

USING GREEN MARKETING TECHNIQUES TO PROMOTE SUSTAINABILITY IN PRIVATE IRAQI ORGANIZATIONS

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Abstract

This paper considers private Iraqi organizations' use of green marketing strategies and sustainability practices. Consistent with the descriptive analysis of all variables used in the study, the overall results suggested that the use of green marketing strategies and sustainability practices were moderate to high in the private Iraqi organizations in the sample (n=150). The mean for green price (mean = 3.772) and eco-friendly product design mean (mean = 3.771) practices had the highest averages. As for sustainability practices, environmental sustainability (mean = 3.717) and social sustainability (mean = 3.713) showed a strong presence. Regression analysis established that green marketing strategies had a positive and significant effect on organizational outputs and accounted for 49.8% of the variance ($R^2 = 0.498$, $p < 0.001$). Within the subdomains of green marketing strategies, sustainable distribution produced the greatest effect ($\beta = 0.596$), followed in order by green promotion, eco-friendly design and green price. Results supported all main and sub-hypotheses, indicating a commitment from private Iraqi organizations to apply green strategies and to adopt sustainability practices. The outcomes expand the current knowledge of sustainable business practices found in transitional and emerging economies and may also identify future development possibilities.

Keywords: Green marketing techniques, sustainability, private Iraqi Organizations
The Iraqi United Medical Society for Relief and Development

Introduction

The growing challenges of environmental concerns have forced organizations, consumers, and even government to recognize the effects of their behaviours and practices on the environment (Groening et al., 2018; Hamann et al., 2017; Szabo & Webster, 2021). With greater environmental pressures and a global transition to sustainable development, it has become imperative for organizations to implement marketing strategies that include environmental factors commonly called green marketing. Green marketing is an effective mechanism to improve an organization's image and achieve an equilibrium between economic and environmental goals through a focus on environmentally-friendly products and services as well as by minimizing the negative impacts operational activities have on the environment. Private organizations in Iraq face a number of challenges: a low level of environmental awareness; limited regulation; pressure of competition; unsteady markets. Nonetheless, adopting green marketing

techniques could offer some opportunity for these organizations to improve their environmental and economic performance, enhance customer loyalty, and build a sustainable reputation within local and international markets. This study aims to inform on the role of green marketing in enhancing sustainability of private organizations in Iraq: to explore how far private organizations have adopted green marketing techniques; the challenges that they encounter, and the opportunities that may be apparent in this context. This paper is structured in the following way. Section two includes literature review relevant to using green marketing technique and its effect in sustainability (with emphasis on private organizations in Iraq) as well as the conceptual framework for the present study. Section three describes the research methods used to explore the use of green marketing strategies. Section four includes the data analysis and the research results. Section five discusses the main research findings respectfully of the context in Iraq. Section six identifies the theoretical and practical implications in terms of marketing strategy and sustainability. Finally, section seven concludes the paper and outlines recommendations for future research in using green marketing in organization.

Literature review

Green marketing

The term GM was first coined in 1970 (Yazdanifard and Mercy, 2014), since then literature on GM concepts, strategies, functions, and GM mix elements has been established (Gelderman et al., 2021; Han et al., 2019; Katsikeas et al., 2016). concluding that GM is not merely a passing trend, but is a core issue in the process of designing, developing, and marketing new products. Due to the development of the interaction between the economy and the socio-environment issues over time, the GM concept has been changed gradually throughout three ages of evolution (Dangelico & Vocalelli, 2017). Green marketing is a strategic effort carried out by companies to provide environmentally friendly goods and services to their target consumers (Polonsky, 2011). Green marketing is a marketing mix strategy that responds to growing consumer awareness of environmentally friendly products and services. It involves modifying products, packaging, and processes to minimize environmental impact while meeting consumer needs. Additionally, it aims to encourage consumers to adopt more environmentally responsible behaviors (Yusiana et al., 2020).

Green Marketing Techniques

It is included the following techniques:

Eco-Friendly Product Design

Creating products from sustainable materials, energy-efficient technologies, or biodegradable elements to minimize ecological impact. Since the launch of environmentally friendly products allows firms to satisfy environmental requirements, establish competitive advantages, and create future opportunities for growth (Nidumolu et al. 2009), we envision future growth in sustainable product development activities (Varadarajan 2015).

Green Packaging

Using recyclable, reusable, or compostable packaging materials to minimize waste and resource use. green packaging is an important source of waste and pollution and, thus, the promotion of sustainable development (Wong et al., 2012). Green packaging—sometimes called “eco-green packaging,” “eco-friendly packaging,” “sustainable packaging,” or “recyclable packaging”—uses ecological materials to package goods with the understanding that products need to be efficacious and safe to human health and the environment (Pauer et al., 2019).

Sustainable Sourcing

Procuring raw materials from environmentally responsible sources, such as certified organic farms or fair-trade suppliers. A small but growing body of research has addressed different dimensions of sustainable sourcing (Pagell and Wu, 2010, Tate et al, 2010), such as select antecedents (Reuter et al, 2010) or illuminative examples of a successful implementation of sustainable sourcing (Pagell et al, 2010). Because sustainable sourcing takes economic, environmental and social criteria into account in sourcing decisions simultaneously.

Environmental Messaging in Advertising

Showcasing product environmental benefits or company sustainability initiatives as a central part of their campaigns-- this is a strategy that brands that highlight environmental tree-hugging benefits or commitment to sustainability use to create awareness, motivate behavior change, and maybe improve brand image and/or enhance market share.

Green Pricing Strategies

Offering cost-competitive eco-friendly alternatives or pricing that reflects the environmental value of the product. pricing strategies to help the firm cope with information scarcity. While information asymmetry has been frequently discussed in operations management research, discussions of firms' decisions and strategies taking into account the asymmetric information about consumers' greenness are still inadequate. This paper adds to this literature by showing the effects information asymmetry has on firms' pricing decisions and strategies, consumer surplus and social welfare (Zhang& Zheng, 2022).

Lifecycle Marketing

Educating consumers about the full environmental impact of a product—from production to disposal—and encouraging responsible use. Lifecycle marketing is a marketing tactic that centers around engaging and nurturing customers as they progress through their journey with a brand, from first awareness to loyalty and advocacy. Lifecycle marketing is the practice of recognizing and accommodating customers at every stage of their relationship with a brand (salesforce).

Green promotion

Green promotion involves using various marketing tools to promote green products in front of consumers (Hossain & Rahman, 2018). Qader and Zainuddin (2011) argued that it is

extremely challenging, if not impossible, to approach green marketing, that is, deciding what environmental information should be communicated and how. Marketers should attempt to understand and recognise what the target markets' needs and wants are, and develop market offerings that the customers require (D'Souza et al., 2007).

Green marketing and sustainable development

the acceptance, perceptions, initiatives, and challenges related to green marketing among public and private manufacturing firms in India, focusing on companies in Delhi and the north-western region. The findings show that both sectors recognize the importance of green marketing for environmental protection and sustainable development. It is also seen as a valuable tool for building customer trust. However, the study identifies key obstacles hindering its broader adoption. The authors argue that Indian businesses should view green marketing as a strategic market opportunity, not just a response to regulations. In a developing country like India, green marketing should become standard practice due to its significant potential to reduce pollution and support sustainability (Garg, 2015)

Research hypotheses

The study involves the two main hypothesis; third main hypothesis is included four sub-hypotheses as below:

First main hypothesis:

Green marketing techniques are used in private Iraqi organizations

Second main hypothesis

Sustainability are available in private Iraqi organizations

Third main hypothesis:

The using green marketing techniques positively effect in sustainability in private Iraqi organizations.

Sub-main hypothesis

1. The using eco-friendly product design technique positively effect in sustainability in private Iraqi organizations.
2. The using green pricing technique positively effect in sustainability in private Iraqi organizations.
3. The using green promotion technique positively effect in sustainability in private Iraqi organizations.
4. The using sustainable distribution technique positively effect in sustainability in private Iraqi organizations.

Research Methodology

This study undertakes deductive quantitative research and utilizes survey method. With the literature review, we have the main role in the research process that led to the formulation of the research hypotheses. Following this step, numeric data using

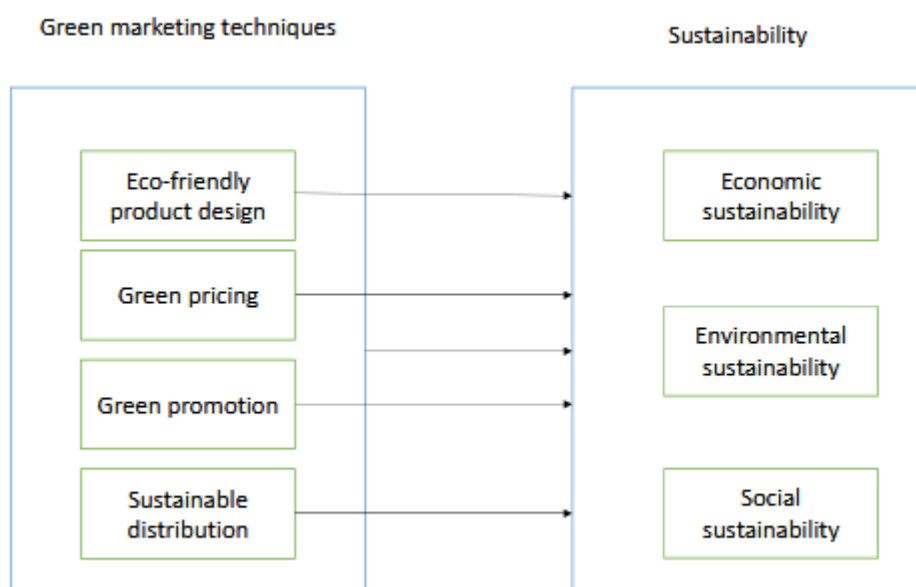


Figure 1. The proposed conceptual model.

Population Description

The population under study includes all employees currently working for IGCO, encompassing various roles from administrative and technical staff to field operatives and project coordinators. The total employee counts spans multiple regions, reflecting the organization's widespread operations.

Sample Selection and Methodology

Given the broad size and geographic diversity of IGCO employees, a sample-based approach was utilized. A sample size of 150 employees was selected using stratified random sampling measures in order to retain representation from departments, employment types, gender, and regional offices. The diversity was important in stratified sampling to represent roles and location.

Most of the respondents in the sample (n=150) were female (54%, n=81). The age group with the highest percentage (36%, n=54) was 35 to 45 years old. Of the qualifications, the highest proportion of participants held a diploma (39.3%, n=59). When it came to job titles, most respondents were employees (60%, n=90). Lastly, when it came to their overall work experience, most respondents (52%, n=78) had more than 8 years of work experience. Accordingly, the key demographic profile of respondents clearly illustrated experienced female employees with a diploma level qualification who were aged between 35 to 45 years (see Table 1.

Table 1. charachterstics of sample (n=150)

Factor	Level	n	%
Sex	Male	46	69
	Female	54	81
Age in years			
	less than 25	17	11.3
	25-35	44	29.3
	35-45	54	36
	more 45	35	23.3
Qualification			
	Diploma	59	39.3
	Bachelors	48	32
	Master	30	20
	Ph.D.	13	8.7
Job title			
	employ	90	60
	Deputy Head of Department	29	19.3
	Head of Department	19	12.7
	Deputy Director	8	5.3
	Director	4	2.7
Experience years			
	Less than 3	26	17.3
	3-6	21	14
	6-8	25	16.7
	More than 8	78	52

Data Collection and Analysis

Data were gathered through structured questionnaires, interviews, and organizational records, focusing on aspects such as gender, age, qualification, experience years, and job title.

Reliability analysis

The reliability assessment of the questionnaire items utilized Cronbach's Alpha to assess the internal consistency of each variable. The sub-variables related to Green Marketing Techniques were eco-designed products ($\alpha = 0.730$), green pricing ($\alpha = 0.724$), green promotion ($\alpha = 0.706$), and sustainable distribution ($\alpha = 0.711$) and all demonstrated acceptable reliability with each alpha value being over 0.70. Overall, these sub-variables demonstrate high reliability when considered as a whole and provide a measure for the main variable that is Green Marketing Techniques ($\alpha = 0.865$) and demonstrate high levels of internal consistency. The sub-variables of Sustainability economic sustainability ($\alpha = 0.724$), environmental sustainability ($\alpha = 0.727$), and social sustainability ($\alpha = 0.706$), also demonstrated acceptable reliability. Together, sub-variables represent a high level of reliability overall for the Sustainability construct ($\alpha = 0.854$). Overall, the reliability of all 35 items used in the study was excellent with a Cronbach's Alpha of 0.915 and indicates that the

measurement instrument has high reliability and can be deemed reliable for further analysis (see Table 2).

Table 2. Reliability analysis of questionnaire variables

Main variable	Sub-main variable	Number of item	Alpha Cronbach's
	eco-friendly product design	5	0.730
	green pricing	5	0.724
	green promotion	5	0.706
	sustainable distribution	5	0.711
Green marketing techniques		20	0.865
	Economic Sustainability	5	0.724
	Environment Sustainability	5	0.727
	Social Sustainability	5	0.706
Sustainability		15	0.854
Total		35	0.915

Results and Discussion

The descriptive statistics results in Table (3) reported degrees of implementation on sub-main and main variables. Within the sub-main variables of green marketing techniques, the highest mean score of (3.772) was green pricing, followed by eco-friendliness product design (3.771) indicating its emphasis among respondents. Standard delivery (3.616) and green promotion (3.661) received lower mean scores indicating they were to a lesser extent. The overall mean for the main variable green marketing techniques, means scores that were moderate high at 3.705, the first main hypothesis is **supported**. Concerning the sub-main variables under sustainability, the highest mean from the sub-main variables was environmental sustainability (3.717), followed by social sustainability (3.713) and economic sustainability (3.621), which indicates there is more emphasis placed on the environmental and social dimension than the economic. The overall mean for the main variable sustainability was 3.684, The second main hypothesis is **supported**.

Table 3. Descriptive statistics of research variable

Main variable	Sub-main variable	Mean	SD	Rank
	eco-friendly product design	3.771	0.608	2
	green pricing	3.772	0.634	1
	green promotion	3.661	0.634	3
	sustainable distribution	3.616	0.663	4
Green marketing techniques		3.705	0.49	1
	Economic Sustainability	3.621	0.687	3
	Environment Sustainability	3.717	0.701	1
	Social Sustainability	3.713	0.66	2
Sustainability		3.684	0.569	2

The regression analysis results in Table (4) show that green marketing strategies have an influence on the model in hand. The results suggest there is a statistically significant and fairly strong positive correlation between green marketing strategies and the range of green marketing products, as shown by a standardized beta (β) of 0.706 with a very significant p value (0.000). The model showed an R square value of 0.498 suggesting that green marketing strategies explain about 49.8% of the variance in the dependent variable. The F statistic value (146.945, $p = 0.000$) suggests that the overall model is a statistically significant model, and the Durbin-Watson value of 2.231 suggests no serious autocorrelation issues. The first main hypothesis is accepted.

Among the individual dimensions of green marketing techniques, eco-friendly product design was determined to demonstrate a strong positive impact on the dependent variable (Beta value = 0.530, p value = 0.000). The R square value of 0.280 indicates that the eco-friendly design variable accounts for 28 percent of the dependent variable variation. The model outcome was statistically significant on the independent variable eco-friendly design ($F = 57.681$), and supported by the Durbin-Watson statistic (2.146) which shows little to no major autocorrelation issues. Also, the green prices model was found to demonstrate a significant positive impact on the dependent variable (Beta value = 0.505, p value = 0.000). The R square value of 0.255 means that the green prices variable accounts for 25.5 percent of variance in the dependent variable. The model was statistically significant in the independent variable green price ($F = 50.658$) and with Durbin-Watson value of 2.205, which supports independence in the residuals. So the second sub- hypothesis is accepted. In the case of green promotion, the regression results suggest a beta (0.547) with a highly significant p (0.000); furthermore, the R square (0.047) evidences that green promotion explains 30 percent of variation. Evidence noted is the significance of the values with the value of F (63.333), in addition, the errors seem also independent when using Durbin-Watson value (2.263); so the third sub- hypothesis is accepted.

Regards to sustainable distribution yields the highest individual effect among the constructs, with a beta value of .596 and the p-value of .000. R square is .355 meaning 35.5% of the variance can be explained by this variable. The F-statistic is 81.551, and Durbin Watson is 2.106. This model fits well and is statistically sound. The fourth sub-hypothesis is accepted.

Table 4. regression results of Green marketing techniques and its domain in Green marketing techniques

variable	B	β	Se	T	P.value
Green marketing techniques	0.820	0.706	0.068	12.122	0.000
R	0.706				
R square	0.498				
Adjusted R square	0.495				
F-statistics	146.945				0.000
Durbin-Watson	2.231				
eco-friendly product design	0.496	0.530	0.065	7.595	0.000
R	0.530				
R square	0.28				
Adjusted R square	0.276				
F-statistics	57.681				0.000

Durbin-Watson	2.146				
green pricing	0.454	0.505	0.064	7.117	0.000
R	0.505				
R square	0.255				
Adjusted R square	0.25				
F-statistics	50.658				0.000
Durbin-Watson	2.205				
green promotion	0.492	0.547	0.062	7.958	0.000
R	0.547				
R square	0.300				
Adjusted R square	0.295				
F-statistics	63.333				0.000
Durbin-Watson	2.263				
sustainable distribution	0.512	0.596	0.057	9.031	0.000
R	0.596				
R square	0.355				
Adjusted R square	0.351				
F-statistics	81.551				0.000
Durbin-Watson	2.106				

Conclusion

This research indicates that private sector organizations in Iraq engage in green marketing strategies and sustainability practices at moderate to strong levels. Although we found the strongest emphasis on green pricing and eco-product design, we still found some action taken in green promotion and sustainable distribution as well. The emphasis of sustainability tends to be more on environmental sustainability and social sustainability, but less on economic sustainability. The regression analyses showed that green marketing strategies have a positive and significant impact (explaining about 50% of the variance in outcomes). With respect to the three sub-variables, we found sustainable distribution had the strongest impact, followed by green promotion, eco-friendly design, and lastly green pricing. Overall the finding supported the hypotheses - main and sub hypotheses. This indicates that green practices are being applied in a way that supports sustainable business performance in the private sector in Iraq.

References

1. Groening, C., Sarkis, J., & Zhu, Q. (2018). Green marketing consumer-level theory review:
2. A compendium of applied theories and further research directions. Journal of Cleaner
3. Production, 172, 1848–1866.
4. Hamann, R., Smith, J., Tashman, P., & Marshall, R. S. (2017). Why do smes go green? An
5. analysis of wine firms in South Africa. Business & Society, 56(1), 23–56.
6. Szabo, S., & Webster, J. (2021). Perceived greenwashing: The effects of green marketing on
7. environmental and product perceptions. Journal of Business Ethics, 171(4), 719–739.

8. Yusiana, R., Widodo, A., & Hidayat, A. M. (2020, May). Green marketing: Perspective of 4P's. In First ASEAN Business, Environment, and Technology Symposium (ABEATS 2019) (pp. 105-109). Atlantis Press.
9. Polonsky, M. J. "An Introduction To Green Marketing". *Electric Green Journal*, 1-10, 2011.
10. Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87, 56–64.
11. Varadarajan, R. (2014). Toward sustainability: public policy, global social innovations for base-of-the-pyramid markets, and demarketing for a better world. *Journal of International Marketing*, 22, 1–20.
12. Wong, C.W.; Lai, K.H.; Shang, K.C.; Lu, C.S.; Leung, T.K.P. Green operations and the moderating role of environmental management capability of suppliers on manufacturing firm performance. *Int. J. Prod. Econ.* 2012, 140, 283–294.
13. Pauer, E.; Wohner, B.; Heinrich, V.; Tacker, M. Assessing the environmental sustainability of food packaging: An extended life cycle assessment including packaging-related food losses and waste and circularity assessment. *Sustainability* 2019, 11, 925.
14. Zhang, Q., & Zheng, Y. (2022). Pricing strategies for bundled products considering consumers' green preference. *Journal of Cleaner Production*, 344, 130962.
15. Pagell, M., Wu, Z., & Wasserman, M. E. (2010). Thinking differently about purchasing portfolios: an assessment of sustainable sourcing. *Journal of supply chain management*, 46(1), 57-73.
16. Tate, W. L., Ellram, L. M., & Kirchoff, J. F. (2010). Corporate social responsibility reports: a thematic analysis related to supply chain management. *Journal of supply chain management*, 46(1), 19-44.
17. Reuter, C., Foerstl, K. A. I., Hartmann, E. V. I., & Blome, C. (2010). Sustainable global supplier management: the role of dynamic capabilities in achieving competitive advantage. *Journal of supply chain management*, 46(2), 45-63.
18. Hossain, M. I., & Rahman, M. S. (2018). Measuring Influence of Green Promotion on Green Purchase Behavior of Consumers: A Study on Bangladesh. *Barishal University Journal (Part-3)*, 191.
19. Qader, I. K. A., & Zainuddin, Y. B. (2011). The impact of media exposure on intention to purchase green electronic products amongst lecturers. *International Journal of Business and Management*, 6(3), 240.
20. D'Souza, C., Taghian, M., Sullivan-Mort, G., & Gilmore, A. (2015). An evaluation of the role of green marketing and a firm's internal practices for environmental sustainability. *Journal of strategic marketing*, 23(7), 600-615.
21. Garg, A. (2015). Green marketing for sustainable development: an industry perspective. *Sustainable Development*, 23(5), 301-316.
22. <https://www.salesforce.com/marketing/lifecycle-marketing/>