# PalArch's Journal of Archaeology of Egypt / Egyptology

The Impact of Green Marketing on Purchasing Decision of Durable Goods An Empirical Study on Energy Saving Lamps Consumers in Amman, Jordan

<sup>1</sup> Dr. Ayed M. Al Muala

<sup>1</sup> Faculty of Economics and Administrative Sciences, University of Zarqa - Jordan Email: <sup>1</sup> aied\_muala@yahoo.com

Dr. Ayed M. Al Muala: The Impact of Green Marketing on Purchasing Decision of Durable Goods An Empirical Study on Energy Saving Lamps Consumers in Amman, Jordan -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(9ssss). ISSN 1567-214x

Keywords: Green Marketing, Purchase Decision, Durable Goods, and Jordan.

## **ABSTRACT**

The aim of this study is to identify the impact of cofactors for green marketing on the purchasing decision of durable goods for the consumers of energy saving lamps in the city of Amman by selecting the independent variable which is green marketing includes (price, safe product, environmental awareness of the consumer, and product quality). A dependent variable is consumers purchasing decision of durable goods. The study population is a consumer of energy saving lamps in the city of Amman. The research population in this research is all consumers of energy saving lamps in Amman city. The researchers distributed 460 questionnaires of study found that the returned for analysis of 394 respondents. The research results showed that the green marketing dimensions (price, safe product, environmental consumer awareness, and product quality) have significant impact on the consumer decision buying for consumers of energy saving lamps in the city of Amman. The study recommended that the necessity to develop the capabilities and competence of the safe product because it has the lowest contribution on consumer decision buying.

## 1. Introduction

One of the most important events of our time is the rapid changes in product lifecycle and the development and standardization of products on the market by manufacturers. Once the company launches a product in the market, in a short period another product is offered to the same company or others to address the

Extreme competition. Among these new concepts in the field of marketing is the increasing interest of companies in the manufacture of products that preserve the environment, and provide products safe to them, and protect the consumer to push companies to focus on the concept of green marketing, and has become a strong impetus for these companies to produce environmentally secure goods and society. The decrease in the availability of raw materials, high prices and high prices of the electricity bill led to the production of energy-saving items such as electric lamps, which reduces environmental pollution compared to ordinary lamps and saves electricity consumption, which reduces the bill especially in light of rising electricity prices in Jordan.

Hence, the need to pay attention to the concept of green marketing, which is concerned with every step that paves the way for the delivery of a clean environmental product free from pollution or deception and fraud, preserving the sources of nature and energy. In order to meet the needs and desires of consumers of this new product in the Jordanian market, it is necessary to know the factors that affect the decision to buy the consumer to buy lamps to be able to meet those needs and desires.

Because the marketing science is characterized by continuous innovation and development that is in line with developments in all markets, and since the modern marketing orientation is based on the production of what can be marketed, and focuses on the targeted marketing to satisfy the needs, and according to the tastes of consumers and their potential and not the sale of what was produced, it is based on the premise that the needs and desires of the target consumers must first be determined, then the production of that marketing or service marketing mix consistent with those needs, and the wishes that are estimated based on marketing studies and research regularly and periodically for various environmental developments (Obaidat, 2008).

In the modern concept, marketing study the behavior of the consumer through how to satisfy his needs, and consider the consumers as the main basis for the success or failure of marketing activities. As marketers become interested in the needs and possibilities of the consumer, the purchasing decision meet these needs to obtain their satisfaction, and gain them to achieve the objectives of the establishment, and here we note that the benefit is shared between the parties, the establishment seeks to achieve its objectives, and the consumer seeks to satisfy his needs and desires also renewed (Al-Khazaleh, 2015).

Based on the above, this study is to emphasize the importance of the cofactors contributing to the green marketing of the decision to purchase durable goods for the consumers of energy saving lamps.

Lamps energy companies seek to identify the impact of green marketing cofactors on the decision to purchase energy saving lamps in Amman and to understand the reasons for diversity and variation from one consumer to another to make a purchase decision. In view of the market alternatives and the multiplicity of species and the increasing demand for these products, it has become apparent that the purchase of energy saving lamps is increasing in the city of Amman, it is necessary for these companies to work to achieve the satisfaction of customers who deal with them and satisfy their needs and

desires and improve the efficiency of the performance of retailers while providing their products with the aim of increasing their performance to reach the level of satisfaction of these consumers, which would reflect positively on the increase in the demand for these products as competition intensifies among them.

Although the demand for energy saving lamps is increasing, it has become increasingly noticeable, resulting in competition and the introduction of many alternatives and import of different types of lamps to be available to consumers to choose from. This is the result of a market and a number of consumers who should be focused on by retailers. The scientific importance of this study is to identify the impact of green marketing cofactors on the decision to purchase durable goods for the consumers of energy saving lamps in the city of Amman by knowing the impact of price, environmental awareness of the consumer, consumer's conviction whether this product is less energy consuming. In addition to an attempt to enrich the Arabic library with a topic that is considered one of the most important marketing topics in our modern era.

The practical importance of the study stems from providing important information to the consumers of energy saving lamps in the city of Amman in how to choose the best alternatives available in the Jordanian market during the decision-making process. This study can also help to know how to improve the performance of companies in the Jordanian market, especially in the city of Amman.

#### 2. Literature Review

Researchers are interested in the subject of green marketing because of its importance in the field of contemporary marketing, Angelo et al (2019) discusses about energy saving lamps. They are mentioned on their article the important of energy saving lamps about the high efficiency of the lamps and how it is reducing costs of the billings .Gupta (2017) received a great deal of attention in the field of green marketing, where he explained in his study the purpose and challenges of green marketing in India. The results showed that the main purpose of green marketing is the emergence of intense competition, the strong sense of social responsibility, the identification of consumer needs and the protection of the environment. The results also showed that one of the biggest challenges facing green marketing is high cost and low consumer awareness.

Yu-Shan, et al., (2016) examined the effect of green innovation on institutional performance by selecting a sample of 146 respondents. The results showed that green product innovation positively affects institutional performance and that green innovations positively affect the performance of green product development. Companies should develop proactive green innovation in order to promote and increase production.

The study aims at identifying the factors influencing the decision of the Jordanian consumer to purchase hybrid cars in Amman through seven factors (tax exemptions, environmental protection, maintenance, after sales service, specifications of hybrid cars and reference groups). To achieve this goal, 420

questionnaires were distributed to the buyers of hybrid cars in Amman. The results showed that there is a statistically significant impact for the environmental protection factor and society on the decision to buy the Jordanian consumer for the purchase of hybrid cars. The study (Al-Momani, 2015) focused on identifying the impact of the application of green marketing on the marketing performance of the household electrical appliances companies in the city of Amman, through the main axes in the concept of green marketing, social responsibility, safe and environmentally and products less consumption energy, products are easy to repair and replace, and finally consumer environmental awareness. 135 questionnaires were distributed. The study found that there is an impact of the application of green marketing such as social responsibility, safe and environmentally safe products, and environmental awareness of the consumer on marketing performance. In addition to highlighting the need to create a culture of consumer consumption behavior that satisfies market needs and desires (Azzam, 2013). In addition, Raluca (2014) presented a review of green marketing literature through his study of consumer awareness of products. The results of the study showed that there is concern among consumers about the use of the green product and the unwillingness to change the consumption pattern in the sample of the study.

A study conducted by (Salhi, 2012) asserted that the green marketing between marketing performance and environmental performance of enterprises, focused on the increasing awareness of these institutions and their transition from responsibility to environmental responsibility environmental obligations and ethics aimed at reducing waste and disposal due to manufactured products. The study found that there is a statistical indication of the need to reduce the risks resulting from the use of safe technology in the process of manufacturing goods by companies. Azzam (2008) also aimed to assess the reasons why modern organizations adopted the concept of green marketing and the problems faced by organizations in adopting this concept. The study found that the company's interest in the production of environmentally safe goods is more profitable and protects consumers and the environment from the negative effects that may result from nonenvironmentally safe manufacturing. Al-Samadi (2006) focused on clarifying green marketing barriers in the Arab region. The study concluded that the laws of green marketing should be respected by the Arab consumer through the use of consumption patterns that are for the benefit of the environment. (Clare and Mehdi, 2005) showed that there is a lack of green advertising in the process of persuading consumers to purchase environmentally safe products, which leads them to not be convinced to buy them, and the benefits they can achieve when they are purchased. The results of green pricing programs in public utilities for generating electricity in the United States were identified. Dan (2002) mentioned critical elements of the success of green pricing programs include product design, and the credibility of the institution in the world with its customers, and create a sense of collective participation in the marketing program.

Michael & Smith, (2002) highlighted the importance of US companies preparing their existing products or adding new green products to their production lines. In their study, 70% of the environmental impacts of the product were determined by decisions made during product design, such as selection of materials used in manufacturing and packaging. And that adoption of green production will give sample companies a competitive advantage in the near future.

From beginning of the sixties the world began to be very concern about some environmental issues such as pollution and depletion of energy sources. This worry has grown exponentially in the early 1970s, with some complex issues such as global climate change, increasing depletion of natural resources, damage to the natural environment as a result of industrial waste and waste, Production and marketing of human and environmentally harmful goods (Kotler: 2002). Marketing departments in business organizations are calling for the production of environmentally safe products, which has begun to focus on a unique type of marketing, called green marketing, which focuses on commitment to environmental responsibility in all marketing activities (Al-Smadi, 2006). It was the first appearance of the American Marketing Association's green marketing definition in 1975, which highlighted the importance of studying the negative and positive aspects of marketing activities and their impact on pollution, waste of energy and depletion of natural resources (Henion& Kinnear, 1976). (Azzam, 2008) is defined green marketing as an integrated and organized marketing process that is designed to influence the preferences of communities so as to drive them to consume environmentally harmful products in order to protect the environment and the consumer and to generate profits for the company. (Gupta, 2017)one of the most important definitions of green marketing was Polonsky (1994), which included all activities designed to generate and facilitate exchanges to satisfy the needs and desires of individuals and customers, ensuring that these processes are less damaging to the environment natural.

The green marketing approach shows new horizons and attractive marketing opportunities for service and industrial organizations, and achieves a competitive advantage in the market, earning the organization a higher profit, gaining a good reputation in the community and meeting the owners' needs. Addition, the focus on the production of safe and environment safe commodities drives the organization to increase the efficiency of its production processes, reducing the levels of environmental damage and pollution resulting from such operations, as well as avoiding legal prosecutions leading to the payment of compensation to the affected and raising environmental associations and consumer protection. Furthermore, the organization's environmental commitment helps to win social support for it and to consolidate its relationships with its existing customers and win new customers in the future.

The green organization's avoidance of legal prosecutions and the support of society due to its general acceptance of its objectives and philosophy enables it

to continue to offer its environmentally safe products and support its operations and business activities.

The green marketing application of business organizations is based on four principles and includes (Peattie, 1992):1) The traditional concept of waste management and industrial residue has changed in green marketing, with the focus being on the design and production of waste-free goods rather than how to dispose of them, by raising the efficiency of production processes. That is, the important thing is not what we should do with waste, but how to produce goods without waste. 2) is to keep abreast of the production technology of the concept of environmental commitment, so that production depends largely on environmentally safe raw materials and the minimum consumption thereof. As well as the need to rotate the same products after the end of consumer use, especially durable ones, to return to the factory at the end, which can be dismantled and returned to the industry again in a closed loop. 3) The price of the product must reflect its real cost or be close to it. This means that the price of the commodity must equal the value obtained from the commodity, including the added value of the product being green. And 4) many organizations have recognized that green marketing is a market opportunity that may give the organization a competitive advantage and perhaps a sustainable one. In fact, most organizations compete in the market to achieve rapid gain, regardless of negative impacts on the environment. The competition in the market recognizes that this is considered a strategic competitive outlet, which can take the organization into another kind of competition, especially as environmental awareness among consumers grows and gradually transforms them into green consumers. One of the advantages of this strategic approach is that official and non-official bodies promote environmental trends naturally and continuously through various media. This includes free assistance and support from these agencies to the promotion efforts of organizations that adopt a green marketing approach. This will therefore be profitable, especially in the

The new trend towards the green marketing mix has started because of the criticism directed at the traditional mix, the most important of which is the lack of interest in the environment. Critics believe that it leads to negative effects that do not fit with the concepts of green marketing. The researchers believe that marketing mix is one of the most important marketing tools used by marketers to achieve the objectives of the process Marketing. The green marketing mix consists of seven elements (Dhanjit, 2017), (Manisha, 2017), and (Qureshi and Qadri, 2011): 1) Green product: Is the product that achieves an improvement in environmental, social and productive performance, utilization and waste disposal, and continues to improve compared to other traditional or competitive products. 2) Green pricing: Put value for the green products provided based on the type of target customer and the type of market that companies will deal with and not only to the competitive situation. 3. Green promotion: Is the process of social interaction aimed at eliminating the isolation behavior that can occur between the organization and its audience by providing green products as free samples, gifts and others to encourage them to

buy in the near future?. 4. Green distribution: Is the process of the physical movement of green products to achieve the goals of environmental marketing in the appropriate time and time? 5. Green process: Is the extent to which less harmful technology can be used for the physical environment and whether the productive process itself can become more efficient and less resource-intensive? 6. Individuals: The extents of the tram individuals to apply the laws and instructions for the production and manufacture of environmentally save products. 7. Green physical environment: Is the availability of a green physical environment while providing goods and services to end consumers or industrial users?

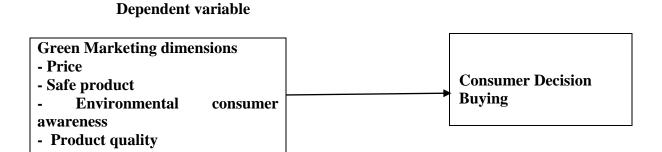
There are companies that apply green marketing to their mission and vision, but there are a number of other companies failing to implement green marketing, where marketing management has not properly built green marketing strategy causing many problems. Therefore, companies must comply with government laws and regulations to apply green marketing, especially in matters that can mislead consumers (Chowdhury & Dasani, 2013). These companies should apply the government's instructions on green products, the need to comply with the environmental standards of manufactured products, the need to follow the proper methods to achieve their marketing objectives in the production of their products and the need to adhere to the comparative advantages of green products to be manufactured (Polonsky, 1994).

In addition, some companies do not have the advanced technology or the right scientific knowledge of green processing, which may cause many incorrect business decisions that can lead to greater risk to the environment and bring negative effects on the ozone layer (Fleisch, Basu, Gradassi, &Masin, 1997).

# 3. Theoretical of Study

**Independent** 

This model was prepared in from the literatures on researches and based on the independent variable and the dependent variable (Al-Momani, 2015) (Al-Mansour, 2006) and (Byurugaba, 2004).



# 4. Hypotheses of the Study

This study contains the following main hypothesis: H1 price is related positively with consumer decision buying

variable

H2 safe product is related positively with consumer decision buying

H3 Environmental consumer awareness is related positively with consumer decision buying

H4 product quality is related positively with consumer decision buying

# 5. Methodology

The research includes four independent variables (price, safe product, environmental consumer awareness, and product quality) these variables measure green marketing. While the dependent variable consumer decision buying. This study focused on experimental research that used a descriptive and analytical approach, and one questionnaire tool was designed for energy saving lamps for consumers in Amman. The questionnaire is designed to collect data and then enter it into SPSS programs to obtain the required results. The study population consists of all consumers of energy saving lamps in the city of Amman (Sekaran, 2010). It is assumed that the sample of the study is not less than 384. Where the researcher distributed 460 questionnaires to customers and the correct return to the analysis of the questionnaires were 394 respondents. The researcher relied on random samples to distribute the questionnaires. This study used SPSS version 17.0, the 394 dataset was arranged and maintained by a data-scanning method for outliers.

#### 6. Results

# 6.1 Validity and Reliability

# 6.1.1 Face Validity

One of the most important tests before extracting the results is the apparent validity, which is considered one of the most important forms of validity as you apply a superficial and subjective evaluation of whether your study or test measures what has been assumed (Airasian & Gay, 2000). In order to measure the contents of the questionnaire in order to reach sound and coherent results, a comprehensive review of the study structures was conducted by academic professors from Jordanian universities that are interested in business administration and marketing management.

#### **6.1.2 Reliability**

Reliability is one of the most important tests that help the researcher to extract correct and appropriate results. It represents the degree to which he measures the questionnaire questions, and the reliability coefficient indicates the consistency of the resulting score (Airasian & Gay 2000). For the reliability analysis, we use the Cronbach Alpha ( $\alpha$ ) level standard, which is the internal consistency standard that shows the minimum acceptable level (Cronbach's Alpha 0.70) proposed by Sekaran (2010). Table 1 shows the reliability of the independent and dependent variables (Cronbach's Alpha). From the table, we can see that all Cronbach's alpha values in the study variables are more than (0.7). Therefore, the results of the study can be accepted according to (Sekaran, 2010).

Table (1): Reliability of the Independent and Dependent Variables (Cronbach's Alpha)

Number	Variables	Items	Cronbach's Alpha		
1	Price	7	0.742		
2	Safe Product	6	0.819		
3	Environmental consumer awareness	8	0.861		
4	Product quality	6	0.784		
5	Consumer Decision Buying	5	0.843		
	All items	32	0.928		

# **6.2 Demographic Characteristics of the Respondents**

Focus in this section is on describing the personal characteristics of the sample. The demographic file was divided into six items, which are gender, ages, educational qualifications; professional category, income and the monthly electricity bill (see Table 2).

**Table (2): Demographic Characteristics of the Respondents** 

Items	Characteristics	Frequencies	Percentage	
Condon	Male	227	57.6%	
Gender	Female	167	42.4%	
	Less than 20 years	20	5.1%	
A ~~	From 20 to less than 30 years	227	57.6%	
Age	From 30 to less than 40 years	83	21.1%	
	More than 40 years	64	16.2%	
	High school or less	49	12.4%	
	Diploma	37	9.4%	
<b>Education qualification</b>	Bachelor	207	52.5%	
	Graduate Studies	97	24.6%	
	Vocational	4	1.0%	
	Government sector	48	12.2%	
Occupational actaons	Private sector	152	38.6%	
Occupational category	Freelancer	72	18.3%	
	Retired	14	3.6%	
	Unemployment	108	27.4	
	Less than 220 JOD	97	24.6%	
Income	220-Less than 500 JOD	178	45.2%	
Income	500-1000 JOD	89	22.6%	
	More than 1000 JOD	30	7.6%	
	10-less than 25 JOD	91	23.1%	
Floatricity monthly invoice	25- less than 40 JOD	170	43.1%	
<b>Electricity monthly invoice</b>	40-less than 55 JOD	57	14.5%	
	More than 55 JOD	76	19.3%	

As shown in Table (2), the number of male who responded exceeded the number of female; (57.6)% in comparison to (42.4%). Next is, respondents age group, (57.6%) of the participants were in the age group of from 20 to less than

30 years represents the largest group (57.6%). The smallest age group is (Less than 20 years) that has (20) respondent to represent their age group which contribute (5.1%) to the sample. In addition the education qualification was measured based on five educational categories, the results showed variation in the educational level of participants. The largest percentage, (52.5%) of participants, obtains bachelor degree, while the smallest percentage, (1%) of participants, obtains vocational.

To get a better view of that, the question about respondent occupational category also is included in the questionnaire. The higher occupational category is private sector category which it represents the total sample of (38.6%). On the other hand, (3.6%) of the participants are retired.

Not all the participants have the same monthly income. Therefore, four categories of monthly income were defined. The result shows that (45.2%) of participants have 220-500 JOD monthly income. On the other hand, (6.5%) of the participants have less than one-year experience. About the electricity monthly invoice most of respondents paid about 25-less than 40 JOD per month. But the smallest group who paid more than 55 JOD (19.3%).

## **6.4 Variance Inflation Factor (VIF)**

To make sure that there is no overlap between the variables, the variance amplification factor (VIF) has been tested, which shows the extent of the correlation between one of the predictors and the other forecasters in the model. Therefore, it was used to know the multiple linear relationships between the variables. Higher values indicate that it is difficult to accurately assess the contribution of predictors to the model. According to Hair, Ringle, & Sarstedt, (2011) VIF 5 or higher it indicates a possible problem with multiple linearity problem. Therefore, in this study, there is no multiple linear problems because the VIF value is less than 5. See (Table 3).

Variables	VIF	Tolerance
Price	1.603	0.624
Safe Product	1.788	0.559
Environmental consumer awareness	1.707	0.586
Product quality	1.692	0.591

**Table (3): Variance Inflation Vector** 

## **6.5 Hypothesis Test**

Table (4) shows the study dependent variable (Consumer Decision Buying) and the set of the independent variables (price, safe product, environmental consumer awareness, and product quality), are significant because F significant was (0.000) which is less than (0.05), and the calculated F value is (100.159), which is more than F value table (2.38), therefore, we accept the hypothesis of the cofactors that assist the green marketing in making the decision to purchase durable goods for the consumers of energy saving lamps in the city of Amman.

The researcher in this part tested the main hypotheses, through Multiple, and Linear Regression analysis with (F) test using ANOVA table. Therefore, as

displayed in Table 4 presents each parameter's t values, R square and Sig of the Model of study. Hence, found that the (H1, H2, H3 and H4) have a significant positive and direct impact on consumer decision buying.

Table (4) Results of Multiple Regressions of the first main Hypothesis

Dependent Variable	R	$\mathbb{R}^2$	F	DF	SIG	Independent Variable	В	t	Sig
				4		Price	0.322	6.519	0.000
Consumer	0.712	0.507	100 150	389	0.000	Safe Product	0.136	2.609	0.009
Decision Buying	0.712	0.507	100.159	393 0.000	Environmental consumer awareness	0.158	3.049	0.002	
						Product quality	0.332	6.959	0.000

#### 7. Conclusion

The green marketing dimensions (price, safe product, environmental consumer awareness, and product quality) have significant impact on the consumer decision buying for consumers of energy saving lamps in the city of Amman. The results indicate there are strong positive relations between the green marketing dimensions and the consumer decision buying which mean any improving happen on the green marketing will improving the consumer decision buying. Also, the green marketing dimensions contribute about 71.2% to improve consumer decision buying. The result indicates there is statistical significant impact for product quality on consumer decision buying. In addition, the product quality has the highest contribution on consumer decision buying about (60.3%). Also if the product quality are enhanced by one unit, the consumer decision buying enhanced by (0.332).

The price has significant impact on the consumer decision buying. And the variable has the second highest contribution on consumer decision buying. In addition if the price are enhanced by one unit, the consumer decision buying enhanced by (0.322).

The environmental consumer awareness has significant impact on the consumer decision buying. In addition, if the environmental consumer awareness are enhanced by one unit, the consumer decision buying enhanced by (0.158). The result indicates there is statistical significant impact for safe product on consumer decision buying. In addition, the safe product has the lowest contribution on consumer decision buying .Also if the safe product is enhanced by one unit, the consumer decision buying enhanced by (0.136).

#### 8. Recommendations

• The necessity to develop the capabilities and competence of the safe product because it has the lowest contribution on consumer decision buying for energy saving lamps in Amman city.

- Ensuring the important of the environmental consumer awareness because it has the second lowest contribution on consumer decision buying for energy saving lamps in Amman city.
- .Maintaining and providing the green marketing dimensions (price, safe product, environmental consumer awareness, and product quality) to impact on the consumer decision buying for consumers of energy saving lamps in the city of Amman.
- Energy saving lamps should be cheaper than ordinary lams to attractive customers.

#### 9. Future Studies

This study discussed the impact of cofactors for green marketing on purchasing decision of durable goods for energy saving lamps consumers in Amman city from certain aspects identified by the study, accordingly, there are other points of view that are preferred to be studied in the future from other aspects that can serve the companies such as the benefits and important of using the energy saving lams to the personal and society and other factors that can be studied.

#### References

- -Abu Rajab, Murad , WalidShadi , Abu Mohsen, Mo'men and Abu Bakr, Anas(2011) Obstacles to the Adoption of Green Marketing by Organizations Operating in the Northern West Bank in Palestine, Graduation Project, Faculty of Economics and Administrative Sciences, Marketing Department, An-Najah National University, Palestine.
- -Al-Fadl, Muayad Abdul-Hussain, and Al-Taee, Yousef Hajim (2004) Total Quality Management from Consumer to Consumer: Quantitative Approach, Amman: Al-Warraq Publishing and Distribution.
- -Al-Khazaleh, AmjadMazen (2015) Factors Affecting Purchasing Decision for the Jordanian Consumer / Applied Study on the Buyers of Hybrid Cars in Amman, Published Master Thesis, Graduate Studies, Marketing Department, Zarqa University, Jordan.
- -Al-Mansour, Kasir Nasser (2006) Consumer Behavior, Jordan: Dar Al-Hamed Publishing.
- -Al-Momani, Sami (2015) The Effect of Green Marketing Application on Marketing Performance- A Field Study on the Household Electrical Appliances Sector in Amman City, Master Thesis, Graduate School of Marketing, Zarqa University, Jordan.
- -Al-Samadi, Sami (2006) Green Marketing Disabilities in the Arab Region, The Fifth Arab Forum in Marketing, Beirut Lebanon. -Airasian, P and L. R. Gay( 2000 )Educational Research: Competencies for Analysis and Application, New Jersey: Prentice Hall Inc.
- -Angelo Raciti, Santi Agatino Rizzo and Giovanni Susinni (2019) Parametric PSpice Circuit of Energy Saving Lamp Emulating Current Waveform, International Journal of Application Sciences, Vol 9, No. (1).

- Azzam, Zakariya (2008) Green Marketing: Concept and Implication, Proceeding of the SixInternational Conference of the Faculty of Economic and Business Administration, 6-7/ March, Zarqa University, Jordan.
- Azzam, Zakariya (2013) The Relationship Between the Consumers Environment and Green Marketing Importance in Environment Protection, Journal of University Science Elkasleek For Management and Economics (USEK), Vol.7, November.
- Azzam, Zakaria ,Hassouna, Abdulbaset and Al-Shaikh, Mustafa (2016) Principles of Modern Marketing, Amman: Dar Al- Masera for publication.
- -ByurugabaDomine( 2004)Tapping The Green Market,Journal of Ecology,Vo.1,Issue 2.
- -Chowdhury, S., & Dasani, L.(2013)Green Marketing- A new Corporate Social Responsibility"ASM's International E-Journal of Ongoing Research in Management and IT.Retrieved from http://www.asmgroup.edu.in/incon/publication/incon13-mkt-022.pdf.
- -Clare D'souza and Mehdi Taqhian(2005)Green Advertising Effects on Attitude and Choice of Advertising Themes, Asia Pacific Journal of Marketing and Logistics, Vol. 17 Issue: 3.
- -Dan Lieberman(2002 ) Green Pricing at Public Utilities: A How-to Guide Based on Lessons Learned to Date, Journal of Public Renewables Partenership, October.
- -DhanjitPathak(2017) Role of Green Marketing in Satisfying the Customers and Its Impact on Environmental Safety, International Research Journal of Interdisciplinary & Multidisciplinary Studies (IRJIMS) Vol.2, Issue
- -Fleisch, T. H., Basu, A., Gradassi, M. J., &Masin, J. G. (1997) Dimethyl Ether: A fuel for the 21st Century, Studies in Surface Science and Catalysis, 107.
- -HenionKavl& Kinnear Thomas(1976) Ecological Marketing ,Ohio:Amerecan Marketing Association .
- Gupta Ankita (2017) Purpose and Challenges in the Way of Green Marketing in India - A conceptual Study, International Journal of Applied Research, Vol. 3, No. 3.
- -KhanfarIyad ,Zamil Ahmed and Gharabat, Raed (2016) Principles of Marketing,Jordan: Dar Wael Publishing and Distribution.
- Kotler, Philip (2002) Marketing: Development Ethical Responsibility -Strategy, Damascus: Part I, translated by MazenNafa, Dar Alaeddin Publications.
- -Kotler Philip & Armstrong Gang(1999) Principles of Marketing, USA: Prentice Hall.
- -Kotler, Philip &Lee,N.(2005)Corporate Social Responsibility:Doing the Most Good for Your Company and Your Cause.Hoboken,NewJersey:John Wiley & Sons, Inc. USAp: 3.

- -ManishaM. (2017)A Study fo Green Marketing Initiatives By Government & Corporate Sector in India, Kaav International Journal of Economics, Commerce & Business Management, Vol. 4, Number, 1.
- -Michael Fuller and Joan Smith (2002) Greening Your Products:Good for the Environment, Good for your Bottom Line, USA EPA, February.
- Obaidat, Mohamed Ibrahim (2015) Consumer Behavior, Jordan: Dar Wael Publishing.
- -Obidat, Mohamed Ibrahim (2008) Principles of Marketing, Jordan: Dar Wael Publishing.
- -Peattie, K. (1992) Green Marketing, UK: Longman Group Ltd.
- -Polonsky, J.M. (1994) An Introduction to Green Marketing, Electronic Green Journal, Vol. 1, Number 2.
- Qureshi, Halima Al-Saadia and Kadri, Shahla (2011) Green Marketing as a Modern Direction for Business Organizations in Achieving Sustainable Development, Second International Symposium on Outstanding Performance of Organizations and Governments, University of Ouargla, 22-23 November, Algeria.
- RalucaMihaela (2014) Green Marketing, Product and Consumer, Journal of Practical Application of Science, Volume 2, Issue 3 (5).
- Ringle, C. and Sarstedt, M. (2011) PLS-SEM: Indeed a Silver Bullet. Journal of Marketing Theory and Practice, 19, 139-151.
- Salhi, Samira (2012) Green Marketing: Between Marketing Performance and Environmental Performance of Institutions, Journal of Administrative Sciences Studies, Vol. 39, No. 1, University of MarabahOuargla, Algeria.tction
- -SekaranUmmo(2010) Research Methods for Business, A Skill Building Approach, UK: 4th Edition, John Wiley & Sons.
- -Wasik, John F. (1996) Green Marketing and Management: a Global Perspective, Uk: Oxford Blackwell Publishers Ltd.
- -Yu-Shan Chen, Tai-Wei Chang, Chun-Yu Lin, Pi-Yu Lai and Kuan-Hung Wang (2016) The Influence of Proactive Green Innovation and Reactive Green Innovation on Green Product Development Performance: The Mediation Role of Green Creativity, Journal of Sustainability, Vol. 8, June.

#### Websites

-http://www.businessdictionary.com/definition/product-safety/2015