

Studying the effect of green marketing mix on market share increase

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Abstract

Concepts such as green marketing-environmental and social marketing have been proposed in marketing literature over time for acting to social responsibility of corporations. Green marketing which is known as sustainable marketing too is a process that is implemented today even in developing countries. Due to the issue of preserving the environment consumers rethink about the products they purchase. Nowadays, many consumers are prepared to pay a higher price for the products which observe environmental standards for actual protection of the environment. The present paper intended to study the effect of green marketing mix on market share increase in manufacturing companies. To this end, one primary hypothesis and twelve secondary hypotheses were proposed. The survey was conducted using descriptive-applied method and researcher self-made questionnaire was tool of data collection. The statistical population included one-hundred fifty nine employees of a manufacturing company among whom one hundred persons were selected as research sample using Cochran formula. The results revealed that there is a significant and positive relation between green marketing mix and market share increase and all hypotheses were confirmed. The present paper has implications for managers of service and industrial corporations and marketing and management researchers.

Keywords: green marketing mix, green marketing, market share, social responsibility of the corporation

Introduction

The environment has become a vital and crucial issue for all people whether as a customer or as a manufacturer. Since traditional marketing emphasizes customers' needs excessively and does not consider social welfare and environmental issues this matter has entered in all dimensions of corporations, it has affected marketing and has been led to the appearance of the concept of green marketing. The term green in marketing roots in ecological and environmental issues and corporations or people use it when they want to talk about environmental or ecological pressures (Doaee, Fathi & Sheikhian, 2009). In recent years the global life environment has been deteriorated by gradual growth of the population and in order to satisfy consumers' demands. Destruction of environmental systems is related to consumer's life style and behavior. By gradual increasing of awareness of the environment and environmental protection People have taken part in establishment of corporations supporting the environment and environmental rules to prevent permanent destruction of the environment through international trade sanctions. Today, paying attention to the importance of green products and green consumption has been converted into the proposed actions to guarantee sustainable development (Miao & Tsai Jia, 2009).

Marketing experts and counselors are interested in studying how environmental issues affect the growth of marketing activities (Chamorro *et al.*, 2009) but definitely it is not a new subject. An extensive number of marketing fields has investigated the relation between natural environment and consumer behavior (Diamantopoulos

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et al., 2003) and marketing strategy and public policies plans (Press & Amould, 2009). Green marketing has been created to identify and target social and environmental awareness, i.e. the business demand party (Smirnova Henneberg, Ashnai, Naude, & Mouzas, 2011).

All societies across the world have recently considered that environmental issues are continuously increased due to a large amount of environmental pollutions produced by industrial plants (Chen, 2008). This propels the corporations to accept environmental responsibility (Chen *et al.*, 2006). At the most primary level a corporation is a collection of people who suffer from accumulation of individual problems at the corporations' level. Given to the perspective of neoclassic economy, it means that corporations are responsible to create value for shareholders although many believe that more extensive types of performance are important too (Hillman & Keim, 2001). The main topic is about definition of value from what it has been created. Marketing and management theoreticians suggest that multi-dimensional acts of values can be developed and this contains the three-fold bottom line that includes the community and environmental values besides financial value (Robins, 2006). The issue of how value of the corporation can be defined significantly so that it merges environmental effects of the corporation has not been investigated highly. However, some academic fields like social accounting intend to determine social value of corporations (Knirsch & Sz kely, 2005).

Marketing as an action is now limited. Therefore, it is interesting that marketing act (and generally business strategy) is not as explicit as integration and dealing with environmental issues and their effect in the society (Smart, 2010). By development of globalization more than the two previous decades, sustainability has been converted into a political concept from a technical concept and then the main business flow (Liu, Leat & Smith, 2011). The major challenge of humans in the present century is to find a more sustainable and equitable way for production, consumption and life. This challenge in marketing has two dimensions. Social and ecological issues in short-term are converted into an important effective external factor on corporations and markets so that corporations should react to changeable needs

of consumers, new rules and increasing social pressures regarding environmental and social effects of business. Sustainable investigation in long-term requires establishment of fundamental changes in the dominant management paradigm to affect other marketing functions according to social responsibilities (Peattie & Charter, 2003).

Along with the growth of concerns of the external environment about social- environmental effects of economic and trade activities corporations should react to such concerns. Establishment of the environment management, applying the concepts of green audit and reporting systems and changing of corporations' policies to decrease pollutions and wastages can be among such reactions. Also the culture and strategy of corporations in responding to environmental issues should permanently be modified (Epstein & Roy 2001).

Green marketing

Green marketing which is referred to as sustainable marketing too is a process that is implemented today even in developing countries. Due to the issue of preserving the environment consumers rethink about the products they purchase. Nowadays, many consumers are prepared to pay a higher price for the products which observe environmental standards for actual protection of the environment (Kotler & Armstrong, 1999). The root of green marketing can be investigated in the wave that began in the 1970's over environmental issues and was led to the introduction of the concept of environmental marketing. This concept considered modern industries and technologies which damage the environment seriously. For this reason the proposed environmental issues at the end of the 1980's and beginning of the 1990's were resulted in serious reaction of many marketing thinkers and activists (Peattie & Charter, 2003).

Green marketing is a social process that people and groups satisfy their needs and demands through an ethical method which minimizes the negative impacts on the environment by means of exchanging the products and their value (Dahl, Dilek & Persson, 2008). In other words, green marketing includes all activities that are designed to create and facilitate transactions and satisfy human needs and demands which have minimum harmful and destructive effects on the environment (Cheah & Phau, 2005). Green

marketing is regarded as one of the important attitudes in modern business. Demand for ecologic products of business activities compatible with the environment is due to the increased awareness of customers about environmental issues. To put it differently, if businesses are aware of the impact degree of environmental variables on purchasing behavior and green and sustainable consumption of consumers, they will take steps to adopt initiatives and a more sustainable and stable marketing and it responds to challenges of the modern era of green marketing in the best manner that are foresight, justice, equation and emphasizing the needs by observing the rights of future generations (Charter & Clark, 2007).

Some experts try to insert the concept of green marketing in the definition of social marketing but green marketing has characteristics which distinguish it obviously from social marketing including emphasizing physical stability of marketing process and accepting its social responsibility; representing a more holistic and dependent viewpoint to view the relations among the economy, society and the environment; a permanent viewpoint instead of a long-term viewpoint; considering the environment as a valuable phenomenon more than its helpfulness for the society and paying attention to global concerns rather than issues of a specific society (Mulhall, 2006).

Anyway it is more helpful to define the concept of green marketing as below which has been developed in reaction to the modern green movement from one side and has been shaped based on ideas of social and ecological marketing. Green marketing is an integrated management process that is responsible to determine, predict and satisfy needs of customers and the society in a profitable and stable manner (Peattie, 2009).

Social responsibility of the corporation

Social responsibility of the corporation is a concept through which corporations consider the social and environmental concerns voluntarily in business processes and interaction with their shareholders. In other words, social responsibility is transparency of the adopted methods by corporations in managing the environmental, economic and social topics which can improve relations of employees, customers and beneficiaries (Jones, Clarke & Hillier, 2007). Prominent corporations as responsible corporations follow a very ethical

method in order to respond to their beneficiaries clearly. These corporations have a special sensitivity and attention towards social responsiveness and maintenance of stability of the environment of the corporation at the present and in the future and promulgate this viewpoint. They perceive and observe local and global expectations and rules through open communication with beneficiaries and go beyond that (Taghavi&Alavi, 2011).

Nowadays corporations across the world try to achieve market share in the competitive scope to be able to increase their sales quota with regard to their competitors. Market share is measured given to the percentage of a corporation's total sales during a special time period to total products sold in the market. In order to obtain competitive advantage corporations utilize their resources to improve their relative status with regard to the competitors and enhancing the status of the corporation causes to form better opportunities in the future. Market share shows relative status of competition that is represented by ratio of market share in comparison with the biggest competitors. It is regarded as a unique index of the corporation's status in the market. The corporation that has the highest share enjoys advantages such as economies of scale, validity of the brand, influence in the distribution channel and a unique marketing mix more probably. Experimental observations show that there is a relation between market share and profitability. Indeed corporations which have a high market share might be different from those which have a low market share in terms of various aspects of market share, because those corporations may have a better management or perhaps better expertise than other ones. High expertise and appropriate market along with suitable products can be led to market share increase and profitability (Khademi&Safarzade, 2006).

The first question that is asked in the decision-making process of market is that who plays the leading role in the market and who has the highest share. Market share is a very important issue and is measured given to the percentage of a corporation's total sales during a special time period to total products sold in the market.

It is noteworthy that market area must be determined before determining the leading role of market. It is clear that market share of a special product is meaningful in the area in which the corporation is active. Given that the corpora-

tion acts in which market (regional, local, global, etc) market share can change dynamically. Market range is commonly a special area. Market is often defined based on market researchers' ability to collect the information related to sales and market share. Historical problem of market researches about competitors is led to confusion or inaccurate and inefficient decision-making on the basis of reality in studying the number of the existing competitors in the market, density of market share (a combination of market share of three competitive corporations) and obtaining information in market researches. Dynamism of market share is an important case, for instance, who introduces the new products to the market and distributes them, i.e. permanent studying of research and development. The important point is that competitive advantage and competitive insight are created by explaining and awareness from such stimulants in the market: Knowing that who has the highest market share (fixed thinking) or which corporation has the experience of creating the biggest change in market share (dynamic thinking).

History of change in the industry to predict change of productions in the future and the new strategies that the market will introduce must be studied and corporations that have special superiorities in this regard will be investigated. Indeed dynamic analysis of the market intends to know who/what at what time drives change in the market.

Although market share is not the only standard to study competitors but as it was mentioned earlier changing the market share is a vital index for the competitive environment and in fact it is an alarm for the corporation on behalf of the competitors.

The following indexes are often used as superior indexes to measure the probable change in sales and market share in the future.

1 - Mental share: when you ask someone about the first brand that occurred to him/her and he/she says a particular name about a special product indeed he/she gives some information about mental share of a brand. This reveals what is the remarkable mental brand of the customer which has superiority over other names. Mental share is the presence and recalling of the brand of a special product. In market research about competitors mental share of the competitor in the market is investigated as well as how it is created or changed (www.Artile.Refo.Ir).

2 - Vocal share: it is the percent of the spatial media share of a brand from total media share in an industry. This is often measurable simply through the price that is spent for advertising. Strong, accurate and appropriate advertising is a very suitable tool to change the percent of vocal share (www.Artile.Refo.Ir).

3 - Research and development share: it is the cost that the corporation allocates for research and development in the ratio of total percentage of the industry. This is long-term prediction about research and development of the progress level in quality- price discount and change of market share of a new product in the future. Studying research and development share of the competitor and the process of his/her activity is a viewpoint about predicting the future activity of competitors (www.Artile.Refo.Ir).

Green marketing mix

In order to create a greener economy there must be a range of new green products and technologies. This issue shows itself in many industries in the framework of a slogan (design for the environment). Successful and green production requires a process with a high level of integration and communications, good information, precise attention to concepts of the environment, senior management support and using a personality approach for measurement and benchmarking. As each corporation has a special marketing mix, challenge of marketers in green marketing is creative utilization of green 4p in which basic marketing principles of green marketing have been observed.

Green product

Environmental concerns that create demands for some new products have been given rise to revision of current products and in some cases they have even changed designing, formulation or manufacturing of the products (Peattie & Charter, 2003). Ecological purposes to design the products decrease consumption of resources and pollution and increase survival of scarce resources. Green product helps maintain and improve the natural environment along with maintenance of energy or resources and reduction or omission of using poisonous materials, pollution and wastes (Ottman *et al.*, 2006). In other words, green product is the one which incurs less harm to the environment (Dahl & Persson, 2008).

Characteristics of green products are placed in a general class: First are those that are related to social and environmental effects of the product or service. One of the new key standards of product management and its designing from the viewpoint of green marketing is emphasizing on the status of the product after consumption. The second group of characteristics is related to the manufacturing process of the product in the manufacturing company. Traditional marketing discusses about total products include tangible product (packaging and other dimensions of the product) and additional product (services with products). Considering characteristics of the total product in green marketing is more helpful. In this regard, applying some concepts of 5R in product development can be useful to improve environmental performance of the product after consumption. These 5Rs include repair, reconditioning, reuse, recycling and remanufacture (Peattie, 2009).

Green promotion

Many corporations use environmental discussions for their promotional activities. There are many concerns among the consumers about environmental advertisements. Focusing on sustainable relations instead of using the limited concept of green promotion is the suitable way to deal with such concerns. Sustainable relations stress seriously on creating vocal relation with beneficiaries especially the customers and its purpose is to increase awareness and training to reinforce social and environmental credit of the corporation and its products. This is usually performed by emphasizing the presentation of advertising slogans of the corporation and also through cooperation and partnership with social or environmental institutions (Wong & Stoneman, 2009). Green promotion and advertising mean to transfer real environmental information to consumers who have relation with activities of the corporation (Rosenberger Polonsky, 2001). Also, it is commitment of the corporations to preserve natural resources in order to attract the target market (Phau & Ong, 2007). There are three types of green advertisement: an advertisement that shows the relation between the product/service and the environment; an advertisement that promulgates green lifestyle by highlighting a product or service and an advertisement that depicts environmental responsibility of the corporation.

In green promotion several ethical and legal directions should always be considered including that you are assure that the advertised advantage has a real impact, for instance, it really decreases air pollution; determine special advantages of the product in terms of the characteristics related to improving of the environmental status; present certain data about the product advantages, for example specify the percentage and nature of the recycled product; provide conditions which make comparison possible for the customer; define all technical terms and explain environmental advantages because consumers know little about environmental issues (Wong & Stoneman, 2009).

Green price

Price is the crucial and important factor of green marketing mix. Most consumers pay a higher price only if they know the product's value-added. This value might be related to performance improvement, efficiency, design, apparent attraction or its taste or even due to other characteristics of the green product including longer life and harmlessness (Polonsky, Michael & Rosenberger, 2001).

Green pricing is one of the most difficult puzzles of green marketing. If social and environmental expenses are reflected in the presented price to the customer and the customer intends to pay such price, manufacturers will be encouraged to create more sustainability. Corporations which attract such expenses and transfer them to the customer are always faced with two dangers of being charged with misusing of customers' interests as well as relative increasing of prices in comparison with the competitors (Durning, 2011). Green price should be reasonable and competitive (Soonthonsmai & Vuttichat, 2007).

Green distribution

Green distribution includes two internal and external aspects. By internal aspect we mean the internal environment of the corporation that must be a place in which managers and employees have a sense of tranquility besides observing the environmental issues in internal processes of the corporation and the proportionality between the internal space and the intended product. Thus customers are attracted to it due to good behavior of employees and the agreeable space. By external aspect we mean places for offering the products and services which have the least harm for

the environment (Vlosky *et al.*, 2009). Fossil fuel and energy consumption for delivering the products to customers is one of the basic environmental challenges for most businesses. Levying high taxes on fossil fuels' consumption can have a major effect on the transportation economy and encourage corporations to resort to regional and local corporations and distribution channels instead of using the internal distribution system (Menon, 2002). Some actions that can be considered by all corporations regarding distribution and transportation are as below:

- Developing of centralized distribution method that creates environmental advantages such as decreased movement of vehicles and reduction of shipments
- Compiling a suitable policy and purpose to decrease the pollution of vehicles which distribute the products
- Analysis of costs and utility for feasibility study of the recycling system of wastes and packaging
- Enhancement of environmental awareness both in the corporation and among the parties to the transportation contract (Polonsky & Ottman, 2000)

Research background

Kia Chan *et al.* (2012) performed a study entitled “green marketing and its effect on supply chain management in industrial markets” and investigated why and how green products can develop the supply chain in industrial marketing. They discovered sustainability of supply chain and its role in green industrial brand for future researches by showing many evidences in green industrial marketing and supply chain of products and presented an insight of the effect of supply chain in marketing theories in industrial markets and electronic commerce.

Lia and Wog (2012) conducted a research entitled “green logistic management and performance” and studied experimental evidences of Chinese plants export and the important factors in documents about logistic management with environmental considerations. The results based on studying export of Chinese plants revealed that the economic motivation regarding adaptation with green logistic management is not supported. Green logistic management, however, has a positive effect both on the environment and the operational performance.

In his research entitled “shareholders in the process of product development” Ottoman (1998) studied the effect of consumers' perception from the product and their purchasing behavior and showed that 41 percent of consumers do not buy green products, because they think these products are of poor quality and besides they have no information about recycling of green products (Baker, 2008).

In his research entitled “green brand positioning strategy and its effects on people's attitude towards brand” Hartman (2005) studied the effect of green marketing strategies on consumers' attitude towards the product. He showed that green brand positioning affects people's attitude towards the brand and consumers have a positive attitude and a favorable feeling towards the brand of companies which have green status in the society.

Camino (2007) performed a research entitled “re-evaluation of shareholders' emphasis on green marketing strategy” and studied the role of shareholders in green marketing strategy and showed that shareholders play an important role in corporations and markets. But there is no perfect method that shows the relation between shareholders management and green marketing strategy.

In his research entitled “the effect of gender on purchasing behavior of Hong Kong adolescent consumers” Lee (2009) investigated gender differences in environmental perception of the environment and understanding environmental responsibilities in green purchasing behavior in Hong Kong adolescent consumers. The results demonstrated that young women have more score than men regarding green purchasing behavior in this country.

Ottoman *et al.* (2006) conducted a research entitled “green marketing of cosmetic products to analyze green marketing strategies of two competitive companies in Thailand market”. They understood important features in consumers' viewpoint while purchasing green cosmetic products and evaluated customers' attitude towards the two companies. They concluded that natural ingredients, climate of the shop, skin protection, brand image and not testing the products on animals have a high importance in purchasing decision in viewpoint of Body Shop consumers. Consumers of Oriental Princess Company believe that five features of skin protection, product performance, the ingredients, value of the money paid for the product and fragrance of the product are important in their decision.

In their research entitled “a conceptual model of US consumer willingness to pay for the environmentally certified wooden products” Vlosky *et al.* (1999) presented the model of US consumer willingness to pay for the environmentally certified wooden products and concluded that US consumers are willing to buy certified wooden products and can be regarded as a reasonable target market.

In their research entitled “US consumers’ willingness to pay for green electricity” Roe *et al.* (2001) analyzed demand for environmental characteristics of residential electricity services of decentralized markets in America. They concluded that many people intend to pay more prices for the electricity that helps reduce the pollution.

Kotler *et al.* (2006) performed a study entitled “experimental studying of environmental labels on consumers” and investigated the effect of environmental labels on consumers. It was determined that some consumers believe products’ labels are unintelligible. Also it was revealed that there are consumers who purchase green products in spite of their lower quality but are looking for the environmental information on the labels.

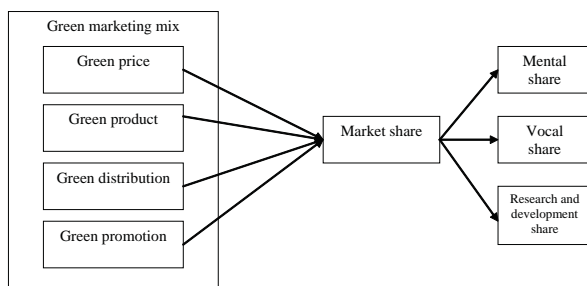


Figure 1. Conceptual model

Hypotheses

Research hypotheses were proposed as below given to marketing mix dimensions:

Primary hypothesis: Green marketing mix has a positive and significant effect on market share increase.

Secondary hypothesis 1: Green price has a positive and significant effect on mental share increase.

Secondary hypothesis 2: Green price has a positive and significant effect on vocal share increase.

Secondary hypothesis 3: Green price has a positive and significant effect on research and development share increase.

Secondary hypothesis 4: Green product has a positive and significant effect on mental share increase.

Secondary hypothesis 5: Green product has a positive and significant effect on vocal share increase.

Secondary hypothesis 6: Green product green price has a positive and significant effect on research and development share increase.

Secondary hypothesis 7: Green distribution has a positive and significant effect on mental share increase.

Secondary hypothesis 8: Green distribution has a positive and significant effect on vocal share increase.

Secondary hypothesis 9: Green distribution has a positive and significant effect on research and development share increase.

Secondary hypothesis 10: Green promotion has a positive and significant effect on mental share increase.

Secondary hypothesis 11: Green promotion has a positive and significant effect on vocal share increase.

Secondary hypothesis 12: Green promotion has a positive and significant effect on research and development share increase.

Methodology

This survey was conducted using descriptive-correlation method. The statistical population included one-hundred fifty nine managers and employees of Pouyesh Chap Company located in Faraman industrial estate in Kermanshah province. Simple random sampling method was used and sample size was obtained equal to one-hundred ten persons using Cochran formula.

Tools of data collection

The following methods were used for data collection:

- Historical study: This method was used to collect the information related to research literature and background.

- Field study: Ideas of the sample group were gathered through questionnaire. In order to measure the effect of green marketing mix on market share variable researcher self-made questionnaire was used. Validity of the questionnaire was determined by means of face validity and opinions

of marketing experts and professors. The reliability was determined using Cronbach's alpha coefficient that was acceptable. Inferential statistics and SPSS software were used to confirm or reject the hypotheses. The following table shows the value of the calculated Cronbach's alpha related to total questions by SPSS software that is equal to 0.940. According to the above explanations its value is close to one and shows a good reliability for the questions.

Table 1. Reliability analysis

| Number of questions | Cronbach's alpha coefficient of whole questions |
|---------------------|---|
| 43 | 0.940 |

Studying the hypotheses

Hypothesis 1: Green marketing mix has a positive and significant effect on market share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green marketing mix and market share were obtained and their significance was investigated. According to table 2, the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.86. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 2. Spearman's rank correlation coefficient of two variables of green marketing mix and market share

| Variables | Market share | |
|---------------------|-------------------------|------|
| Green marketing mix | Correlation coefficient | 0.86 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 1: Green price has a positive and significant effect on mental share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green price and mental share were obtained and their significance was investigated. According

to the below table that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.489. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 3. Spearman's rank correlation coefficient of two variables of green price and mental share

| Variables | Mental share | |
|-------------|-------------------------|-------|
| Green price | Correlation coefficient | 0.489 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 2: Green price has a positive and significant effect on vocal share.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green price and vocal share were obtained and their significance was investigated. According to table 4, the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.519. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 4. Spearman's rank correlation coefficient of two variables of green price and vocal share

| Variables | Vocal share | |
|-------------|-------------------------|-------|
| Green price | Correlation coefficient | 0.519 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 3: Green price has a positive and significant effect on research and development share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green price and research and development share were obtained and their significance was investigated. According to table 5, the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.470. This is a positive value that confirms posi-

tive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 5. Spearman's rank correlation coefficient of two variables of green price and research and development share

| Variables | | Research and development share |
|-------------|-------------------------|--------------------------------|
| Green price | Correlation coefficient | 0.470 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 4: Green product has a positive and significant effect on mental share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green product and mental share were obtained and their significance was investigated. According to table 6, the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.569. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 6. Spearman's rank correlation coefficient of two variables of green product and mental share

| Variables | | Mental share |
|---------------|-------------------------|--------------|
| Green product | Correlation coefficient | 0.569 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 5: Green product has a positive and significant effect on vocal share increase.

In order to study this hypothesis, Spearman's rank correlation coefficient of two variables of green product and vocal share were obtained and their significance was investigated. According to table 7, the estimated value of correlation coefficient between these two variables is equal to 0.402. This is a positive value that confirms positive correlation between the two variables and is

significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 7. Spearman's rank correlation coefficient of two variables of green product and vocal share

| Variables | | Vocal share |
|---------------|-------------------------|-------------|
| Green product | Correlation coefficient | 0.402 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 6: Green product has a positive and significant effect on research and development share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green product and research and development share were obtained and their significance was investigated. According to the below table, that is the result of SPSS output, the estimated value of correlation coefficient between these two variables is equal to 0.488. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 8. Spearman's rank correlation coefficient of two variables of green product and research and development share

| Variables | | Research and development share |
|---------------|-------------------------|--------------------------------|
| Green product | Correlation coefficient | 0.488 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 7: Green distribution has a positive and significant effect on mental share increase.

In order to study this hypothesis, Spearman's rank correlation coefficient of two variables of green distribution and mental share were obtained and their significance was investigated. According to the below table that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to

0.512. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 9. Spearman's rank correlation coefficient of two variables of green distribution and mental share

| Variables | | Mental share |
|--------------------|-------------------------|--------------|
| Green distribution | Correlation coefficient | 0.512 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 8: Green distribution has a positive and significant effect on vocal share increase.

In order to study this hypothesis, Spearman's rank correlation coefficient of two variables of green distribution and vocal share were obtained and their significance was investigated. According to table 10, that is the result of SPSS output, the estimated value of correlation coefficient between these two variables is equal to 0.309. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 10. Spearman's rank correlation coefficient of two variables of green distribution and vocal share

| Variables | | Vocal share |
|--------------------|-------------------------|-------------|
| Green distribution | Correlation coefficient | 0.309 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 9: Green distribution has a positive and significant effect on research and development share increase.

In order to study this hypothesis, Spearman's rank correlation coefficient of two variables of green distribution and research and development share were obtained and their significance was investigated. According to the below table that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.810. This is a positive value that confirms positive correlation between the two vari-

ables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 11. Spearman's rank correlation coefficient of two variables of green distribution and research and development share

| Variables | | Research and development share |
|--------------------|-------------------------|--------------------------------|
| Green distribution | Correlation coefficient | 0.810 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 10: Green promotion has a positive and significant effect on mental share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green promotion and mental share were obtained and their significance was investigated. According to the below table that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.582. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 12. Spearman's rank correlation coefficient of two variables of green promotion and mental share

| Variables | | Mental share |
|-----------------|-------------------------|--------------|
| Green promotion | Correlation coefficient | 0.582 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 11: Green promotion has a positive and significant effect on vocal share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green promotion and vocal share were obtained and their significance was investigated. According to the below table that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.375. This is a positive value that confirms positive correlation between the two variables and is

significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 13. Spearman's rank correlation coefficient of two variables of green promotion and vocal share

| Variables | | Vocal share |
|-----------------|-------------------------|-------------|
| Green promotion | Correlation coefficient | 0.375 |
| | P-value | 0.00 |
| | Number | 100 |

Secondary hypothesis 12: Green promotion has a positive and significant effect on research and development share increase.

In order to study this hypothesis Spearman's rank correlation coefficient of two variables of green promotion and research and development share were obtained and their significance was investigated. According to table 14, that is the result of SPSS output the estimated value of correlation coefficient between these two variables is equal to 0.520. This is a positive value that confirms positive correlation between the two variables and is significant at level $\alpha = 0.05$, because p-value is less than 0.05.

Table 14. Spearman's rank correlation coefficient of two variables of green promotion and research and development share

| Variables | | Research and development share |
|-----------------|-------------------------|--------------------------------|
| Green promotion | Correlation coefficient | 0.520 |
| | P-value | 0.00 |
| | Number | 100 |

Discussion and conclusions

Having confirmed the research hypotheses, it was found out that all factors of green marketing mix are effective on market share increase. Green marketing must still have great progresses either in research field or in practice. Making consumers familiar with green products and recalling their responsibility towards the environment using cultural tools and advertising is one of the tasks of marketers.

Many consumers consider issues of their environment and they use safe products only if such

products are at an equal level with those without these characteristics in terms of value standards. Despite using recyclable raw material is usually led to a positive reaction in consumers, activity of some corporations might not have positive effects for the environment.

It can be stated that there is no way back to produce destructive products for the environment and governmental and competitive pressures and change of customers' attitude oblige corporations to follow and apply the green marketing approach gradually. Corporations should strengthen their status in the competitive environment by re-engineering of manufacturing processes and product/service design; otherwise they will stay behind the green train. Green marketing approach does not only focus on satisfying customer needs, rather customers' needs according to this approach must be satisfied so that they are helpful for the society as a whole. There are various principles to create competitive advantage and move towards becoming green that contains the following opportunities. First, the green production process often improves efficiency of resources, thus it decreases costs in the structure of the corporation and improves its competitive status than the competitors. Second, green marketing activities enable the corporation to be more prominent than the competitors by offering new products in new markets or additional advantages for current products. This will increase the value of the corporation for customers, enhances customer loyalty and finally profitability will be increased. Corporations look for short-term results and might have less commitment regarding the necessity of organizational processes towards basic changes. Hence, they may have less intention to embrace the strategic green marketing approach. Thus it can be said that time, commitment and resources are the necessity of achieving important results in green marketing. As a result it is essential that market-oriented businesses move towards social responsibility to satisfy social expectations of customers and the society. Major purpose of social responsibility is to accumulate all sectors (such as public, private and volunteers) and those corporations that accept social responsibility seriously will witness the success and enhancement of their financial performance and will be able to attract people's trust and market share towards their products.

Some applied recommendations are proposed for those who are interested in this regard:

Using more informative advertising on television and promoting the green product

Trying to collect and recycle the recyclable products and giving information in this regard

Enhancing the quality of products and trying to increase their age

Using directions of environmental ISO

Conducting researches about green marketing and its advantages for suppliers of green products and services

Using all possibilities and the modern technology for appropriate designing, production, pricing, promotion and distribution

Paying attention to the environment and creating green marketing department, designing the structure, mobilization of suitable resources and possibilities by corporations

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