Green Advertising and Environmentally Consumption: The Level of Awareness and Moroccan Costumer's Perception

[1]Salwa Mkik, [2]Mustapha Khouilid, [3]Amina Aomari

[1]*Mohamed V University in Rabat, [2]Mohamed V University in Rabat, [3]Mohamed V University in Rabat*

*Corresponding Author: [*1]Salwa Mkik*

Abstract: *The main intention to write this article is to determine the level of awareness and perception of Moroccan consumers through evaluating their connection to the environment, trust in green advertising promoted by companies and willingness to purchase green products. A survey was conducted to gather responses from online respondents using the social media website. Two hundred and two respondents have responded to the one week survey time, to a 24 questions questionnaire. The findings show that generally, the Moroccan consumers have some environmental awareness and a significant positive influence towards green advertising on their behaviour. The theoretical and managerial implications of these findings will be discussed.*

Index-Terms: *Consumer behaviour, environmental awareness, environmental concerns, environmental consumption, green advertising.*

I. Introduction

        The environmental issue is a worldwide issue appeared in the foreground. Governments, international organizations, and several advocacy groups have been actively compelling business firms to discharge their responsibilities regarding this issue, to name a few, unusual climate changes, global warming, deterioration of natural resources and pollution.It can be stated that consumers have a significant environmental consciousness and become more concerned with green goods and their impact on the environment.

        This is the reason why companies/manufactures are also focus on including into their activities and process environment protection with the main objectives: satisfying customer's needs, giving proof of social responsibility, protecting consumer rights, and guarantee quality of life for the next generations. In order to meet the environmental standards, both marketing practitioners and consumers are becoming increasingly and progressively sensitive to the need for switch in to green products and services. Correspondingly, Green Advertising has emerged which speaks for growing market for sustainable and socially responsible goods. However, for many businesses, going green isn't necessarily about saving the environment. Rather it's about saving the business.

        Indeed, the green marketing has become a crucial topic in professional and academic research. Green advertising represents an important marketing tool for communicating actively an organisation's green image and driving its consciousness behind fostering environmental awareness and environmentally friendly behaviour.
Therefore, the aim of this paper is to provide a comprehensive literature review of green advertising, green consumers, environmental awareness and green buying behaviour. In the other hand, examine the influence of consumer perception of green advertising on sensing and green purchase intention.

II. Research questions

The research questions for this study are given below:
1) - Does green advertising contribute positively towards environmental awareness and consumer green purchase intention?
2) - What variables are relevant to the green consumers?
The central concern of the study is to what extent is green advertising raising awareness of the Moroccan consumer and encouraging responsible consumption?
In order to answer these questions, our work is centred upon the theoretical framework and the empirical study.

III. Literature review

Many investigations have looked into how we can help to protect the environment. There is a significant relationship between personality, psychology, cognitive, affective and conative attitude, socioprofesional characteristics, and activities that help to protect the environment (Kassarjian, 1971; Fisk, 1973). The present investigation was conducted to better understand green advertising's influence on consumers behaviours, their connection to the environmental movement, their skepticism toward green advertising and what motivates and deters them from making green purchases.

A. *The approaches of green advertising*

According to Zinkhan and Carlson (1995), "Green advertising includes those messages that are ecological, environmental friendly, and concern about environmental sustainability that aim is to fulfil the wants and requirements of environmental concerned people". Green advertising is defined as ''Any ad that meets one or more of the following criteria: (1) explicitly or implicitly addresses the relationship between a product/service and the biophysical environment, (2) promotes a green lifestyle with or without highlighting a product/service, and (3) presents a corporate image of environmental responsibility'' (Banerjee, Gulas, & Iyer, 1995).

The studies conducted by Carlson et al. (1993) and by Banerjee et al. (1995) identify Green advertising as any advertising that explicitly addresses on of the following issues:

❖ The environmental performance of a company (using technology or performance standards that focus on reducing the environmental impacts of the production process);

❖ The environmental performance of a product (e.g. a product that requires little energy during using, or was built using recycled materials);

❖ Green lifestyle, with statements promoting behaviours that safeguard nature or the importance to preserve it by reducing the impacts generated by human activities.

❖ An initiative or event to which the company participates that has no specific reference to the company's product or process (e.g. support to an environmental initiative);

B. *Green consumer*

A consumer can be defined nowadays with the slogan "Tell me what you consume so that I should be able to tell you who you Are!" (Ioan et al., 2014). Green consumer refers to consumers who are mindful of environment related issues and obligations in their purchase behaviour, activities associated with the marketplace and consumption habits. They avoid products that are likely to endanger the health of the consumer; cause significant damage to the environment during manufacture, use or disposal (Elkington, 1994).

On the other hand, Wind (2004) described that green consumers as consumer who response to green marketing and have eco-friendly lifestyle, or Scypa (2006, cited in Banytė, Brazionienė and Gadeikienė, 2010) clarified that green consumer are people who consume eco-friendly goods. Vernekar and Wadhwa define the green consumer as a person "who adopts environmentally-friendly behaviours and/or who purchases green products over the standard alternatives" (2011, p. 65).

However, these concerns about environment are not only about the products, but it is possible to influence on how green consumers travel or place they choose for vacation or working. Generally, each consumer who shows the environmentally friendly behaviour is called a green consumer and it should be noted that researchers have used geographic, demographic, psychological and behavioural variables to classify and identify different profiles of green consumers.

C. *Environmental Awareness*

Environmental awareness is to understand the fragility of the environment and the necessity of its preservation. Promoting environmental awareness is an easy way to become an environmental steward and participate in creating a brighter for future children.

Conscious of the need to safeguard the environment and the importance of sensitizing citizens on environmental issues, the various bodies concerned with sustainable development in Morocco clearly mark the Kingdom's determination to follow the green way. In this sense, the Ministry of Water and Environment, companies, organizations and associations for the protection of the environment are all constantly demonstrating their mobilization in a militant way by initiating environmental awareness-raising activities.

Environmental awareness campaigns include audiovisual productions such as commercials, environmental programs, clips, written productions (scientific reports, posters, school documents, etc.) and awareness-raising events: The World Environment Day "5 June", the Arab Environment Day "14 October", the National Environment Day "17 May", the National Day of the Tree "21 March" ...).

Environmental awareness proves important for many reasons; it promotes sustainable development and fosters a sense of connection to the environmental world, by encouraging consumption of green products conservation of irreplaceable natural resources and vulnerable plant and animal species.

D. Green Buying Behaviour

Environmental consumerism can be defined as "what consumers think they will buy". Consumer intentions play a fundamental goal in marketing strategies (to implement four P strategies). In other words, it is "Behaviour orientation" (Akehurst et al 2012: 978). Environmental consumerism also known as green buying that presents one type of environmentally conscious behaviour (Mainieri et al, 1997).

Green consumer behaviour can simply be defined as one who focuses on purchasing goods that have a positive effect on the environment (Roberts & Bacon 1997), i.e. buying of green goods over non green ones (Murarolli 2012).

Previous investigation widely borrowed environmental themes from green attitudes and Knowledge Scale (EAKS). With respect to the scale examining environmentally friendly consumer behaviours, we used almost all the themes studied in previous investigation.

IV. Theoretical framework

Fig 1: Theoretical framework
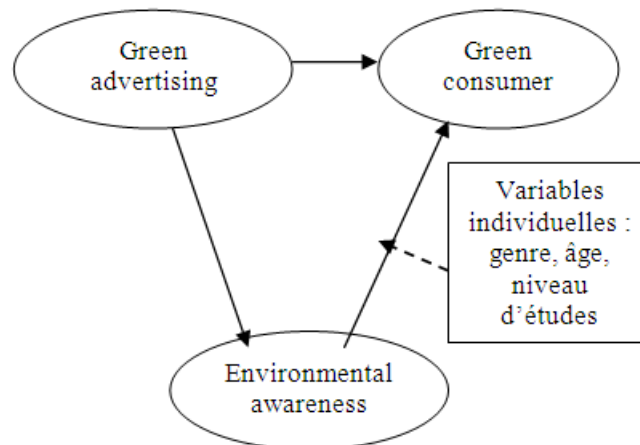
Source: Authors Elaboration

Hypothesis investigation

In order to determine consumer attitude towards green advertising following hypotheses are developed to be tested:

H1: Green advertising has a positive impact on the green consumer behaviour.

H2: Environmental awareness has a full mediating impact
on the link between green advertising and the green consumer behaviour.

H3. The personal variables have a moderating impact on the relationship between environmental awareness and the green consumer behaviour.

➢ H3a. The Gender of the person has a moderating impact on the relationship between environmental awareness and the green consumer behaviour.

➢ H3b. The age of the person has a moderating impact on the relationship between environmental awareness and the green consumer behaviour.

➢ H3c. The individual's level of education has a moderating impact on the relationship between environmental awareness and the green consumer behaviour.

V. Research Methodology

Environmental awareness and consumer behaviour are the units of analysis of this study. A questionnaire survey has been used in this study to verify and analyse the hypotheses and research model. 202 questionnaires were distributed to a conveniently generated sample (heterogeneous) among different segments of general population including professionals and academics university students.

The survey link was sent out via email with a message that requested recipients' participation in the survey. The link was also posted to the research conductor's Facebook page, asking the internet users to complete the survey.

The questionnaire contains four main parts: Perceptions of green advertising; environmental awareness; consumer behaviour and the socioprofessional and identification data of the respondents. And in order to measure the different variables, a 5-point Likert scale was adopted.

The table below presents a factor analysis with Varimax rotation for the validation of the measurement items.

Table 1: Factors analysis and Varimax rotation

Axe	Variables	Relative contribution	Total variance explained	Eigenvalues	Cronbach's alpha
Green advertising	Green advertising is essential to recognize environmentally friendly products	,774	54,725%	2,736	,791
	Green advertising reinforces the environmental commitment of the brand / product	,761			
	Green advertising reinforces the ecological image of the brand	,740			
	Green advertising attracts the attention of consumers	,744			
	Green advertising is effective in changing consumer behaviour	,676			
Environmental awareness	I am more aware of environmental issues when an advertising affects me directly	,757	57,29%	3,437	,848
	Consuming ecological products is a remedy for environmental problems	,768			
	My environmentally friendly purchase will reduce environmental problems	,808			
	For me, it's important that my purchases do not harm the environment	,724			
	Green advertising raises consumer awareness of green behaviour	,793			
	I am concerned about the protection of the environment	,686			
Green behaviour	Green advertising prompts me to consider the potential environmental impact of my purchases	,918	84,24%	1,685	,813
	Green advertising pushes me to change my behaviour for the protection of the environment	,918			

Source: Authors Elaboration

After purification of the measurement scales, the choice was to make a modelling in structural equations in order to validate the research hypotheses.

The aim of the study is to show the existence of a mediating effect of environmental awareness, between green advertising and environmental awareness to adopt a green behaviour.

This modelling will also make it possible to test the moderating effect of certain socioprofessional variables on the relationship between environmental awareness and the green consumer's behaviour.

VI. Results

We have identified the main components that will be used for the correlation and modelling test in structural equations using factor analysis of dependent and independent variables.

First, we have conducted a correlation analysis that will help us to detect the intensity and the meaning of the relationship between the different axes of the research.

A. Correlation test

Through the statistical study, three variables of the study were put in relation assuming a positive correlation between these variables.

The relationship between the variable "green advertising" and the variable "environmental awareness" is a positive, strong and significant relationship (Cor=0,604 et p-value=0.000).

Thus, the relationship between the variable "green advertising" and the variable "green behaviour" is positive, statistically significant (Cor = 0.558 and p-value = 0.000).

Also, the relationship between "green behaviour" and "environmental awareness" is a positive, strong and significant correlation (Cor = 0.691 and p-value = 0.000).

This leads to the need to analyse the existence of a mediation relationship of "environmental awareness" between the two variables "green advertising" and "green behaviour".

Table 2: Correlations

		Green advertising	Environmental awareness	green behaviour
Green advertising	Pearson Correlation	1	,604	,558
	Sig. (bilateral)		,000	,000
Environmental awareness	Pearson Correlation		1	,691
	Sig. (bilateral)			

Source: Authors Elaboration

The analysis of the nature of the correlations linking the different variables cannot confirm or invalidate the assumptions of the research. To do this, we analyse the results of the structural equation modelling to confirm the nature of the relationship that links all of the variables in the study.

B. Structural equation analysis

We tried to relate the different study variables in a structural equation modelling to try to explain the green behaviour variable. The items introduced in the model are those validated with the exploratory factor analysis and whose Cronbach's Alpha coefficient is satisfactory. The results of the modelling are as follows.

Fig 2: The causal model of research

Source: Authors Elaboration

In the causal model above, we tested the mediating link of the variable "Environmental awareness" on the relationship between the variable "green advertising" and the variable "green behaviour", as well as the moderating role of individual variables on the link between "Environmental awareness" and "green behaviour".

The test of a mediating link passes through four steps that must be successively ensured in order to show the existence of an integral mediating role of a variable (Kenny et al., 1998). If only the first three steps are verified, the mediating role is only partial.

Table 3: Results of mediation tests

	Link	Estimate	Standard error	T student's test	P-value
Step 1	Green advertising ➜ green behaviour	0,934	0,157	5,953	***
Step 2	green advertising➜ Environmental awareness	0,868	0,163	5,332	***
Step 3	green advertising➜ green behaviour	0,359	0,101	3,551	***
	Environmental awareness ➜ green behaviour	0,732	0,11	6,669	***
Step 4	Green advertising ➜ Environmental awareness	0,87	0,158	5,521	***
	Green advertising ➜ green behaviour	0,247	0,166	1,484	0,138
	Environmental awareness ➜ green behaviour	0,746	0,158	4,713	***

Source: Authors Elaboration

In Step 1. The link between the variable "green advertising" on the dependent variable "green behaviour" is significant and therefore indicates the existence of an impact to mediate (Reg = 0.934, T = 5.953, P-value = 0.000).

Thus, the results of stage 2 confirm that the variable "green advertising" has a significant impact on the mediating variable "environmental awareness", which was then considered as a variable to be explained in a regression analysis of "environmental awareness" on "green advertising" (Reg = 0.868, T = 5.332, P-value = 0.000).

In Step 3, it is a question of regressing the variable "ecological behaviour" on both "environmental awareness" and "green advertising". By controlling "green advertising", the coefficient between "environmental awareness" and "green Behaviour" remained significant (Reg = 0.732, T = 6.669, P-value = 0.000).

Finally, in Step 4, we confirmed the existence of a complete mediation by the variable "environmental awareness", the coefficient linking "green advertising" and "green behaviour" becomes significant (Reg = 0.247, T = 1.484, P-value = 0.138). The results confirm that by using the variable "environmental awareness", we have an integral and not a partial mediator role.

Then, we tested the moderating linkages of the variables Age, gender and level of study on the causal link of "environmental Awareness" to "green Advertising". The results are as follows:

Table 4: Results of moderation tests

Link	Estimate	Standard error	T student's test	P-value
Green adversting➜ Environmental awareness	0,874	0,158	5,528	***
Green adversting ➜ green behaviour	0,198	0,164	1,213	0,225
Environmental awareness ➜ green behaviour	0,808	0,159	5,083	***

level of studies ➔ green behaviour)	-0,082	0,056	-1,467	0,142
gender➔ green behaviour	-0,035	0,102	-0,345	0,73
Age ➔ green behaviour	-0,093	0,049	-1,885	0,159

Source: Authors Elaboration

The results show that there is no link of moderation of the variables "age", "gender" and "level of study" on the link between "Environmental awareness" and "green advertising" that the estimation of the parameters gives non-significant coefficients (P-value is well above 0.05).

We reject the hypothesis that the personal variables studied have moderating effects on the relationship between the mediator variable and the dependent variable.

Next, we calculated the quality of adjustment indicators for our measurement model with satisfactory results. The independent model with no integration of moderator variables (Personal Variables) presents a good fit for the results of the various indices calculated to measure the quality of the causal model, the indices: Chi-square / dof = 2,066, CMA = 0.067, GFI = 0.885, AGFI = 0.831, NFI = 0.864 and CFI = 0.924.

The majority of these indices are at a level deemed acceptable by the standard. The absolute and comparative quality indices of fit are satisfactory and show a good quality of prediction of the calculated model.

The RMR index also asserts the increase in the quality of adjustment of the causal model when suppressing moderator variables.

Table 5: Indices of adjustment quality of the measurement models

Indices	Values of the independent model
Chi-square (p)	128,084 (0,000)
Degree of freedom (p)	62
Normed Chi-square	2,066
Standardised RMR	0,067
GFI	0,885
AGFI	0,831
RMSEA (p)	0,083 (0,005)
NFI	0,864
CFI	0,924
CAIC (Saturated model)	303,343 (549,952)

Source: Authors Elaboration

The empirical results show that "green advertising" positively and strongly impacts the level of "Environmental Awareness". The latter impacts on its part in a positive and strong way, the "Consumer Behaviour" of consumers. In addition, there are other factors that affect the "green behaviour" and we have not taken into consideration what constitutes one of the limitations of this research.

Table 6: Validation of research hypotheses

hypotheses	Expected sign	Sign of the relationship	Significance of the links	Decision
H1. Green advertising ➔ green behaviour	Positive	Positive	Significant	Accepted hypothesis
H2. green advertising➔ Environmental awareness ➔ green	Positive	Positive	Significant	Accepted hypothesis

behaviour				
H3$_a$. Gender ➔ Environmental awareness ➔ green behaviour)	indifferent	Negative	Not significant	Rejected moderators
H3$_b$. Age ➔ (Environmental awareness ➔ green behaviour)	indifferent	Negative	Not significant	
H3$_c$. level of studies ➔ (Environmental awareness ➔ green behaviour)	indifferent	Negative	Not significant	

Source: Authors Elaboration

VII. Discussion

Green advertising/campaigns are used to be an effective and a significant marketing communication tool for sustainable and continuous economic development of a nation, conserving an organization's green image to its target market(s) and represents a driving force behind fostering environmentally friendly behaviour by educating and encouraging the consumers to go green.

The study demonstrated that there were not differences in attitudes and purchase intention toward green goods between mainly the women and men, the youth and adults, low and high level of study, low and high income. It was also found that Moroccan consumers who in general have some concern for the environment and health are more aware of green advertising and bought products that are less damaging to the environment so that they feel better.

Research conducted shows those consumers who already bought eco-friendly goods and those who are satisfied by these previous buying were willing to repeat purchases. Indeed, satisfaction goes with purchase intention.

Our findings show three principles barriers that make a difference in consumers buying decision after knowing both environmental and non-environmental factors and consequently impact consumers' willingness to purchase green products:

✓ Credibility: One of the elements contributing to the failure of applying green advertising to enhance purchase behaviour is due to the low credibility of green advertising among consumers.

✓ Confusion: Many of the interviewees vocalized concerns with the complexity of green advertising and environmental goods. Difficulties in understanding advertising and deciphering goods labels often deterred consumers from buying green goods. Furthermore, they were often left confused as to whether a good was green or not.

✓ Trust: One of the most and largest pertinent issues addressed by consumers was scepticism and Cynicism of green goods, labels and advertising. Some goods advertised recyclable packaging; however, participants were unsure whether the actual production was environmental. Interviewees often questioned the claims of the advertising, the politics fuelling some green movements and whether or not green goods were necessarily domestic.

✓ Price: The high price presents a signal of the environmental value of the product.

Positive attitudes of willingness to pay a premium price for green goods are also correlated with buying intention. However, we discovered also that positive attitudes towards green goods do not always lead to action buying of these goods.

When interpreting the results of this investigation, there are some limitations that need to be considered.

The first limitation being that non-probability sampling was used to gather the required data. Even though care was taken to include different segments of general population including professionals (states workers, judges, engineers, etc.), academics (university students and university teachers), and to include demographic questions concerning gender, level of study and age in an effort to indicate target population representation, care should be exercised in generalizing the results to the Moroccan people, especially given that the study was limited to the internet users.

On the basis of my findings we would like to suggest the following measures in order to make green advertising more effective, profitable and successful:

Green advertising should be designed and developed as keeping in mind the social hazards. Also, advertising should not be profit centric rather should be society centric and eco-friendly.

At least three areas should be improved to the green advertising, namely, the design attractiveness, message delivery, /creativity and effectiveness of the message in prompting people to action take action. The four green advertising posters used as measurement, in terms of effectiveness level, were considered moderate.
Nevertheless, the effectiveness of the advertisements/campaigns comprising of message delivery, design attractiveness/creativity and effectiveness in prompting people to take action are necessarily to be considered. Also the proper use of space in electronic media, print media and magazines etc. should be encouraged.

Not all consumers are strongly influenced by green marketing. Thus, there is a need to identify and concentrate promotion of goods on those market targets that are environmentally concerned. These segments tend to be younger and more affluent members of the population.

In addition, the study focused on consumer- and behaviour-related attitudes towards green advertising (that is, the cognitive and conative attitudinal component) and did not take into account affective attitude towards green advertising. Future research into affective attitude towards green advertising is advised.

VIII. Conclusion

As a conclusion, green advertising becomes an important part of advertising industry for informing consumers about the effect of their products and production process on nature and environment sensitizing them consumers to respect the environment, to promote company's products in an innovative way and to grab the attention for purchasing environmentally friendly goods. Moving towards "green" may be expensive for companies but it will definitely prove too vital and advantageous in the long run and profitable

The study has proven that green advertising can indeed be used as a tool to empower consumers to embrace the green concept. It is undeniable that the government and companies has taken the initiative to change the current situation of Morocco into that of a better and 'greener' one. While efforts by the companies are commendable, there is a need for more and better creating of green image and crafting of messages and better execution of green advertising.

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APPENDIX