HOW THE MARKETING PERFORMANCE INFLUENCE THE GREEN MARKETING IN 14 ALGERIAN COMPANIES?

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ABSTRACT

The green marketing is one of the new economic topics as it plays a massive role in developing a new idea on different enterprises and their products. In this paper, we study the contribution of the marketing performance on green marketing composed of waste treatment, the relationship between price and cost, attitude toward the environment, and product creation. We make a survey of 14 Algerian companies (14 chiefs' executive officer) originated from Maghnia city, which is in Tlemcen province (northwestern of Algeria) during the period of 2019-2020. The Pearson correlation test indicates that there is a strong and significant relationship between marketing performance and waste treatment at the level of 1%. We find also two average and statistically accepted relationships between marketing performance and attitude toward the environment, and between marketing performance and product creation at the level of 1%. However, the relationship between marketing performance, and price and cost indicate a poor and insignificant sign. Therefore, these outcomes show that each company

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should take into consideration the green marketing mix as a part of the enterprise culture in order to maintain a clean environment as well as satisfy the needs of its customers.

Key words: The green marketing; the marketing performance; Algerian companies; Pearson correlation test

JEL classification codes: A12; L21; M31.

كيف يؤثر الأداء التسويقي على التسويق الأخضر في 14 شركة جزائرية ؟

ملخص

يعد التسويق الأخضر أحد الموضوعات الاقتصادية الجديدة لأنه يلعب دورًا مهما في تطوير فكرة جديدة عن مختلف المؤسسات ومنتجاتها. في هذه الورقة العلمية، سندرس ما مدى مساهمة الأداء التسويقي في التسويق الأخضر المكون من معالجة النفايات، والعلاقة بين السعر والتكلفة، والموقف تجاه البيئة، وإنشاء المنتجات. لتحقيق أهداف الدراسة تم تصميم استبانة وزعت على عينة 14 شركة جزائرية (14 رئيسًا تنفيذيًا) من مدينة مغنية الواقعة في ولاية تلمسان (شمال غرب الجزائر) خلال الفترة من 2019–2020. بعد اختبار العلاقة الارتباط بيرسون ظهر بأن هناك علاقة قوية و معنوية بين أداء التسويق ومعالجة النفايات عند مستوى الاحصائي 1٪. ثم قد وجدنا بأن العلاقة بين أداء التسويقي والموقف تجاه البيئة، و العلاقة بين أداء التسويقي وإنشاء المنتجات لهما علاقة ذات قوة متوسطة و معنوية عند مستوى 1٪. و لكن العلاقة بين أداء التسويقي والسعر والتكلفة تشير إلى علاقة ضعيفة و غير معنوية. لذلك، تُظهر لنا هذه النتائج أنه يجب على كل شركة أن تأخذ في الاعتبار مزيج التسويق الأخضر كجزء من ثقافة المؤسسة من أجل الحفاظ على بيئة نظيف.

QUEL EST L'IMPACT DE LA PERFORMANCE MARKETING SUR LE MARKETING VERT DANS 14 SOCIETES ALGERIENNES ?

RÉSUMÉ

Le marketing vert est l'un des nouveaux sujets économiques car il joue un rôle massif dans le développement de nouvelles idées sur différentes entreprises et leurs produits. Dans ce papier scientifique, nous étudierons la contribution de la performance marketing sur le marketing vert composé de traitement des déchets, la relation entre le prix et le coût, l'attitude envers l'environnement, et la création de produits. Nous effectuons une enquête auprès de 14 entreprises algériennes (14 dirigeants) originaires de la ville de Maghnia, dans la province de Tlemcen (nord-ouest de l'Algérie) au cours de la période 2019-2020. Nous constatons qu'avec le test de corrélation de Pearson, il existe une relation forte et significative entre la performance marketing et le traitement des déchets au niveau statistique de 1%. Nous avons également deux relations moyennes et significatives au niveau statistique de 1 %. Ces deux relations sont entre la performance marketing et l'attitude envers l'environnement, et entre la performance marketing et la création de produits. Cependant, la relation entre la performance marketing, et le prix et le coût indique un signe faible et insignifiant. Par conséquent, ces résultats nous montrent que chaque entreprise devrait tenir compte du marketing écologique dans le cadre de la culture d'entreprise afin de maintenir un environnement propre et de satisfaire les besoins de ses clients.

MOTS-CLES : Le marketing vert ; la performance marketing ; entreprises algériennes ; le test de corrélation de Pearson

JEL CLASSIFICATION : A12; L21; M31

INTRODUCTION

Marketing consists of a set of societal methods that may assume to engage its target audience, and build strong relationships to create value in order to capture value in return (**lumenlearning, 2016**). **Ghezali and Boundi (2020)** point out that the marketing activity is not only on a managing level of any enterprises, but also it also includes all workers, technologies, and natural resources as well. The synergies between them will permit to reach the sustainable development and green marketing. Effective marketing is achieved when the organization succeeds in identifying new opportunities and adopting innovative approaches and approaches in marketing practices (**Martin, 2009**). According to **Wahab and Nagaty (2017)** marketing theory focuses on the need to consider the characteristics of the changing environment, the pressure and variables involved. **Bilal and Mqbali (2015)** use marketing as a path to achieve competitive advantage based on achieving excellence and in their marketing programs, focus on raising the knowledge of these organizations distinct from customers, markets and technology. Green marketing has known fast growth in the United States, and now constitutes a market worth US $ 250 billion annually in the United States alone (**Papadopoulos et al., 2010**).

However, **Nandi (2014)** says that the world is going towards an environmental turmoil. The only way to save our planet is to go green on a full swing as quickly as possible. Thus, one of the resolutions for this was the introduction of green marketing. This latest is a relatively new phenomenon, which has arisen thanks to the increasing awareness present in the economic policies which have to do with ecology. In other words, green marketing (the environmental marketing or sustainable marketing) is the effort made by any company, large or small to design and promote products that are eco-friendly. The main idea behind green marketing is remarketing products that are already

manufactured, which adhere to certain environmental guidelines. **Polonsky (1994)** states that green marketing comprises product modification, changes to the production method and process, packaging and modifying advertising. **Juwaheer et al. (2012)** recommend that effective green marketing strategy should be further developed on green branding, packaging, labelling and advertising to create demand for greener products. **Chamorro and Bañegil (2006)** say that the objective of green marketing is to lessen the impact on the natural environment during the process of planning and implementations (products or services, price, place and promotion). **Mourad and Ahmed (2012)** point out that the goal of green marketing is to create profit and maintain social responsibility. **Gordon et al. (2011)** state that green marketing includes production to post-purchasing service with the goal to balance the company's profit and protect the environment as well. **Sarkar (2012)** approves that green marketing encompasses a broad range of activities, including product modification, changes to the production process, packaging changes, remodelling and stylising as well as modifying advertising. In general, green marketing can be applied to much broader concept, consumer goods, industrial goods and services. **Hasan and Ali (2015)** describe the green advertising as an effective method for the promotion of products, service and business ideas, as it is deeply linked with the preservation of the natural environment. **Nandi (2014)** describes a green consumer is one who has carefully considered the products they choose to consume and is aware of their environmental impact. This spirit is essential in customers, so that they do not blindly fall for a company's advertisement, which will hinder the progress of the green movement. Hence, it is only with the right attitude from both the consumers and the marketers, that "going green" can be achieved in the true sense.

On the other hand, some institutions perceive environmental marketing to be an opportunity that can be used to achieve its objectives (**Keller, 1987; Shearer, 1990**), as they believe that they have a moral obligation to be more socially responsible (**Davis, 1992; Freeman and Liedtka, 1991; McIntosh, 1990**). Institutions are now forced to become

more responsible competitors; environmental activities pressure firms to change their environmental marketing activities and the application of the green marketing is associated with several cost factors such as waste disposal, or reductions in material usage forces firms to modify their behaviour (**Azzone and Manzini 1994**).

Nowadays, several business firms in the world identify the green development as opportunities to improve their marketing niche rather than just actions, which need to be carried out. Therefore, Algeria is looking forward to introduce this concept in its economic circle to support its national economic growth in the future, however, it needs to increase awareness about the environmental issues among the population, businesses and institutions, which influence such market potential and let consumer "go green".

In this study, we shall study the contribution of the marketing performance on green marketing composed of waste treatment, the relationship between price and cost, attitude toward the environment, and product creation with a questionnaire on 14 chiefs' executive officer of Algerian companies situated in Maghnia district during the period of 2019-2020.

According to this brief introduction about marketing performance and green marketing, we can ask the following research question:

Does marketing performance contribute to the green marketing introduction in 14 Algerian companies situated in Maghnia district?

To answer the research problem, we shall try to approve or disapprove the main hypothesis and fourth partial research hypotheses in this study as follows:

- The main research hypothesis states that there is a significant correlation between marketing performance and green marketing.

    1- The first research hypothesis indicates a significant correlation between marketing performance and waste treatment.

    2- The second research hypothesis shows a significant correlation between marketing performance and attitude toward the environment

3- The third research hypothesis indicates a significant correlation between marketing performance and product creation.

4- The fourth research hypothesis shows a significant correlation between marketing performance and the relationship between price and cost.

The paper is divided into 6 sections; the first one is the introduction, which is about the general idea about marketing and green marketing, the next one is the literature review, which is about empirical and theoretical investigations, followed by data and methodology, then empirical result, discussion and management implications and finally, the conclusion.

1- LITERATURE REVIEW

In the previous investigations, a lot of empirical research carried out to identify interest between consumers in using and purchasing green products. Green marketing covered social dimensions only with a limited focus on environmental resources and the environmental impacts of conventional marketing (**Kumar, 2016; Kardos et al., 2019**). Since the 1990s, many consumers have changed their behaviour toward more environmental concern (**Simon, 1992**). **Ottman (1998)** confirmed that brands could shift consumer attitudes to more sustainable consumption, such effective marketing could convert passive green consumers who are willing to pay premium prices for pro-environmental products to greener consumption. **Travis (2000)** says branding is a valuable tool to shift the consumers' beliefs or forming of attitudes and it is effective, especially when it comes to influence the emotional preferences of consumers. Such behaviour has provided a pathway for green marketing and sustainable products that are more environmentally friendly (**Cleveland et al., 2005**). Several investigations also show that marketers of green products have stated the gap between pro-environmental attitudes and green purchasing behaviour (**Farzin et al., 2020; Ferraz et al., 2017**), while, being environmentally friendly, has an impact on all business categories (**Prahalad and Hamel, 1994**). Also, **Chen et al. (2017)**, **Mishra et al.**

(2017) and **Yang and Zhao (2019)** indicate that green packaging, pricing and branding are a significant factor in guiding consumer behaviour.

Martins and Siminatiras (1995) report that the consumption activities of private households bring about 30 to 40% of environmental degradation and it represents a big issue for any society. As a resolution, some consumers are translating their environmental concern into actively purchasing green products to mitigate the environmental problems. **Jacob (2001)** establish that any country should include the environmental aspect to its marketing strategy, which it permits to produce new creation, development and communications, and it should also be balanced with primary customers' needs. **Cherian and Jacob (2012)** present the concept of green marketing and how it influences the attitude of consumers toward environmental issues. They adopt a purely qualitative strategy with consumer perception of green marketing about attitude and behaviour towards green consumerism. They conclude that there is a lack of information about such concept for consumers, while organisations are still working on different aspects like developing a proper supply chain, packaging, pricing and other features, which facilitate the introduction of green marketing. **Nandi (2014)** reveal that the government and its policy institution impose different agreements and guidelines on green production units. Some business firms have use it to their advantage, but some critics claim that this is just an advertising stunt to promote business, and that no real steps have been taken towards the cause.

In developed countries, consumers are more conscious about the environment than in emerging and developing countries, while there is limited research about the effect of the green marketing introduction in these nations (**Bhattacharya, 2011; Prakash, 2002**). In Germany, **Balderjahn (1988)** show that a positive behaviour towards ecologically conscious living resulted in ecologically responsible buying and using of products, including the use of automobiles. It also prompted consumers to show publicly environmental concern by signing ecologically relevant petitions and supporting or joining an anti-

pollution organization. In the United Kingdom, **Pickett-Baker and Ozaki (2008)** test whether marketing and branding tools can support the green marketing. Pickett-Baker and Ozaki distribute a question on 52 mothers with an age range from 26 to 65 in one London supermarket. The survey was about general environmental beliefs, environmental behaviour (focus on green consumers), marketing and branding issues related to attitudes towards green products. The outcomes confirmed that there is a gap between consumer beliefs and behaviours in green consumption, but the environmental beliefs significantly affect the product performance. In addition, consumers with high pro-environmental values are more likely to believe that green products will perform as expected, whilst among the majority of consumers, a major barrier to the purchase of green products is a concern over product performance. Also, consumers in this study prefer to buy a more environmentally friendly product, but, there is a lack of information about identification of such merchandise, which show that it is like "underexploited market" yet. In USA, **Laroche et al. (2001)** study the behaviour of different consumers who are willing to pay more for environmentally friendly products. The authors tested the relationship by using a questionnaire distributed on 907 respondents in a large North-America city. The questions were about the consumer attitudes (severity of environmental problems, importance of being environmentally friendly, level of responsibility of corporations, and inconvenience of being environmentally friendly), the consumer behaviours (recycling, considering environmental issues when making a purchase, and buying environmentally harming products) and the consumers' values (collectivism, security, fun/enjoyment, and individualism). They reveal that, out of 907 respondents, 119 are willing to pay more for an environmentally friendly product, while 122 are in the opposing side. The remaining respondents, however, are classified as consumers who are unsure of their decision. In addition, the outcomes show that the females and individuals who are married and have children living at home are being more environmentally concerned than males and people who are not married. Consequently,

the consumers who are willing to pay more for green products do not perceive it inconvenient to behave in an ecologically favourable manner, but the opposite was found for the unwilling respondents. However, in the developing countries, The **United Nations Development Programme (2008)** confirm that such nations have an environmental issue due to their bad management and ignorance. Some African nations appear to be facing serious environmental challenges, the most pressing of which are inadequate sanitary facilities, pollution of the air and water, deforestation, desertification, and other negative aspects. In Nigeria, **Ogbonna (2005)** state that the holistic growth has given rise to the rising mountains of garbage, which now characterize most of Nigerian towns and the cities. Therefore, the population should care about the environment, before they decide to go green. **Nkamnebe (2006)** reports that virtually all the firms in the Nigerian Stock Exchange (NSC) include as much as possible the environmental consciousness into their mission and vision statements. Nonetheless, according to certain analysis reports, environmental laws are not being followed in Nigeria. As a result, the Nigerian market is edging closer to what is possible in the world's highly industrialised markets, especially when it comes to providing goods that are environmentally unfriendly (**Nkamnebe, 2002**). **Ukaite (2009)** states that Nigeria Breweries are maintaining green marketing principles and as part of the companies concern for the environment, it provides an ultra-modern wastewater treatment plant designed to world class standards. It serves as a reminder that the business's green marketing strategy is guiding its expansion goals, particularly with regard to the necessity of protecting the environment. **Iweama (2014)** investigates the challenge to include the green marketing in developing countries. The author stated that the government and institutional policy must educate producers and consumers to carry on full green product and encourage increasing the green marketing behaviour. The study shows that only 30% of Nigerian organizations are environmentally friendly, while consumers are not adequately informed on the green marketing principles. Iweama recommended recommends environmental

campaign among producers and consumers through seminars, conferences and workshops, adequate management of waste. The author states that the institution over Environmental Impact Assessment (EIA) must force manufacturers to work more on green product. In Egypt, **Mostafa (2007)** analyses the impact of the gender on environmental knowledge, environmental concern and attitudes towards green purchase with one-way multivariate analysis of variance (MANOVA). The research is about a survey distributed to 1093 people from different Egyptian universities (professors, students and administrators). The results show that Egyptians should be less concerned about environmental issues than people in the US or Europe, and that the myth that environmental concerns are a luxury only available to the wealthy is unfounded on a cross-cultural level. **Shabbir et al. (2020)** examine the relationship between green marketing methods and consumer behaviour towards the environment. They use a questionnaire approach over 359 consumers in various shopping malls and they apply the confirmatory factor analysis (CFA), and structural equation modelling (SEM) approaches. They establish that the eco-labelling (EL), green packaging and branding (GPB), green products, premium, and pricing (GPPP), and the environmental concerns and beliefs (ECB) influence the environmental perception of consumers' behaviour. The authors show that the eco-labelling, environmental concerns and beliefs, green products, premium and pricing have a significant positive influence on consumer beliefs towards the environment (CBTE). These findings will support the incorporation of green marketing and consumer behaviour theories about the environment. The managerial implications include the provision of significant findings for both domestic and international firms for the promotion of green products through focusing on consumer behaviour towards the environment. These results provide important guidelines to boost positive attitudes in society towards green. In Kosovo, **Podvorica and Ukaj (2019)** examined with Pearson two-way correlation among consumers' green marketing awareness, behaviour toward the environment, information search, trust in

advertising and labels displaying the health benefits of beverages and attitudes towards a willingness to pay more for organic non-alcoholic beverages compared with non-organic one. The authors distribute a survey of 541 respondents from major urban regions from January 2018 to June 2018. They find that people, social media and the internet have a positive impact and correlation on consumers' environmentally friendly behaviour. However, the study revealed that there is a mistrust in the marketing activities of producers, therefore, they need to be careful with an ethical, green marketing communication mix platform that are mandatory for a direct dialogue and to build trust with consumers.

2- DATA AND METHODOLOGY

The paper focusses on Maghnia district, which is situated in Tlemcen province, in northwestern of Algeria. The most populous town in Tlemcen Province after Tlemcen with more than 200,000 populations. The city of Maghnia is located in northwest Algeria, 13 km east of the Moroccan border, on the northern edge of the highlands. Located within the watershed of Wadi Tafna, Maghnia is a busy agricultural centre, trading in cereals and wool from both Algeria and Morocco. In the Tell Atlas Mountains, there is a lead mine at Bou Beker, 29 km south, and a well-known mineral spring, Hammam Boughrara, 10 km northeast.

This research is based on 14 Algerian companies situated in Maghnia district. The companies are ENOF Maghnia, Manafiaa, CERTAF, HALIB ENNADJAH, Hôtel LA TAFNA, Maatec, Horloger, LARBI CHERIF Miloud, Hôtel Restaurant LALA MAGHNIA, CNR MAGHNIA, Assurance 2A Maghnia, BNA Maghnia, CPA Maghnia and CNEP Maghnia.

We chose the Maghnia region and these 14 businesses because, as professors and lecturers at the University Centre of Maghnia, we have a close working relationship with these businesses and we are able to easily locate the chief executive officer of each business. Also, the number of companies that may apply the term "go green" and "green marketing" in future are very limited in Maghnia.

We conduct a questionnaire about the role of the Algerian government in supporting the green marketing and its different aspect. Therefore, we conducted a face-to-face survey about 30-45 minutes with 14 chiefs' executive officer of each company between June and July 2020.

The answers are set and analysed in SPSS software and we use several statistical tools such as descriptive statistics, the reliability test of the Cronbach's Alpha, the normality test of Kolmogorov-Smirnov and Pearson correlation to answer the research question, and to verify the main hypothesis, and the fourth partial hypothesis.

According to different previous studies, we set our form into three main sections, as follows:

1- First section is about personal and professional information.
2- Second section focusses on the importance of green marketing introduction, which is divided into 4 sub-sections and all of them have 5 items:

- Waste treatment (**Azzone and Manzini, 1994; Ukaite, 2009; Iweama, 2014)**;
- The relationship between price and cost (**Ottman, 1998)**;
- Attitude toward the environment (**Jacob, 2001; Nandi, 2014; Podvorica and Ukaj, 2019; Shabbir et al., 2020)**;
- Product creation (**Gordon et al., 2011; Sarkar, 2012; Shabbir et al., 2020).**

3- The third emphasize the marketing performance with 8 items.

We take into consideration in the form the theoretical aspects of the investigation, which has a link with research hypotheses and most of the questions are relevant, and easy to understand for 14 CEO.

We use the Likert scale (**Likert, 1932**) for several questions of this survey as we make five values (weights) of responses, its mathematic mean is four[1] and its classification group[2] is 0.8. The table 1 describes the Likert scale:

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[1] - 5 weights minus 1 equal 4.

[2] - 5 weights divided on mean equal 0.8.

Table 1. Likert scale

Responses	Not acceptable	Unfavourable	Neuter	Favourable	Acceptable
Values	1	2	3	4	5
Group	[1-1.80)	[1.80-2.60)	[2.60-3.40)	[3.40-4.20)	[4.20-5)

We employ different statistical tools according to several responses. We begin with Cronbach's Alpha's reliability coefficient. This coefficient's value, which ranges from 0 to 1, along with the coefficient of stability's (alpha) value, serve as a gauge for the internal scale's degree of dependability (**Goforth, 2015**). Therefore, when the reliability coefficient is more than 0.6, it indicates that the Likert scale items are well organized. We next proceed to use the Kolmogorov-Smirnov scale to test the normal distribution. Table 2 below summarizes the reliability coefficient and normal distribution results:

Table 2. The Cronbach's Alpha and Kolmogorov-Smirnov

Variables	items	reliability coefficient	Probability of Kolmogorov–Smirnov test
Waste treatment	5	0.889	0.754
Product creation	5	0.893	0.175
The relationship between price and cost	5	0.443	0.169
Attitude toward the environment	5	0.821	0.115
The marketing performance	8	0.762	0.203
Total	28	0.935	0.832

The reliability coefficients of five different variables are shown in Table 2. The results demonstrate that every reliability coefficient is higher than 60%, which denotes a high level of scale reliability. Unfortunately, the reliability test about the relationship between price and cost shows a low and inferior coefficient to 0.6 reliability, thus, this aspect will not be included in the green marketing features analysis.

The combined variables indicate the Cronbach's Alpha is 93.5%. The Alpha coefficient is good, because it is above the minimum acceptable ratio (60%) (**Bonett and Wright, 2015**). In addition, the validity of the

scale of Kolmogorov–Smirnov scale is used to display whether the variables were normally distributed or not (**Jarque and Bera, 1987**). The results show that the probability of the attribute is greater than 0.05, hence the items have a normal distribution, therefore, we shall use the Pearson correlation rather than Spearman correlation.

3- EMPIRICAL RESULT

Table 3 shows the descriptive statistics based on the first section of the questionnaire, which is about personal and professional data:

Table3. Descriptive statistics

Variables	Specification	Frequency	Ratio
Gender	Male	13	92.85%
	Female	1	7.14%
Age	Less than 30 years	1	7.14%
	Between 31 and 50 years	12	85.71%
	More than 51 years	1	7.14%
University degree	Bachelor	4	28.57%
	License	5	35.71%
	Master	3	21.42%
	Doctorate	2	14.29%
Experience	Less than 5 years	1	7.14%
	Between 5 and 10 years	5	35.71%
	More than 10 years	8	57.14%

We can see from table 3 that the percentage of males (92.85%) is far greater than the ratio of females (7.14%). Therefore, we can conclude that such responsibility needs extra effort and hours, as it requires the attendance from CEO at any time. Also, we can say that the location of such enterprises in isolated zones far from the city can be a determinant factor because of the social condition in Algeria (especially for married women in general).

The result shows that the most respondents have between 31 and 50 years (85.71%), which proves some evidence that such enterprises in this region are having an experienced and matured director who can lead suitably the firm.

The outcomes of the scientific degree are more or less homogenous, the respondents who have a bachelor's degree are 28.57%, while, with

License degree are 35.71%, meanwhile, with Master degree are 21.42% and with doctorate degrees are 14.29%. Therefore, most of CEO has university study at least, and it shows that such responsibility, directors' need university formation about management, planning, organisation, supervising and controlling to achieve the company's objectives, which are in general maximising profits with minimising costs.

The last item shows that most of CEO have a great experience (57.14%) in their domain, which is in line with other results (age and the scientific degree). Therefore, the experience factor is compulsory for any company, because today's economy is extremely volatile. Thus, any director needs to adapt and to adopt different strategies relating to several market aspects and various consumer's needs.

In the next section, we will look at the green marketing aspects, but we do not include follows the relationship between price and cost, which is not representative as our reliability test shows. Table 4 displays the analysis of the second section about green marketing analysis as follow:

Table4. The green marketing analysis

Variables	Mean	Standard of deviation	Responses
Waste treatment	4.357	0.7712	Acceptable
Attitude toward the environment	4.25	0.5459	Acceptable
Product creation	3.3929	0.6844	Neuter
Green marketing	4	0.6672	Favourable

Most of respondents are very favourable to the waste treatment, showing that directors want from their corporations to focus on waste treatment and recycling their products to enhance their productivity performance and giving a new marketing aspect. On the other hand, we can say that such directors want from their businesses to limit their production waste or avoid it completely to diminish the general production cost. This result is in line with the studies (**Ukaite, 2009; Nandi, 2014)**. **Ukaite (2009)** which proves that the waste treatment

(water treatment in his study) is an indication that the business's green marketing strategy is giving its growth agenda direction, particularly with regard to the necessity of protecting the environment.

Moreover, most of the respondents are very favourable to the attitude toward the environment, this indicates that most companies desire to go all green and produce green goods (taking into consideration the environmental aspect). It shows also that businesses want to use green marketing in their management cycle mix, because it affords to gain the competitive advantage vis-à-vis other enterprises. This result is in line with the result of **Iweama (2014**) study, which indicates that some consumers are actively pursuing green products as a way to express their concern for the environment as a result of the general public realisation that consumption activities contribute to environmental issues. Consequently, businesses are starting to implement marketing plans that consider customers' concerns about the environment. Using green marketing techniques aims to set products apart, boost revenue and market share, and ultimately develop a long-term competitive edge.

However, most of the respondents have a neuter opinion toward product creation, which shows that they do not give a serious intention on product design or investing on it, because it gives nothing for their firms. **Shabbir et al. (2020),** however, demonstrate that, when it comes to consumer green behaviour, product creation has a significant impact, in order to increase sales while taking environmental responsibility, businesses should concentrate on eco-labelling, green packaging, and branding.

Therefore, we regroup all variables into one variable "Green marketing", which shows that most of the respondents were favourable. This finding displays that firms recognize the importance of green marketing in the new era of green economy and sustainable development. This result is in line with (**Pickett-Baker and Ozaki, 2008; Iweama, 2014; Shabbir et al., 2020**). **Nandi (2014)** shows that businesses should not bear all of the responsibility for the environment, because they can have a significant impact on it. It seems that people are not

very interested in making their environment better and may be trying to place too much of the blame on business and the government. In the end, green marketing necessitates that consumers desire a cleaner environment and are prepared to "pay" for it, perhaps in the form of more expensive products, altered personal habits, or even government action. It will be challenging for businesses to spearhead the green marketing revolution on their own until this happens.

In the next table 5, we analyse the third section of the form, which is about marketing performance:

Table 5. The marketing performance analysis

Items	Mean	Standard of deviation	Responses
A good performance of the marketing activities permits to increase the enterprise's profit	4.86	0.363	Acceptable
You do a market research (studying consumers' needs) before producing	4.43	0.646	Acceptable
Enhancing the consumer confidence with treating consumers complaints periodically	4.21	0.893	Acceptable
Determine different product allows to increase the firm yield	4.07	0.475	Favourable
The administration wants to reach the value-added to maintain its competitive advantage	4.50	0.650	Acceptable
The enterprise always wants to preserve its market part and development	4.71	0.469	Acceptable
Having a large market part means you possess competitive advantage	4.14	1.167	Favourable
A good attitude toward the environment is one of the company's objectives	4.21	0.579	Acceptable
Total	4.50	0.339	Acceptable

Source: the author

The previous table shows that the means of the marketing performance is 4.50, which it means that most of the respondents agree that the main objective of any company should focus on studying how satisfy the consumer's needs, because it allows any firm to gain the competitive advantage regarding others, and also increasing its profit.

After studying the descriptive statistics of each variable and items, we use the Pearson correlation test (**Pearson, 1895**) to display the nature

of the relationship between the dependent variables composed of waste treatment, attitude toward the environment, and product creation and the independent variable of marketing performance.

Table 6 describes the correlation matrix resulting from the Pearson correlation test:

Table 6. The correlation matrix

Variables		waste treatment	attitude toward environment	product creation	marketing performance
waste treatment	correlation	1	…	…	…
	probability	…	…	…	…
attitude toward environment	correlation	0.555	1	…	…
	probability	0.054	…	…	…
product creation	correlation	0.3	0.793	1	…
	probability	0.991	0.077	…	…
marketing performance	correlation	0.75	0.518	0.572	1
	probability	0.016	0.008	0.015	…

Source: the author

According to research hypotheses, we can only make a bidirectional relationship between each dependent variable and independent variable as explained in the following graph 1:

Figure 1. The connection between the marketing performance and green marketing
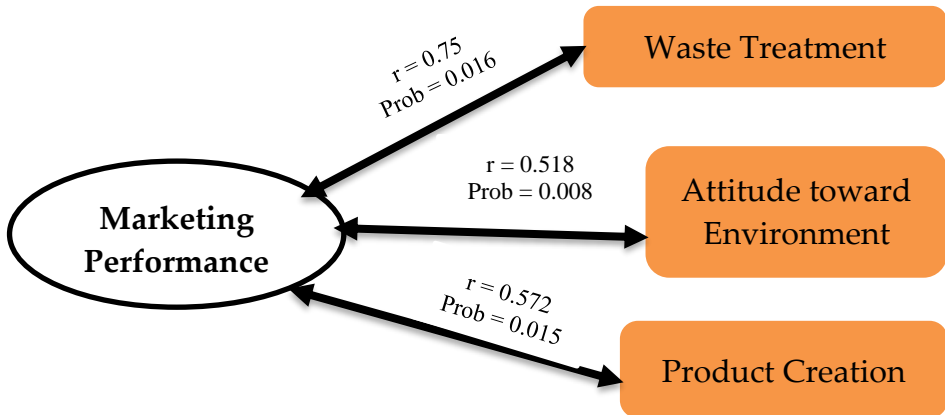
Source: Author's own

The Pearson correlation test shows that there is a strong and significant relationship between marketing performance and waste treatment at the level of 1%, confirming the first research hypothesis. While, we find that there are two average and statistically accepted relationships between marketing performance and attitude toward the environment, and between marketing performance and product creation at the level of 1%, agreeing the second and third hypotheses.

4- DISCUSSION AND MANAGEMENT IMPLICATIONS

The contribution in this research is the analysis these 3 aspects of green marketing on marketing performance in Algeria companies. While other studies (**Pickett-Baker and Ozaki, 2008; Nandi, 2014; Iweama, 2014; Shabbir et al., 2020**) examine different features of green marketing such as eco-labelling, eco-pricing, eco-cost, eco-packaging, eco-branding, etc.

The previous results confirm that there is a strong and statistically significant connection between different green marketing patterns and marketing performance, so there is clearly a relationship between the adoption of the concept of green marketing and marketing performance in such enterprises in Maghnia city. From the CEO's point of view, this indicates that whenever a company uses the green marketing pattern in its production cycle, it will improve its marketing performance and then creating a new added-value.

From the environment view, the outcomes reveal that such businesses are working hard to eliminate and reduce their waste in the belief of social and ethical responsibility, as they are trying to adopt the process of "green enterprise". From the CEO's point of view, they confirm that the waste treatment processes are set in a safer and healthier manner, and their institutions are environmentally friendly compared to other institutions.

From product creation, the result shows not only that companies design their product packaging to use it in a safer way, but also making an optimal use of their primary production resources as well. From the CEO's point of view, such enterprises can seek to increase their profits

through better marketing performance of their activities and believe that consumer satisfaction reflects positively on higher profits.

However, there is an emphasis on the part of the researchers that the environmental orientation towards the production of environmentally friendly goods against cost helps an enterprise to make profit. There is also no difference in employees' perception of the importance of adopting the concept of green marketing in enterprises with different demographic characteristics.

Moreover, the findings show that the green marketing concept is still a contemporary concept in our society (Algeria) compared to other concepts within the marketing philosophy; but without the environmental issues and taxes imposed by some governments nowadays, such businesses would never "go green" or introduce the green marketing in their management cycle. There is also another problem confronted by some enterprises that suffer from a weak price-cost relationship, as they must address it in order not to fall into a critical position in front of the consumer.

On the other hand, these companies embrace the green marketing orientation in its dimensions of improved marketing performance, seeking a higher benefit from the application of the green marketing philosophy in all their production and marketing processes, because it gives a competitive advantage vis-à-vis competing enterprises. In addition, the application of green marketing programmes has a positively significant influence on enterprise products and sales volumes in the market, which increases the market share of enterprises.

Conclusion

Almost all economic managers are aware that many organisations today confront several challenges affecting negatively their performance, and one of them is the environment preservation, which is gaining an important weight in any world government.

As a response to this issue, many institutions introduce the concept of the green marketing, which is based on influencing the customer's behaviour to "go green" and lead their attitude to go on products that are not harmful to the environment and to achieve the goal of

preserving the environment and natural resources (goals of sustainable development).

In this paper, we make a survey of 14 Algerian companies originated from Maghnia city during the period of 2019-2020, and we analyse the responses by using statistical tools and Pearson correlation test on SPSS 26. The outcomes show that there is a strong and significant relationship between marketing performance and waste treatment at the level of 1%, confirming the first research hypothesis. Therefore, those institutions require taking care of environmental orientation. While we confirm that there are two average and statistically accepted relationships between marketing performance and attitude toward the environment, and between marketing performance and product creation at the level of 1%, agreeing the second and third hypotheses. However, we reject the fourth research hypothesis, because the relationship between price and cost, has a low reliability coefficient. Thus, we can approve the main hypothesis, so the marketing performance contributes to the green marketing introduction in 14 Algerian companies in Maghnia district.

These findings confirm that today's governments have to compete with economic openness and the new global trend towards a green economy through corporate governance, while embracing the principles of sustainable development. Accordingly, we can give some recommendations as follows:

- Enterprises must embrace the green marketing dimensions of an enterprise's strategic plan and make it as part of an enterprise culture in order to maintain a clean environment as well as satisfying the needs and requirements of customers, then enhancing the enterprise's profit;

- Companies have to use a modern scientific method of how to dispose of waste from their production processes by means of modern equipment or use methods of producing products whose residue may be analysed after a period in order to reduce the level of the pollution and introduce modern technology commensurate with the green production pattern;

- Institutions ought to continue their obligations to fulfil their responsibility toward the environment, and address the general problems of the environment by allocating a fixed proportion of profits.

For further research in this domain, we hope that the sample study could be expanded to include all national institutions to see the true orientation of Algerian institutions, as well as new green marketing variables, which are not addressed in our study. We can also make a new sample of corporate clients, which can be taken to see what they think about the real direction of enterprises in green marketing, in particular, and green orientation (the green economy) in general.

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