An-Najah National University

Faculty of Graduate Studies

Assessing the Impact of Green Marketing Practices on Organizational Sustainable Performance in Palestinian Food Industries

By

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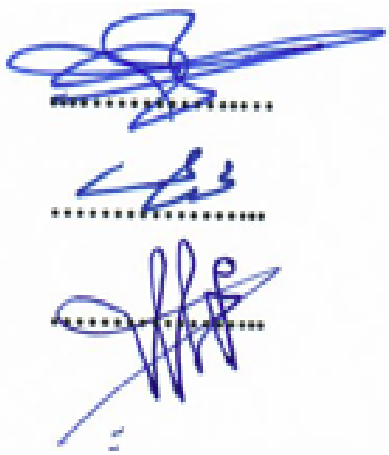
• **Dr. Yahya Saleh / Supervisor**	
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Dedication

To my mother, to my late father, to my family, and to all those who made this achievement possible: love and Unlimited gratitude.

Acknowledgment

First and foremost, all a praise and thank to Allah for His greatness and for giving me the strength and courage to complete this thesis.

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الإقرار

أنا الموقعة أدناه مقدمة الرسالة التي تحمل العنوان:

Assessing the Impact of Green Marketing Practices on Organizational Sustainable Performance in Palestinian Food Industries

أقر بأن ما اشتملت عليه هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وإن هذه الرسالة ككل، أو أي جزء منها لم يقدم من قبل لنيل درجة أو لقب علمي أو بحثي لدى أية مؤسسة تعليمية أو بحثية أخرى.

Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work and has not been submitted elsewhere for any other degree or qualification.

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Signature: **التوقيع:**

Date: 10 May, 2021 **التاريخ:**

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List of Abbreviations

Abbreviation	Meaning
GM	Green Marketing
GMS	Green Marketing Strategy
EcP	Economic Performance
EP	Environmental Performance
SP	Social Performance
TBL	Triple Bottom Line
ISO	International Organization for Standardization
NGO	Non-governmental organization
CSR	Corporate Social Responsibility
PFIU	Palestinian Food Industries Union
PCBS	Palestinian Central Bureau of Statistics
PLS-SEM	Partial Least Square Structural Equation Modelling
PFI	Palestinian Federation of Industries
AMA	American Marketing Association
CR	Composite Reliability
VIF	Variance inflation factor
AVE	Average Variance Extracted
ROI	Return on Investment
EMS	Environmental Management System

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Abstract

Although literatures tackling GM and its impacts on the firm's performance are voluminous and diverse, there is a scarcity of research exploring the effects of Greening marketing components the 4P's on the three pillars of sustainable performance, particularly in the developing countries context.

The contribution of this study is threefold, first, assessing the level of implementing GM practices in the emerging developing countries, evidence from Palestinian food industrial, Second, modeling and empirically testing the impact of greening each marketing mix elements "4P's" (Green Product, Green Price, Green Promotion and Green Place) on the Triple Bottom Line (TBL) of sustainable performance (Economic Performance "Ecp", Environmental Performance "EP" and Social Performance "SP"), third, another relevant contribution emerged from this study is assessing the impact of wielding Green Marketing Strategy (GMS) on the firm's three pillars of sustainable performance.

To this end, a quantitative research approach was employed, a survey strategy was deployed, and the needed data were collected through a questionnaire sent to the targeted firms. The Palestinian manufacturing sectors are considered the main contributor to environmental pollution;

therefore, the Food industry sector which is considered one of the largest manufacturing sectors in Palestine was the selected population for this study. Questionnaires were sent via email or personally administered to the 53 targeted population, and 47 respondents were received, the collected quantitative data were analyzed using the partial least squares structural equation modeling (SEM-PLS).

The analysis results imply that the Palestinian food firm's implementation of GMS is modest, unstructured and most firms taking quasi-marketing strategies by wielding lean or defensive approaches in their marketing strategies.

Furthermore, the findings indicated that even with the significant positive impact of GMS on three pillars of sustainability (EcP, EP, and SP), greening each marketing mix elements have a different outcome on the (3BL) of sustainability performance. Whereas both Green Product and Green Place contribute to enhancing the firm's environmental performance, Only Green Promotion fostering the firm's economic performance, meanwhile, the firm's social performance is significantly and positively correlated with the green place element. In the same vein, Green Price exerted no significant effect on the firm's sustainability dimensions, confirming the unfamiliarity of the concept within the Palestinian manufacturing firms.

Chapter One
Introduction

1.1 Overview

This chapter presents a general overview of the research where the background of the research is demonstrated in the first section. In addition, the research problem, the aim, and objectives, the significance of the research, and the proposed hypotheses are displayed in the following sections. Finally, the thesis structure is presented.

1.2 Background

Climate change, depletion of the ozone layer, scarcity of natural resources, and desertification; are among several environmental challenges that make sustainability and green practices the main features that define the 21st century, (Gordon, Carrigan and Hastings, 2011; R. M. Dangelico and Vocalelli, 2017; Simão and Lisboa, 2017; Chen and Yang, 2019)

The emerged challenges of environmental problems have compelled firms, customers, and even governments to recognize the consequences of their behaviors and practices on the environment (Bhatia, Mayank Jain, 2013; Groening, Sarkis and Zhu, 2018).

Consumers now are more concerned about environmental deterioration, many of today's consumers are considering the environment in their purchasing attitudes and many of them have added "company social responsibilities" to their brands-choosing criteria. The power of consumers

has stimulated firms as well as governments to put effort to keep in -step with the environmental movement. Thus, many governments have boosted their environmental regulations cluster (Kotler *et al.*, 2011; Simão and Lisboa, 2017; Groening, Sarkis and Zhu, 2018).

Simultaneously, the pressures pursued by firm's stakeholders, who are demanding for more socially and environmentally responsible firms, have forced firms to involve the environment in all their cross-functional areas including research and development, design, manufacturing, human resource management, and marketing (Kotler *et al.*, 2011; R. M. Dangelico and Vocalelli, 2017; Simão and Lisboa, 2017). In a broader term, since it has been verified that environmental deterioration is attributable to industrial organizations, industrial firms are obligated to exert sustainable practices to balance their environmental, economic, and social performance, in another term their sustainable performance (Jiang *et al.*, 2018; Zaid *et al.*, 2019).

Marketing is one of the vital functional areas that have a crucial role in the firms, it is bridging the firm with it is customers (Jari Karna,Eric Hansen, 2001). More specifically, it is encompassing a broad set of activities ranging from strategic to tactical, whereby it has a significant influence on the product portfolio and the product development process from incipience to the end. Thus, considering the environment in all marketing activities so-called "Green Marketing" (GM) is vital for firms pursuing to attain sustainable business (Rex and Baumann, 2007; Kotler et al., 2011).

As consumers are more willing to purchase products that are not harmful to the environment, firms must seize this opportunity and embrace the best green marketing strategy (GMS) to fulfill consumers' needs and wants and consequently sustain market competitive advantage, (Jari Karna,Eric Hansen, 2001; Chen and Chai, 2010; Hasan and Ali, 2017; Oliveira *et al.*, 2017). GM is not about promoting green products and services, GM is rather emanating as a philosophy and practices that contribute significantly to enhancing the firm's reputation and market performance (Jari Karna,Eric Hansen, 2001; Kumar, 2016; Simão and Lisboa, 2017).

In the early 1970s, the term GM was first defined by Henion and Kinnear (1976). In one of the first books of green marketing entitled "Ecological Marketing", Henion and Kinnear (1976) define ecological marketing as "concerned with all marketing activities that have served to help cause environmental problems and that may serve to provide a remedy for environmental problems".

A more holistic definition of sustainable marketing introduced by Fuller (1999), who defined sustainable marketing as "the process of planning, implementing and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are attained, and (3) the process is compatible with eco-systems".

The concept of GM has been evolved gradually, from being a merely traditional tool of marketing to a functional strategy creating a sustainable

economy, from mainly segmenting the green consumers (Peattie, 2001; Simão and Lisboa, 2017) to be a process contributing significantly in enhancing "social normalization" of green practices (Rettie, Burchell and Barnham, 2014).

The interrelationship between GM and corporate sustainable performance was emphasized in substantial literature, where researchers pointed out the key role GM plays in acquiring sustainable development (Gordon, Carrigan and Hastings, 2011; Yazdanifard and Mercy, 2014; R. M. Dangelico and Vocalelli, 2017). Nevertheless, there is less research integrating the impact of greening each of the marketing functions (namely, green product, green promotion, green place, and green price) on the firm's triple bottom line (TBL) "environment, economic and social "pillars of sustainable performance.

Although there is a bulk of literature handling GM in the developed countries (Kumar, 2016), there is still an ambiguity in GM status in developing countries (Garg, 2015). In this regard, it is vital to explore the initiatives, perceptions, and obstacles the firms in the various industries manage with respect to GM. Within the Palestinian context, according to the GIZ report 2014, the manufacturing sector in Palestine is considered to be the main contributor to environmental pollution (GIZ, 2014; Zaid *et al.*, 2019). Given the impact of the manufacturing firms on the environment as one of the sustainable trilogy pillars, and in order to minimize environmental degradation, which in turn contribute to sustainable

development, manufacturers are demanded to be part of the environmentalist movement, by adopting a sustainable method of manufacturing, marketing, and consuming (Simão and Lisboa, 2017). This study is expected to explore the GM practices and their effect on the firm's sustainability in one of the largest sectors in Palestine, namely, the Palestinian food industries.

1.3 The Research Problem

The emergence of environmental challenges stimulates the firm's stakeholders to impose pressures on firms to adopt environmental management practices (Rivera-Camino, 2007) and to integrate the environmental dimension in all their actions. The seriousness of various environmental challenges is increased in industries that have the highest footprint on the environment.

The manufacturing industry is asserted to be one of the most polluting industries in both developed and developing countries (Masri and Jaaron, 2017). Although research in GM is voluminous and diverse in developed countries (Kumar, 2016; R. M. Dangelico and Vocalelli, 2017) the forgoing review of research reveals that there is a scarcity of studies investigating the status of GM practices and their impact on the firm's sustainable performance in developing countries. In the context of Palestine, the food industry is one of the largest sectors in the manufacturing industry and is revealed to have the highest pollution impact on the environment (GIZ, 2014).

Undoubtedly, the main challenge of this century is to invent a more sustainable way of production, consumption, and life. Thus, food industries in Palestine are demanded to deeply understand the GMS that could foster cleaner production and sustainable consumption of their products (R. M. Dangelico and Vocalelli, 2017). To this end, this study is an endeavor to explore this uncharted territory, by investigating the GM practices performed by manufacturers in the Palestinian food industry and to examine their influence on the firm's (TBL) of sustainable performance.

1.4 Aim and Objective of the Research

This study is intended to propose a conceptual model that integrates the firms' GM practices performed by food industry firms in Palestine and their contribution to enhancing the firm's TBL of sustainable performance. This will be achieved by disclosing the following main objectives:

- Exploring the GM practices implemented by food industry firms in Palestine.
- Assessing the impact of greening marketing mix elements, the 4'Ps (product, promotion, pricing, and placement) on the TBL of sustainability.
- Providing a guideline for firms to choose a suitable GMS for their businesses.

1.5 Significant of Research

The aim of this study is to explore the GM practices implemented by Palestinian food industry firms. Based on literature reviews and the analysis of the data a conceptual model will be developed, which is expected to disclose the linkage between greening the 4P's and firm TBL performance using the stakeholder theory and the resource-based view as underpinned theories.

In the absence of dependable empirical evidence on the financial and strategic benefits of GM activities in developing countries, the empirical analysis of the proposed conceptual model is expected to boost the marketers' understanding of GMS and motivate them to develop and execute a greener marketing strategy.

1.6 Research Questions and Hypotheses

In the process of fulfilling the research objectives, a cluster of research questions and hypotheses are developed. The employed research questions are as follows:

- What are the GM Practices performed by food industry firms in Palestine?
- How the implementation of GMS affects the firms' three bottom lines (TBL) of sustainability?

- What is the apt GM strategy that could enhance the financial and strategic performance of the food industry firms in Palestine?

To determine the impact of GMS on the firm's sustainable performance, the green 4P's of marketing (Green product, Green Promotion, Green Price and Green Place) are integrated with the TBL of sustainable performance (Environmental performance (EP), Economic Performance (EcP) and Social Performance (SP)). Therefore, the outcome of this research is expected to examine the following sets of deposited hypotheses:

- H1a: Green Products positively affect the firm's EcP in the Palestinian food Industry.
- H1b: Green Products positively affects the firm's EP in the Palestinian food Industry.
- H1c: Green Products positively affect the firm's SP in the Palestinian food Industry.
- H2a: Green Price positively affects the firm's EcP in the Palestinian food Industry.
- H2b: Green Price positively affects the firm's EP in the Palestinian food industry.
- H2c: Green Price positively affects the firm's SP in the Palestinian food industry.

- H3a: Green Promotion positively affects the firm's EcP in the Palestinian food industry.
- H3b: Green Promotion positively affects the firm's EP in the Palestinian food industry.
- H3c: Green Promotion positively affects the firm's SP in the Palestinian food industry.
- H4a: Green Place and distribution positively affect the firm's SP in the Palestinian food industry.
- H4b: Green Place and distribution positively affect the firm's SP in the Palestinian food industry.
- H4c: Green Place and distribution positively affect the firm's SP in the Palestinian food industry.

And Finally:

- H5a: GMS positively affects the firm's EcP in the Palestinian food industry.
- H5b: GMS positively affects the firm's EP in the Palestinian food industry.
- H5c: GMS positively affects the firm's SP in the Palestinian food industry.

1.7 Thesis Structure

This research includes six chapters. Chapter One presents a general overview of the research, the background of the study is demonstrated in the first section, the research problem, the aim, and objectives, the significance of the research, and the proposed hypotheses are displayed in the following sections.

Chapter Two demonstrates the theoretical and empirical data found from scrutinizing previous related researches, GM and GMS concepts, definitions, and evolution were introduced in the first sections, whereas the interrelationship between GM and the firm's sustainable performance is explicated in the next sections. Finally, the theoretical background and the developed hypotheses are represented in the last section.

Chapter three outlines the used methodology in this thesis, the different research philosophies, and research approaches were addressed in the first sections, the methodological choice of quantitative, qualitative, or multiple methods is considered in the following section and the research strategies design is also explored, data collection methods, sampling techniques are were part of this chapter, The final section is presenting the data analysis techniques (PLS-Path modeling) utilized in this thesis to explore relationships between construct.

Chapter Four presented an analysis of the collected data and the results, the descriptive statistic's findings are displayed in the first section, using the partial least squares structural equation modeling (PLS-SEM) the quantitative data collected via a questionnaire were analyzed, to test the proposed hypotheses and to explore the effect of GMS on the Palestinian food manufacturing firm's sustainable performance, the analysis results and findings are presented in the next sections.

Lastly, Chapter Five discussed the results of analyzing the conceptual model and the hypotheses testing results, afterward, the theoretical implications of the research study limitations and the expected future researches are presented in the following sections, set of recommendations depending on the study outcomes are presented, while the research outcomes are finally epitomized in the conclusion section.

Chapter Two
Literature Review

2.1 Overview

This chapter demonstrates the theoretical and empirical data found from scrutinizing previous related researches, GM and GMS concepts, definitions, and evolution were introduced in the first sections, whereas the interrelationship between GM and the firm's sustainable performance is explicated in the next sections. Finally, the theoretical background and the developed hypotheses are represented in the last section.

2.2 Background

The concept of marketing has undergone tremendous changes throughout the years, from marketing 0.1 to the fourth evolution of the concept "marketing 0.4" elucidated in 2017 by Philip Kotler, the definition of marketing has shifted from the old idea of the concept "telling and selling " to the new sense of "meeting consumers' needs profitably" (Fuciu and Dumitrescu, 2018). The American Marketing Association (AMA) in 2013 proposed the formal definition of marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large". Indeed, marketing is not limited to advertising or promotion of products and services, marketing is a managerial orientation, philosophy, and business function that contribute to enhancing firms' capabilities to prosper financially and to survive in the challenging

economic environment. Broadly, successful marketing plays a key role in allowing firms to fully engage in socially responsible activities (Baker and Hart, 2008; Kotler and Keller, 2011).

The significant reposition in marketing conceptualization from considering marketing as a process to creating value for the organization and its stakeholders to the AMA's new aggregate view of marketing. Such a view echoes the need to create environmental and societal value for the society at large including helping in ameliorating the impact of the environmental challenges, retrofitting how marketing discipline operationalized to achieve sustainability (Pomering, 2017).

The marketing field evolved through five concepts, which all the marketing activities turn around, the five concepts are the production concept, product concept, selling concept, marketing concept, and societal marketing concept The production concept focused on meeting unsatisfied demands by producing more at a lesser cost, meanwhile product concept based on the consumer's preference for high-quality products with good performance and innovative features, Selling concept depend on aggressive selling and promotion, meanwhile marketing concept appear in the mid of twentieth century, the concept focusing on consumer-centric approach which implies that marketing activities should be focusing on creating communication and delivering superior value to targeted customers, Lastly, the societal marketing concept raised which is based on bringing social and ethical consideration into marketing activities. According to (Kotler and Keller,

2011) integrating the environmental concern in the marketing practices and theory might be viewed as an extension of the societal marketing concept. GM concept has developed as a response to today's green movement, the concept has been shaped as a view that integrates and expands upon the ideas embedded in the ecological and societal marketing concepts. GM concept is a more holistic and interdependent view of the relationship between the economy, society, and the environment (Kumar *et al.*, 2012).

The global challenge of the new millennium is to produce, consume and live more sustainably, hence the world's governments and corporations are compelled to assimilate sustainability to their strategic goals and operations (Baker and Hart, 2008). In marketing, to capture consumer satisfaction in a sustainable profitable manner, the challenge is twofold. Specifically, in the short-term, firms need to react to the new government's regulations and changing consumer's and society's needs. In the longer term, pursuing sustainability will demand a more profound shift in the firm's management paradigm which underpins all business functions including marketing (Baker and Hart, 2008; Lim, 2016). Since the marketing mix element (product, price, promotions, and place) are the controllable variables in marketing that are responsible for creating demand and achieving individuals and societal values as proposed by the AMA definition which pronounced the marketing mix as the "mix of controllable marketing variables that the firm uses to pursue the desired level of sales in the target market" (AMA, 2016). Greening the marketing mix is considered simply

as another way to accomplish marketing sustainability targets (Arseculeratne and Yazdanifard, 2014; Pomering, 2017).

2.3 Green Marketing Concept

The term GM was first presented in 1970 (Yazdanifard and Mercy, 2014). Since then, the literature on GM concepts, strategies, functions, and GM mix elements have been established (R. M. Dangelico and Vocalelli, 2017). More specifically, in their review of literature, Dangelico and Vocalelli (2017) found that there is a rapid growth in studies scrutinizing GM since 2008, concluding that GM is not merely a passing trend, but is a core issue in the process of designing, developing and marketing new products.

Due to the development of the interaction between the economy and the socio-environment issues over time, the GM concept has been changed gradually throughout three ages of evolution. The first age was termed "Ecological" GM, it was defined by Henion and Kinnear (1976) as "concerned with all marketing activities that have served to help cause environmental problems and that may serve to provide a remedy for environmental problems.". GM's definition at this age was limited to be considered as a promotional tool of conventional marketing focusing solely on specific environmental issues (such as air pollution or natural resource depletion) and narrowed to specific "front line" industries. It was focusing on "end of pipe" improvement with a few consumers and companies changing their behaviors. (Peattie, 2001; R. M. Dangelico and Vocalelli, 2017).

The vast dissemination and promotion of the sustainability concept at the end of the 1980s, and the growing global awareness of the interdependence among environment, society, and economy broadened the concept of GM and channeled its efforts not only in terms of the mitigation of the environmental hazards but also in terms of adopting sustainability (Peattie, 2001). Thus, the second age of GM has emerged entitled "Environmental" GM, defined by Peattie (1995) as "the holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society, in a profitable and sustainable way". The main features that imprinted this age were the moving toward (clean technology) rather than (end-of-pipe) solutions (Peattie, 2001; R. M. Dangelico and Vocalelli, 2017). The second age witnessed the rising of green markets for products and services (Peattie, 2001; Kotler et al., 2011; R. M. Dangelico and Vocalelli, 2017), and the recognition of the role of socio-environmental performance in attaining competitive advantage (Peattie, 2001). The emerging of new ideas such as clean technology, green consumers, eco-performance, environmental quality, and competitive advantage, enlarging the "front line" of industries concerned about environmental issues and expanding the product and services subsumed in the concept of environmental marketing (Peattie, 2001).

In the mid of 1990s, the environmental marketing concept hit the "Green wall" the "win-win" vision of making products that are cost-saving as well as environmentally and technically superior (or equal) to the competing products was tricky to actualize. More specifically, the dominant

difficulties in this age were as follows: first, the definition of what constitutes the “greenest” product was complex and controversial in many markets, second, when more environmental changes demand radical deviations in companies strategies and culture the greening process hitting the “green wall “of the company, lastly, the “green consumers mystery”, studies found that there is a discrepancy or “gap” between environmental concerns voiced by green consumers and their purchasing behaviors (Peattie, 2001)

At last, “Sustainable marketing” was the third age of GM. At this age, a more holistic approach of GM was represented. It was defined by Peattie (2001) as “a radical approach to markets and marketing which seeks to meet the full environmental costs of production and consumption to create a sustainable economy”. This age endorsed that sustainable economy is reached by moving from product ownership to product use, from the use of products to the use of services, from linear to closed-loop supply chains by moving away from global distribution to re-localization of supply systems (Peattie, 2001; R. M. Dangelico and Vocalelli, 2017). Furthermore, the third age of GM emphasized the role of GM in reaching “social normalization “ of green products and services, which entails considering sustainable marketing practices and activities are normal behavior without the need to underlie their greenness, (Rettie, Burchell and Barnham, 2014; R. M. Dangelico and Vocalelli, 2017). Table (2-1) summarizes the main definitions of GM.

Table (2-1): The Main Definitions of GM.

Author	Definition
Fuller in (Peattie, 2001)	Sustainable Marketing is "the process of planning, implementing and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are attained, and (3) the process is compatible with eco-systems"
(Peattie, 2001)	"Green Marketing has been used to describe marketing activities which attempt to reduce the negative social and environmental impacts of existing products and production systems, and which promote fewer damaging products and services."
(Jain and Kaur, 2004)	"Green Marketing can be viewed both as a type of marketing and a marketing philosophy [...]. As a type of marketing, it is like industrial or services marketing and is concerned with marketing of a specialized kind of product i.e., green products […]. As a philosophy, Green Marketing runs parallel to the societal marketing concept and espouses the view that satisfying customers is not enough, and marketers should take into account ecological interests of the society as a whole"
(Mishra and Sharma, 2014)	"Green Marketing" refers to holistic marketing concept wherein the production, marketing consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, nonbiodegradable solid waste, the harmful impact of pollutants, etc."
American Marketing Association (AMA)	Green Marketing is the "marketing of products that are presumed to be environmentally safe"

For marketing to have a viable role in sustainable development, sustainability should be positioned at the core of marketing strategies, theories, and practices. According to (Wymer and Polonsky, 2015), green marketing will not be adequate in mitigating the environmental problems alone, citizens and government should have a role in the process.

Likewise, the framework coined by (Gordon, Carrigan and Hastings, 2011) proposed that sustainability could be achieved through three complementary and overlapping sub-disciplines; green marketing, social marketing, and critical marketing. While GM is responsible for applying sustainable thinking in the whole process of marketing from production to post purchasing services, social marketing, and critical marketing reinforce the GM efforts by encouraging sustainable behaviors and a greener agenda amongst individuals and businesses. Meanwhile, critical marketing could help in reforming and reshaping more sustainable thinking through analyzing the marketing principles, techniques and theories using the critical theory-based approach (Gordon, Carrigan and Hastings, 2011)

In general terms, GM is gradually emanating as a philosophy and practices (Jari Karna,Eric Hansen, 2001) that contribute significantly to enhancing the firm's reputation and market performance (Kumar, 2016; Simão and Lisboa, 2017). It is evolved from responding to the market, regulation, and consumer pressure to ideology enable firms to adapt to changing marketing environment in order to ensure their success, stability, and survival in the market (Kumar, 2016).

GM consequences were also investigated in a stream of literature (Kumar, 2016), bridging the impact of GM practices with firms' sustainable performance (Kumar, 2016; R. M. Dangelico and Vocalelli, 2017). Researchers advocate that GM is an effective tool for the firm's sustainable development (Jari Karna,Eric Hansen, 2001). Furthermore, Hansen (2001) suggests that "environmental or "green" marketing has been seen as a tool towards sustainable development and satisfaction of different stakeholders". Simultaneously, the definition presented by Fuller (1999), highlighted the extent to which GM is central to cleaner production and corporate sustainability (R. M. Dangelico and Vocalelli, 2017).

2.4 Green Marketing Strategy

Clearly, marketing strategy is part and parcel of the overall organization strategy, which is in charge of achieving competitive advantage (Kumar *et al.*, 2012). Marketing strategy definition has changed with the passage of time. (Greenley, 1989) describes marketing strategy as a broad plan of actions dealing with the achievement of objectives. According to (Slater and Olson, 2001) "marketing strategy deals with decisions related to market segmentation and targeting, and the designing of positioning strategy based on marketing mix". (Varadarajan, 2010) explained marketing strategy in terms of product offering, according to him, "marketing strategy refers to an organization's integrated pattern of decisions that specifies its crucial choices concerning products, markets, marketing activities and marketing resources in the creation,

communication and/or delivery of products that offer value to customers in exchanges with the organization and thereby enables the organization to achieve specific objectives.”. But, all the presented definitions of marketing strategy linked with the segmentation, targeting, and positioning, branding, and marketing mix of the firm (Kumar et al., 2012).

In conclusion, marketing strategy is a unique set of decisions, procedures, and policies articulated by the organization, to achieve its marketing objectives and decisions, wherein practices correlated to all marketing steps (segmentation, targeting, positioning, and differentiation) are based on the product, price, promotion and distribution strategic choices (Slater and Olson, 2001).

The degree to which environmental concerns are melted in the marketing strategic design process is titled environmental marketing strategy (Baker and Sinkula, 2005). Thereby GMS could be defined as a continuous cycle of processes and activities that perused by firms to develop products that satisfy consumer’s needs with a minimum negative impact on the environment, throughout the whole process of the products or services development, implementation, pricing, placing and promotion (Davari and Strutton, 2014; Hasan and Ali, 2017). A successful GMS is demanded to be long-term and steady to construct and maintain long-lasting relationships with green consumers through emphasizing the product quality and the firm's commitment to the environment in the consumers’ minds (Arseculeratne and Yazdanifard, 2014; Davari and Strutton, 2014).

Generally, GMS needs to be more proactive, long-term oriented, and value-based than traditional marketing strategies (Hasan and Ali, 2017).

(Papadas, Avlonitis and Carrigan, 2017) coined the term green marketing orientation (GMO) which addresses the firm's holistic orientation to the environment. The proposed construct compromises three dimensions concluded from GM literature: strategic green marketing orientation (long-term), tactical green marketing orientation (short-term), and internal green marketing orientation activities. Strategic green marketing orientation (SGMO) refers to the top management's long-term actions and policies on the corporate environmental strategy, while Tactical Green Marketing Orientation (TGMO) encompasses short-term activities that alter the traditional marketing mix into a greener one.

GMS types, approaches of management, and evaluation procedures were explored in a stream of studies (Kumar, 2016). Precisely, referring to GM types (Jose, 1996) and (Hu, 1996) proposed frameworks for strategy selection and design by integrating the environmental policy with the corporate strategy. Later, (Menon and Menon, 1997) suggested three levels of GM strategy: strategic (corporate-level), quasi-strategic (business-level), and tactical (functional). A more aggregate exclusive framework was formulated by (Ginsberg and Bloom, 2004) "The GM strategy matrix" through integrating the marketing mix elements 4P's (Product, Promotion, Place and Price) with firms marketing strategy, four strategies were emerged depending on the number of 4P's adopted by the firm (Ginsberg

and Bloom, 2004; R. M. Dangelico and Vocalelli, 2017). Those strategies range from passive and silent to aggressive and visible, marketers ability to choose the appropriate GMS among those strategies is conditional to the size of the green market in the industry, the competitive conditions, and the capability to differentiate the green products from the traditional competing products (Davari and Strutton, 2014), Figure (2-1) outlines these four strategies

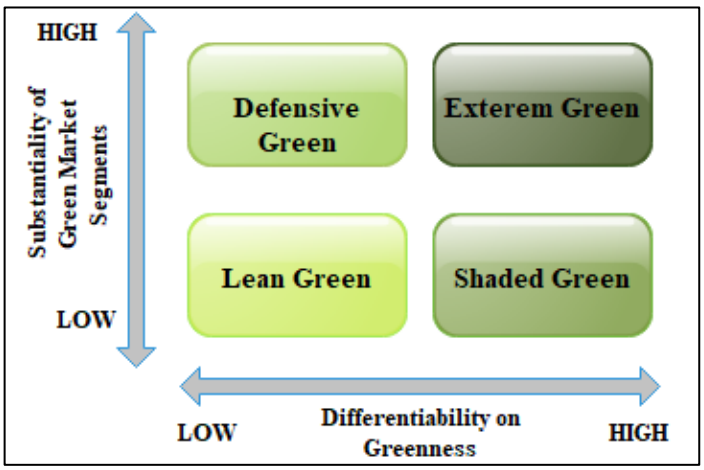

Figure (2-1): Green Marketing Strategies (Ginsberg and Bloom, 2004).

The four strategies are defined as follows (Ginsberg and Bloom, 2004):

- **Lean green strategy**: which is also entitled defensive. This type of strategy attempts to reduce cost and improve supply chain and manufacturing efficiencies by utilizing pro-environmental activities, but they rarely promote their green efforts, their greenness initiatives are mostly manifested in product development design and manufacturing. Thus a firm embraces a lean strategy when it is adopting a green product strategy in its marketing programs (Ginsberg and Bloom, 2004; Davari and Strutton, 2014).

- **Defensive green strategies**: as by name they wielded as a precautionary action to avoid public crises or as a response to competitors threaten. They generally have constrained resources and capabilities to differentiate themselves from green competitors on a greenness basis. Therefore, their efforts to publicize their green initiatives are typically temporary; they employ green practices to mitigate damages and to enhance their brand image (Davari and Strutton, 2014). Additionally, in order to green their product design, development, and manufacturing, they tend to exhibit the green promotion aspect by utilizing quiet public relations promotions not advertising (Ginsberg and Bloom, 2004; Davari and Strutton, 2014).

- **Shaded green strategy**: firms opt for this strategy to develop a competitive advantage based on their ability to introduce products and technologies distinctive from their green values. This strategy requires long-term financial and environmental commitment. Firms applying shaded strategy primarily promote the tangible benefits of their products to their consumers while their pro-environmental values are promoted as a secondary benefit. Shaded strategy greens promotion functions concurrently with product design, development, and manufacturing greenness, however, they green the pricing program if cost efficiencies can be obtained through greenness. (Ginsberg and Bloom, 2004; Davari and Strutton, 2014)

- **Extreme green strategies** are the most aggressive and declared strategies, they represent holistic environmental philosophy and values shaping overall firm marketing strategy. Environmental concerns are a fundamental part of this firm's vision and mission, and they are integrated into the firm's business and practices such as life-cycle pricing approaches, total-quality environmental management, and manufacturing for the environment. The extreme strategy emphasizes the greenness of all the marketing mix elements, along with greenness product, promotion, and the price. They include place elements and selecting distribution systems and retailers based on their greenness (Ginsberg and Bloom, 2004; Awan and Wamiq, 2016). Table (2-2) summarizes the four strategies along with the 4P's mix coverage.

Table (2-2): Marketing Mix Tool in Green Marketing Strategy

Strategy	Product	Price	Place	Promotion
Lean strategy	√			
Defensive strategy	√			√
Shaded strategy	√	√		√
Extreme strategy	√	√	√	√

Adopting GMS as a business strategy compelled firms to restructure their internal business process and aligning other functional divisions to obtain a competitive advantage and differentiate their products (Arseculeratne and Yazdanifard, 2014). This means that implementing a green strategy requires firms to choose a holistic environmental approach that goes beyond the selling and the promotion of the green product to involve other

functional areas such as production, distribution channels, and administrative department (Fraj, Martínez and Matute, 2011).

One of the main benefits of implementing GMS is boosting firms operational performance including indicators such as product quality, the firm's innovation capacity and processes' time, and flexibility (Venkatraman and Ramanujam, 1986), which can enhance their economic and financial performance (Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009). Likewise utilizing cleaner and cheaper resources, minimizing the consumption of natural resources such as water and energy by optimizing the productivity of resources and the redesign of some production processes can minimize the environmental damages stem from firms activities (Hart, 1995; Peattie, 1995; González-Benito and González-Benito, 2005). On the other hand, GMS can foster the firm's reputation and image (Arseculeratne and Yazdanifard, 2014). Greening marketing aspects can help firms in gaining stakeholders' satisfaction and acceptance including consumers and regulators, which can, in turn, improve consumers and brand loyalty (Chang and Fong, 2010; Arseculeratne and Yazdanifard, 2014).

2.5 Green Marketing Mix Elements

The marketing mix concept dominant marketing program since the 1964s, the marketing mix is a set of controllable marketing tools that symbolize the primary ingredients of the marketing strategy. Marketing mix elements are responsible for translating marketing strategic objectives into a

combination of tactical practices (Kotler and Keller, 2011). In 1964, McCarthy was the first to refine and develop the marketing mix idea to one of the most fundamental concepts in marketing which is known as the 4p's, which consisting of the four marketing elements, product (including variety, packaging, services, ...), price (list price, discounts, payment period, credit terms, ...), promotion (advertising, personal selling, sales promotion, public relations, ...) and place of distribution (channels, coverage, assortments, transportation, logistics, ...) (McCarthy and Perreault Jr, 1964; Kotler and Keller, 2011),. Later, researchers added more three elements to the mix element designated as the 7P's i.e. product, price, place, promotion, personnel, process, and physical evidence. (Goi, 2009; Khan, 2014). Arguably, to embrace GM as a strategic orientation, firms need to develop and design green products and technologies. The success of the process requires a high level of communication and integration, senior management support, and good information management (Abzari, Safari Shad, Sharbiyani, *et al.*, 2013) this entails greening all marketing practices, policies, and functions, along with altering the four traditional marketing mix element, the 4Ps (Product, Price, Place, and Promotion) in a more environmentally-sustainable manner (Kotler *et al.*, 2011; Leonidou, Katsikeas and Morgan, 2013; R. M. Dangelico and Vocalelli, 2017; Simão and Lisboa, 2017). The mean by which each of the traditional marketing mix elements is converted into greenness (green product, green price, green place, and green promotion) is dissected in the next sections

2.5.1 Green Products

Many authors have tried to define environmentally-friendly products. Nevertheless, there is still a debate about what constitutes a green product (Dangelico and Pontrandolfo, 2010). Green products are also referred to as ecological products or environmentally-friendly products, (Chen and Chai, 2010). As defined by Peattie (1995) "a product is 'green' when its environmental and societal performance, in production, use, and disposal, is significantly-improved and is improving in comparison to conventional or competitive products offerings", Likewise, The Commission of the European Communities (2001) defines green products as products that "use fewer resources, have lower impacts and risks to the environment and prevent waste generation already at the conception stage". In this sense, green products are initiated with the "green design", where the environmentally-friendly features are demonstrated through the whole life cycle of the product: before usage, during usage, and after usage, (Maria and Pontrandolfo, 2010; Yazdanifard and Mercy, 2014; R. M. Dangelico and Vocalelli, 2017). Meanwhile, (Reinhardt, 1998) argues that environmental products are differentiated when they have a less environmental impact or creating higher environmental benefits compared to similar conventional products. That means green products are differentiated when the product or service production process has the lowest burdensome on the environment compared to the competing products (Reinhardt, 1998). On the other hand, (Ottman, Stafford and Hartman, 2006)'s definition states that the term green product or

environmental product is used to describe products that focus through the process of development on protecting the environment by emphasizing environmental issues including energy, resources, pollution, and waste. Several taxonomy dimensions are proposed in researches to distinguish the green product. These classifications encompass product merits, level of environmental impacts, or types of environmental improvement strategies (Dangelico and Pontrandolfo, 2010). A considerable review of the above-mentioned green product characteristics is exemplified in Table (2-3).

Table (2-3): The Main Characteristic of Green Products

Authors	**Characteristics associated with the 'green' product**
(Elkington and Hailes, 1989)	- Not endangering the health of the consumer or of others - Causing no significant damage to the environment during - manufacture use or disposal - Not consuming a disproportionate amount of energy during manufacture, use, and disposal - Not causing unnecessary waste, either because of overpackaging or because of an unduly short useful life - No use of materials derived from threatened species or threatened environments - Not involving unnecessary use or cruelty to animals - Not adversely affecting other countries, particularly the third world
(Peattie, 1995)	- Recyclability - Resource efficiency - Emissions - Impact on ecosystems - Social impact - Sustainability of resource use - Waste and disposal - Eco-efficiency of production and organization
(Shrivastava and Hart, 1995)	- Low environmental impact during usage - Easily composted, reused, or recycled at the end of their useful life

(Smith, Roy and Potter, 1996)	- Capable of lessening global environmental problems Energy efficient - Easily repairable - Designed to last, or to be reused, reconditioned, or recycled - Generates minimum pollution and waste - Can be disposed of safely - Minimal use of materials, including packaging - Manufactured from renewable or abundant resources, or recycled materials - Manufactured, if possible, locally and from locally obtainable materials to reduce transport - requirements - Environmental information on the product available to the purchaser - Not harmful to human health - Satisfies a genuine human need
(Ljungberg, 2007)	- Reduce the materials and the use of energy for a product - Reduce emissions, dispersion, and creation of toxics - Increase the number of recyclable materials - Maximize the sustainable use of renewable resources - Minimize the service intensity for products and services - Extend the useful life for a product - Assess and minimize the environmental impact - Having a “functional economy” - Use “reverse logistics” - Increase the efficiency in the usage phase

More specifically, (Peattie, 1995) distinguished green product on the basis of their eco-performance (from deep green to black), and the types of products (absolute green or relative green) where absolute green products participate in ameliorating environmental and social impacts and relative green product contribute in minimizing the harmful impact on the environment or society. According to (Kaebernick and Soriano, 2000) green products are classified according to their environmental characteristic. Considering the life cycle phases of the products (materials,

process, usage, and disposal) they divide the product into two groups: energy-based and material-based.

In 1996 (Dewberry and Goggin, 1996) developed an eco-design matrix which was refined later by (Dangelico and Pontrandolfo, 2010), who integrated the third dimension into the existing matrix, and structure a coherent tridimensional matrix so-called The Green Option Matrix (GOM). The three dimensions represent the life cycle of the product in which the green features are demonstrated (production, use, and disposal), while the main environmental focus of the matrix is on (energy, materials/resources, pollution/toxic waste) and the kind of their impact on the environment. (Dangelico and Pontrandolfo, 2010)

Using the environmentalism 3R's: Reduce, Reuse and Recycle as a guideline to conclude the production strategies for the green products, the following are the most common: recycling or reusing the product or part of it, reducing packaging, and using recycled or reused packaging as well as promoting the after-consumption environmental performance by applying some of the 5R's concept aspects which include repair, reconditioning, reuse, recycling and remanufacture (Abzari, Safari Shad, Abedi Sharbiyani, *et al.*, 2013; Mishra and Sharma, 2014).In other words, green products need to be less toxic, more durable and their qualities need to be more valuable and perceivable (Davari and Strutton, 2014; R. Dangelico and Vocalelli, 2017). It is noteworthy that green product quality is a key contributor that

significantly affects customer satisfaction and green customer loyalty (Chang and Fong, 2010).

In the process of developing green products both tactical and strategic approaches are involved. Tactically by focusing on packaging and ingredients, recyclable or reusable content, developing products that are more compostable, reparable, durable, or disposable, and stresses on labeling the products in more environmentally-friendly manners. Strategically, the approach involves the modification of the manufacturing process and techniques in a greener way from the inception rather than "end of pipe" solutions, (Leonidou, Katsikeas and Morgan, 2013; Davari and Strutton, 2014; Papadas, Avlonitis and Carrigan, 2017). Notably, some studies emphasize the role of green branding, packaging, labeling, and advertising in creating an upsurge of demand, and in achieving effective GMS, (Devi Juwaheer, Pudaruth and Monique Emmanuelle Noyaux, 2012; Hasan and Ali, 2017). Coherently, (Lee and Lam, 2012) pointed out that the recovery of products using remanufacturing, repair, reconfiguration, and recycling can create a competitive advantage for the firms.

2.5.1.1 Green Packaging and Ecolabelling

Packaging and labeling have been a starting point for firms' responding to the pressure of performing in a more sustainable manner (Baker and Hart, 2008) since firms could reduce the waste and contamination from the packaging without affecting the core of the product or residing the manufacturing process (Baker and Hart, 2008). The Sustainable Packaging

Alliance (SPA) (2010) defines sustainable packaging as being effective "meeting functional requirements of containing and protecting products with minimal packaging, efficient (doing more with less material and energy resources), cyclic (minimal resource use and recycling and reuse) and safe (use of safe materials that cause no harm)".The key functional role the packaging strategy has in differentiating and communicating the green product makes the packaging design process challenging and costly (Scott and Vigar-Ellis, 2014). According to (Peattie, 2001), green packaging is seen by marketers as a "win-win" solution, recycled packaging material, or reducing overpackaging can contribute to reducing waste and cost concurrently.

The second feature is ecolabeling which is a dominant means to demonstrate the green product credentials, informs the consumers of the environmental impact of their purchasing decisions, and a tool for firms to acquire competitive advantage and improve market share (Rashid, 2009). Therefore, labeling evolved from being a mere means to display the technical information of the products to become a technique to differentiate the products, an assurance for consumers, and simultaneously a tool to illustrate the firm's green philosophy (R. Dangelico and Vocalelli, 2017). A bulk of researches were conducted to conclude the aspects affecting the efficiency of ecolabelling, researchers averting that vague and misleading assertion, credibility and clear massage were the most dominant (Rex and Baumann, 2007; R. Dangelico and Vocalelli, 2017). Meanwhile (Cho, 2015) concluded that effective ecolabelling must highlight the individual's

impact on the environment. The consumer's response to ecolabel is investigated by many scholars, results showed that consumers' response is constrained with other exogenous factors such as credibility, the strength of environmental concerns and the availability of the green product on the retails (Rashid, 2009).

There are two forms of ecolabels, mandatory such as the EU energy label which is assessing the energy consumption, and the voluntary labels that are classified according to the ISO into three categories: ISO Type I, ISO type II, and ISO type III (Lavallée and Plouffe, 2004; Rex and Baumann, 2007). ISO Type I labels are developed by third parties that certificate the products that meet a specific environmental standard (Lavallée and Plouffe, 2004; Hoek, Roling and Holdsworth, 2013; R. Dangelico and Vocalelli, 2017), ISO Type II labels are described as the self-declaration of the firm's environmental claims that generated by the firms themselves to declare the superiority of their products. (Lavallée and Plouffe, 2004; Hoek, Roling and Holdsworth, 2013), while ISO Type III labels are characterized by their evaluation methodology which produces independent scientific information that can be either positive or negative such as products' carbon or water footprint. Since ISO Type I and ISO Type III labels are accredited by a third party unlike ISO Type II labels which made by firms and have no third party authentication, they were found to have a positive influence on the consumers' willingness to purchase the green product notwithstanding that the cost of accreditation type I and type III ecolabel will increase the

costs of their product (Lavallée and Plouffe, 2004; Hoek, Roling and Holdsworth, 2013; R. Dangelico and Vocalelli, 2017).

In summary, ecolabel is reflecting the firm's sustainable philosophy, differentiates the green products, and shows their superiority in environmental performance from other products, meanwhile, the packaging is contributing significantly to reducing the impact of products and logistics on the environment through using environmentally-friendly material (recycled, compostable and recyclable). Furthermore, they jointly have a key role in enhancing the firm product image and sales (R. M. Dangelico and Vocalelli, 2017).

2.5.2 Green Pricing

Green pricing might be considered as the crux of GM challenges (Baker and Hart, 2008). Greening firm's strategies are pronounced to be costly, activities such as complying with more restrictive legislation, expenditures related to installing new clean technologies, and adopting new sustainable materials sources are costly activities. Overheads accompanying greening the firms and increased environmental taxation resulted in increasing the expenses imposed on the products. Transferring such socio-environmental expenses to the consumers may encourage firms to operate in more sustainable manners. however, firms which passing such expenses are vulnerable to both misusing the consumer's interests in green pricing and the increase of their products' prices compared to their competitors (Baker and Hart, 2008; Abzari, Safari Shad, Sharbiyani, *et al.*, 2013). Therefore,

green pricing programs can be defined as setting green product prices in a manner that makes the offerings affordable for the consumers and upsurges their willingness to pay more for environmentally-friendly products (Yazdanifard and Mercy, 2014; R. M. Dangelico and Vocalelli, 2017). The willingness of consumers to pay more for "premium price" which can be defined as" additional cost that the consumer will have to pay compared to the traditional alternative in order to get a product with higher environmental performance" has been investigated in much of the literature. Previous studies have clearly shown that even though the willingness of consumers to purchase green products is increasing in the developed countries (R. M. Dangelico and Vocalelli, 2017), higher prices could be a significant barrier in hindering the intention of purchasing environmentally- sustainable products (Joshi and Rahman, 2015), In general, most consumers' willingness to pay for a premium price is constrained with the product category and their knowledge of the value-added of the perceived products (Essoussi and Linton, 2010; Abzari, Safari Shad, Sharbiyani, *et al.*, 2013; Davari and Strutton, 2014). Therefore, differentiation is suggested to be the key to promote the green product. The values added to the products may include improved functional performance, superior design, efficiency aesthetic appeals, environmental affinity, or other characteristics (Tiwari *et al.*, 2011; Abzari, Safari Shad, Sharbiyani, *et al.*, 2013; Davari and Strutton, 2014).

Wielding green pricing program includes strategic and tactical practices, strategically firms can use approaches such as life-cycle costing which

helps in explicating the environmental cost of products from research to disposal (Menon *et al.*, 1999; Leonidou, Katsikeas and Morgan, 2013), meanwhile, tactical practices can involve using promotional tools that engage the end-users in the environment initiatives (Papadas, Avlonitis and Carrigan, 2017). Charging higher prices for unfriendly-substitutional products (Polonsky and Rosenberger III, 2001; Leonidou, Katsikeas and Morgan, 2013) and offering discounts for returning recycled products and packaging (Menon *et al.*, 1999; Papadas, Avlonitis and Carrigan, 2017) are examples of green pricing practices.

2.5.3 Green Distribution

More attention has been paid to the environmental dimensions in the literatures scrutinizing logistics, supply chain, and operation management (Lee and Lam, 2012). Studies focused on remanufacturing, recycling, repair and refurbish, reknitting, and repackaging as part of greening firms' chain strategies. (Guide Jr and Van Wassenhove, 2001) asserted that remanufacturing is an effective approach to reduce the environmental impact and cost of the manufacturing process by upholding the product in a closed supply-loop. (Andel, 1997) affirms that repair and refurbishment, reknitting and repackaging as well as parts retrieval and replacement are part of return strategies in reverse logistics that can maximize the return on investment (ROI) with efficient data management. Furthermore, the recovery of the product employing the aforementioned strategies can develop firms' competitive advantage and improve their economic

performance, (Lee and Lam, 2012). Indeed, effective reverse logistics can positively and significantly affect the firm's TBL by reducing inventory and distribution expenses, improve consumer satisfaction, and recapturing the remaining values in the return products (Andel, 1997; Lee and Lam, 2012). (Sharma *et al.*, 2010) devised a broad framework to explain the role of B2B marketing in the supply chain to achieve sustainable objectives, three major strategies were proposed reduction of surplus supply of products, reduction of reverse supply, and internal marketing.

Green distribution is a delicate activity that involves tactical and strategic efforts that aim to improve and monitor the environmental performance of the firm's supply chain (Leonidou, Katsikeas and Morgan, 2013; Arseculeratne and Yazdanifard, 2014).

Strategic actions embrace creating policies demanding supply chain partners (suppliers and distributors) to enhance their environmental standards in fulfilling their marketing roles (Leonidou, Katsikeas and Morgan, 2013). Firms can form “eco-alliances” with their supply chain partners to enhance their environmental performance, whilst tactical actions are related to managing the distribution from production to consumption and reverse logistics (Leonidou, Katsikeas and Morgan, 2013; R. M. Dangelico and Vocalelli, 2017). Undeniably, effective reverse logistics can save cost and time, reduce inventory and distribution costs, reduce stock-out events improve the after-sale market, and consumer satisfaction. Accordingly, reverse logistics can have a significant positive effect on the

firm's triple bottom line of sustainability (Lee and Lam, 2012). In the same line, the internet, information sharing, technologies, and computational intelligence are reinforcing reverse logistic performance (Lee and Lam, 2012; R. M. Dangelico and Vocalelli, 2017).

2.5.4 Green Promotion

Good communication is considered a demand to achieve a successful green strategy (R. M. Dangelico and Vocalelli, 2017) wherein green promotion is an effective tool to inform the firms' stockholders about the firms' efforts, commitment, and accomplishments toward sustainability (Peattie, 2001; Leonidou, Katsikeas and Morgan, 2013; Yazdanifard and Mercy, 2014). Green advertising involves '*the promotional messages that may appeal to the needs and desires of environmentally-concerned consumers'* (Zinkhan and Carlson, 1995). When firms communicate their environmentally-friendly image through advertisement, promotions, and corporate social responsibility, they can gain more loyal satisfied consumers (Yazdanifard and Mercy, 2014). A body of research asserted the positive effect of green advertising on consumers' consumption patterns and attitudes (R. M. Dangelico and Vocalelli, 2017). Research conducted by (Purohit, 2012) confirmed the positive effect of green advertising on the consumers buying intentions, coherent with these results, (Testa *et al.*, 2011) suggested that green information in Italian advertising has increased qualitatively and quantitatively and consumers are responding positively to these green advertisements. (R. M. Dangelico and Vocalelli, 2017) have summarized

the main traits of environmental claims massages through analyzing previous literatures, researchers found that green claims need to be transparent, honest, and credible to attain long-lasting relations with consumers (Papadas and Avlonitis, 2014). It is also demanded to be clear, understandable, customized to the target consumers and create emotional commitment, (Davis, 1993). Meanwhile, Smith, (2010) investigated the technique that firms can use to communicate their environmentally-friendly products with Millennials (which also named Generation Y). Findings illustrate that there are some environmental words that consumers look for to identify the environmentally-friendly products such as eco-friendly, recycled, and green, whereas the recycling symbol is the main feature that denotes the green packaging. In fact, to reap the advantage good advertising should portray the green image of the brands, the environmental benefits of the product, promoting a sustainable life cycle, and should avoid the typical information asymmetry of green products. There are three types of advertising; campaigns that show the relationship between the product/service and the environment, campaigns that promulgate green lifestyle and campaigns that depict the environmentally-friendly image of the firm (Tiwari *et al.*, 2011; Abzari, *et al.*, 2013).

In order to implement a green promotions strategy, tactical and strategic practices must be conducted, strategically firms must communicate the environmental benefits of their green products and services. Such an approach may include advertising firms' environmental claims, publicizing their environmental endeavors, and embrace green packaging (Leonidou,

Katsikeas and Morgan, 2013). Tactical actions involve minimizing the negative environmental effect of the firm's communication efforts. This may include shifting the firm's communication effort from print to online such as using social media, websites, and blogs, which can, in turn, participate in exploiting the advantage of a new audience (Leonidou, Katsikeas and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017).

2.6 Green Marketing and Sustainable Development

Though the principles of marketing and sustainability may have a contradictory meaning in definition, wherein the concept of marketing encourages the growth of the global consumption with minimum conservation of natural resources, vice versa the concept of sustainability fosters minimum consumption with maximum resources conservation (Kumar, Rahman and Kazmi, 2013). Recently there is a growing synergy between the two disciplines (Lim, 2016).

The increasing interests in sustainable issues nowadays make Sustainability a mainstream issue, sustainability is about using limited resources in the best way where the main challenge is to tackle environmental problems while sustaining economic performance. (Gordon, Carrigan and Hastings, 2011).

The concept of sustainable development was introduced first in 1987 by the World Commission on Environmental and Development report entitled “Our Common Future”. Sustainable development was defined as “meeting

the needs of the present without compromising the ability of the future generations to meet their own needs". The definition has characterized sustainability through three pillars, the environment, the economy, and society which is known as the triple bottom line approach (Simão and Lisboa, 2017). Herein lies the crux of GM in relevant to sustainability, balancing the consumers' needs, demands, and satisfaction with the firm's economic and ecological considerations, Thus GM is considered a pivotal point to achieve sustainable development (Gordon, Carrigan and Hastings, 2011; Yazdanifard and Mercy, 2014; Dangelico and Vocalelli, 2017).

The sustainable development process obligates marketing departments to adopt sustainable thinking in all marketing practices and strategies from production to post purchasing services (Gordon, Carrigan and Hastings, 2011; Garg, 2015) as well as having a role in promoting sustainable thinking to the consumers (Gordon, Carrigan and Hastings, 2011). Marketing has a pivotal role in influencing behavior that might change the governments and the different sectors' actions.

An all-inclusive view on what sustainability could offer marketing and what marketing could offer sustainability in return, sustainability offers marketing a win-win situation. Engaging in sustainable practices helps firms to increase productivity, decrease cost, provide an opportunity for firms to enter new markets, built a reputation, enhance human resources management, and lower staff turnover (Lim, 2016). On the other hand, facilitating sustainable production and consumption strategies is an integral

part of the marketing department. The immediate interaction between marketers and firms' stakeholders' unable marketers to alter the organization's sustainable behavior through internal marketing, marketing strategies, and marketing campaigns. Additionally, merging marketing with sustainability promotes global initiatives for sustainability (Lim, 2016). Arguably, consolidating sustainability and marketing offers opportunities for the marketing department and not restricting them. Simultaneously, sustainable marketing participates in the improvement and preservation of sustainable dimensions (Lim, 2016).

2.6.1 The Triple Bottom Line (3BL)

The mid-1990s saw the notion "Triple Bottom Line" (3BL); the concept is increasingly employed by management, investors, consultants, and NGOs.

The triple bottom line (3BL) is a management tool utilized for screening the corporation's economic, environmental, and societal performance, hence TBL concept is a core and dominant idea today that orients sustainability reporting and the incorporation of the TBL key performance indicators (KPIs) into manufacturing systems (Norman and MacDonald, 2004). There is a strong association between the TBL and business sustainability efforts. The TBL highlights the efforts of business to ensure that they manage, oversee and incorporate social fairness and environmental elements into their business activities besides pursuing profitability (economic success), Therefore, the TBL emphasizes the significance of harmonizing the three pillars of the firm's sustainable effort

economic, social, and environmental. (Svensson et al., 2018). (Smith and Sharicz, 2011) defined TBL as "... the result of the activities of an organization, voluntary or governed by law, that demonstrates the ability of the organization to maintain viable its business operations (including financial viability as appropriate) whilst not negatively impacting any social or ecological systems ...". Several tools have been established over time to measure, oversee and compare the management efforts regarding the TBL and business sustainability efforts. These measures differ concerning how they were developed. Several measures are focusing on outlining and measuring the extent to which cultures and nations adopt business technologies as part of their eco-systems. Other measures were developed for management generally, mostly all these measures address a range of issues related to sustainability.

- The social dimension is commonly seen to be the weakest pillar of sustainability (Lehtonen, 2004), social performance SP is referred to the social effects of the firm's green practices related to corporate reputation and image, alignment between firms offers and stakeholder expectations, customers loyalty and satisfaction (Menon *et al.*, 1999; Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009; Hasan and Ali, 2017).

- The economic performance EcP refers to the influence of the firm's green efforts on financial and marketing performance such as the ability to reduce costs (Hasan and Ali, 2017), Return On Assets (ROA)

(Leonidou, Katsikeas and Morgan, 2013), Firm's profitability, Sales growth, Profit before tax,and Market share (Fraj, Martínez and Matute, 2011; Abzari, Safari Shad, Sharbiyani, *et al.*, 2013).

- Meanwhile, environmental performance EP refers to the firm responsibility toward nature and the integration of the environmental values within the firm's culture (Fraj, Martínez and Matute, 2011). EP includes practices such as the ability to reduce air emission, disposable waste, and the ability to decrease consumption of hazardous and toxic materials (Hasan and Ali, 2017).

2.7 Studies on GM

The table (2-4) below summarizes the main studies that address the GM and the related finding of them.

Table (2-4): Studies on GM.

Author	Country	Sector	Summary
(Hasan and Ali, 2017)	Malaysia	Manufacturing and services sectors	The results showed that GMS (refer to as green product, green price, green promotion, and green distribution) are associated with firms' environmental, economic, and marketing performance, and significantly positively affect organizational performance.
(Leonidou, Katsikeas and Morgan, 2013)	U. K	Manufacturing industry	The results indicated that greening marketing programs specifically green products and green distribution programs have a positive effect on firms' product market performance, meanwhile, green pricing and promotion practices are directly positively related to firms' return on assets (ROA) performance. The study

			also has shown that slack resources and top management risk aversion are important antecedents of green marketing
(Hasan and Azman, 2015)	Malaysia	manufacturing and services sectors	The conceptual paper concluded that both green innovation and green promotion have a positive effect on the firms' performance.
(Abzari, Safari Shad, Abedi Sharbiyani, *et al.*, 2013)	Iran	Manufacturing industry	The paper confirmed the positive relationship between the green marketing mix and market share increase.
(Garg, 2015)	India	Manufacturing industry	The researcher investigates the perception, obstacles, and initiatives regarding GM practices perceived by manufacturing firms in India
(Rivera-Camino, 2007)	Spain	-	The study pointed out the impact of stockholders on the GMS adopted by the firm and the moderated role of firm's economic sector and organizational characteristics.
(Arseculeratne and Yazdanifard, 2014)	Malaysia	-	The thesis paper discussed how green marketing strategy is being relied upon by business firms to derive a competitive advantage.
(Fraj, Martínez and Matute, 2011)	Spain	Industry	The result indicated that Environmental marketing strategy is contributing to achieving competitive advantages in both costs and product differentiation, moreover, environmental marketing positively affects firms' operational and commercial performance and as a result, positively influences their economic results.
(Miles and Covin, 2000)	USA	-	The researchers stated that environmental marketing performance helps create a reputational advantage that enhances marketing and financial performance.

(Baker and Sinkula, 2005)	USA	Manufacturing and service organizations	The findings of the paper suggested that environmental marketing (EM) has a positive impact on the corporate image which could lead to increasing firms' market share and profitability.
(Chang and Fong, 2010)	Taiwan	-	The empirical result of the research indicated that green product quality and green corporate image are positively associated with green customer satisfaction and green customer loyalty.
(Tseng and Hung, 2013)	Taiwan.	-	Addressed that there is a gap between consumers expectations and the perceived quality of the green product (tangibility, warranty, and reliability
(Davari and Strutton, 2014)	USA	-	Results indicated that all four elements of GMS were related to brand loyalty. Meanwhile, the green product was significantly related to brand association. Furthermore, Green products and green places each had a positive relationship with perceived brand quality additionally green products and green prices were the only two elements affecting brand trust. the results also showed that green price is negatively associated with both brand loyalty and brand trust.
(D'Souza, Taghian and Lamb, 2006)	Australia	-	The empirical analysis suggested that an ecological label is an important way to communicate environmental justifications of green products to the consumer.
(Moravcikova et al., 2017)	Slovakia	Automotive Industry	The result of the statistical analysis confirmed that there is a significant relationship between the application of green market principles and the competitiveness of enterprises.

2.8 Food Industry in Palestine

The manufacturing industry has a key role in the Palestinian economy. The industrial sector's contribution to GDP is approximately 16% and it employs 13% of the total workforce (USAID, 2009). The main industrial sectors in Palestine according to The Palestinian Federation of Industries (PFI) are food and beverages, construction, stone and marble, pharmaceuticals, chemicals, metal and engineering, textiles, garments and leather, paper, printing and packaging, handicrafts, plastic and rubber, and furniture.

The food sector is considered the fastest growing sector in the Palestinian economy both vertically and horizontally (USAID, 2009). According to the Palestinian Investment Promotion Agency, the share of food and beverages in the Palestinian market was (65% -70%) in 2016 and is contributing approximately 4.6% to GDP.

According to the Palestinian Central Bureau of Statistics (PCBS), the Palestinian families spend 36% of their expenditures on food, which allows this sector to grow significantly considering the growing demand. The food sector’s importance lays in its role in maintaining food security in Palestine and for economic growth. Moreover, the food industry is heavily related to other industrial sectors, sectors like chemical and plastic industries, paper industries, and metal industries are fulfilling the food sector needs for filling containers, brochures, printing materials labels, and other packaging machinery.

According to the Palestinian Food Industries Union (PFIU), the food sector involves 235 working firms in Palestine a large percentage of them are ISO-certified, and most of them are small and medium family-owned businesses. Table (2-5) underneath shows the distribution of these firms per industry subsector. On the other hand, Table (2-6) below indicates the importance of the food sector in the Palestinian manufacturing industry.

Table (2-5): Number of Enterprises and Employed Persons and Main Economic Indicators for Food and Beverages Sector Activities in Palestine, 2018 (Source: Palestinian Central Bureau of Statistics) (Value in USD 1000).

Economic Activity	Number of Enterprises	Number of Employed Persons	Output	Intermediate Consumption	Gross Value Added	Gross Fixed Capital Formation
Manufacture of food products	3,377	18,297	897,608.2	579,481.8	318,126.4	9,831.9
Manufacture of beverages	192	1,852	225,437.4	176,772.5	48,664.9	3,847.9

Table (2-6): Indicator of the Importance of the Food Industry in Palestine (2016) (Source: Palestinian Food Industries Union).

Type of Industry	**No. of Factories**	**No. of Workers**	**Investment Amount (in Millions) $**	**The local market share**	**Value of exports (in Millions) $**
Meat products industry	18	722	27,3	90%	6
Processing and canning fruits and vegetables	20	557	36,6	20%	21
Industry, vegetable oils and fats	13	302	18.7	20%	31
Milk & Dairy Product	46	2324	67	55%	5

Industry wheat flour & cereal products	12	302	48	40%	-
Feed industry	26	427	28.9	15%	-
Bread and bakery products	1500	5900	100	90%	-
Sugars and sweets	33	1075	22	25%	8
Pasta and noodles	4	62	23,7	30%	-
Soft drinks and non-carbonated	24	1414	33.5	30%	
Other food products	39	920	10,7	35%	-

2.9 Marketing in Palestine

The marketing status in Palestine is ambiguous as there is a lack of studies addressing the marketing activities and strategies adopted by Palestinian marketers. Three possible geographic areas where the Palestinian industries are marketing their products, these areas are the governorates of the West Bank including East Jerusalem, the Gaza Strip, and outside the West Bank. According to the Palestinian Investment Promotion Agency (PIPA), 85% of exported food products are exported to the Israeli market, while the rest is exported to the Middle East and Europe.

A study conducted by (Sabri, 2005) concluded that the main distribution channel for the industry products in Palestine is the factory outlet, two-thirds of the industry firms are selling their products directly without any marketing efforts and one-half of them are using generic brand instead of their brands. The study also pointed out that many manufacturing factory

managers stated that they lack the required marketing and production experience (Sabri, 2005). In terms of marketing strategies, (Smirata and Shariff, 2016) indicated that there is a misfit between the marketing system and the firms' procedures and policies. The finding also suggested that there is a shortage of strategies, inventions, and implementations of the marketing strategy by micro and small food manufacturing firms in Palestine.

2.10 Development of Research Hypotheses

Most studies handling GM drawn their theorizing from the stakeholder theory (Banerjee, Iyer and Kashyap, 2003; Leonidou, Katsikeas and Morgan, 2013). Based on stakeholder theory, the involvement of the firm's environmental stakeholders can impose significant power on the organizations and their strategies (Banerjee, Iyer and Kashyap, 2003; Hasan and Ali, 2017). An environmental stakeholder is defined as "individuals or groups that can affect or be affected by the achievement of a firm's environmental goals" (Freeman, 2010), which includes organizational members and top management, regulators, community members, and the media. (Michael Jay Polonsky, 1995) professed that using a stakeholder approach in greening marketing strategies will contribute to achieving the firms' objectives. Likewise, (Leonidou, Katsikeas and Morgan, 2013) advocated that greening the marketing mix elements can align the environmental interests of firms stakeholders including top management (top management risk aversion and ROA),

customers (product-market performance), and shareholders (ROA). Thus, this theory is fitting this current research.

This research also follows the natural resources-based view developed by (Hart, 1995) which considers the environment as a source of competitive advantage. (Hart, 1995) affirmed that ecological constraints force firms to integrate environmental obligations in their strategies which allow them to innovate distinctive resources and capabilities that in turn will be transformed to a sustainable competitive advantage (Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009; Fraj, Martínez and Matute, 2011). Hart's (1995)'s theory was adopted in a stream of empirical researches exploring environmental performance. According to (Russo and Fouts, 1997; Klassen and Whybark, 1999), adopting environmental management behavior enhances firms manufacturing and environmental performance and leads to building distinctive resources. Furthermore, (Fraj, Martínez and Matute, 2011) declared that greening marketing strategy improves the firm's profitability and enhances their operational and marketing performance. Accordingly, embracing GMS can be viewed as a competitive advantage that differentiates firms from their competitors.

The main aim of this research is to empirically evaluate the effects of greening each of the marketing mix elements on the TBL of sustainability. Drawings on the above-mentioned conceptualization and using the stakeholder theory and resource-based view (RBV) as underpinning

theories, the next section represents the conceptual framework and the proposed hypotheses.

When examining the extant literature, researchers had investigated the influence of greening marketing mix aspects on the firm's operational, financial, and environmental performance. Constructing on the researcher’s findings and to fulfill the aim of this research, the effect of GMS on TBL pillars of sustainability environmental performance EP, Economic Performance ECP, and Social Performance SP are assessed using the food industry in Palestine as evidence.

Much of the previous research that investigated the influence of GMS on economic and financial performance employed firms' operational performance and marketing performance as mediating variables (Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009). In their researches, (Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009) concluded that greening marketing elements positively affect firms' operational and commercial performance, which in return upsurges the firm’s EcP and competitiveness. Coherent with this result, (Fraj, Martínez and Matute, 2011) indicated that GMS improves firms' profitability and marketing performance by optimizing operating performance and reducing the cost by minimizing the waste of material (Slater and Olson, 2001). A well-executed GMS allows firms to access new market opportunities and increase their sales volumes (Banerjee, Iyer and Kashyap, 2003), which results in an increased overall market share (Baker and Sinkula, 2005).

GMS can also enhance the firm's relationships with regulators and government (Menon *et al.*, 1999) which allows the firms to reduce or avoid environmental fines and penalties (Chen, 2008). Additionally, embracing environmental practices within marketing strategy can lift employees' morale and productivity (Menon *et al.*, 1999). According to (Leonidou, Katsikeas and Morgan, 2013), green products and green distribution positively affect the firms' market performance, meanwhile, green pricing and green promotion practices are positively related to firms' return on assets. In summary, firms that are adopting environmentally-friendly practices within their marketing elements enjoying higher ROI, higher profit and market share, and getting a competitive advantage in the market, (Ameer, Ansari and Tabbassum, 2019). Accordingly, the following hypotheses are developed:

- H1a: Green products positively affect the firm's EcP in the Palestinian food industry.
- H2a: Green price positively affects the firm's EcP in the Palestinian food industry.
- H3a: Green promotion positively affects the firm's EcP in the Palestinian food industry.
- H4a: Green promotion positively affects the firm's EcP in the Palestinian food industry.

- H5a: GMS positively affects the firm’s EcP in the Palestinian food industry.

Undoubtedly, deploying environmental practices in the development of products and packaging can optimize the productivity of resources and in sequence minimize the harmful impact on the environment, (Hart, 1995). The transformation in the marketing strategy that demanded alteration in the managerial, production and commercial programs as eco-design, using fewer, cheaper and cleaner raw materials, contribute to reducing the generated pollution and waste (Hart, 1995; González-Benito and González-Benito, 2005; Fraj, Martínez and Matute, 2011). According to (Zhu and Sarkis, 2004), a greener supply chain can contribute to reducing the firm's distribution system's malignant impact on the environment. Besides, using cleaner distribution systems, local or regional distribution reduce fuel consumption (Michael J Polonsky, 1995). In the same vein, reverse logistic has a key role in minimizing the use of raw materials by reincorporating the recovered products and packaging into the firms' process (Florida, 1996). Based on that, greening marketing mix elements (green product, green price, green promotion, and green distribution) can positively improve the firm's EP. Accordingly, the following hypotheses are proposed:

- H1b: Green Products positively affect the firm’s EP in the Palestinian food Industry.

- H2b: Green Price positively affects the firm’s EP in the Palestinian food Industry.

- H3b: Green Promotion positively affects the firm’s EP in the Palestinian food Industry.
- H4b: Green distribution positively affects the firm’s EP in the Palestinian food Industry.
- H5b: GMS positively affects the firm’s EP in the Palestinian food Industry.

Alongside economic and environmental benefits adopting an environmentally-friendly marketing strategy may improve firms' image and reputation among consumers as well as stakeholders (Miles and Covin, 2000; Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009), which in turn can help firms to avoid negative publicity. GMS enhances consumers’ perception of the product’s quality, which can lead to enhancing current consumers' satisfaction and loyalty, (Shrivastava, 1995). Therefore, the following hypotheses are deposited:

- H1c: Green Products positively affect the firm’s SP in the Palestinian food industry.
- H2c: Green Price positively affects the firm’s SP in the Palestinian food industry.
- H3c: Green Promotion positively affects the firm’s SP in the Palestinian food industry.

- H4c: Green Distribution positively affects the firm's SP in the Palestinian food industry.

- H5c: GMS positively affects the firm's SP in the Palestinian food industry.

Collectively, Figure (2-2) depicts the proposed conceptual model in this study. More specifically, the model includes the above-mentioned hypotheses for testing the effect of green marketing mix elements and on the TBL of sustainability.

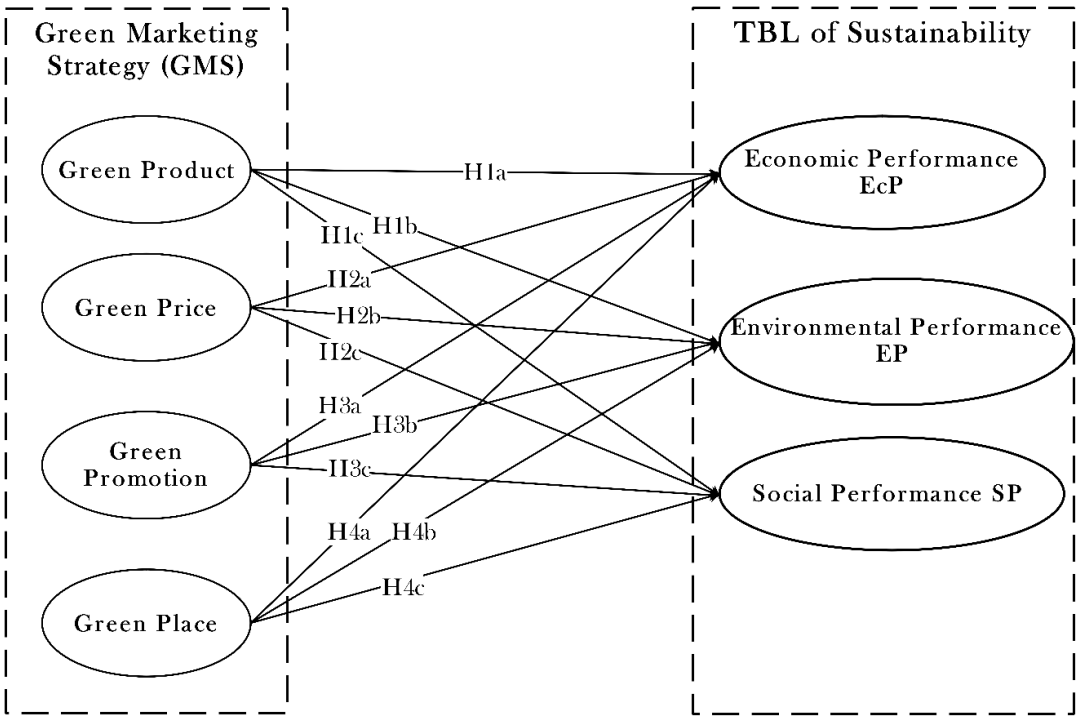

Figure (2-2): Research Conceptual Model**.**

Chapter Three
Methodology

3.1 Overview

This chapter outlines the used methodology in this thesis, the different research philosophies and research approaches were addressed in the first sections, the methodological choice of quantitative, qualitative, or multiple methods is considered in the following section and the research strategies design is also explored.

As a part of this chapter data collection methods, sampling techniques are explained, while particular attention is given to ensuring that the data collected are both reliable and valid. The final section is presenting the data analysis techniques (PLS-Path modeling) utilized in this thesis to explore relationships between constructs.

3.2 Approach of Research Design

Research is the art of scientific and systematic investigation for searching solution for a problem or a new fact. The research methodology comprises defining and redefining of problem, formulating hypotheses, collecting, evaluating, and analyzing data and facts, and finally reaching a confident conclusion to decide whether they harmonious with the formulated hypotheses (Kothari, 2017).

Researches types are differentiated based on several bases, such as the purpose of the research, the method employed, the environment in which

the research is accomplished, the time frame, or based on other factors. Regarding the research objective, research can be classified into three broad categories exploratory, descriptive, explanatory, or a combination of these (Thornhill, Saunders and Lewis, 2009; Gordon, Carrigan and Hastings, 2011; Kothari, 2017)

The exploratory study is a valuable means to formulate hypotheses rather than testing them, the main aim of such studies is to reveal what is happening to gain insights about a topic of interest or discover a certain nature of a problem. Thus, the design of such research must be flexible and adaptable to change so that many different facets of a problem may be considered when they arise through the research progress. There are several methods to conduct exploratory studies including a search of the literature; conducting in-depth "expert "or individual interviews, focus group interviews or conducting a survey (Thornhill, Saunders and Lewis, 2009; Kothari, 2017).

Descriptive study: is designed to gain data that describe the characteristics of the topic of the research. This may be an extension of, or a forerunner to, a piece of exploratory research or, more often, a piece of explanatory research.

Descriptive research designs are usually structured and specifically designed to measure the characteristics described in the research questions. In descriptive studies, data collection usually involves some type of structured process, either observation of data or interviews with structured

questions. Unlike exploratory studies, descriptive studies are often confirmatory. In other words, they are used to test hypotheses (Thornhill, Saunders and Lewis, 2009; Hair Jr, Page and Brunsveld, 2019).

Explanatory study: is concerned with establishing causal (cause and effect) relationships between variables, the prominence is to study a situation or a problem to explain the relationships between variables, the collected data is subjected to statistical test such as correlation in order to understand how the outcome affects the results (Thornhill, Saunders and Lewis, 2009).

The purpose of this study is to assess the impact of greening marketing mix elements the 4'Ps on the firms' TBL of sustainability, the correlation between the GMS and the TBL of firms is empirically tested depending on the surveyed data from the food industry firms, the effect of GMS on TBL was never examined in the Palestinian context, therefore, an explanatory research approach was used in this study. The findings of this research will help firms to enhance their environmental performance through greening their marketing mix elements.

3.3 Research Approach

According to (Creswell and Creswell, 2017) research approaches "are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. It involves the intersection of philosophical assumptions, designs, and specific

methods". Research from a theoretical perspective is initiated either from a deductive or an inductive approach, when an existing theory is used to formulate the research objectives and hypotheses and to devise a framework to direct the data collection, then a **deductive approach** is employed, in other words, the deductive approach could be considered as a "top-down" approach to falsification or verification a theory (Thornhill, Saunders and Lewis, 2009; Creswell and Creswell, 2017).

Meanwhile, the **inductive approach** commences with data collection and analysis to develop a conceptual framework that guides the subsequent work. The inductive approach is referred to as a grounded approach because of the nature of the theory. The inductive process compromises working back and forth between the themes and the database where a comprehensive set of themes is established, then deductively, evaluates the collected data (Thornhill, Saunders and Lewis, 2009; Creswell and Creswell, 2017).

There are two basic approaches to qualitative research approach, quantitative approach, or mixed methods, the selection of the appropriate research approach is based on the nature of the research problem being addressed, the researchers' personal experiences, and the audience for whom the research will be written.

The qualitative approach: much of qualitative research commences with an inductive approach, to develop a richer theoretical perspective of the discussed issue, though some qualitative research starts with a deductive

approach and much of them use an abductive approach. The qualitative approach is an approach to explore and assess a phenomenon related to a social or human problem, non-standardized techniques for data collection is used such as interviews and focus group interviews, afterward the collected data is analyzed using procedure (such as categorizing data) that generate or uses non-numerical data.

The quantitative approach is generally associated with a deductive approach, in this approach, the collected data is used to test a theory, however, the inductive approach may be included when the data is employed to develop the theory. In other terms, a quantitative approach is an approach for testing theory by examining the relationship between measured variables to generate numerical data that can be analyzed using statistical techniques. The main two strategies associated with the quantitative approach are experimental and survey strategies. In this approach, the main tools used to collect data are questionnaires or structured interviews or, possibly, structured observation (Thornhill, Saunders and Lewis, 2009; Creswell and Creswell, 2017).

Integrating between both abovementioned research approach is termed a **mixed-method** where both quantitative data (i.e., quantifiable data) and qualitative data (i.e., text or images) are collected and analyzed, the combination of both forms of data provides a better insight of the research question and problem (Creswell and Creswell, 2017; Creswell and Guetterman, 2018).

In this research, a deductive quantitative method has been used, the required data is collected via a questionnaire.

3.3.1 Quantitative Method

Quantitative research philosophy is mostly correlated with positivism, particularly when used with predetermined and highly-structured data collection techniques (Thornhill, Saunders and Lewis, 2009).

The major characteristics of quantitative research are describing a research problem through a description of trends or a need and explaining the relationship among variables, the literature review has a major role in the research process, through which the research questions to be asked are suggested. Afterward, the research problem is justified, statement and research questions or hypotheses that are specific, narrow, measurable, and observable are proposed. Then, numeric data using tools with preset questions and responses are collected; trends are analyzed, the involving variables are analyzed using statistical analysis and concluding results, and finally writing a structured research report (Creswell and Guetterman, 2018). It is noteworthy that quantitative researches processes are conducting using experimental, correlational, or survey research design strategy.

A survey research strategy is a procedure in quantitative research in which the researcher administers a survey to a sample or the entire population to describe attitudes, trends, opinions, or characteristics of the

targeted population. It embraces cross-sectional and longitudinal studies using questionnaires, structured observation, or structured interview techniques for data collection (Creswell and Creswell, 2017). The survey strategy is generally associated with an exploratory deductive research approach. It is a common strategy in business and management research (Thornhill, Saunders and Lewis, 2009).In survey strategy quantitative, numbered data are collected which you can analyze quantitatively using descriptive and inferential statistics (Thornhill, Saunders and Lewis, 2009).

Correlational design strategy: is a process where the correlational statistic is used to describe and measure the degree of association (or relationship) between two or more variables or sets of scores (Creswell and Creswell, 2017).

Experimental design strategy: is an approach to conduct quantitative research, In experimental research, the researcher seeks to determine whether a specific treatment influences an outcome or dependent variable by applying the experience to one group and withholding it from another, and then determining how both groups scored on an outcome (Creswell and Creswell, 2017; Creswell and Guetterman, 2018).

This research is considered quantitative research; therefore, a survey research strategy was used employing the questionnaire technique.

3.4 Research Methodology

The research strategy is a distinct set of steps that must be followed to meet the research objectives, usually including formulating and identifying the research problem, reviewing the literature, specifying the purpose of the research, designing the research, collecting data, analyzing and interpreting data and at last reporting and evaluating research. Accordingly, selecting a particular research strategy is depending on the objectives of the research, the research question type, and other practical factors such as access to data sources, study setting, and time horizon (Thornhill, Saunders and Lewis, 2009; Creswell and Guetterman, 2018). According to (Sekaran and Bougie, 2016) the common research strategies are the experiment, survey research, observation, case studies, grounded theory, action research and mixed methods.

This research is deductive quantitative research utilizing a survey research strategy, hence, the steps depicted in the research methodology flow chart Figure (3-1) are pursued to achieve the objectives of this research.

The research problem was defined at the first phase of the study, at this phase the scope of the study, justification, and the importance of the research was also specified. An in-depth review of the literature was carried out to explore the concept of GMS and to specify the research gap and the purpose of the research, at this phase the research objectives were narrowed to specific research questions and hypotheses. Lastly, the

research methodology and strategy were structured to answer the research questions and hypotheses.

In phase two, the needed data required to answer the proposed hypotheses were gathered, data collection phase consists of determining the study population, choosing the representative study sample, and designing the data collection tool (Questionnaire). The questionnaire was distributed to the selected sample either online or personally.

To finalize the research, the collected data were explained, analyzed and the relationship between variables in the proposed model was tested statistically using the Smart-PLS application, the result of the analysis were used afterward to determine whether to accept or reject the proposed hypotheses.

Building on the analysis results, the research conclusions and recommendations were drawn in the last phase of the process.

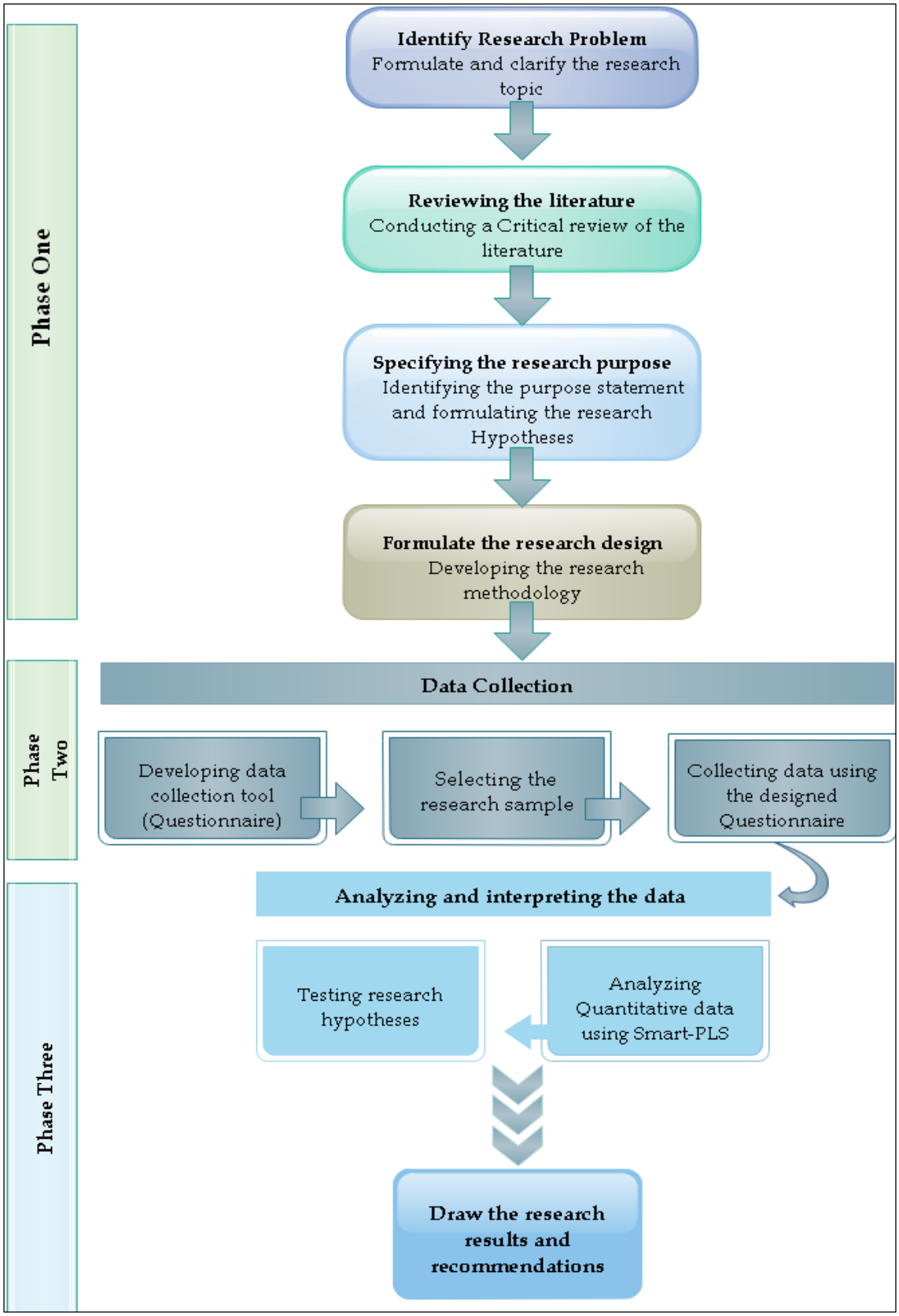

Figure (3-1): Research Diagram Flow Chart**.**

3.5 Data Collection- Questionnaire Design

In quantitative data collection, an instrument is required to measure the research variables. An instrument is a tool for measuring, observing, or documenting quantitative data it encompasses a set of prepared questions and response possibilities that are established in advance. Commonly used instruments are survey questionnaires, standardized tests, and checklists (Creswell and Guetterman, 2018).

Indeed, the questionnaire is the most used data collection tool within the survey strategy, particularly in management and business research, the questionnaire is a set of preformulated questions that are administrated to the respondents to record their answers, usually within closely defined alternatives (Sekaran and Bougie, 2016). Therefore, questionnaires tend to be used for descriptive or explanatory research such as organizational practices (Thornhill, Saunders and Lewis, 2009).

The main advantages of using a questionnaire are that the researcher can administrate the questionnaire to a large population at the same time which is less time, cost, and effort consuming comparing to other tools like interviews and observation, additionally administrating a questionnaire does not require as much skill as it does to conduct interviews (Bell, Bryman and Harley, 2018).

The self-administrated questionnaire's design is differing according to how it is delivered, returned, and the amount of contact with the respondents,

personally administered questionnaires are usually administrated to the respondents by hand, mail questionnaires are sent via email to the respondents, meanwhile, Electronic and online questionnaires are created as “web forms” with a database to store the nameworthy generally developed using survey development software packages or online survey service and sent the respondents (Thornhill, Saunders and Lewis, 2009; Sekaran and Bougie, 2016).

In this research, personally administered questionnaires and online questionnaires are both utilized, the questions were phrases in a closed format. According to (Bell, Bryman and Harley, 2018) the closed questions offer many advantages to the researcher including enhancing the comparability of answers, which make it much easier to evaluate the relationship between variables, easier to process and coding the answers, reducing the possibility of variability, additionally, they are easier and quicker to complete. Five-point Likert scales were used to measures the firm’s economic, environmental and social performance as well as the environmental marketing practices performed by the targeted firms, the adopted scale was selected by adapting some tools used in the previous studies measuring the GMS and the firm’s sustainable performance.

The research questionnaire was formulated after an in-depth review of the GM literature and analyzing papers that concentrated on topics such as environmental marketing mix, GMS, and firm’s sustainable performance, the questionnaire was refined afterward based on the local experts’

feedback, the final version of the Questionnaire comprises four main sections:

A cover letter was attached with the questionnaire, which compromises a summary of the research objectives, an appreciation letter for cooperation, an outline of the questionnaire sections, and the researcher's full contact details for any further inquiries.

The first section of the questionnaire focused on the participated firm's general information, such as subsector, number of employees, geographical location, and years of working in the field.

The second section encompassing three subsections aiming to measure the GM practices pursued by the Palestinian food industry firms, which consisted of green product, green pricing, green promotion, and green distribution practices, the participants were asked to indicate the level their organization is engaged in the GM practices using a five-point Likert scale anchored by "strongly disagree" and "strongly agree".

The third section consisted of three subsections formulated to assess the impact of GM practices on the organizational sustainable performance, respondents were asked to score the extend their organization economic, environmental and social performance has developed after commitment to GM practices, a five-point Likert scale ranging from "Very Badly" to "Excellent" was used.

The last section embraced an open-ended question to allow the respondents to comment on any aspect they choose not covered in the questionnaire.

Both English and Arabic edition of the questionnaire was formulated and evaluated by local experts in the area to ensure the validity of the questionnaire and to evaluate the extent to which each scale item was representative of its designated constructs, all the comments and feedback from the experts regarding the wording, the content and purpose of the question, the coherence and the clarity of the questions were revised and modified in the last distributed version. Both English and Arabic finalized, and approved versions of the questionnaire are available in Appendix A and Appendix B, respectively.

An electronic (online) questionnaire was created using Google Drive templet, the online survey was designed in Arabic and sent by email to all the 57 targeted firms, the firms were also contacted by telephones, and many of them were reached personally to motivate them to cooperate and to clarify any ambiguity in the questionnaire items. Four months were needed to compile the designated responses, all the collected data were stored anonymously on the google drive database to analyze.

3.6 Sampling Techniques

According to (Sekaran and Bougie, 2016) “Sampling is the process of selecting a sufficient number of the right elements from the population so that a study of the sample and an understanding of its properties or

characteristics make it possible for us to generalize such properties or characteristics to the population elements", Thus the sampling process includes defining the population, selecting the sample frame, determining the sampling design and appropriate sample size.

This research is exploring the effect of implementing GMS on the sustainable performance of the Palestinian food industry firms, hence, the firms from the Palestinian food sector are the targeted population in this study.

The food sector is a major contributor to the Palestinian economy, whereas the main subsectors are Processing Meat products, Processing, and canning fruits and vegetables, vegetable oils and fats, Milk & Dairy Product wheat flour & cereal products Feed industry, Bread and bakery products, Sugars and sweets, Pasta and noodles and soft drinks and non-carbonated. According to PFIU official figures, there are 1600 working firms in this sector including bakeries, and 150 working firms excluding bakeries.

Recognizing the need for representativeness within the selected sample, a set of criteria was devised to design an adequate sample frame and to draw valid generalizations of the conclusions.

All the 150 firms were investigated by contacting the food industry union and the firms themselves, as a result, 53 firms were met the predetermined conditions: firms shall be legally registered and licensed to working in Palestine and having a well-established structure with pronounced

marketing practices. Given the aim of conducting a deductive statistical test and generalized the findings from the study confidentially to the population, probability sampling is used in this study, the sample size was calculated using Sample size formulas which provide a means for calculating the size of the sample based on several parameters. Herbert Arken formula is used to calculate the sample size:

$$n = \frac{p(1-p)}{(SE \div t) + [p(1-p) \div N]}$$

Where:

n= the sample size

N=Population

P=Proportion of property offers and neutral

SE=Error margin

t= is the upper α/2 of the normal distribution (for 95% confidence level 1.96)

Using the Herbert Arken formula (Boer, 1973), and the following parameters were used N= 53, P= 0.5,

SE= 0.05 and t=1.96 for 95% confidence level 95%, the accurate sample size is approximately n= 47, therefore electronic questionnaire was

distributed to the 53 firms and a hard copy of the questionnaire was handed to most of them, to collect the needed primary data.

3.7 Data Analysis Techniques

The collected quantitative data from a representative sample of the population are raw, therefore these data need to be processed and analyzed to turn them into information and make them useful. Quantitative analysis techniques facilitate the process of analyzing and interpreting the data and consequently answering the research questions, these techniques are ranging from simple charts and graphs to using complex statistical modeling that testing the relationships between variables. Diverse Analysis software is used in quantitative analysis, they are ranging from spreadsheets such as Excel to more advanced statistical analysis software packages such as Minitab, SPSS, and SMART-PLS.

In this research, the data gathered are statically analyzed using PLS-SEM (Partial least squares structural equation modeling) to test the generated hypotheses. PLS-SEM (also called PLS path modeling) is evolving as a statistical modeling technique and is primarily used to develop theories in exploratory research, by explaining the variance in the dependent variables when examining the model using multivariate analysis, PLS path modeling has been used by a growing number of researches from various disciplines such as strategic management, organizational behavior, and marketing (Henseler, Ringle and Sinkovics, 2009).

PLS-SEM is considered an appropriate statistical technique for this type of research for many reasons, PLS-SEM is suited for exploratory studies where the theoretical model is complex and has never been tested before, PLS-SEM is a nonparametric statistical method that does not require the data to be normally distributed, and PLS-SEM is also can estimate the path model when the sample size is small (Henseler, Ringle and Sinkovics, 2009; Hair Jr *et al.*, 2016).

3.7.1 SEM -PLS Path model

The path model is a diagram that visually connects the variables/constructs and the hypotheses that are examined when SEM is applied, two types of theories are needed to develop the path model: measurement theory and structural theory. While the structural model is stated how the constructs are related to each other in the structural model, measurement theory specifies how each construct is measured (Hair *et al.*, 2016).

A PLS-SEM path model consists of two parts: firstly, the structural model (also called the inner model) that represents the variables/constructs (characterized by circles or ovals). The structural model is also displaying the relationships (paths) between the constructs. Second, the measurement models (also referred to as the outer models) represent the relationships between constructs and their corresponding indicator variables (characterized by rectangles). There are two types of measurement models (also called indicators): one for the exogenous latent variables (i.e., those constructs that explain other constructs in the model) and one for the

endogenous latent variables (i.e., those constructs that are being explained in the model) (Hair *et al.*, 2016). Referring to measurement specification there are two broad types of measurement models reflective and formative, in the reflective mode, all the indicators for the construct are correlated, therefore if the construct changes all the items in the measurement model will be changed simultaneously. In contrast, the construct indicators in the formative model represent independent sources of the construct's content, hence, they do not necessarily need to be correlated. The selection of the measurement model mode and the indicators are based on theoretical/conceptual perceptive (Hair *et al.*, 2016).

3.7.2 Assessing PLS-SEM Path Model

The empirical measurement of the PLS-SEM path model is including the empirical measures of the relationships between the indicators and the variables (measurement models), as well as between the variables (structural model).

PLS-SEM does not provide a signal goodness-of-fit criterion. As a consequence, researchers have put a set of nonparametric evaluation criteria and uses procedures such as bootstrapping to assess the outer and the inner model. Initially, the model assessment focuses on the measurement models, which enables the evaluation of construct measure’s reliability and validity according to certain criteria that are associated with the outer model before evaluating the inner path model estimates.

The measurement model is evaluated based on internal consistency reliability and validity. The measures are including composite reliability (as a means to assess the internal consistency reliability), convergent validity, and discriminant validity. Later to reliability and validity confirmation, the structural model is assessed, this evaluation includes the model's ability to predict, the used evaluation criteria are the coefficients of determination (R^2 values), the level and significance of the path coefficients, the Predictive relevance (Q^2) and the effect sizes (f^2).

Chapter Four
Data Analysis and Results

4.1 Overview

The analysis of the collected data and the results are presented in this chapter, the descriptive statistic's findings are displayed in the first section, using the partial least squares structural equation modeling (PLS-SEM) the quantitative data collected via a questionnaire were analyzed, to test the proposed hypotheses and to explore the effect of GMS on the Palestinian food manufacturing firm's sustainable performance, the analysis results and findings are presented in the next sections.

4.2 Demographic Profile

Firstly, the questionnaire was analyzed using a frequency test to identify the demographic profile of the surveyed firms, the measures and the analysis results are demonstrated in the following subsections.

4.2.1 Demographic Profile for the Targeted Firms' Respondents

4.2.1.1 Respondents Gender and Ages: The analysis shows that 85% of the respondents from the targeted food firms were male, whilst 15% of the respondents were female as illustrated in Figure (4-1).

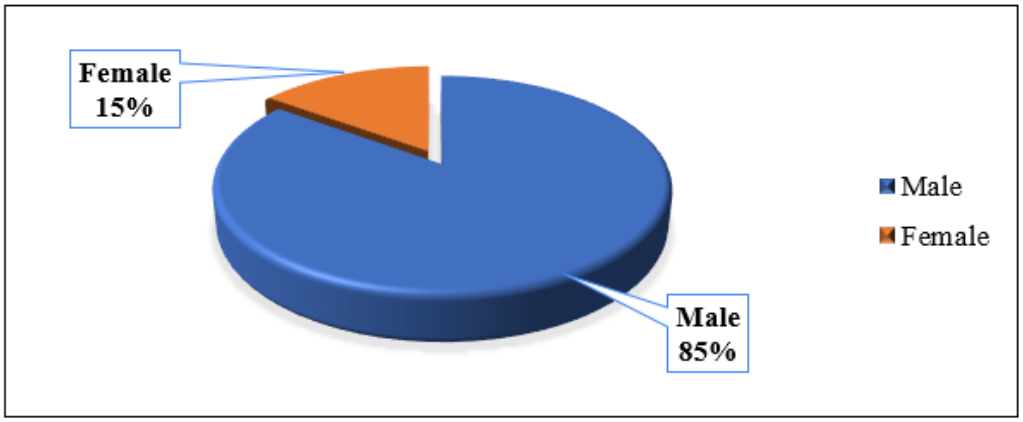

Figure (4-1): Respondents' Gender**.**

Meanwhile, 58% of the respondents' ages were ranging from 35 and 44, and 22% of their ages were from 25 and less than 34 years, a summary of the respondents' ages frequency percentage is depicted in Figure (4-2).

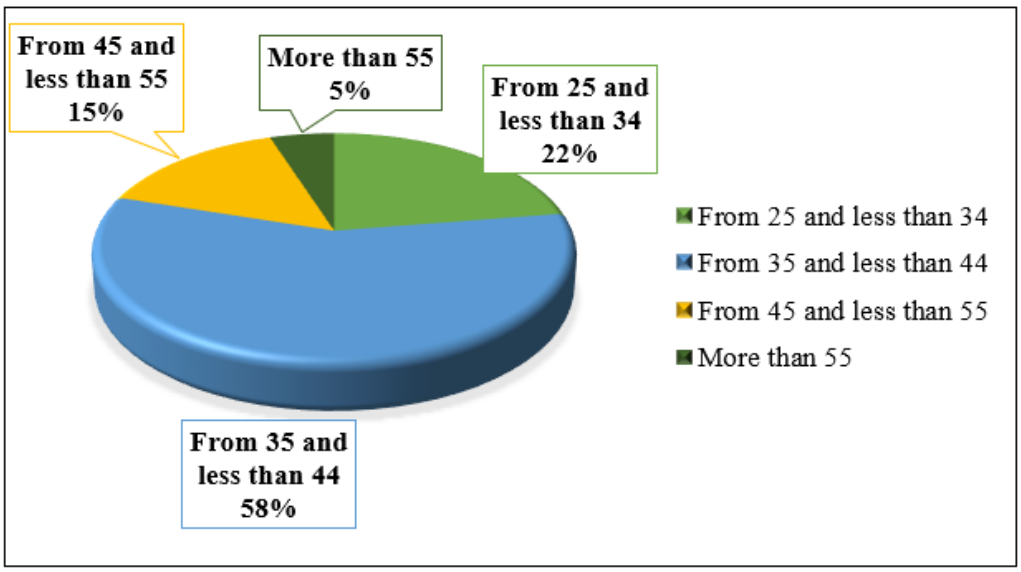

Figure (4-2): Respondents Ages.

4.2.1.2 Respondents Educational Level

The educational level of the respondents is represented in Figure (4-3), 77% of the respondents have a bachelor's degree,18% of them have a master's degree or higher, and 18% of them have a diploma or below.

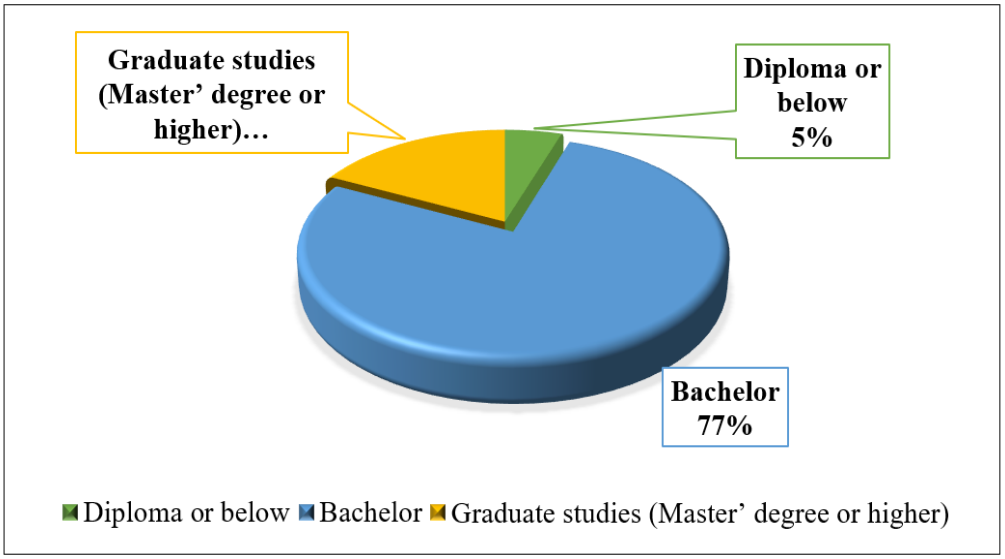

Figure (4-3): Respondents' Educational Level**.**

4.2.1.3 Respondents Positions in the Targeted Firms

As displayed in Figure (4-4), 22% of the respondents were general managers, and 22% of them were sales managers, whereas 13% and 10% of them were quality managers and R&D managers respectively, and 10% of the surveyed respondents were marketing managers.

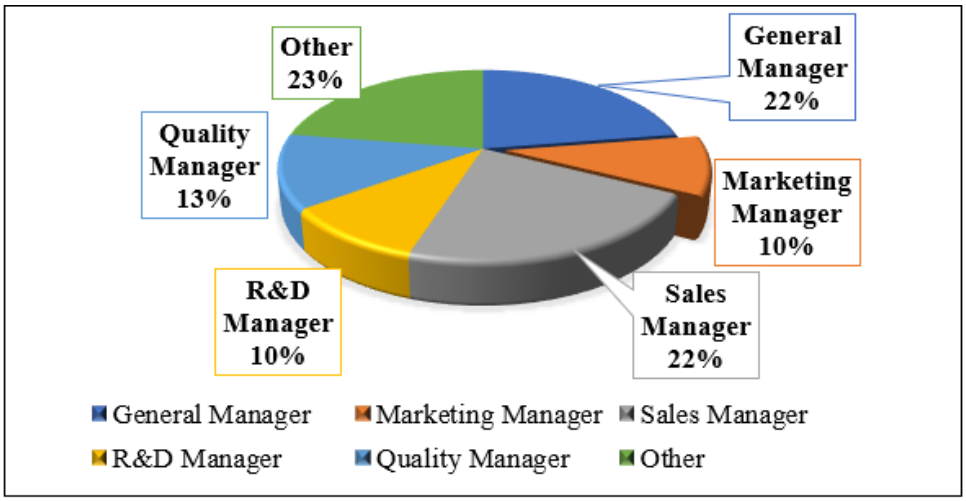

Figure (4-4): Respondents Positions in the Firms**.**

4-2-1-4 Respondents Years of Experience

Figure (4-5) shows that 58% of the respondents have more than 15 years of experience, and 30% of them have from 10-15 years of experience, while 12% of their experience was ranging from 5-10 years.

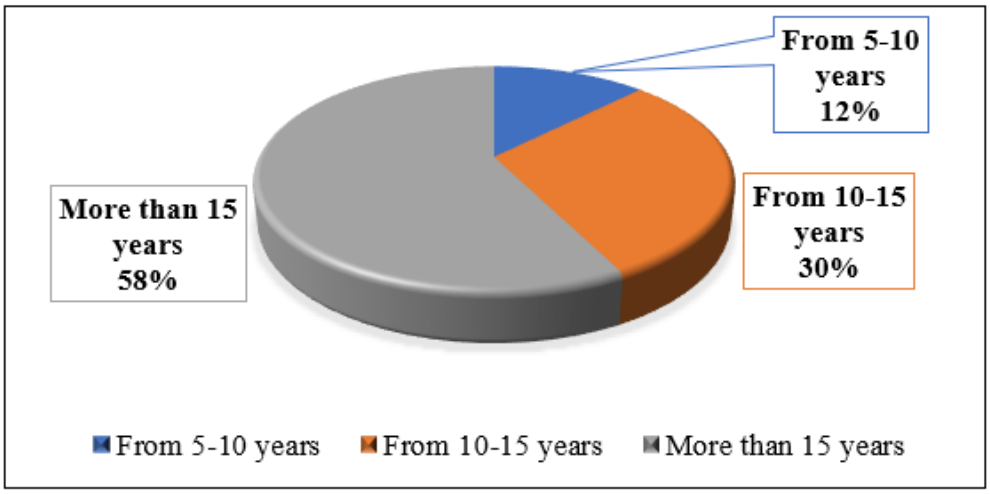

Figure (4-5): Respondents Years of Experience**.**

4.2.2 Demographic Profile for the Targeted Firms

4.2.2.1 Firms' Locations

Most of the surveyed firms were in Nablus and Hebron with frequency percent 31% and 23% for each of them respectively, meanwhile, 21% of them were located in Ramallah and 10% were located in Tukaram as illustrated in Figure (4-6), the chart also shows that 6%,4%,2%and 2% of the firms were located in Jenin, Jerusalem, Tubas and Jericho respectively.

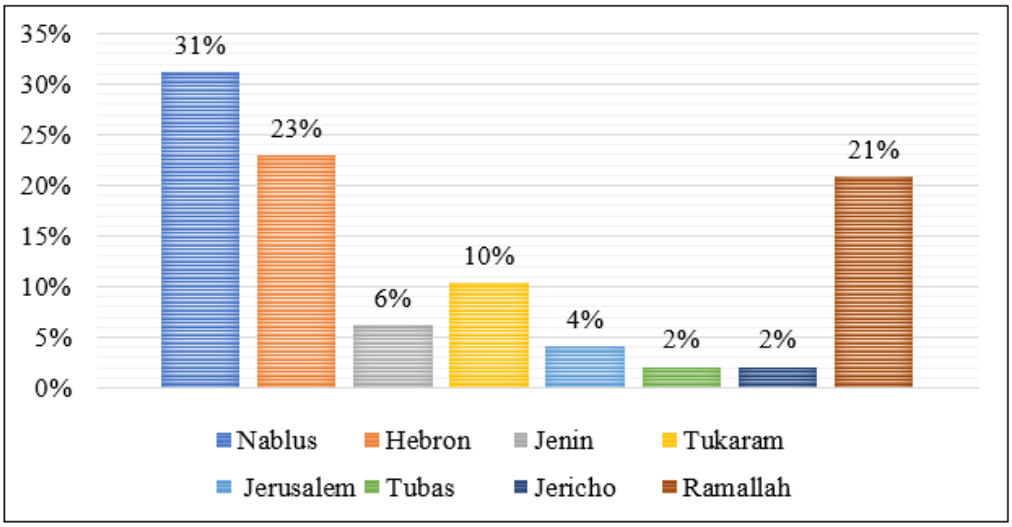

Figure (4-6): Firms' Location.

4.2.2.2 Firms Food Subsectors

According to the Palestinians food industries union (PFIU) classification of the food industry subsector, the most representative food subsectors were milk and dairy products manufacturing firms with 20% of the sample firms,14% of surveyed firms were manufacturing wheat flour and cereal products, the meat products, sugar, and sweets products, and vegetable oil and fats products sectors, each of them represented 11% of the sample,9% of the firms were working in the soft drinks and non-carbonated sector,7% of them were processing and cannoning fruits and vegetables and only 5% of them were manufacturing pasta and noodles products as shown in Figure (4-7).

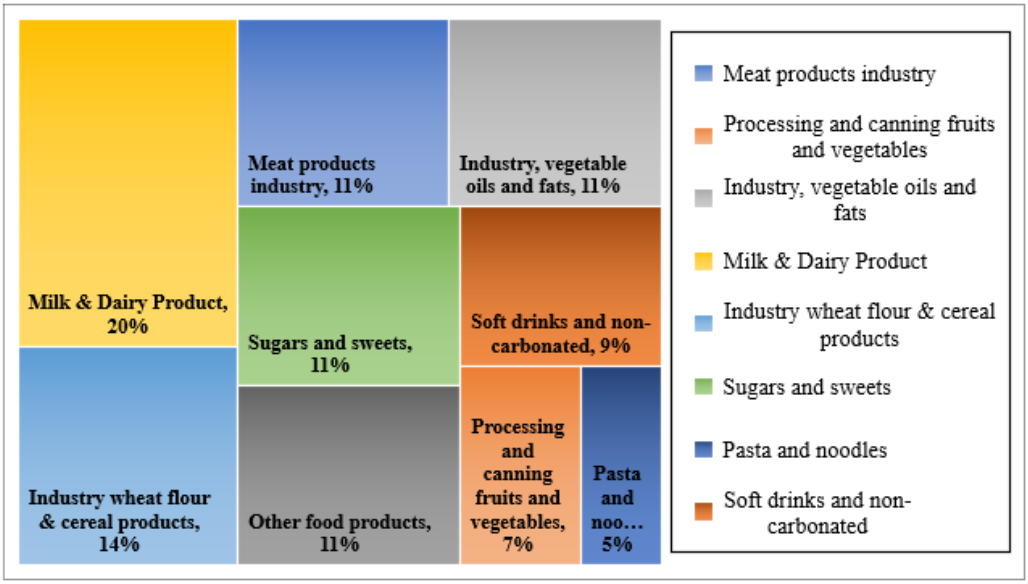

Figure (4-7): Food Subsectors Classification**.**

4.2.2.3 Number of Employees

The analysis found that 18% of the surveyed firms have more than 250 employees, 40% of them have from 50 to 249 employees,30% of the firms have from 49 to 11 employees and 12% of them have from 9 to 1 employee, as shown in Figure (4-8). Based on the result and according to EU/OECD classification of the firm's size, most of the representative firms were medium-sized firms with 40% of the sample, 42% of them were classified as small-sized and only 18% of the targeted firms can be classified as large firms, noting that the EU/OECD classify firms with 1-49 employees as small, firms with from 50 to 249 as a medium, and firms with more than 250 employees as large.

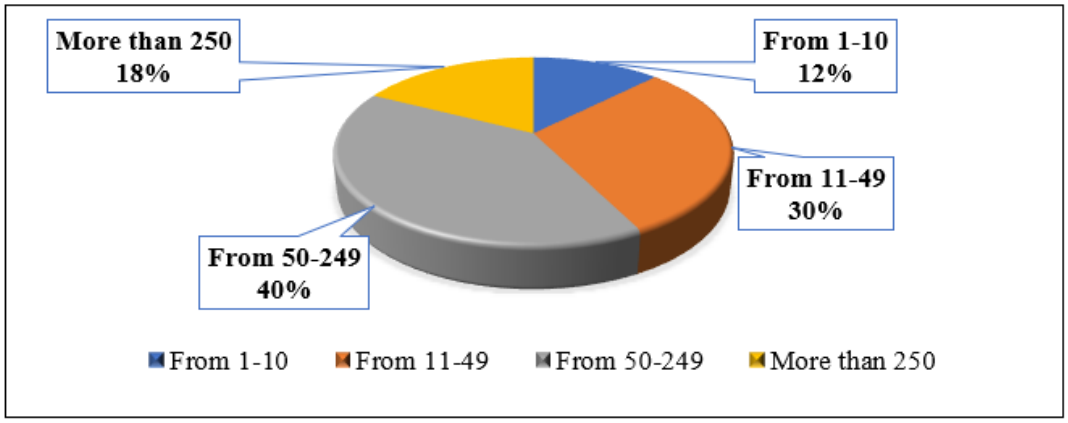

Figure (4-8): Number of Employees in the Firms**.**

4.2.2.4 Firms' Years of Experience in the Palestinian Market

Figure (4-9) shows that 48% of the targeted firms have been working in the Palestinian markets for more than 20 years, while 25% of them have been working in the market for 15 to 10 years, 17% of the firms have experience in the food industry from 5 to 10 years and 2% of them have less than 5 years' experience.

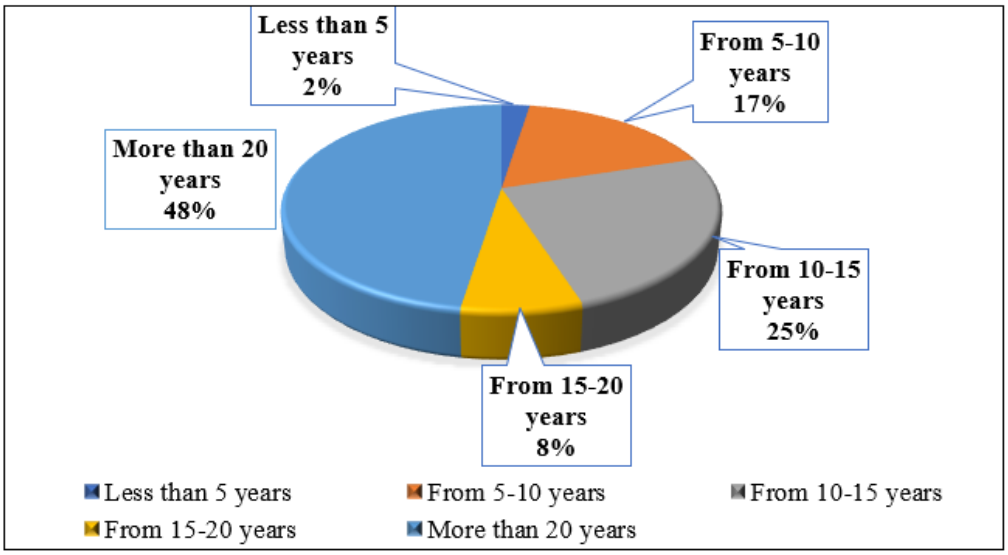

Figure (4-9): Firms Working Years in the Palestinian Market**.**

4.2.2.5 Firms Market Share and Current Market

Referring to the firms' market share,38% of the respondents' firms have more than 25% share in the local market,20% of them have from 1%-10% market share,18% and 15% of the firms have 21%- 25% and 16%-20% market share respectively, while 10% of them have a market share from 11% to 1%, Figure (4-10) demonstrating the findings.

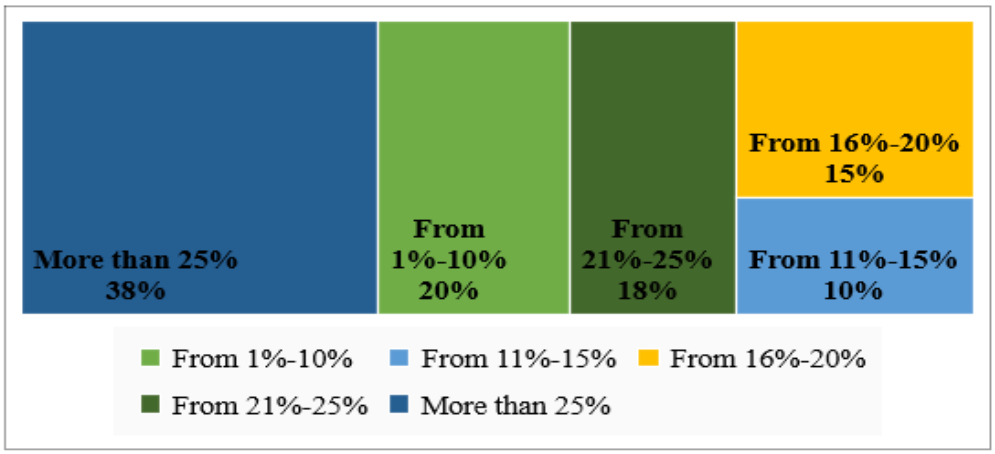

Figure (4-10): Firm's Market share in the Local Market.

More than half of the respondent's firms (62% of them) have announced that they currently exporting their products to regional and international markets, the regional markets were the most targeted markets from the surveyed firms, followed by the 48 territory markets which targeted by 41% of them, and 7% of the firms are targeting the International Markets, Figure (4-11).

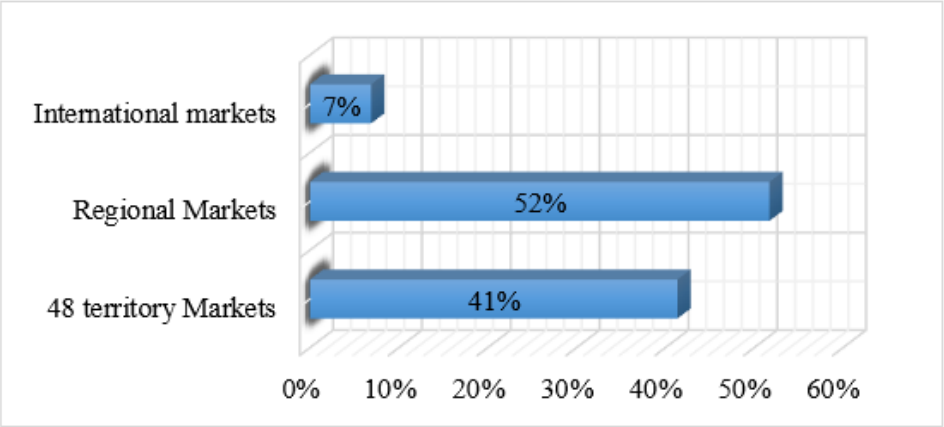

Figure (4-11): Current Markets for the Surveyed Firms**.**

4.2.2.5 Firms Environmental Efforts

The last finding of the descriptive statistic was the quality initiatives being deployed in respondents' firms, the results showed that 60% of the targeted firms have acquired the necessary certifications of ISO versions, HACCP, and the national certificates PS. While many of the surveyed firms are holding the ISO 22000, ISO 9001, GMP, and HACCAP certifications, a small number of them are ISO14001 certified. Moreover, 60% of the respondent firms participated in the environmental projects implemented by the PFI.

4.3 SEM-Partial Least Squares (PLS) Analysis

4.3.1 Measurement Development

Drawing on the systematic literature review the scale items for each construct have been developed to measure the strength of each dimension, as a result, a total of 46 items were generated, the set of items are tabulated in Table (4-1). The generated items were evaluated by 4 judges regarding

the wording clarity, redundancy, and the extent to which each scale item was representative of its designated construct, according to the judges' suggestions some items were modified and refined.

To measure the environmental marketing practices, 29 measurement items (Green product:8 Items, Green Price:5 Items, Green Promotion:7 Items, and Green Place:9 Items) were designed based on the review of related studies and by adapting some items empirically tested in previous researches (Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017). All items were measured using a five-point Likert-type scale, where each respondent was asked to score the extent their firms adopted each environmental practice in their marketing strategy, each scale ranged from 1 (strongly disagree) to 5 (strongly agree).

To evaluate the firm's sustainable performance 17 measurement items (EcP:5 Items, EP:6 Items, and SP: 6 Items) were developed from previous studies (Fraj, Martínez and Matute, 2011; Lin, Tan and Geng, 2013; Hasan and Ali, 2017), respondents were asked to score the position of their firms regarding different measures of sustainability performance, each scale was ranged from 1 (Very Bad) to 5 (Excellent).

The next step was assessing the research model using partial least squares structural equation modeling (PLS-SEM), Smart PLS 3.3.2 package was used to validate and test the model. PLS-SEM is a non-parametric estimation procedure, which implies that PLS is well suited for a complex

structural model with relatively small sample size and non-normal distribution (Henseler, Ringle and Sinkovics, 2009), thus PLS-SEM is considered an appropriate technique for this study. SEM-PLS involves two successive steps: the first step is assessing the measurement model (outer model) which includes evaluating the measurement reliability and validity according to certain criteria that are associated with the outer model, the second step is undertaken when the reliable and valid estimations of measurements show evidence of adequacy. Assessing the structural model (inner model) is the second step, which includes the estimation of the model's ability to predict, hence the main evaluation criteria are the coefficients of determination (R^2 values) and the level and significance of the path coefficients.

Table (4-1): Variable Measurements.

Construct		Construct Items	References
Green Product	GMS-PR1	Contents, ingredients, and raw materials of products to be environmentally friendly	(Banerjee, Iyer and Kashyap, 2003; Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013)
	GMS-PR2	Use of recycled or re-usable materials in products	(Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013)
	GMS-PR3	Recycling content of packaging	(Fraj, Martínez and Matute, 2011; Papadas, Avlonitis and Carrigan, 2017)
	GMS-PR4	Invest in R&D programs to create environmentally friendly products	(Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017)

	GMS-PR5	Developing products and processes that minimize environmental impact	(Banerjee, Iyer and Kashyap, 2003; Fraj, Martínez and Matute, 2011)
	GMS-PR6	Use renewable energy sources for products.	(Papadas, Avlonitis and Carrigan, 2017)
	GMS-PR7	Invest in low-carbon technologies for production processes	(Leonidou, Katsikeas and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017)
	GMS-PR8	Modify packaging and labeling decisions to emphasize any environmental benefits	(Leonidou, Katsikeas and Morgan, 2013)
*5-point Likert scale			
Green Price	GMS-PC1	Consider environmental aspects within price policy	(Fraj, Martínez and Matute, 2011)
	GMS-PC2	Build environmental benefits and/or costs into the product price.	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PC3	Employ pricing to encourage environmental actions.	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PC4	Charge higher prices for environmentally friendlier versions of our products	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PC5	Absorb the extra cost of an environmental product/service	(Papadas, Avlonitis and Carrigan, 2017)
*5-point Likert scale			
Green Promotion	GMS-PROM1	Employ green arguments in advertising and promotions	(Fraj, Martínez and Matute, 2011)
	GMS-PROM2	Use eco-labels or environmental certification	(Fraj, Martínez and Matute, 2011)
	GMS-PROM3	Sponsorship or patronage of environmental groups or events	(Fraj, Martínez and Matute, 2011)
	GMS-PROM4	Emphasize the environmental aspects of our products in our advertisements.	(Banerjee, Iyer and Kashyap, 2003; Leonidou, Katsikeas and Morgan, 2013)
	GMS-PROM5	Highlight our commitment to environmental preservation in our corporate advertisements.	(Banerjee, Iyer and Kashyap, 2003; Leonidou, Katsikeas and Morgan, 2013)
	GMS-PROM6	Use of e-commerce, because it is more eco-friendly.	(Papadas, Avlonitis and Carrigan, 2017)
	GMS-	Reduce any negative impact of	(Leonidou, Katsikeas

	PROM7	our marketing promotions on the natural environment.	and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017)
*5-point Likert scale			
Green Place	GMS-PL1	Team up with channel members to develop appropriate products and packaging after-use arrangements.	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PL2	Cooperate with channel members to make joint commitments to environmental protection	(Leonidou, Katsikeas and Morgan, 2013; Papadas, Avlonitis and Carrigan, 2017)
	GMS-PL3	Cooperate with suppliers and distributors to develop environmentally friendly marketing programs	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PL4	Encourage suppliers and distributors to embrace & reflect environmental responsibility in their activities	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PL5	Set out clear directives and specifications for environmental responsibilities	(Leonidou, Katsikeas and Morgan, 2013)
	GMS-PL6	Selection of cleaner transportation systems	(Fraj, Martínez and Matute, 2011)
	GMS-PL7	Use of recycled or re-usable containers in logistics	(Fraj, Martínez and Matute, 2011)
	GMS-PL8	Use environmental considerations in distribution and reverse logistics systems	(Fraj, Martínez and Matute, 2011)
	GMS-PL9	We use a specific environmental policy for selecting our partners.	(Papadas, Avlonitis and Carrigan, 2017)
*5-point Likert scale			
Economic Performance (ECP)	ECP -1	Production efficiency	(Hasan and Ali, 2017)
	ECP -2	Enhancing sale volume	(Leonidou, Katsikeas and Morgan, 2013; Lin, Tan and Geng, 2013; Hasan and Ali, 2017)
	ECP -3	Enhance the Market share of the firm	(Menon and Menon, 1997; Leonidou, Katsikeas and Morgan, 2013)
	ECP -4	Enhancing the profit rate due to reducing energy and material	(Fraj, Martínez and Matute, 2011;

		consumption	Leonidou, Katsikeas and Morgan, 2013)
	ECP -5	Return on Assets (ROA)	(Menon and Menon, 1997; Hasan and Ali, 2017)
*5-point scale anchored by "Very badly" and "Excellent", adapted from (Fraj-Andrés, Martinez-Salinas and Matute-Vallejo, 2009; Fraj, Martínez and Matute, 2011)			
Environmental Performance (EP)	EP -1	Reduction of air emission	(Lin, Tan and Geng, 2013; Hasan and Ali, 2017)
	EP -2	Reduction of hazardous material	(Lin, Tan and Geng, 2013; Hasan and Ali, 2017)
	EP -3	Less consumption of energy	(Lin, Tan and Geng, 2013; Hasan and Ali, 2017)
	EP -4	Partnership with green organizations and suppliers	(Lin, Tan and Geng, 2013)
	EP -5	Use of environmentally friendly material	(Lin, Tan and Geng, 2013)
	EP -6	Increasing the use of recycled material and reduce the waste	(Lin, Tan and Geng, 2013)
*5-point scale anchored by "Very badly" and "Excellent", adapted from (Hasan and Ali, 2017)			
Social Performance (SP)	SP-1	Corporate reputation	(Fraj, Martínez and Matute, 2011; Hasan and Ali, 2017)
	SP-2	Alignment between the firm's offer and market expectations	(Fraj, Martínez and Matute, 2011)
	SP-3	Corporate and brand image	(Menon *et al.*, 1999; Fraj, Martínez and Matute, 2011)
	SP-4	Customer satisfaction and loyalty	(Fraj, Martínez and Matute, 2011; Hasan and Azman, 2015)
	SP-5	Negative Publicity	(Menon *et al.*, 1999)
*5-point scale anchored by "Very badly" and "Excellent", adapted from (Fraj, Martínez and Matute, 2011; Hasan and Ali, 2017)			

4.3.2 Assessment of the Measurement Model

The assessment of the reflective measurement model focuses on evaluating the construct measure's reliability and validity, the composite reliability is used to evaluate the internal consistency, individual indicator reliability, average variance extracted (AVE) to evaluate convergent validity. Besides, the Fornell-Larcker criterion and cross-loadings are used to assess discriminant validity (Hair, Ringle and Sarstedt, 2011).

In the first step in the analysis process, the individual indicator reliability was estimated, as a rule of thumb item loading should be higher than 0.7 (Hair, Ringle and Sarstedt, 2011), indicators with outer loadings between 0.40 and 0.70 should be considered for removal from the scale only if deleting them leads to an increase in the composite reliability or the AVE, meanwhile, indicators with outer loadings (below 0.40) should always be eliminated from the scale (Hair Jr et al., 2016). However, in exploratory research a value of 0.4 or higher is accepted as posited by (Hulland, 1999), thus, the 0.4 rule of thumb is employed in this research to assess the reliability of indicators, six items were discarded from the analysis due to their low loading or to improve the constructs CR and AVE values (GMS-PR2, GMS-PR3, GMS-PC2, GMS-PC, GMS-PL1, and ECP-1), a final set of 40 items was retained for the next step of the analysis process, the estimated items loading are illustrated in Figure (4-12) and Table (4-2).

The internal consistency is evaluated by estimating the composite reliability, as a rule of thumb composite reliability should be higher than

0.70 to consider acceptable (Hair, Ringle and Sarstedt, 2011), the result in Table (4-2) shows that the CR values for all indicators were greater than threshold 0.7, hence confirming the reliability of the constructs. The average variance extracted (AVE) is calculated as well to evaluate the convergent validity, AVE should be higher than 0.5 to indicate sufficient validity of the constructs (Fornell and Larcker, 1981), the results indicate that AVE values are ranging from 0.501 to 0.606, thus the constructs validity is confirmed.

Table (4-2): Reflective Constructs Measurement Properties.

Reflective Variable	Construct Items	Item Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
Green Product	GMS-PR1	0.628	0.856	0.501
	GMS-PR4	0.573		
	GMS-PR5	0.722		
	GMS-PR6	0.729		
	GMS-PR7	0.813		
	GMS-PR8	0.756		
Green Price	GMS-PC1	0.633	0.771	0.533
	GMS-PC3	0.695		
	GMS-PC5	0.846		
Green Promotion	GMS-PROM1	0.78	0.882	0.52
	GMS-PROM2	0.795		
	GMS-PROM3	0.581		
	GMS-PROM4	0.747		
	GMS-PROM5	0.677		
	GMS-PROM6	0.709		
	GMS-PROM7	0.736		
Green Place	GMS-PL2	0.594	0.895	0.524
	GMS-PL3	0.543		
	GMS-PL4	0.675		
	GMS-PL5	0.629		
	GMS-PL6	0.823		
	GMS-PL7	0.699		
	GMS-PL8	0.896		
	GMS-PL9	0.849		

Economic Performance (ECP)	ECP -2	0.914	0.813	0.545
	ECP -3	0.934		
	ECP -4	0.52		
	ECP -5	0.448		
Environmental Performance (EP)	EP -1	0.783	0.877	0.548
	EP -2	0.828		
	EP -3	0.609		
	EP -4	0.847		
	EP -5	0.767		
	EP -6	0.559		
Social Performance (SP)	SP-1	0.583	0.900	0.606
	SP-2	0.869		
	SP-3	0.86		
	SP-4	0.881		
	SP-5	0.708		
	SP-6	0.722		

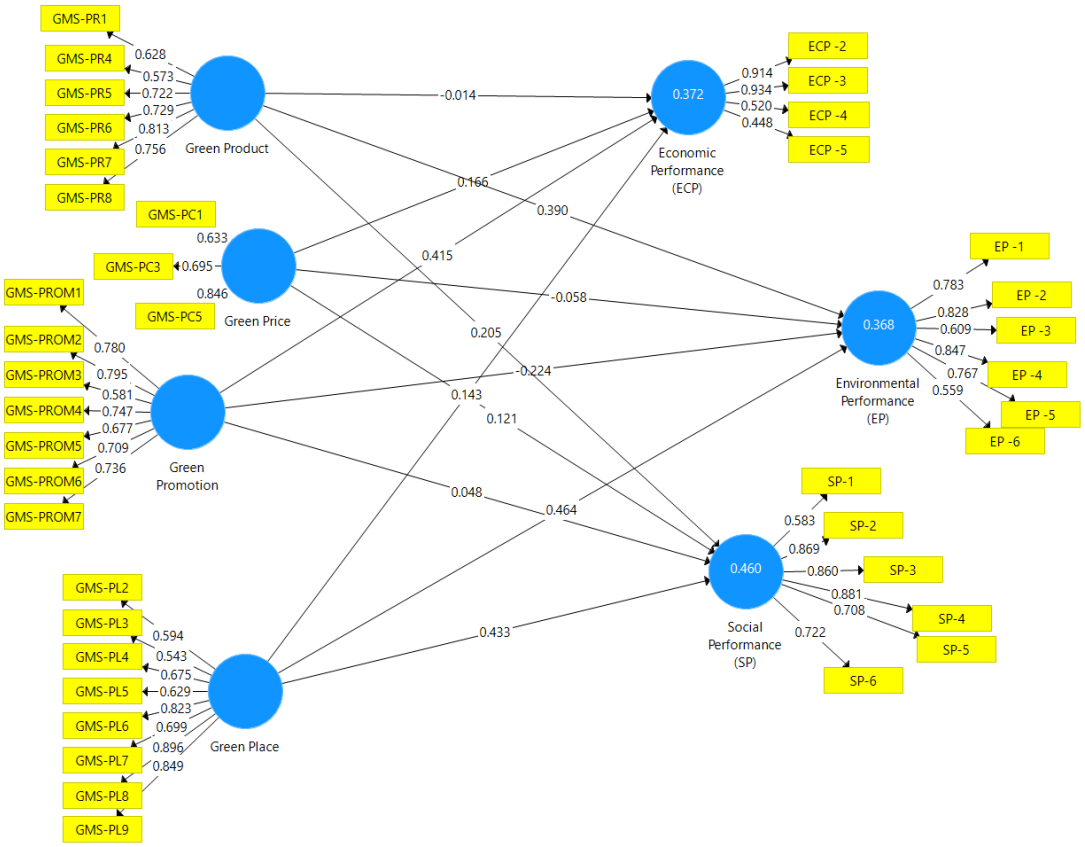

Figure (4-12): Research Model PLS Path Modeling Estimation**.**

To assess how truly the indictors for a construct are distinctive from other indicators of another construct by empirical standards, two measures of discriminant validity have been applied, cross-loading, and the Fornell-Larcker criterion. Cross-loading of the indicators' outer loading was verified as represented in Table (4-3); the criteria reference indicates that each of the indicator's outer loading on the associated construct should be greater than of its loadings on other constructs. The second measure is the Fornell-Larcker criterion which is a more conservative approach to assessing discriminant validity, it calculates the square root of the AVE values of each construct in the model and compares it with the latent variable correlations, as a rule of thumb the AVE of each construct should be higher than the construct's highest squared correlation with any other construct, the results are displayed in Table (4-4). The Heterotrait-Monotrait ratio of correlations (HTMT) criteria was also used to verify the discriminant validity, (Henseler, Ringle and Sarstedt, 2015) proposed that HTMT's values less than 1 denote good reliability, the estimated HTMT's values in this study were less than 1 as shown in table (4-5), therefore the discriminant validity of the research model is good.

Table (4-3): Discriminant Validity-Cross Loading.

Items	(ECP)	(EP)	(SP)	Green Price	Green Place	Green Product	Green Promotion
ECP -2	**0.914**	0.185	0.644	0.429	0.477	0.34	0.554
ECP -3	**0.934**	0.197	0.711	0.423	0.442	0.3	0.539
ECP -4	**0.52**	0.336	0.371	0.21	0.192	0.131	0.154
ECP -5	**0.448**	0.11	0.196	0.077	0.162	0.137	0.278
EP -1	0.186	**0.783**	0.306	0.037	0.275	0.392	0.156
EP -2	0.207	**0.828**	0.358	0.102	0.311	0.477	0.23

EP -3	0.071	**0.609**	0.201	-0.127	0.131	0.047	-0.002
EP -4	0.318	**0.847**	0.43	0.48	0.646	0.56	0.376
EP -5	0.104	**0.767**	0.223	0.177	0.29	0.33	-0.052
EP -6	0.062	**0.559**	0.33	0.051	0.356	0.119	0.055
SP-1	0.405	0.344	**0.583**	0.165	0.376	0.248	0.244
SP-2	0.685	0.366	**0.869**	0.446	0.461	0.437	0.407
SP-3	0.513	0.301	**0.86**	0.485	0.577	0.514	0.473
SP-4	0.671	0.357	**0.881**	0.337	0.578	0.441	0.345
SP-5	0.413	0.5	**0.708**	0.342	0.492	0.334	0.319
SP-6	0.592	0.186	**0.722**	0.324	0.472	0.341	0.346
GMS-PC1	0.263	0.102	0.127	**0.633**	0.169	0.361	0.253
GMS-PC3	0.298	0.007	0.247	**0.695**	0.426	0.372	0.373
GMS-PC5	0.372	0.317	0.501	**0.846**	0.531	0.215	0.38
GMS-PL2	0.113	0.162	0.098	0.161	**0.594**	0.387	0.526
GMS-PL3	0.103	0.254	0.165	0.347	**0.543**	0.375	0.511
GMS-PL4	0.231	0.351	0.41	0.271	**0.675**	0.549	0.381
GMS-PL5	0.249	0.162	0.415	0.303	**0.629**	0.322	0.391
GMS-PL6	0.545	0.482	0.611	0.488	**0.823**	0.432	0.496
GMS-PL7	0.444	0.428	0.578	0.338	**0.699**	0.213	0.22
GMS-PL8	0.372	0.422	0.547	0.553	**0.896**	0.473	0.511
GMS-PL9	0.353	0.449	0.476	0.592	**0.849**	0.473	0.622
GMS-PR1	-0.027	0.43	0.184	0.195	0.304	**0.628**	0.156
GMS-PR4	0.141	0.292	0.347	0.256	0.367	**0.573**	0.195
GMS-PR5	0.418	0.235	0.465	0.275	0.461	**0.722**	0.446
GMS-PR6	0.176	0.339	0.259	0.278	0.337	**0.729**	0.381
GMS-PR7	0.299	0.557	0.492	0.276	0.438	**0.813**	0.395
GMS-PR8	0.286	0.23	0.274	0.347	0.321	**0.756**	0.512
GMS-PROM1	0.542	0.224	0.386	0.462	0.498	0.351	**0.78**
GMS-PROM2	0.39	0.076	0.28	0.382	0.428	0.398	**0.795**
GMS-PROM3	0.185	0.107	0.135	0.224	0.41	0.374	**0.581**

GMS-PROM4	0.399	-0.022	0.196	0.394	0.421	0.276	**0.747**
GMS-PROM5	0.313	0.045	0.221	0.19	0.327	0.335	**0.677**
GMS-PROM6	0.324	0.264	0.343	0.323	0.445	0.38	**0.709**
GMS-PROM7	0.52	0.264	0.535	0.29	0.448	0.424	**0.736**

Table (4-4): Discriminant Validity (Using Fornell-Larcker criterion)

	ECP	**EP**	**Green Place**	**Green Price**	**Green Product**	**Green Promotion**	**SP**
ECP	**0.738**						
EP	0.246	**0.74**					
Green Place	0.476	0.508	**0.724**				
Green Price	0.433	0.246	0.559	**0.73**			
Green Product	0.335	0.504	0.537	0.381	**0.708**		
Green Promotion	0.57	0.222	0.595	0.462	0.504	**0.721**	
SP	0.706	0.433	0.64	0.464	0.508	0.465	**0.778**

Table (4-5): Discriminant Validity- Heterotrait-Monotrait Ratio (HTMT)

	ECP	**EP**	**Green Place**	**Green Price**	**Green Product**	**Green Promotion**	**SP**
ECP							
EP	0.355						
Green Place	0.517	0.489					
Green Price	0.561	0.399	0.665				
Green Product	0.429	0.533	0.656	0.607			
Green Promotion	0.647	0.299	0.747	0.615	0.608		
SP	0.835	0.520	0.661	0.524	0.563	0.479	

4.3.3 Assessment of the Structural Model

Following the confirmation of the construct's measure's reliability and validity, the structural model is assessed to examine the model ability to predict and the relationships between the constructs, the main criteria used in PLS-SEM to evaluate the structural model are the Coefficient of

Determination (R^2 Value), the significance of the path coefficients, the effect size (f^2) and the predictive relevance (Q^2).

The coefficient of determination (R^2) values for endogenous constructs were estimated as listed in Table (4-6), the classification proposed by (Hair Jr *et al.*, 2016) as a rule of thumb in marketing studies considered that R^2 values of 0.75, 0.50, or 0.25 for endogenous variables can be respectively described as substantial, moderate, or weak, in this study the R^2 values were (0.37, 0.37 and 0.46).

The resulted effect size f^2 values were ranging from (0.00 to 0.172), interpreting the results using (Cohen, 1988) effect size classification where the f^2 values above 0.35 are considered large effect size. f^2 values ranging from 0.15 to 0.35 are medium effect size, f^2 values between 0.02 to 0.15 small effect size, and f^2 values less than 0.02 are considering with no effect size. The relative effects of Green promotion on the ECP, the Green Place and Green Product on the EP, and the effect of Green place on the SP are considered medium, meanwhile, the effect of Green Price on the ECP, the Green promotion on the EP, and the Green product on the SP are relatively small, however, there is no relative effect from the Green place and Green product on the ECP, EP, and SP are not affected by Green price, likewise, Green promotion has no relative effect on the SP.

The Stone-Geisser's Q^2 value is obtained by running the blindfolding procedure, Q^2 values larger than zero for construct indicate that the path model's predictive relevance for this particular construct (Hair, Ringle and

Sarstedt, 2011), which is harmonized with the analysis findings (Table 4-7). The Goodness of Fit of the Model (GoF) is the geometric mean of both average variances extracted (AVE) and the average of R^2 of the endogenous variables, the baseline values for GoF to validate the PLS model globally was derived by (Wetzels and Odekerken, 2009), when GoF value is less than 0.1 there is no fit, GoF between 0.1 and 0.25 there is a small fit, for GoF values between 0.25 and 0.36 the fit is medium, and GoF values larger than 0.36 there is a large fit, the calculated GoF for this model is 0.46 which is considered sufficient global PLS model validity.

Table (4-6): R^2 and the Effect Size (f^2).

Construct	R Square	R Square Adjusted	f^2			
			Green Place	Green Price	Green Product	Green Promotion
Economic Performance (ECP)	0.372	0.314	0.016	**0.029**	0.000	**0.160**
Environmental Performance (EP)	0.368	0.309	**0.169**	0.004	**0.158**	**0.046**
Social Performance (SP)	0.460	0.410	**0.172**	0.018	**0.051**	0.002

Table (4-7): Construct Cross-validated Redundancy.

Construct	SSO	SSE	Q^2 (=1-SSE/SSO)
Economic Performance (ECP)	192	166.681	0.132
Environmental Performance (EP)	288	249.259	0.135
Social Performance (SP)	288	214.307	0.256

To determine the statistical significance of the path coefficient and to test the proposed hypotheses, PLS bootstrapping was applied by re-sampling of 5000 as recommended by (Hair Jr et al., 2016), where the Critical t-value for a two-tailed test is 1.96 (significance level = 5 percent), the t-values

resulted from running bootstrapping are tabulated in figure (4-13) and Table (4-8). The analysis shows that four out of twelve proposed hypotheses were supported, the result highlighted that Green Product has a Positive significant effect on the firm's Environmental Performance (EP) (H1b) where (β=0.39, T-Value=2.347 and P-value=0.019), likewise Green Promotion has a significant and positive effect on firm's economic performance (H3a), whereas bootstrapping values (β=0.415, T-Value=2.459 and P-value=0.014), on the other hand, Green Place manifested a positive significant relationship with both firm's Environmental performance and firm's social performance (H4b and H4c), the estimated bath coefficient values (β) were 0.464 and 0.433, and the P-values were 0.017 and 0.005 respectively.

The analysis also confirms that Green Product does not affect the firm's social and economic performance, therefore (H1a and H1c) are not supported, Green promotion has no influence on the firm's environmental and social performance, hence (H2b and H2c) were not supported as well, no significant relationship was found between Green place and the firm's economic performance, (H3a) is not supported accordingly, moreover, Green price manifested no effect on the firm's TBL performance, consequently the three associated hypotheses (H4a, H4b, and H4c) are not supported.

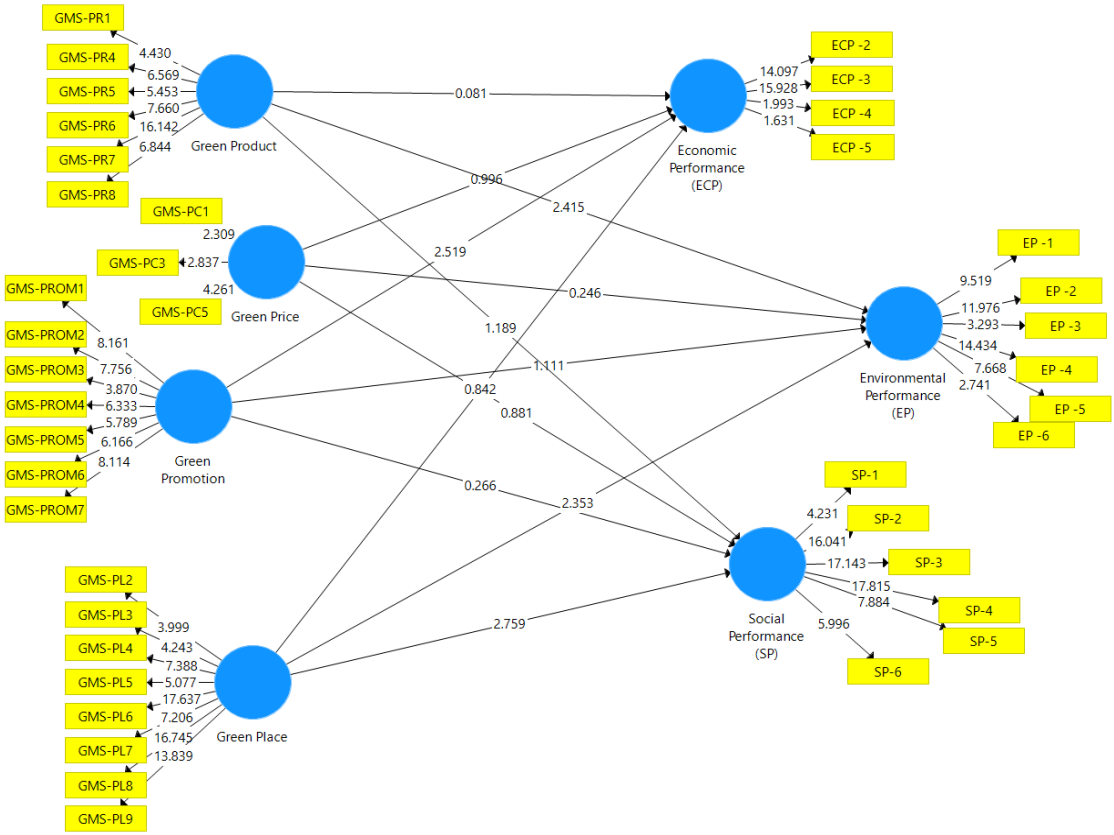

Figure (4-13): Model Fit Employing PLS-Bootstrapping Procedure.

Table (4-8): Model Fit Results.

Path	HYP.	(β)	Standard Deviation (STDEV)	T-value	P-Values	Result
Green Product -> ECP	H1a	-0.014	0.176	0.08	0.936	Not supported
Green Product -> EP	**H1b**	**0.39**	**0.166**	**2.347**	**0.019**	**Supported**
Green Product -> SP	H1c	0.205	0.171	1.197	0.231	Not supported
Green Price -> ECP	H2a	0.166	0.169	0.986	0.324	Not supported
Green Price -> EP	H2b	-0.058	0.236	0.247	0.805	Not supported
Green Price -> SP	H2c	0.121	0.139	0.871	0.384	Not supported
Green Promotion -> ECP	**H3a**	**0.415**	**0.169**	**2.459**	**0.014**	**Supported**
Green Promotion -> EP	H3b	-0.224	0.202	1.109	0.267	Not supported
Green Promotion -> SP	H3c	0.048	0.18	0.268	0.789	Not supported
Green Place -> ECP	H4a	0.143	0.177	0.807	0.42	Not supported
Green Place -> EP	**H4b**	**0.464**	**0.194**	**2.398**	**0.017**	**Supported**
Green Place -> SP	**H4c**	**0.433**	**0.154**	**2.807**	**0.005**	**Supported**

In order to explore the effect of greening marketing strategy (GMS) on the firms (TBL) of sustainable performance, a second-order model was constructed using repeated indicators approach, the measurement and the structural model were validated and tested using Smart PLS 3.3.2 package.

In sum, the internal consistency of the reflective measurement model was evaluated using composite reliability ,individual indicator reliability, average variance extracted (AVE) were employed to evaluate the convergent validity, moreover, the discriminate validity was evaluated using the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio of correlations (HTMT) criteria, the calculated results confirmed the model constructs reliability and validity as tabulated in Tables (4-9,10,11) below.

The collinearity among constructs in the formative measurement model was evaluated, using the Variance inflation factor (VIF), all calculated VIF values (Table 4-12) were below 5 which indicate no critical levels of collinearity as suggested by (Hair Jr et al., 2016).

Table (4-9): Reflective Constructs Measurement Properties (Model-2).

Reflective Variable	Construct Items	Item Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
Green Product	GMS-PR1	0.625	0.857	0.564
	GMS-PR4	0.569		
	GMS-PR5	0.72		
	GMS-PR6	0.749		
	GMS-PR7	0.781		
	GMS-PR8	0.787		
Green Price	GMS-PC1	0.724	0.794	0.504
	GMS-PC3	0.825		
	GMS-PC5	0.699		

Green Place	GMS-PL2	0.694	0.901	0.537
	GMS-PL3	0.643		
	GMS-PL4	0.718		
	GMS-PL5	0.681		
	GMS-PL6	0.746		
	GMS-PL7	0.58		
	GMS-PL8	0.889		
	GMS-PL9	0.857		
Green Promotion	GMS-PROM1	0.763	0.887	0.531
	GMS-PROM2	0.807		
	GMS-PROM3	0.664		
	GMS-PROM4	0.787		
	GMS-PROM5	0.724		
	GMS-PROM6	0.682		
	GMS-PROM7	0.657		
Economic Performance (ECP)	ECP -2	0.914	0.814	0.545
	ECP -3	0.933		
	ECP -4	0.52		
	ECP -5	0.452		
Environmental Performance (EP)	EP -1	0.777	0.869	0.533
	EP -2	0.833		
	EP -3	0.558		
	EP -4	0.886		
	EP -5	0.727		
	EP -6	0.524		
Social Performance (SP)	SP-1	0.584	0.9	0.606
	SP-2	0.87		
	SP-3	0.865		
	SP-4	0.879		
	SP-5	0.702		
	SP-6	0.721		

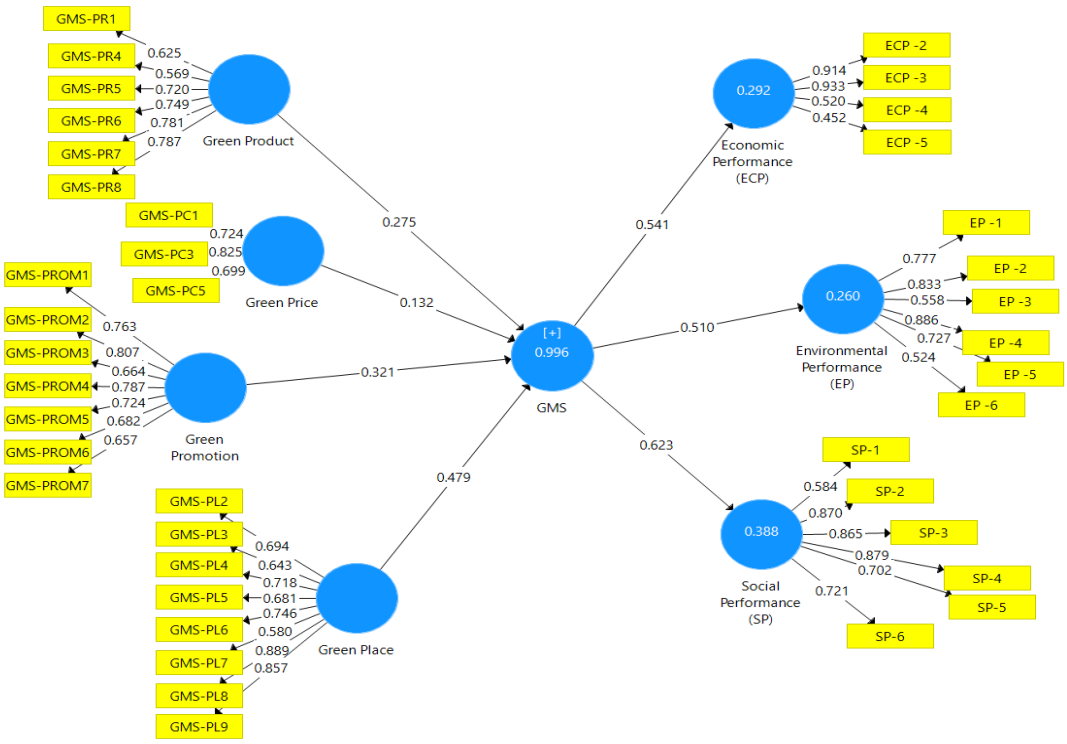

Figure (4-14): Research Model PLS Path Modeling Estimation (Model-2).

Table (4-10): Discriminant Validity (Using Fornell-Larcker criterion) (Model-2).

	ECP	EP	Green Place	Green Price	Green Product	Green Promotion	SP
ECP	**0.738**						
EP	0.268	**0.73**					
Green Place	0.411	0.509	**0.733**				
Green Price	0.418	0.235	0.523	**0.751**			
Green Product	0.33	0.513	0.553	0.428	**0.71**		
Green Promotion	0.531	0.238	0.647	0.461	0.513	**0.729**	
SP	0.704	0.447	0.562	0.41	0.486	0.416	**0.778**

Table (4-11): Discriminant Validity- Heterotrait-Monotrait Ratio (HTMT) (Model-2).

	ECP	EP	Green Place	Green Price	Green Product	Green Promotion	SP
ECP							
EP	0.355						
Green Place	0.517	0.489					
Green Price	0.561	0.399	0.665				
Green Product	0.429	0.533	0.656	0.607			
Green Promotion	0.647	0.299	0.747	0.615	0.608		
SP	0.835	0.52	0.661	0.524	0.563	0.479	

Table (4-12): Formative Construct Assessment (Model-2).

Second-order construct	First-order constructs	T-Value	VIF
GMS	**Green Place**	5.123	2.096
	Green Price	3.366	1.462
	Green Product	6.481	1.571
	Green Promotion	10.873	1.871

The structural model was assessed as well, employing the same criteria used in the first model assessment, the R^2 Values were acceptable (0.29,0.26 and 0.39), the f^2 values were above 0.35, likewise, the Q^2 values were all above the accepted threshold. Gof value was 0.41which is large enough to be considered sufficient global PLS model validity, all the aforementioned values are listed in Table (4-13).

The resulted T-values from bootstrapping are indicated in Figure (4-14), the P-values for all paths were approximately equal to zero as illustrated in Table (4-14) confirming the positive significant effect of GMS on the firm's economic, environmental and social performance and supporting (H5a, H5b, and H5c) hypotheses.

Table (4-13): R^2, Communality, and Redundancy (Model-2).

Construct	R Square	R Square Adjusted	Q^2 (=1-SSE/SSO)	f^2		
				ECP	EP	SP
GMS			0.334	0.413	0.352	0.634
Economic Performance (ECP)	0.292	0.277	0.117			
Environmental Performance (EP)	0.26	0.244	0.075			
Social Performance (SP)	0.388	0.375	0.224			

Table (4-14): Model Fit Results (Model-2).

Path	HYP.	(β)	Standard Deviation (STDEV)	T-value	P Values	Result
GMS -> (ECP)	**H5a**	**0.541**	**0.118**	**4.574**	**0.00**	**Supported**
GMS -> (EP)	**H5b**	**0.510**	**0.141**	**3.625**	**0.00**	**Supported**
GMS -> (SP)	**H5c**	**0.623**	**0.09**	**6.933**	**0.00**	**Supported**

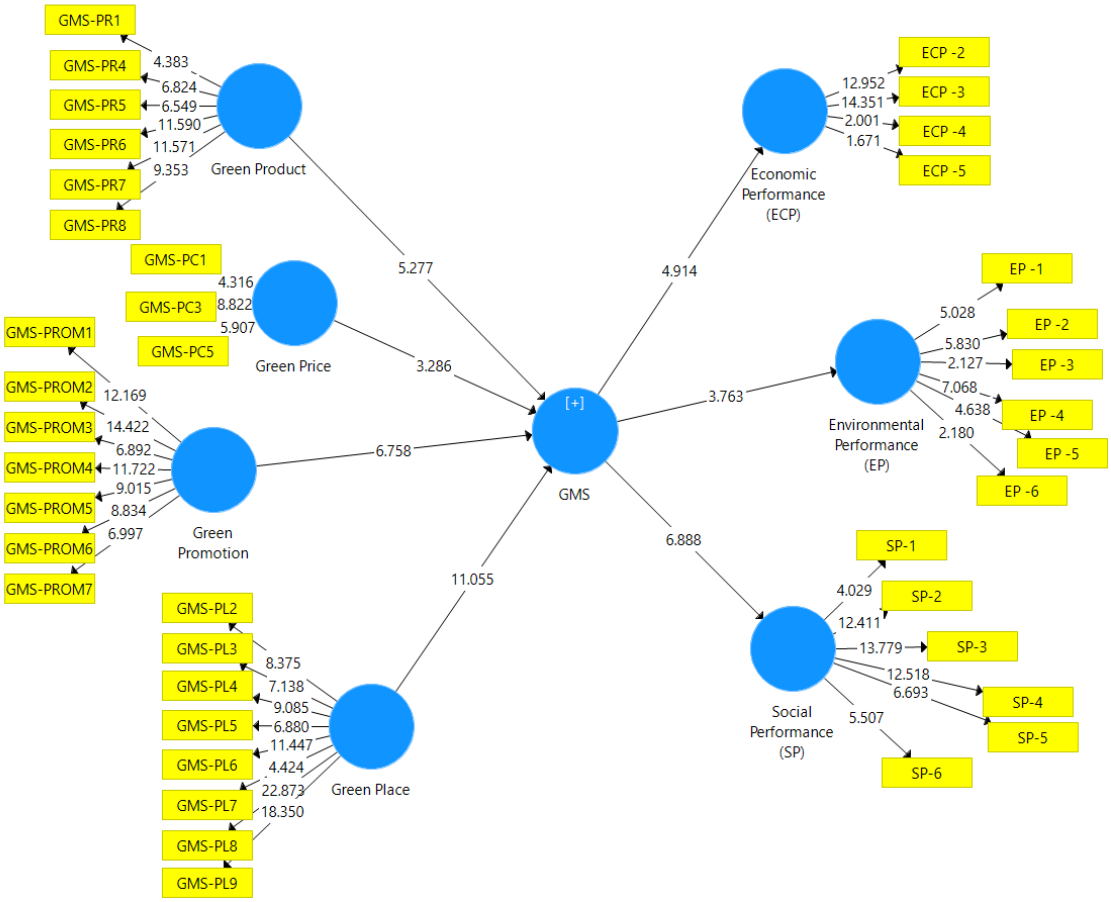

Figure (4-15): Model Fit Employing PLS-Bootstrapping Procedure (Model-2).

Chapter Five
Discussion and Conclusion

5.1 Overview

The results of analyzing the conceptual model are discussed in the first sections of this chapter, the hypotheses testing results are discussed as well, afterward, the theoretical implications of the research are drawn in the next section, meanwhile, study limitations and the expected future researches are presented in the following section.

The research outcomes are finally epitomized in the conclusion section, and relying on the study findings a set of recommendations were developed and presented in this chapter

5.2 Discussion of Results

Given the importance of sustainability in today's marketplace, this study is an endeavor to empirically examine the consequences of internalizing the pro-environmentalism initiatives within the marketing department strategies. This study contributes to the literature is twofold: this research is focused on analyzing the impact of greening each of the GM mix components on the firm's 3BL of sustainable performance in the Palestinian food industry sectors, furthermore, by extending prior research on the effect of GMS on the organizational performance, this study is exploring the effect of all an encompassing GMS on the firms' sustainability performance, and under which situations the postulated

positive effect is strengthened, The analysis results draw a number of theoretical implications which are highlighted in the below sections.

5.2.1 GM Status in Palestine

This study is exploding to what extent Palestinian food industry firms utilizing environmental values within their marketing mix elements (the 4P's). The demographic analysis results shows that most of the Palestinian food industry companies are in general SMEs, and they are mostly family-owned business, decisions are made based on the business owner or the family members without pronounced guideline or systems those decisions effect all the firms strategic and technical activities including decisions related to sustainability.

The analysis outcomes revealed that there are different levels of greenness among marketing mix components, and in individual marketing elements, greening the products program (including packaging and labeling) was the most employed by food industry firms, followed by Green Promotion and Green Place. The results also show that the least tactical and strategic efforts exerted by firms in greening are their Price program.

Scanning the score means of the measurement items demonstrates that employing strategic activity such as using renewable energy sources for manufacturing the products, and tactical activities including modifying Product packaging and labeling decisions to emphasize the environmental benefits and using digital communication in promotions were the most

deployed environmental initiatives by Palestinian food industries. Meanwhile, activities related to green price and green place such as using specific environmental policy and specifications with firm's channel partner and within pricing policy were the least accommodated environmental initiatives by firms. The outcome denoted that greening marketing initiatives utilized by Palestinian food industries are modest and being performed randomly, without formulating a strict Environmental Management System (EMS) guide to follow.

Drawing on the " GMS matrix" devised by (Ginsberg and Bloom, 2004), to interpret the analysis results, most firms in the Palestinian food industries tend to apply quasi-green marketing by taking Lean or Defensive approaches as GMS, Lean green in which greenness is exhibited mostly in the Product production process, and the promotion element is added in the defensive green. Firms are tending to reduce their energy consumption through the production processes by using different means such as renewable energy to create a competitive cost, meanwhile, they do not promote their greening efforts to avoid holding high environmental responsibility.

Thus, it can be concluded that firms exerted low effort in greening their marketing strategies and they employ precautionary actions to meet minimum environmental standards to comply with government environmental regulations or to avoid public crises.

Some internal capabilities such as constrained resources, and external conditions such as lack of government support, the limited number of green consumers, and the political instability can be the underlying reasons behind the firm's modest greening behaviors.

5.2.2 GM Mix Components (the 4P's) and the Firm's (TBL)

One of the fundamental focuses of this research is to cover the impact of greening each of the marketing elements on the firm's three pillars of sustainability. The study finding showed that each marketing mix components have a different influence on the firm's 3BL, more specifically, testing the proposed model pointed out that Green Product and Green distribution have a positive significant effect on the firm's EP (supporting H1b and H4b). This finding is coherent with previous research results advocating that using cleaner material and energy sources in production and transportation producing less pollution and help in protecting the environment (Polonsky and Rosenberger III, 2001; González-Benito and González-Benito, 2005; Fraj, Martínez and Matute, 2011).

Hence, ameliorating the production of products and packaging process in an eco-friendlier manner, and using cleaner and local distribution systems, can contribute significantly to reducing the generated pollution and waste.

The study results also demonstrate a significant positive effect of Green Promotion on the firm's EcP (supporting H3a), furthermore, a positive

effect; albeit weak; is exerted by green price on the firm's EcP. This result is in agreement with (Leonidou, Katsikeas and Morgan, 2013) findings, which indicate that greening promotion and price programs enhance the firm's ROA performance. Simultaneously, neither greening the Product or distribution program have an impact on the firm's financial performance, the explanation for this might be the lower cost associated with greening soft marketing component "Promotion and Price". Meanwhile, the cost accompanying the greening practices of hard marketing elements "Product and Place "are relatively high, activities such as the utilization of greener raw material or recycled material or employing vehicles that produce fewer pollutants are costly investments, and do not contribute to enforcing the firm's EcP in a short time.

In sum, investing in greening the marketing elements generally is costly and hard to be offset in the short term, consequently, do not contribute notably to fostering the firm's financial status.

However, the hard effort and the cost exerted in greening product and place component, it is appeared to be more appraised and impressed to the firm's customers and stakeholders. This might explain the significant positive correlation between Green Place (Supporting H4c) and the positive but weak effect between Green Product and the firm's SP.

Another relevant conclusion that emerges from the result is that greening the price component has an insignificant influence on all of the firm's sustainable dimensions. The likely explanation is the fact that the green

price concept is not familiar among the Palestinian food manufacturing firms; most of the firms' tactical and strategic pricing decisions devised depending on other financial and strategic decisions, apart from the firm's green initiatives, whereas the firm's top managers major consideration is to set prices that are affordable to their consumers.

5.2.3 GMS and the Firm's (TBL)

Another contribution of this study is assessing the impact of simultaneous greening the 4 P's strategic and tactical marketing activities on the firm's 3BL of sustainability. The result of testing the hypotheses revealed that inhabiting tactical and strategic eco-friendly initiatives within the marketing department can contribute positively and significantly in enhancing the firm's economic, environmental and social performance (supporting H5a, H5b, and H5c). In another word, GMS (greening the 4P's) improves the firm's sustainable performance in the food manufacturing firms in Palestine. The result is in line with previous studies' outcomes namely (Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013; Hasan and Azman, 2015; Papadas, Avlonitis and Carrigan, 2017).

It is noteworthy that while individual green marketing component contributed to enhancing one or two dimensions of the firm's (3BL) or non as the case of green price, the finding implies that employing a holistic and synergistic orientation in greening marketing component can notably

reinforce the firm's three dimensions of sustainability. Three arguments might contribute to interpreting this result:

- Firstly, by empirically testing the inter-correlation among GMO (which includes strategic green marketing, tactical green marketing, and internal green marketing). In their study, (Papadas, Avlonitis and Carrigan, 2017) advocated that integration of the strategic, tactical, and internal marketing decisions of any GM program is mandatory to implement effective GMS. Thus, wielding a holistic approach in greening marketing strategic and tactical initiatives can lead to improving the firm's marketing performance.

- Secondly, the concept of GM is still unfamiliar in the Palestinian industries, the analysis finding demonstrated that there is no well-defined policy or guide followed by Palestinian food industries in greening their marketing component. Their greening initiatives are unstructured and random, and they exerted no emphasis on greening all the aspects of a particular marketing component. This might explain the different correlation between unidimensional GMS elements and the TBL dimensions.

- Thirdly, in their research, (Leonidou, Katsikeas and Morgan, 2013) concluded that each marketing element may have different performance outcomes and predictors despite the positive correlation among them, this argument is in parallel with this study outcome.

5.2.4 Choosing the Apt GMS

According to (Ginsberg and Bloom, 2004) two important aspects should be taken into consideration to choose one of the four marketing strategies (lean, defensive, extreme and defensive), the first is how substantial the green consumers in the industry, the second aspect is to what extend the firm products can be differentiated on their green dimensions, depending on the answers of these two questions firms might select one of the four prementioned green strategies.

Building on the analysis finding, adopting Extreme Green Strategy and greening the four marketing elements might be the right alternative to gain the best benefits of greening marketing programs and enhance the firms three pillars of sustainability, however, several external constraints such as the limited number of green consumers in the Palestinian market, the difficult to differentiate products in the local market based on the green dimension and the limited resources could compel how firms might stress greenness as differentiating strategy in their marketing.

Consequently, Lean Green Strategy which is suitable for firms with low green market segments and low green differentiation capabilities, or Defensive Green Strategy which is appropriate for firms with high green market segment size and low green differentiation capabilities could be the adequate GMS to embrace by Palestinian food industry firms.

Notably, to nominate the most suitable GMS for the firm, each firm should use a comprehensive Strategy-Formulation analytical method by performing internal and external audits to identify and formulate the appropriate strategy that improves their competitiveness.

5.3 Theoretical Implications

Through modeling the intercorrelation between GMS and sustainability dimensions, the thesis presents three main theoretical implications. Firstly, modeling and empirically testing the impact of greening each marketing component (the 4P's) on the three dimensions of the firm's bottom line of sustainable performance (economical, environmental, and social). Previous literature has either focused on analyzing the impact of greening marketing elements on some aspects of a firm's financial or marketing performance or using unidimensional marketing components (Fraj, Martínez and Matute, 2011; Leonidou, Katsikeas and Morgan, 2013). The results proposed that each green marketing program (green product, green promotion, green price, and green place) has a specific effect on three pillars of sustainability, accordingly, each marketing component can have different outcomes and predictors under changed circumstances.

Secondly, by extending previous research on the role of GMS on the firm's 3BL, the finding was in parallel with previous literature outcomes suggesting that greening marketing strategic, tactical, and internal activities can enhance their economic, environmental, and social performance. The result highlighted the significance of integrating the firm's strategic,

tactical, and internal efforts in greening marketing components to develop an effective marketing strategy that contributes to enforcing the firm's sustainability.

Thirdly, the study shed light on the effort exerted by manufacturing firms in greening their marketing strategic and tactical decisions, bringing evidence from one of the developing countries, more specifically from the Palestinian food industries firms, where the sustainability and greening concepts are unexplored and need more investigation to uncover and examine.

5.4 Conclusions

The influence of GM on sustainable performance was discussed in much previous research, whereas the researchers investigated the impact of greening marketing strategy on some aspects of the firm’s financial and marketing performance. This research aims to explore the dissimilar effect of each green marketing mix component on the firm’s three pillars of sustainable performance.

For this purpose, a new model was developed and empirically tested using data from food manufacturing firms in Palestine as one of the emerging developing countries, three fundamental disclosures were exposed in this study. Firstly, the effort exerted by Palestinian food firms in greening marketing strategies is modest, unstructured and so far, are not fully implemented. Most of the targeted firms adopted quasi-marketing strategies

by wielding lean or defensive approaches in their marketing strategies, focusing on greening Product and Promotion activities. The local market conditions and challenges such as the financial status, the limited number of green consumers, and the political instability are hindering the firms greening efforts and initiatives.

Secondly, the results demonstrate the different outcome performance of greening the four-marketing elements on three pillars of sustainability (3BL), while both Green Product and Green Place manifesting a positive correlation with the firm’s environmental performance. Only Green Promotion enhances the firm’s economic performance, meanwhile, the firm’s social performance is reinforced by greening marketing place element. Additionally, Green Price exerted no significant effect on the firm’s sustainability dimensions, confirming the unfamiliarity of the concept within the Palestinian manufacturing firms.

Finally, coherent with previous research findings, a positive significant effect was found between GMS and the firm's economic, environmental and social performance. In other terms, a holistic and integral GM strategy is playing a significant role in fostering firms’ sustainable performance.

In conclusion, effective green marketing is a holistic and synergistic orientation in greening the four marketing components (Product, Price, Place, and Promotion) at the strategic, tactical, and internal levels, initiated from the product design throughout the whole production process to the

after-usage services, in a manner that reinforces the firm's sustainable performance.

Thus, firms must seize this opportunity and promote their green marketing activities to capture the utmost financial benefits, satisfy their customers and other stakeholders, and reduce their detrimental footprint on the environment.

5.5 Recommendations

Indeed, GM and sustainability are still emerging concepts in developing countries such as Palestine. Several financial, political, and behavior barriers hinder the development of effective GMS and constrained its contribution in fostering a firm's sustainable performance. Firms will not be adequate to bear the responsibility of sustainability without active support from the government and society. Thereby, innovative solutions are needed so that GMS can be implemented effectively.

Undoubtedly, Greening marketing components is a costly and long-term investment, that makes top managers hesitate in upgrading their GMS. This study findings present strong evidence of the beneficial effects of GMS on the firm’s economic, environmental and social performance. Thus, managers and marketers can be assured that wielding GM in their firms could positively improve their growth and stability in the market.

To gain the utmost benefit of GM, firms are obligated to restructure their internal business decisions in a greener manner and build an eco-friendly culture among employees not only in the marketing department but also amongst different firm’s functional areas. Effective implementation of tactical and strategic activities relies upon support from the employees in the marketing department and other departments. For example, the successful development of Green Product depends on the dedication and commitment of the R&D employees not only on marketers. Thus, Adopting GMS goes beyond the selling and the promotion of the green product to involve other functional areas such as production, distribution channels, and administrative department.

Firms are advised to invest in greening their promotion tools, not only to enhance their financial performance as indicated in the findings but also to improve consumers' awareness and gear their purchasing attitude towards more eco-friendly products, which in return could contribute to enhancing social normalizations of green products and services.

Finally, firms are recommended to set out specific environmental Guides and specifications to organize their environmental activities by developing their own Environmental Management System EMS or adopting Global EMS such as ISO 14001.

5.6 Research Limitations and Future Researches

This study has several limitations that provide ample possibilities for future researches lines. First, the study aims to investigate the impact of GMS on the firm's sustainable performance based on data from one of the developing countries (i.e., Palestine), where there is a scarcity of research tackling the greening and sustainability concepts, likewise, the concept of GM is not familiar for the targeted marketers and the firm's top management in the Palestinian manufacturing firms.

Second, the data collected from a single type of manufacturing industry firm (Palestinian food industry), although, the targeted sample size was small due to the limited number of firms meeting the pre-established conditions.

Given the fact that marketing components might have different outcomes and effects under different circumstances, retesting the proposed model in different social, environmental, economic, and political conditions, targeting other manufacturing sectors in other countries could help the generalization of the research conclusions and findings.

Third, the study examines the effect of GMS from the firm's perspective. Future researches could investigate the impact of adopting GMS from the customers' perspective. The correlation between each green marketing element and the consumers' purchasing attitude might be examined, to determine the customers' respondence to greening each marketing

component, and how GMS can shift the consumers buying attitude and behaviors toward environmental products.

Fourth, the stockholder theory and the RBV theory were the underpinned theories in developing the conceptual model. Future research might investigate how variables such as stakeholder pressures and slack resources might moderate the relationship between green marketing 4Ps and sustainability dimensions. (Leonidou, Katsikeas and Morgan, 2013) in their literature provide theoretical evidence that slack resources and top management risk aversion are important antecedents of GMS.

Lastly, this thesis followed the quantitative research approach; conducting a mixed-research (using both quantitative and qualitative data) is recommended in future research to enrich the findings.

References

- Abzari, M., Safari Shad, F., Abedi Sharbiyani, A.A. and Parvareshi Morad, A., 2013. ***Studying the effect of green marketing mix on market share increase*.** **European Online Journal of Natural and Social Sciences: Proceedings,** *2*(3 (s)), pp.pp-641.

- Andel, T., 1997. **Reverse logistics: a second chance to profit**. *Transportation & Distribution*, *38*(7), p.61.

- Ansari, A.A., Ameer, M.W. and Tabbassum, L., 2019. ***Strategies of Green Marketing as tool of Competitive Advantage***. **Pakistan Journal of Humanities and Social Sciences,** *7*(2), pp.257-265.

- Arqawi, S., Zaid, A.A., Jaaron, A.A., Al Hila, A.A., Al Shobaki, M.J. and Abu-Naser, S.S., 2019. **Green Human Resource Management Practices Among Palestinian Manufacturing Firms-An Exploratory Study**.

- Arseculeratne, D. and Yazdanifard, R., 2014. **How green marketing can create a sustainable competitive advantage for a business.** *International business research*, *7*(1), p.130.

- Awan, A.G. and Wamiq, S., 2016. **RELATIONSHIP BETWEEN ENVIRONMENTAL AWARENESS AND GREEN MARKETING.** *Science International*, *28*(3).

- Baker, M. and Hart, S., 2008. ***The marketing book***. Routledge.

- Baker, W.E. and Sinkula, J.M., 2005. ***Environmental marketing strategy and firm performance: Effects on new product performance and market share***. **Journal of the academy of marketing science**, *33*(4), pp.461-475.

- Banerjee, S.B., Iyer, E.S. and Kashyap, R.K., 2003. ***Corporate environmentalism: Antecedents and influence of industry type***. **Journal of marketing**, *67*(2), pp.106-122.

- Bell, E., Bryman, A. and Harley, B., 2018. **Business research methods.** Oxford university press.

- Bhatia, M. and Jain, A., 2013. ***Green marketing: A study of consumer perception and preferences in India***. **Electronic Green Journal**, 1(36).

- Boer, G., 1973. ***Statistical sampling concepts: A review***. **The CPA Journal (pre-1986)**, *43*(000006), p.487.

- Chang, N.J. and Fong, C.M., 2010. ***Green product quality, green corporate image, green customer satisfaction, and green customer loyalty.*** **African journal of business management**, *4*(13), pp.2836-2844.

- Chen, H.C. and Yang, C.H., 2019. ***Applying a multiple criteria decision-making approach to establishing green marketing audit criteria***. **Journal of cleaner production**, *210*, pp.256-265.

- Chen, T.B. and Chai, L.T., 2010. **Attitude towards the environment and green products: Consumers' perspective.** *Management science and engineering*, *4*(2), pp.27-39.

- Chen, Y.S., 2008. ***The driver of green innovation and green image–green core competence.*** **Journal of business ethics**, *81*(3), pp.531-543.

- Cho, Y.N., 2015. ***Different shades of green consciousness: The interplay of sustainability labeling and environmental impact on product evaluations***. **Journal of Business Ethics**, *128*(1), pp.73-82.

- Cohen, J., 2013. ***Statistical Power Analysis for the Behavioral Sciences***. Routledge.

- Creswell, J. and Guetterman, T. (2018) **Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research**, *6th Edition*.

- Creswell, J.W. and Creswell, J.D., 2017. ***Research design: Qualitative, quantitative, and mixed methods approaches***. Sage publications.

- Creswell, J.W., 2002. ***Educational research: Planning, conducting, and evaluating quantitative*** (pp. 146-166). Upper Saddle River, NJ: Prentice Hall.

- Dangelico, R.M. and Pontrandolfo, P., 2010. ***From green product definitions and classifications to the Green Option Matrix*****. Journal of Cleaner Production**, *18*(16-17), pp.1608-1628.

- Dangelico, R.M. and Pontrandolfo, P., 2010. ***From green product definitions and classifications to the Green Option Matrix***. **Journal of Cleaner Production,** *18*(16-17), pp.1608-1628.

- Dangelico, R.M. and Vocalelli, D., 2017**. *"Green Marketing": an analysis of definitions, strategy steps, and tools through a systematic review of the literature.* Journal of Cleaner Production**, *165*, pp.1263-1279.

- Davari, A. and Strutton, D., 2014. ***Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors*. Journal of Strategic Marketing**, *22*(7), pp.563-586.

- Davis, J.J., 1993. ***Strategies for environmental advertising*. Journal of Consumer marketing**.

- Dewberry, E. and Goggin, P., 1996. ***Spaceship ecodesign. Co-Design**:* **the interdisciplinary journal of design and contextual studies**, (5/6), pp.12-17.

- D'Souza, C., Taghian, M. and Lamb, P., 2006. ***An empirical study on the influence of environmental labels on consumers. Corporate communications**:* **an international journal**.

- Elkington, J. and Hailes, J., 1989. **The green consumer guide**. London: Victor Gollancz Ltd.

- Essoussi, L.H. and Linton, J.D., 2010. ***New or recycled products: how much are consumers willing to pay?*. Journal of Consumer Marketing**.

- Florida, R., 1996. **Lean and green: the move to environmentally conscious manufacturing.** California management review, *39*(1), pp.80-105.

- Fornell, C. and Larcker, D.F., 1981. ***Evaluating structural equation models with unobservable variables and measurement error***. **Journal of marketing research,** *18*(1), pp.39-50.

- Fraj, E., Martínez, E. and Matute, J., 2011. ***Green marketing strategy and the firm's performance: the moderating role of environmental culture.*** **Journal of Strategic Marketing**, *19*(4), pp.339-355.

- Fraj-Andrés, E., Martinez-Salinas, E. and Matute-Vallejo, J., 2009. ***A multidimensional approach to the influence of environmental marketing and orientation on the firm's organizational performance***. **Journal of Business Ethics**, *88*(2), pp.263-286.

- Freeman, R.E., 2010. ***Strategic management: A stakeholder approach*.** Cambridge university press.

- Fuciu, M. and Dumitrescu, L., 2018, June. **From marketing 1.0 to marketing 4.0–the evolution of the marketing concept in the context of the 21st century**. In International conference knowledge-based organization (Vol. 24, No. 2, pp. 43-48). Sciendo.

- Garg, A., 2015. **Green marketing for sustainable development: an industry perspective**. Sustainable Development, *23*(5), pp.301-316.

- Ginsberg, J.M. and Bloom, P.N., 2004. **Choosing the right green marketing strategy.** MIT Sloan management review, *46*(1), pp.79-84.

- GIZ (2014) **Country report on the solid waste management in Occupied PALESTINIAN Territories.**

- Goi, C.L., 2009**.** ***A review of marketing mix: 4Ps or more*****. International journal of marketing studies**, *1*(1), pp.2-15.

- González-Benito, J. and González-Benito, Ó., 2005. **Environmental proactivity and business performance: an empirical analysis.** Omega, *33*(1), pp.1-15.

- Gordon, R., Carrigan, M. and Hastings, G., 2011. **A framework for sustainable marketing.** Marketing theory, *11*(2), pp.143-163.

- Greenley, G.E., 1989. ***An understanding of marketing strategy.*** **European Journal of marketing,** *23*(8), pp.45-58.

- Groening, C., Sarkis, J. and Zhu, Q., 2018. ***Green marketing consumer-level theory review: A compendium of applied theories and further research directions***. **Journal of Cleaner Production**, *172*, pp.1848-1866.

- Guide Jr, V.D.R. and Van Wassenhove, L.N., 2001. **Managing product returns for remanufacturing.** *Production and operations management*, *10*(2), pp.142-155.

- Hair Jr, J.F., Hult, G.T.M., Ringle, C. and Sarstedt, M., 2016. **A primer on partial least squares structural equation modeling (PLS-SEM).** Sage publications.

- Hair Jr, J.F., Page, M. and Brunsveld, N., 2019. **Essentials of business research methods.** Routledge.

- Hair, J.F., Ringle, C.M. and Sarstedt, M., 2011. ***PLS-SEM: Indeed a silver bullet.*** **Journal of Marketing theory and Practice**, *19*(2), pp.139-152.

- Hart, S.L., 1995. **A natural-resource-based view of the firm.** Academy of management review, 20(4), pp.986-1014.

- Hasan, Z. and Ali, N.A., 2015. **The impact of green marketing strategy on the firm's performance in Malaysia.** Procedia-Social and Behavioral Sciences, 172, pp.463-470.

- Hasan, Z. and Ali, N.A., 2017. **Modelling the relationship between green marketing strategies and performance outcomes for business sustainability**. In Proceedings of the Global Conference on Business and Economics Research (GCBER) (pp. 14-15).

- Henseler, J., Ringle, C.M. and Sarstedt, M., 2015. ***A new criterion for assessing discriminant validity in variance-based structural equation modeling***. **Journal of the academy of marketing science**, *43*(1), pp.115-135.

- Henseler, J., Ringle, C.M. and Sinkovics, R.R., 2009**. The use of partial least squares path modeling in international marketing.** In New challenges to international marketing. Emerald Group Publishing Limited.

- Hoek, J., Roling, N. and Holdsworth, D., 2013**. *Ethical claims and labelling: An analysis of consumers' beliefs and choice behaviours.* Journal of Marketing Management**, *29*(7-8), pp.772-792.

- Hulland, J., 1999. ***Use of partial least squares (PLS) in strategic management research: A review of four recent studies***. **Strategic management journal,** *20*(2), pp.195-204.

- Hutchinson, C., 1996. **Integrating environment policy with business strategy.** Long range planning, *29*(1), pp.11-23.

- Jain, S.K. and Kaur, G., 2004. **Green Marketing: An Indian Perspective**. Decision (0304-0941), *31*(2).

- Jiang, Q., Liu, Z., Liu, W., Li, T., Cong, W., Zhang, H. and Shi, J., 2018. ***A principal component analysis based three-dimensional sustainability assessment model to evaluate corporate sustainable performance*. Journal of cleaner production**, *187*, pp.625-637.

- Jose, P.D., 1996. **Corporate strategy and the environment: a portfolio approach.** Long Range Planning, *29*(4), pp.462-472.

- Joshi, Y. and Rahman, Z., 2015. **Factors affecting green purchase behaviour and future research directions.** International Strategic management review, 3(1-2), pp.128-143.

- Juwaheer, T.D., Pudaruth, S. and Noyaux, M.M.E., 2012. ***Analysing the impact of green marketing strategies on consumer purchasing patterns in Mauritius*. World Journal of Entrepreneurship, Management and Sustainable Development**.

- Kaebernick, H. and Soriano, V., 2000, November. **An approach to simplified environmental assessment by classification of products.** In 7th CIRP International Seminar on LCE, Tokyo, Japan.

- Kärnä, J., Hansen, E. and Juslin, H., 2003. ***Social responsibility in environmental marketing planning*. European journal of marketing**.

- Khan, M.T., 2014. ***The concept of 'marketing mix' and its elements (a conceptual review paper).*** **International journal of information, business and management,** *6*(2), p.95.

- Klassen, R.D. and Whybark, D.C., 1999. ***The impact of environmental technologies on manufacturing performance***. **Academy of Management journal,** *42*(6), pp.599-615.

- Kothari, C., 2017. **research methodology methods and techniques** by CR Kothari. Published by New Age International (P) Ltd., Publishers, 91.

- Kotler, P. and Keller, K., 2011. **Marketing management** 14th edition. prentice Hall.

- Kotler, P., 2011. ***Reinventing marketing to manage the environmental imperative*****. Journal of marketing**, *75*(4), pp.132-135.

- Kumar, P., 2016. **State of green marketing research over 25 years (1990-2014): Literature survey and classification**. Marketing Intelligence & Planning.

- Kumar, V., Rahman, Z. and Kazmi, A.A., 2013. ***Sustainability marketing strategy: An analysis of recent literature***. Global Business Review, 14(4), pp.601-625.

- Kumar, V., Rahman, Z., Kazmi, A.A. and Goyal, P., 2012. **Evolution of sustainability as marketing strategy: Beginning of new era.** Procedia-Social and Behavioral Sciences, *37*, pp.482-489.

- Lavallée, S. and Plouffe, S., 2004. ***The ecolabel and sustainable development.*** **The International Journal of Life Cycle Assessment**, *9*(6), pp.349-354.

- Lee, C.K.M. and Lam, J.S.L., 2012. **Managing reverse logistics to enhance sustainability of industrial marketing.** Industrial Marketing Management, 41(4), pp.589-598.

- Lehtonen, M., 2004. **The environmental–social interface of sustainable development: capabilities, social capital, institutions.** Ecological economics, 49(2), pp.199-214.

- Leonidou, C.N., Katsikeas, C.S. and Morgan, N.A., 2013. "***Greening" the marketing mix: do firms do it and does it pay off?*** **Journal of the Academy of Marketing Science,** *41*(2), pp.151-170.

- Lim, W.M., 2016. **A blueprint for sustainability marketing: Defining its conceptual boundaries for progress.** Marketing theory, *16*(2), pp.232-249.

- Lin, R.J., Tan, K.H. and Geng, Y., 2013. ***Market demand, green product innovation, and firm performance: evidence from Vietnam motorcycle industry*****. Journal of Cleaner Production**, *40*, pp.101-107.

- Ljungberg, L.Y., 2007. **Materials selection and design for development of sustainable products.** Materials & Design, 28(2), pp.466-479.

- Masri, H.A. and Jaaron, A.A., 2017. ***Assessing green human resources management practices in Palestinian manufacturing context: An empirical study***. **Journal of cleaner production**, *143*, pp.474-489.

- McCarthy, E.J. and Perreault Jr, W.D., 1964. **Basic Marketing,** Richard D. Irwin, Homewood, IL, 181.

- Menon, A. and Menon, A., 1997. ***Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy***. **Journal of marketing**, *61*(1), pp.51-67.

- Menon, A., Menon, A., Chowdhury, J. and Jankovich, J., 1999. ***Evolving paradigm for environmental sensitivity in marketing programs: a synthesis of theory and practice***. **Journal of Marketing Theory and Practice**, *7*(2), pp.1-15.

- Miles, M.P. and Covin, J.G., 2000. ***Environmental marketing: A source of reputational, competitive, and financial advantage.*** **Journal of business ethics,** *23*(3), pp.299-311.

- Mishra, P. and Sharma, P., 2014. **Green marketing: Challenges and opportunities for business**. BVIMR Management Edge, *7*(1).

- Moravcikova, D., Krizanova, A., Kliestikova, J. and Rypakova, M., 2017. ***Green Marketing as the Source of the Competitive Advantage of the Business*.** Sustainability, 9(12), p.2218.

- Norman W, MacDonald C. **Getting to the bottom of" triple bottom line".** Business ethics quarterly. 2004 Apr 1:243-62.

- Ottman, J.A., Stafford, E.R. and Hartman, C.L., 2006. **Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products**. Environment: science and policy for sustainable development, 48(5), pp.22-36.

- Papadas, K.K. and Avlonitis, G.J., 2014. **The 4 Cs of environmental business: Introducing a new conceptual framework.** Social Business, 4(4), pp.345-360.

- Papadas, K.K., Avlonitis, G.J. and Carrigan, M., 2017. ***Green marketing orientation: Conceptualization, scale development and validation.*** **Journal of Business Research**, *80*, pp.236-246.

- Peattie, K., 1995. **Environmental marketing management: Meeting the green challenge**. Financial Times Management.

- Peattie, K., 2001. **Towards sustainability: the third age of green marketing.** The marketing review, *2*(2), pp.129-146.

- Polonsky, M.J. and Rosenberger III, P.J., 2001. **Reevaluating green marketing: a strategic approach.** Business horizons, *44*(5), pp.21-30.

- Polonsky, M.J., 1995. ***A stakeholder theory approach to designing environmental marketing strategy*. Journal of business & industrial marketing.**

- Polonsky, M.J., 1995. **Cleaning up green marketing claims: a practical checklist.** Environmental marketing, pp.199-223.

- Pomering, A., 2017. ***Marketing for sustainability: Extending the conceptualisation of the marketing mix to drive value for individuals and society at large*. Australasian Marketing Journal (AMJ),** *25*(2), pp.157-165.

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

- Rashid, N.R.N.A., 2009. ***Awareness of eco-label in Malaysia's green marketing initiative*. International Journal of Business and Management,** *4*(8), pp.132-141.

- Reinhardt, F.L., 1998. **Environmental product differentiation: Implications for corporate strategy.** California management review, 40(4), pp.43-73.

- Rettie, R., Burchell, K. and Barnham, C., 2014. ***Social normalisation: Using marketing to make green normal*. Journal of Consumer Behaviour**, *13*(1), pp.9-17.

- Rex, E. and Baumann, H., 2007. ***Beyond ecolabels: what green marketing can learn from conventional marketing***. **Journal of cleaner production,** *15*(6), pp.567-576.

- Rivera-Camino, J., 2007. ***Re-evaluating green marketing strategy: a stakeholder perspective*****. European journal of marketing**.

- Russo, M.V. and Fouts, P.A., 1997. ***A resource-based perspective on corporate environmental performance and profitability***. **Academy of management Journal**, *40*(3), pp.534-559.

- Sabri, N.R., 1999. **General features of Palestinian industry**. International management, *3*(2), pp.33-42.

- Saunders, M., Lewis, P. and Thornhill, A., 2009. **Research methods for business students**. Pearson education.

- Scott, L. and Vigar-Ellis, D., 2014. ***Consumer understanding, perceptions and behaviours with regard to environmentally friendly packaging in a developing nation*****. International journal of consumer studies,** *38*(6), pp.642-649.

- Sekaran, U. and Bougie, R., 2016. **Research methods for business: A skill building approach.** John Wiley & Sons.

- Sharma, A., Iyer, G.R., Mehrotra, A. and Krishnan, R., 2010. **Sustainability and business-to-business marketing: A framework and implications.** Industrial marketing management, *39*(2), pp.330-341.

- Shrivastava, P. and Hart, S., 1995. **Creating sustainable corporations**. Business strategy and the environment, *4*(3), pp.154-165.

- Shrivastava, P., 1995. ***Environmental technologies and competitive advantage***. **Strategic management journal**, *16*(S1), pp.183-200.

- Simão, L. and Lisboa, A., 2017. **Green marketing and green brand–The Toyota Case.** Procedia manufacturing, *12*, pp.183-194.

- Slater, S.F. and Olson, E.M., 2001. ***Marketing's contribution to the implementation of business strategy: An empirical analysis*. Strategic Management Journal,** *22*(11), pp.1055-1067.

- Smirata, I.M. and Shariff, M.N.M., 2016. **Mapping the Market Success for Family Micro and Small Food Producers in Palestine: A Qualitative Study**. In Issc 2016 International Conference on Soft Science. Future Acad, Nicosia (pp. 212-219).

- Smith, K.T., 2010. ***An examination of marketing techniques that influence Millennials' perceptions of whether a product is environmentally friendly***. **Journal of Strategic Marketing**, *18*(6), pp.437-450.

- Smith, M.T., Roy, R. and Potter, S., 1996. **The commercial impacts of green product development**. Open University, Design Innovation Group.

- Smith, P.A. and Sharicz, C., 2011. **The shift needed for sustainability**. The learning organization.

- Suki, N.M., Suki, N.M. and Azman, N.S., 2016**. Impacts of corporate social responsibility on the links between green marketing awareness and consumer purchase intentions.** Procedia Economics and Finance, 37, pp.262-268.

- Svensson, G., Ferro, C., Høgevold, N., Padin, C., Varela, J.C.S. and Sarstedt, M., 2018. ***Framing the triple bottom line approach: direct and mediation effects between economic, social and environmental elements.*** **Journal of cleaner production**, *197*, pp.972-991.

- Testa, F., Iraldo, F., Tessitore, S. and Frey, M., 2011. ***Strategies and approaches green advertising: an empirical analysis of the Italian context.*** **International journal of environment and sustainable development,** *10*(4), pp.375-395.

- Tiwari, S., Tripathi, D.M., Srivastava, U. and Yadav, P.K., 2011. ***Green marketing-emerging dimensions***. **Journal of Business Excellence**, *2*(1), p.18.

- Tseng, S.C. and Hung, S.W., 2013. ***A framework identifying the gaps between customers' expectations and their perceptions in green products.*** **Journal of cleaner production**, *59*, pp.174-184.

- USAID & PFI (2009) **The Current Status of Industrial Sector in Palestine**, Ramallah, Palestine.

- Varadarajan, R., 2010. ***Strategic marketing and marketing strategy: domain, definition, fundamental issues and foundational premises*. Journal of the Academy of Marketing Science**, *38*(2), pp.119-140.

- Venkatraman, N. and Ramanujam, V., 1986. **Measurement of business performance in strategy research: A comparison of approaches.** Academy of management review, *11*(4), pp.801-814.

- Wetzels, M., Odekerken-Schröder, G. and Van Oppen, C., 2009. **Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration.** MIS quarterly, pp.177-195.

- Wymer, W. and Polonsky, M.J., 2015. ***The limitations and potentialities of green marketing*. Journal of Nonprofit & Public Sector Marketing,** *27*(3), pp.239-262.

- Yazdanifard, R. and Mercy, I.E., 2011, May. **The impact of green marketing on customer satisfaction and environmental safety.** *In 2011 International Conference on Computer Communication and Management* (Vol. 5, No. 1, pp. 637-641).

- Zhu, Q. and Sarkis, J., 2004. ***Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises***. **Journal of operations management**, *22*(3), pp.265-289.

- Zinkhan, G.M. and Carlson, L., 1995. ***Green advertising and the reluctant consumer***. **Journal of Advertising**, *24*(2), pp.1-6

Appendices

Appendix (A)

Assessing the Impact of Green Marketing Practices on Organizational Sustainable Performance in Palestinian Food Industries

Dear Participant,

This research aims to investigate the impact of adopting a green marketing strategy by food industry firms in the west bank, on organizational sustainable performance. This questionnaire is encompassing three parts: The first part is covering the firm's general information, the second part is intended to gather data about the firm's green marketing practices, while the last part is formulated to assess the impact of environmental marketing practices on the firm's sustainable performance.

This Questionnaire should take about 10-15 minutes to complete, please note that your responses will remain confidential and anonymous, and the collected data will only be used for academic research.

Your participation in answering this survey is appreciated.

Best Regards.

Researcher: Ala' Braik

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Questionnaire

Part 1: General Information

Please answer the following question by placing (X) in the appropriate box:

1. Gender ☐ Male ☐ Female

2. Your position in the organization:

☐ General manager
☐ Marketing Manager
☐ Sales Manager
☐ R&D Manager
☐ Other

3. Your education degree:

☐ Diploma or below
☐ Bachelor
☐ Graduate studies (Master' degree or higher)

4. How many years have your organization been working in the Palestinian market?

☐ Less than 5 years
☐ From 6 and less than 10 years
☐ From 10 and less than 15 years
☐ From 15 and less than 20 years
☐ More than 20 years

5. How many years have you been working with your organization?

☐ Less than 2 years
☐ From 2-5 years
☐ From 5-10 years

☐ More than 10 years

6. Location:

☐ Nablus ☐ Ramallah ☐ Hebron ☐ Jenin ☐ Tukaram

☐ Bethlehem ☐ Qalqilya ☐ Jericho

☐ Jerusalem ☐ other ----------

7. Number of employees in your firm:

☐ From 1 to 10

☐ From 11 to 49

☐ From 50 to 249

☐ More than 250

8. Your firm Food industry subsector:

☐ Meat products industry

☐ Processing and canning fruits and vegetables

☐ Industry, vegetable oils and fats

☐ Milk & Dairy Product

☐ Industry wheat flour & cereal products

☐ Sugars and sweets

☐ Pasta and noodles

☐ Soft drinks and non-carbonated

☐ Other food products

9. Does your firm export products to external markets?

☐ Yes ☐ No

10. Which of the following is considered your firms targeted markets?

☐ Local Market

☐ Regional Markets

☐ International Market

☐ Others

11. Does your firm's possess Quality certifications?

☐ Yes ☐ No

If the answer is yes, please

Specify……

12. Your firm market share in the local market:

☐ 1%-10%

☐ 11%-15%

☐ 16%-20%

☐ 21%-25%

☐ More than 25%

Part 2: Green marketing strategies practices

To assess the GM practices employed by the Palestinian food industry, please indicate the level your organization engages in the following marketing practices (5-point scale anchored by "strongly disagree" and "strongly agree").

	Green Marketing Practices	**Level**				
		1	2	3	4	5
	Green Product	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
Q.1	We are choosing the contents, ingredients, and raw materials of our products in order to be environmentally friendly					
Q.2	We are using recycled or reusable materials in our products					
Q.3	We are using the recycling content of our packaging.					
Q.4	We invest in R&D programs in order to create environmentally friendly products.					
Q.5	Our firm is engaged in developing products and processes that minimize environmental impact					
Q.6	We make efforts to use renewable energy sources for the manufacturing of our product.					

Q.7	We invest in low-carbon technologies for our production processes					
Q.8	We tend to modify our packaging and labeling decisions to emphasize any environmental benefits.					
Green Price						
Q.1	Our firm Consider environmental aspects within price policy					
Q.2	We build the environmental benefits and/or costs into the product price.					
Q.3	We employ pricing tactics (e.g., rebates, discounts) to encourage environmental actions (e.g., reusing, recycling) by end-users					
Q.4	We charge higher prices for environmentally friendlier versions of our products					
Q.5	We absorb the extra cost of an environmental product					
Green Promotion						
Q.1	We Employ green arguments in advertising and promotions					
Q.2	Our firm Using eco-labels or environmental certification					
Q.3	Our firm Sponsor or patronage environmental groups or events					
Q.4	We emphasize the environmental aspects of our products in our advertisements					
Q.5	We highlight our commitment to environmental preservation in our corporate advertisements					
Q.6	We encourage the use of e-commerce because it is more eco-friendly.					
Q.7	We make efforts to reduce any negative impact of our marketing promotions on the natural environment e.g., using digital communication methods for promoting our products because it is more eco-friendly.					

Green Place						
Q.1	We team up with our channel members to develop appropriate products and packaging after-use arrangements.					
Q.2	We cooperate with our channel members to make joint commitments to environmental protection					
Q.3	We cooperate with our suppliers and distributors to develop environmentally friendly marketing programs					
Q.4	We encourage our suppliers and distributors to embrace & reflect environmental responsibility and responsiveness in their activities					
Q.5	We set out clear directives and specifications for environmental responsibilities and monitor our channel members' responses					
Q.6	We make an effort to select cleaner transportation systems					
Q.7	We use recycled or reusable containers in logistics					
Q.8	We use environmental considerations in distribution and reverse logistics systems					
Q.9	We use a specific environmental policy for selecting our partners.					

Part 3: Organization Sustainability Performance

To assess sustainability performance for the Palestinian food industry, please indicate to how extend your organization performance has developed after commitment to environmental practices (5-point scale anchored by "Very Badly" and "Excellent").

	Triple Bottom Line Performance (TBL)	Level				
		1	2	3	4	5
	Economic Performance	Very Badly	Badly	Neutral	Good	Excellent
Q.1	Enhancing Production efficiency					
Q.2	Enhancing sale volume					
Q.3	Enhancing the Market share of the firm.					
Q.4	Enhancing the profit rate due to reducing energy and material consumption					
Q.5	Enhancing Return on Assets (ROA)					
	Environmental Performance					
Q.1	Reduction of air emission					
Q.2	Reduction of hazardous material					
Q.3	Less consumption of energy					
Q.4	Partnership with green organizations and suppliers					
Q.5	Use of environmentally friendly material					
Q.6	Increasing the use of recycled material and reduce the waste					
	Social Performance					
Q.1	Enhance Corporate reputation					
Q.2	Alignment between the firm's offer and market expectations					
Q.3	Enhance Corporate and brand image					
Q.4	Enhance Customer satisfaction and loyalty					
Q.5	Reduce Negative Publicity					
Q.6	Zero customer complaints or returns					

Thank you for your Cooperation.

Appendix (B)

Assessing the Impact of Green Marketing Practices on Organizational Sustainable Performance in Palestinian Food Industries

تقييم أثر الممارسات الخضراء في التسويق على الأداء المؤسسي المستدام في الصناعات الغذائية الفلسطينية

عزيزي المشارك/ المشاركة،،

تحيه طيبه وبعد،،،

يهدف هذا الاستبيان الى دراسة أثر تبني الشركات الغذائية الفلسطينية ممارسات التسويق الأخضر على الأداء المستدام للشركات (البيئي والاقتصادي والاجتماعي) ،حيث سيتم استخدام البيانات التي تزودنا بها بهدف البحث العلمي وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية.

هذا التقييم يستغرق منك من 10-15 دقيقة لإتمامه ، يرجى قراءة فقرات الاستبيان بتمعن ودقة ،ووضع الإجابة المناسبة بموضوعية وحياد، مع العلم بأن كل المعلومات المقدمة ستُحظى بالعناية والائتمان.

مع خالص الامتنان وبالغ التقدير لتجاوبكم وإسهامكم في إنجاز هذا البحث العلمي.

الباحثه :الآء بريك

جامعة النجاح الوطنيه/الأداره الهندسيه

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موضوع واهداف البحث:

أن التغيير المتسارع الحاصل للبيئة والآثار البيئية السلبية الناتجة عن الثورة الصناعية خلال القرن الحالي ،جعلت من تبني الممارسات الخضراء والإستدامة من أهم مساعي قطاع الأعمال والشركات الصناعية للمساهمة بحماية البيئة. لذلك قامت العديد من الشركات الصناعية بدمج الممارسات البيئيه في الأقسام الإدارية المختلفة مثل التصنيع ،الموارد البشرية والبحث والتطوير وغيرها. وبما أن التسويق واحد من الأقسام الإدارية الرئيسية في الشركات والتي تشكل جسر لربط الشركات مع زبائنها واكتشاف رغباتهم وتطوير منتجات وخدمات تلبي طلباتهم، فإن دمج الممارسات البيئية بالعمليات والأنشطة التسويقية أو مايعرف بالتسويق الاخضر (Green Marketing) يساهم في جعل الشركة قريبة من زبائنها و تحقيق ميزة تنافسية للشركات كما ويساهم في تدعيم الاداء المستدام للشركات.

إن القطاع الصناعي من أكثر المصادر مساهمة في تلوث البيئة في الدول المتقدمة والدول النامية على حد سواء، وبما أن الصناعات الغذائية تشكل الجزء الاكبر من الشركات الصناعية في فلسطين فإن هذه الدراسة تهدف الى **تقييم مدى تأثير تبني الشركات الصناعية الغذائية في فلسطين للممارسات الخضراء في استراتيجيات التسويق على الأداء المستدام للشركات (الأداء البيئي، الأداء الاقتصادي والأداء الاجتماعي).**

ينقسم الاستبيان التالي الى ثلاث أقسام على النحو التالي:

القسم الاول: يهدف الى جمع معلومات عامة عن الشركة الصناعية الغذائية.

القسم الثاني: يهدف الى تقييم مدى تبنى الشركات الصناعية الغذائية الفلسطينية للممارسات البيئية في استراتيجيات التسويق.

القسم الثالث: يهدف الى تقييم تأثير تبني ممارسات التسويق الاخضر على الاداء المستدام للشركات الغذائية (الأداء البيئي، الاقتصادي والاجتماعي)

القسم الاول: معلومات عامة

يرجى الاجابة على الاسئلة التالية بوضع اشارة (X) في المكان المناسب:

1.	**الجنس:**	☐ ذكر ☐ انثى
2.	**العمر (بالسنوات):**	☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55 فاكثر
3.	**المسمى الوظيفي:**	☐ مدير عام ☐ مدير للتسويق ☐ مدير للمبيعات ☐ مدير البحث والتطوير ☐ غير ذلك (يرجى التحديد):_____
4.	**عدد سنوات الخبرة في المجال**	☐ اقل من سنتين ☐ من سنتين الى اقل 5 سنوات ☐ من 5 الى اقل من 10سنوات ☐ اكثر من 10 سنوات
5.	**التحصيل العلمي:**	☐ دبلوم فاقل ☐ بكالوريوس ☐ دراسات عليا (ماجستير فاكثر)
6	**عدد السنوات التي تعمل بها الشركة في مجال الصناعات الغذائية منذ تاريخ تاسيسها؟**	☐ أقل من 5 سنوات ☐ من 6 الى اقل من 10 سنوات ☐ من 10 الى اقل من 15 سنوات ☐ من 15 الى اقل من 20 سنوات ☐ أكثر من 20 سنوات
7.	**ما هو تصنيف شركتكم؟**	☐ شركة فردية ☐ شركة واقع (محاصة) ☐ شركة عادية عامة ☐ شركة عادية محدودة ☐ شركة مساهمة خصوصية ☐ شركة مساهمة عامة محدودة ☐ جمعية تعاونية ☐ هيئة او جمعية خيرية ☐ فرع شركة اجنبية
8.	**عدد العاملين في الشركة؟**	☐ من 1 الى 10 ☐ من 11 الى 49 ☐ من 50 الى 249 ☐ أكثر من 250
9.	**القطاع الفرعي من الصناعات الغذائية التي تعمل به شركتكم؟**	☐ منتجات اللحوم والدواجن ☐ تعبئة وتفريز وتخليل الخضار والفواكه ☐ الزيوت والدهون ☐ الالبان ومشتقاتها ☐ الحبوب ومشتقاتها والنشويات ☐ المخابز والمعجنات ☐ السكاكر والحلويات والشوكولاتة ☐ المشروبات والمياه المعدنية

		☐ منتجات المعكرونة والمنتجات الزراعية والتمور ☐ منتجات الاعلاف ☐ غيرها من المنتجات (حددها رجاء): _____
.10	**موقع الشركة؟**	☐ نابلس ☐ رام الله ☐ الخليل ☐ جنين ☐ طولكرم ☐ القدس ☐ اريحا ☐ قلقيليه ☐ بيت لحم ☐ سلفيت ☐ غير ذلك (حددها رجاء): _____
.11	هل تصدر شركتكم منتجاتها خارج فلسطين؟	☐ نعم ☐ لا
.12	اي من التالية تعتبر اسواق لمنتجاتكم؟	☐ السوق الفلسطيني المحلي ☐ السوق الاقليمي ☐ السوق العالمية ☐ مناطق ال 48 ☐ غير ذلك (حددها رجاء): _____
.13	هل تمتلك شركتكم اي شهادات (مثل شهادات الجودة وغيرها)؟	☐ لا ☐ نعم اذا كان الجواب نعم، يرجى تحديدها: _____ _____
14.	هل شاركت او استفادت شركتكم من المشاريع البيئية المنفذة من اتحاد الصناعات المختلفة	☐ نعم ☐ لا
15.	**يرجى تقدير حصة منتجاتكم السوقية في السوق المحلي الفلسطيني؟**	☐ 1%-10% ☐ 11%-15% ☐ 16%-20% ☐ 21%-25% ☐ اكثر من 25%

القسم الثاني: لتقييم ممارسات التسويق الخضراء المتبعة من قبل الشركة:

يرجى تقييم مدى تطبيق الشركة لكل من الممارسات الوارده بالعبارات التالية :

ممارسات التسويق الاخضر						
	الدرجة	اعارض بشدة	اعارض	لا اعلم	اوافق	اوافق بشدة
المنتج الاخضر						
1-	تقوم الشركة باختيار المواد الأولية والمكونات المستخدمه في صناعة المنتجات بحيث تكون صديقة للبيئة.					
2-	تقوم الشركة باستخدام المواد المعاد تدويرها في صناعة المنتجات والتي تسمح القوانين والمعايير بإستخدامها.					
3-	تقوم الشركة باستخدام المواد المعاد تدويرها في تغليف المنتجات والتي تسمح القوانين والمعايير بإستخدامها.					
4-	تقوم الشركة بالاستثمار في برامج البحث والتطوير لخلق منتجات صديقة للبيئة.					
5-	تساهم الشركة بتطوير منتجات وعمليات انتاج لتحسين الاداء البيئي.					
6-	نحرص على استخدام مصادر طاقة متجددة في عملية تصنيع منتجاتنا.					
7-	نستثمر بالتكنولوجيا الصديقة للبيئة في عمليات الانتاج.					
8-	نقوم بأخذ الاعتبارات البيئية في جميع القرارات المتعلقة بتغليف وملصقات المنتجات.					
التسعير الأخضر						
1-	يتم اخذ الاعتبارات البيئية عند وضع سياسات التسعير.					
2-	يتم اضافة التكاليف البيئية الاضافية على سعر المنتج الاصلي.					
3-	تقوم الشركة باستخدام أساليب في التسعير (مثل التخفيض والخصم) لتحسين الأداء البيئي لدى الزبائن والمستهلكين (مثل الخصم عند اعادة استخدام المنتجات او أعادة التدوير)					
4-	اسعار الاصدارات من المنتجات الصديقة للبيئة اعلى من اسعار المنتجات المماثلة.					
5-	تستوعب الشركة التكلفة الاضافية للمنتج البيئي.					
الترويج الاخضر						
1-	تقوم الشركة باستخدام النقاش البيئي في عملية الترويج والدعاية للمنتجات					
2-	تقوم الشركة باستخدام الملصقات والشهادات البيئية للمنتجات .					
3-	تقوم الشركة برعاية الاحداث والمبادرات البيئية.					
4-	يتم التركيز على الجوانب البيئية للمنتجات خلال عملية الترويج والاعلان.					
5-	يتم الاشارة في اعلانات الشركة الى مدى التزامها بحماية وتحسين البيئة.					
6-	تدعم الشركه استخدام التجارة الالكترونية لمساهمتها في حماية البيئة.					

7-	تبذل الشركة جهدها لتقليل التأثير السلبي على البيئة لممارسات الدعايه والترويج للمنتجات (مثل استخدام طرق الاتصال الرقمي للترويج للمنتجات).					
التوزيع الاخضر						
1-	نقوم بالتعاون مع الجهات المختلفة لتطوير اتفاقيات لاعادة المنتجات ومواد التعبئة بعد الاستخدام.					
2-	نلتزم مع كافه الجهات التي نعمل معها بحماية البيئة.					
3-	نعمل على تطوير برامج تسويق صديقة للبيئة مع موردينا ومصدرينا.					
4-	نشجع موردينا وموزعينا على تبني انشطة وممارسات تعكس التزامهم بالمسؤولية البيئة.					
5-	وضعنا مواصفات وشروط عامه متعلقه بالالتزام البيئي ونراقب مدى التزام الاطراف المختلفة التي نتعامل معها بهذه الشروط.					
6-	نبذل جهد لاختيار انظمة نقل صديقه للبيئة.					
7-	نستخدم حاويات معاد تدويرها أو قابلة لإعادة الاستخدام في مجال الخدمات اللوجستية.					
8-	تأخذ بالاعتبار الشروط البيئية في التوزيع والتوزيع العكسي للمنتجات.					
9-	يتم اختيار الاطراف التي سيتم التعامل معها حسب سياسة بيئية معتمدة.					

القسم الثالث: تقييم الآداء المستدام للشركة

يرجى الاشارة الى مدى تطور الأداء البيئي والاقتصادي والمجتمعي للشركه نتيجة لالتزام الشركة بالممارسات البيئية في التسويق

الآداء المستدام للشركة		درجة مدى التطور				
الآداء الاقتصادي		**ضعيف جداً**	**ضعيف**	**ثابت**	**جيد**	**ممتاز**
1-	تعزيز كفاءة الإنتاج (من خلال الاستهلاك الافضل للموارد وتقليل الهدر)					
2-	زيادة حجم المبيعات					
3-	تعزيز الحصص السوقية للشركة					
4-	زيادة معدل الارباح نتيجة لتقليل استهلاك الطاقة والمواد					
5-	الزيادة بالعائدات على الاصول					
الآداء البيئي						
1-	تقليل انبعاثات الغازات المضرة للبيئة					
2-	تقليل انتاج المواد الخطرة المضرة للبيئة					
3-	خفض استهلاك الطاقة					
4-	الشراكه مع الموردين والجهات الصديقة للبيئة					
5-	استخدام مواد صديقة للبيئة					
6-	تقليل النفايات وزيادة استخدام المواد المعاد تدويرها					
الآداء المجتمعي						
1-	تحسن سمعة الشركة					
2-	تحقيق التوافق بين توقعات السوق واداء الشركة					
3-	تحسين صورة العلامة التجارية					
4-	تحسين رضا وولاء المستهلكين					
5-	تقليل الدعاية السلبية الناتجة عن الممارسات المضره بالبيئه					
6-	تقليل شكاوى المستهلكين وأعادة المنتجات					

ملاحظات أخرى تودون اضافتها:

_____

_____

_____

_____

_____

_____

شكراً لوقتكم وتعاونكم

جامعة النجاح الوطنية

كلية الدراسات العليا

تقييم تأثير الممارسات الخضراء في التسويق على الأداء المؤسسي المستدام في الصناعات الغذائية الفلسطينية

إعداد

الآء الطاف بريك

إشراف

د. يحيى صالح

قدمت هذه الأطروحة إستكمالاً لمتطلبات الحصول على درجة الماجستير في برنامج الادارة الهندسية، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس – فلسطين.

2021

تقييم تأثير الممارسات الخضراء في التسويق على الأداء المؤسسي المستدام في الصناعات الغذائية الفلسطينية

إعداد

الآء الطاف بريك

إشراف

د. يحيى صالح

الملخص

إنَّ التغيير المتسارع الحاصل للبيئة والآثار البيئية السلبية الناتجة عن الثورة الصناعية خلال القرن الحالي ،جعلت من تبني الممارسات الخضراء والاستدامة من أَهم مساعي قطاع الأَعمال والشركات الصناعية للمساهمة بحماية البيئة. لذلك قامت العديد من الشركات الصناعية بدمج الممارسات البيئية في الأَقسام الإدارية المختلفة مثل: التصنيع، الموارد البشرية، والبحث والتطوير وغيرها. وبما أنَّ التسويق واحداً من الأقسام الإدارية الرئيسية في الشركات، والتي تشكل جسراً لربط الشركات مع زبائنها، واكتشاف رغباتهم وتطوير منتجات وخدمات تلبي طلباتهم، فإنَّ دمج الممارسات البيئية بالعمليات والأَنشطة التسويقية أَو ما يُعرف بالتسويق الأَخضر (Green Marketing) برز كمنهج تسويقي يساهم في جعل الشركة قريبة من زبائنها ويقلل من آثار ممارساتها السلبية على البيئة، كما يساهم في تحقيق أَهدافها الربحية.

على الرغم من أَن هناك العديد من الأَبحاث التي تناولت التسويق الأخضر وآثاره على أَداء الشركات، إلّا أنَّ عدداً محدوداً من الأبحاث التي تناولت أثر المزيج التسويقي الأخضر (4P's) والتي تشمل؛ المنتج الأخضر (Green Product)، السعر الأخضر(Green Price)، الترويج الأخضر(Green Promotion)، التوزيع الأَخضر (Green Place)، على الأَداء المستدام للشركات (الأَداء البيئي، الأَداء الِإقتصادي والأَداء الإجتماعي) خاصة في الدول النامية.

إنَّ القطاع الصناعي من أَكثر المصادر مساهمة في تلوث البيئة في الدول المتقدمة والدول النامية على حد سواء، وبما أنَ الصناعات الغذائية تشكل الجزء الأكبر من الشركات الصناعية في فلسطين، فإنَّ هذه الدراسة تهدف إلى تقييم مدى تأثير تبني الشركات الصناعية الغذائية في فلسطين للممارسات الخضراء في استراتيجيات التسويق على الأَداء المستدام للشركات (الأَداء البيئي، الأَداء الإقتصادي والأداء الإجتماعي). يتكون مجتمع العينه من 57 شركة من الشركات الصناعية الغذائية الفلسطينية ،حيث تم جمع المعلومات الكمية من خلال استبانات تم ارسالها عن طريق البريد الإلكتروني أَو بشكل مباشر للشركات المستهدفة، تم جمع 47 استبانة، حيث استخدم نموذج المعادلة الهيكلية لطريقة المربعات الصغرى الجزئيه The partial least squares structural equation modeling لتحليل البيانات الكمية التي تم جمعها.

أَظهرت نتائج الدراسة أنَّ تبني الشركات الغذائية الفلسطينية لممارسات التسويق الأَخضر في استراتيجيتها التسويقية متواضع وغير ممنهج، وأَشارت النتائج أيضاً إلى أَنَّ معظم الشركات المستهدفة تتبع استراتيجية الخضراء الدفاعية أو استراتيجية المائلة إلى الخضراء من أجل التعامل مع التوجه نحو المنتجات الخضراء.

أكدت النتائج أيضاً أنَّ تبني الشركات لاستراتيجيات التسويق الأَخضر تساهم في تحسين الأَداء البيئي والإجتماعي والإقتصادي للشركات، إضافة إلى ما تقدم فقد أَشارت الدراسة إلى اختلاف تأثير كل من عناصر المزيج التسويقي الأخضر (4P's) على جوانب الإستدامة الثلاث (الأَداء البيئي، الأداء الإقتصادي والاداء الاجتماعي). وأكدت النتائج على التأثير الإيجابي لكل من المنتج الأَخضر والتوزيع الأَخضر على تحسين الأَداء البيئي للشركات، بينما ساهم الترويج الأَخضر بشكل إيجابي بتحسين الأَداء الإقصادي للشركات، في حين تبين أَن الأَداء المجتمعي للشركات مرتبط ارتباطاً إيجابياً بتبني الشركات للتوزيع الأَخضر.

من الجدير ذكره أنه ليس هناك أي تأثير إيجابي لعنصر التسعير الأَخضر على أَي من عناصر الأَداء المستدام (البيئي، الإقتصادي، المجتمعي)، مؤكداً حداثة المفهوم لدى المسوقين في الشركات الصناعية الفلسطينية.