sustainable business goals (e.g. positive impact on your stakeholders such as employees, customers, and suppliers)?

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How important is environmental sustainability (recycling, environment protection) to your company? (Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below)

|                     |                |                  |           |               |
|---------------------|----------------|------------------|-----------|---------------|
| Extremely Important | Very Important | Fairly Important | Undecided | Not Important |
|---------------------|----------------|------------------|-----------|---------------|

How important is social sustainability (e.g. maintain positive impact on stakeholders) to your company? (Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below.)

|                     |                |                  |           |               |
|---------------------|----------------|------------------|-----------|---------------|
| Extremely Important | Very Important | Fairly Important | Undecided | Not Important |
|---------------------|----------------|------------------|-----------|---------------|

How important is economic sustainability (e.g. profit, make share, economic scale maximization) to your company? (Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below)

|                     |                |                  |           |               |
|---------------------|----------------|------------------|-----------|---------------|
| Extremely Important | Very Important | Fairly Important | Undecided | Not Important |
|---------------------|----------------|------------------|-----------|---------------|

There exists an internal environment compliance and audit program. (Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below)

|                     |                |                  |           |               |
|---------------------|----------------|------------------|-----------|---------------|
| Extremely Important | Very Important | Fairly Important | Undecided | Not Important |
|---------------------|----------------|------------------|-----------|---------------|

There is a close internal cross-functional cooperation to improve environmentally friendly practices.(Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below)

|                     |                |                  |           |               |
|---------------------|----------------|------------------|-----------|---------------|
| Extremely Important | Very Important | Fairly Important | Undecided | Not Important |
|---------------------|----------------|------------------|-----------|---------------|

B. Has your firm ever taken the following actions? **(Green Product Innovation and Firms Performance)**

*Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below*

*SD = strongly disagree*

*D = disagree*

*UD = undecided*

*A = agree*

*SA = strongly agree*

| Statement  | SD | D | UD | A | SA |
|--|----|---|----|---|----|
| Have taken measure to lower consumption of water, electricity, gas and petrol during the production or disposal processes.                 |    |   |    |   |    |
| Have recycled, reused and remanufactured materials or parts.   |    |   |    |   |    |
| Have used cleaner/renewable technology to make savings in the usage of energy, water and waste.  |    |   |    |   |    |
| Have redesigned production and operational processes to improve environmental efficiency   |    |   |    |   |    |
| Have done redesigning and improving products or services to meet new environmental criteria  |    |   |    |   |    |
| Have done redesigning and improving products or services to meet environmental standards on directives from the environmental authorities. |    |   |    |   |    |
| As new forms of energy and sustainable practices become available, best practices are re-evaluated   |    |   |    |   |    |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Supply Chain efficiency procedures are often scrutinized                                |  |  |  |  |  |
| Supply Chain sustainable practices are regularly evaluated with the environment in mind |  |  |  |  |  |

C. Following factors affect the purchase of green products? **(Green Marketing Strategy and Consumer Awareness?)**

*Please indicate your level of agreement or disagreement with each of the statements on a five point scale as given below*

*SD = strongly disagree*

*D = disagree*

*UD = undecided*

*A = agree*

*SA = strongly agree*

| Factors                           | SD | D | UD | A | SA |
|-----------------------------------|----|---|----|---|----|
| Product price                     |    |   |    |   |    |
| Awareness about Green Products    |    |   |    |   |    |
| Availability of Green Products    |    |   |    |   |    |
| Information of the Green Products |    |   |    |   |    |

Following green marketing practices are important

| Statement  | SD | D | UD | A | SA |
|--|----|---|----|---|----|
| Promoting products through eco-friendly modes of communication   |    |   |    |   |    |
| Branding product associating with green marketing practices  |    |   |    |   |    |
| Modifying product packaging to suit environment  |    |   |    |   |    |
| Using educational marketing messages regarding greenness of the product on the label helps in building consumer's confidence in the product. |    |   |    |   |    |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Taking certifications which declare a product as green is a good way of marketing green products                      |  |  |  |  |  |
| While marketing the green product information about the performance of the green product should also be given along.  |  |  |  |  |  |
| Labels of green products should be self-explanatory to explain its green content.                                     |  |  |  |  |  |
| Advertisements using Green Theme  |  |  |  |  |  |
| Green products should be marketed in environment friendly manner i.e. No print ads, no hoardings, recycled packaging. |  |  |  |  |  |
| In the marketing communication, the consumers expect to be informed about how the product is environment friendly.    |  |  |  |  |  |