Environmental Education and Sustainable Development Open Access

Summer (2024) 12(4): 147-162

DOI: 10.30473/ee.2023.66712.2600

ORIGINAL ARTICLE

A Green Marketing Model Based on the Emotional Intelligence of Managers

Ali Yavari^{1(ORCID: 0000000332120595)}, Hossein Qarebeiglo², Yaqub Alavimatin³, Naser Feqhhi Farahmand⁴

- 1. Ph.D. Student in Marketing Management, Faculty of Management, Economics and Accounting, Ajabshir Azad University, Ajabshir, Iran
- 2. Assistant Professor, Faculty of Management, Economics and Accounting, Ajabshir Azad University, Ajabshir, Iran
- 3. Assistant Professor, Faculty of Management, Economics and Accounting, Tabriz Azad University, Tabriz, Iran
- 4. Associate Professor, Faculty of Management, Economics and Accounting, Tabriz Azad University, Tabriz, Iran.

Correspondence:

Email: Ali.Yavari2020@yahoo.com

Received: 19/Apr/2023 Accepted: 6/Oct/2023

How to cite:

Yavari, A., Qarebeiglo, H., Alavimatin, Y., & Feqhhi Farahmand, N., (2024). A Green Marketing Model Based on the Emotional Intelligence of Managers. Quarterly Journal of Environmental Education and Sustainable Development, 12(4), 147-162.

(DOI: 10.30473/ee.2023.66712.2600)

ABSTRACT

The main goal of this research was to design a green marketing model based on the emotional intelligence of Iran's oil industry managers. This research was conducted based on a mixed-methods approach, incorporating both qualitative and quantitative phases. In the first stage, the research was classified as qualitative with an exploratory approach, and in the second stage, it was descriptive-quantitative-survey research. In the qualitative phase, the purposeful and snowball sampling method was employed based on the saturation rule by conducting 18 interviews with managers of companies under the Ministry of Petroleum and university marketing professors. The data were analyzed using the Strauss and Corbin coding method and MaxQDA2020 software, and finally, the research paradigm model was presented. In the quantitative part, 384 managers and employees of Iran's oil industry were selected by stratified random sampling. The obtained model was validated using the partial least squares method and Smart PLS software. The research results indicated a positive and significant effect of causal conditions on the central phenomenon, as well as a positive and significant effect of background conditions, the central phenomenon, and intervention conditions on strategies. Also, strategies were found to have a positive and significant effect on the consequences of green marketing based on the emotional intelligence of managers.

KEYWORDS

Green Marketing, Iran's Oil Industry, Emotional Intelligence of Managers.

آموزش محیطزیست و توسعه پایدار

سال دوازدهم، شماره چهارم، تابستان ۱۴۰۳ (۱۶۲–۱۶۲)

DOI: <u>10.30473/ee.2023.66712.2600</u>

«مقاله پژوهشي»

مدل بازاریابی سبز مبتنی بر هوش هیجانی مدیران

على ياوري الراركيد: ١٠٥٠ ٢٣٣١٢٠٠٠، حسين قرهبيگلو، يعقوب علويمتين، ناصر فقهي فرهمند

 ۱. دانشجوی دکتری مدیریت بازاریابی، دانشکده مدیریت، اقتصاد و حسابداری، دانشگاه آزاد عجب-شیر، عجبشیر، ایران

 استادیار، گروه مدیریت، دانشکده مدیریت، اقتصاد و حسابداری، دانشگاه آزاد عجبشیر، عجبشیر، ایران

 ۳. استادیار، گروه مدیریت، دانشکده مدیریت، اقتصاد و حسابداری، دانشگاه آزاد تبریز، تبریز، ایران

 دانشیار، گروه مدیریت، دانشکده مدیریت، اقتصاد و حسابداری، دانشگاه آزاد تبریز، تبریز، ایران.

نویسنده مسئول: علی یاوری رایانامه: Ali.Yavari2020@yahoo.com

> تاریخ پذیرش: ۱۴۰۲/۰۷/۱۴ تاریخ دریافت: ۱۴۰۲/۰۱/۳۰

استناد به این مقاله:

یاوری، علی. قرمبیگلو، حسین. علوی متین، یعقوب و فقهی فرهمند، ناصر. (۱۴۰۳). مدل بازاریابی سبزِ مبتنی بر هوش هیجانی مدیران، فصلنامه علمی آموزش محیطزیست و توسعه پایدار، ۱۲(۴)، ۱۲۲–۱۶۲.

(DOI: 10.30473/ee.2023.66712.2600)

چکیده

هدف این پژوهش طراحی مدل بازاریابی سبز مبتنی بر هوش هیجانی مدیران صنعت نفت ایران است. این پژوهش در مرحله اول، در زمره تحقیقات کیفی با رویکرد اکتشافی و در مرحله دوم، توصیفی – کمی-پیمایشی است. در مرحله کیفی، روش نمونهگیری به صورت هدفمند و گلوله برفی بود که بر اساس قاعده اشباع با انجام ۱۸ مصاحبه با مدیران شرکتهای زیرمجموعه وزارت نفت و اساتید بازاریابی دانشگاهها، این مهم حاصل شد. دادهها با استفاده از روش کدگذاری اشتراوس و کوربین و با نرمافزار دانشگاهها، این مهم حاصل شد. دادهها با استفاده از روش کدگذاری اشتراوس و کوربین و با نرمافزار از مدیران و کارکنان صنعت نفت ایران از طریق نمونه گیری تصادفی طبقه ای انتخاب شدند. از طریق روش حداقل مربعات جزئی و نرمافزار Smart $_{PLS}$ ، الگوی حاصله اعتبار سنجی گردید. نتایج پژوهش حاکی از تأثیر مثبت و معنی داری شرایط علی بر پدیده محوری، تأثیر مثبت و معنی داری شرایط زمینه ای پدیده محوری و شرایط مداخله گر بر راهبردها بود. همچنین راهبردها، تأثیر مثبت و معنی داری بر بهبردها بود. همچنین راهبردها، تأثیر مثبت و معنی داری بر بهبره هی پران دارد.

واژههای کلیدی

بازاریابی سبز، صنعت نفت ایران، هوش هیجانی مدیران.

Introduction

The increase in the use of fossil fuels since the Industrial Revolution has led to an increase in the amount of greenhouse gases in the atmosphere, which is the main reason for global warming (Yurdakul & Kazan, 2020). This is a global challenge that companies worldwide are facing (Saadia, 2018). Environmental protection is gradually being considered a main issue by societies, governments, and international organizations, with significant economic and financial consequences (Sichigea et al., 2021). Today, there is a growing awareness of companies' environmental commitments because these commitments increase their competitive advantage (Qayyum et al., 2022). Aspects of corporate social responsibility are very important in today's business world. Energy sector operators perform corporate social responsibility¹ activities to strengthen a positive image in the market and achieve a vision of an organization with social responsibility (Wolniak et al., 2021). A European Union study of 16,000 people shows that 75% of people are concerned about environmental issues. These statistics indicate that environmental issues are among the most important criteria that consumers consider when purchasing. As a result, environmental issues have entered marketing concepts, leading to an approach known as green marketing (Nekmahmud & Fekete-Farkas, 2020). Using green marketing gives companies an opportunity to meet customers' needs and address their environmental concerns while gaining a competitive advantage and a loyal customer base (Priyadarshi & Prasad, 2023). The importance of this marketing method is that it has a positive effect on the behavioral intentions of customers, particularly regarding the use of green products (Olson, 2022). There are three stages of green marketing that have developed and evolved over time. "Ecological green marketing" (1960s and 1970s) was the first phase, during which environmental and social entered the business arena. "Environmental Green Marketing" (1980s) was the second phase, focusing on

technologies to produce products that prevent environmental pollution through innovation and creativity. "Sustainable green marketing" (1990s and 2000s) was the third phase, emphasizing the need to consider the needs of future generations in addition to those of the current generation (Faturachi et al., 2021).

In the past, the business management literature did not address the emotions of leaders. Today, we understand how critical emotion management is for leaders (Hu et al., 2023). The process related to environmental behaviors is not only linked to environmental awareness and knowledge but also to emotional intelligence. Russell and Griffiths (2008) in their research, by combining findings from psychology and environmental science, found that people's emotions play an effective role in promoting environmental behaviors (Keshavarz et al., 2021). A company will become green only when the green and environmentally friendly thinking derived from the emotional intelligence of its managers becomes a priority in their decisionmaking (Arici & Uysal, 2022). Emotional intelligence (EI) reflects the ability to guide thinking and action and is a major factor in the success of daily management (Tang et al., 2020).

Energy production and use is a crucial part of the modern economic, scientific, and social environment that humanity has created over the centuries (Pugazhendhi et al., 2020). Despite the growing demand for alternative energies, oil and gas derivatives will remain the main sources of energy supply in the medium term (2040 to 2050) globally. Additionally, in many countries, oil and gas are sources of electricity supply; therefore, the increase in demand for these as clean energy sources has a direct effect on the increase in demand for oil and gas, which underscores the importance of the oil and gas industry (Jalali et al., 2019). Over the last century, the oil industry has held a special place in Iran's economy and has effectively been the center of the country's development in all fields (AvakhDarestani & Fazel, 2020). In general, while some industries in the country have taken significant steps in green marketing,

^{1.} Corporate Social Responsibility (CSR)

Iran's oil companies are at the beginning of this journey and have not made substantial progress in this field. This is particularly concerning given that oil companies are among the biggest contributors to environmental damage (Khobreh et al., 2022).

The biggest challenge in Iran's oil industry is that engineers (rather than managers) occupy decision-making positions, and their technical approach to company issues (due to a limited understanding and appreciation of psychological aspects such as emotional intelligence) leads to a lack of awareness and attention to global trade issues (e.g., green branding). Furthermore, a review of existing literature indicates that there is no model for this critical strategy, despite the urgent need for it in this field. We conclude that the institutionalization of green marketing based

on the emotional intelligence of oil industry managers is essential and vital for creating a suitable perspective and competitive advantage for this strategic industry, which serves as the main pulse of Iran's economy and industry.

So far, studies on greening and restructuring the activities of oil companies, investing in renewable energy (AlNuaimi et al., 2020; Chevallier et al., 2021; Obeidat et al., 2020), improving environmental and economic performance, and green development (Aastvedt et al., 2021; Mensah et al., 2021; Rokhmawati, 2021; Sichigea et al., 2021; Yurdakul & Kazan, 2020) have been conducted. The summary of the results of some of the most important studies conducted on oil companies is presented in Table No. 1.

Table 1. Studies Regarding Green Marketing and Emotional Intelligence in Oil Companies

Summary of results	Focal variable	Researcher(s) and year
Biomass/renewable energy helps to eliminate operational efficiency and improve the environmental efficiency of oil and gas companies.	Green marketing	(Jarboui, 2021)
By restructuring the business model of oil and gas companies by 2050, 80% of environmental benefits can be achieved.	Green marketing	(Chevallier et al., 2021)
Integrating Green Business Process Management (GBPM) with existing processes in oil and gas companies can minimize environmental damage.	Green marketing	(AlNuaimi et al., 2020)
The support of the top management and the orientation of the internal environment have a positive effect on the management of green human resources and will ultimately improve the company's performance.	Green marketing	(Obeidat et al., 2020)
Green organization of multinational oil and gas companies is related to more sustainable environmental results.	Green marketing	(Ndubisi et al., 2020)
Oil and gas companies must implement the principles of green marketing in order to preserve the environment for the next generation.	Green marketing	(Saadia, 2018)
The dimensions of emotional intelligence are correlated with the organizational citizenship behavior of Egyptian oil industry employees.	Emotional intelligence	(Mahmoud, 2023)
Emotional intelligence should be a prerequisite for the recruitment process in the Middle East oil and gas industry. The role of emotional intelligence factors in the HSE performance of oil industry workers was confirmed.	Emotional intelligence Emotional intelligence	(Alhazza & Macasukit, 2021) (Ifelebuegu et al., 2019)
Managers' emotional intelligence has an effect on organizational commitment and job satisfaction of employees of oil company central regions of Iran.	Emotional intelligence	(Amirghodsi & Bonyadi, 2018)
Formulation of green strategy, green training and development, and green rewards are effective strategies in the maturity of green human resources management in Iran's National Oil Products Distribution Company.	Green marketing	(Afrasiabi et al., 2022)

Summary of results	Focal variable	Researcher(s) and year
The process of green marketing, by affecting the organization's		
agility, entrepreneurial behavior and managerial factors, causes	Green	(Khobreh et al., 2022)
green positioning and finally, green competitive advantage for oil	marketing	(Ridolfell et al., 2022)
companies and customers.		

Therefore, this research was conducted with the aim of designing a green marketing model based on the emotional intelligence of managers in the oil industry. For this purpose, causal, contextual and intervening conditions in green marketing should be identified and the implementation consequences of the model should be explained. In short, the key research question is: What is the green marketing model based on managers' emotional intelligence?

Additionally, in this research, the researcher aims to design a model by answering the following sub-questions:

- 1. What are the causal conditions of the green marketing model based on the emotional intelligence of oil industry managers?
- 2. What are the axial phenomena of the green marketing model based on the emotional intelligence of oil industry managers?
- 3. What are the contextual conditions in green marketing based on the emotional intelligence of oil industry managers?
- 4. What are the implementation strategies for green marketing based on the emotional intelligence of oil industry managers?
- 5. What are the intervening conditions affecting green marketing based on managers' emotional intelligence?
- 6. What are the consequences (effects and results) of green marketing based on the emotional intelligence of oil industry managers?

Research Methodology

This research was conducted based on two qualitative and quantitative (mixed) approaches. In the first stage, this research is a qualitative research with an exploratory approach, and in the second stage, it is a descriptive-quantitative survey. In the qualitative phase, the sampling method was purposeful and snowball based on the

saturation rule by conducting 18 interviews with managers of companies under the Ministry of Oil and university marketing professors. The data were analyzed using the Strauss and Corbin coding method and MaxQDA2020 software, and finally the research paradigm model was presented. Semi-structured interviews are more suitable for qualitative studies that are conducted with the purpose of exploration and pattern design. In this research, semi-structured interviews with experts were used in the first part. To measure validity, reliability, transferability, verifiability, and reliability criteria were used. The Holsti coefficient was used to evaluate the reliability of the qualitative part. This index is a suitable method for measuring agreement in qualitative content analysis. For this purpose, the text of the conducted interviews was coded in two stages. Then, the percentage of observed agreement (PAO) was calculated:

$$PAO = \frac{2M}{N1 + N2} = \frac{2 * 245}{289 + 373}$$

$$= 0/74$$

M is the number of common coding cases between two coders. N1 and N2 are the number of all coded items by the first and second coder, respectively. The value of PAO is between zero (no agreement) and one (complete agreement), and if it is greater than 0.7, it is favorable. In the present study, the obtained PAO value is 0.74, which is greater than 0.7, so the reliability of the qualitative part is acceptable.

In the quantitative part, 384 managers and employees of Iran's oil industry were selected through stratified random sampling based on Cochran's formula. Finally, by using the partial least squares method and Smart PLS software, the extractive paradigm model in the qualitative phase of the research was validated and the hypotheses of the research were tested.

Research Findings

Descriptive statistics of the experts of the

current research are presented in Table No. 2.

Table 2.	Descri	ntive St	atistics	of Experts
----------	--------	----------	----------	------------

Percent	Number	Demographic characteristics	
50%	9	Experienced experts (oil industry managers)	most
50%	9	Theoretical experts (marketing professors)	post
17%	3	Ms	Grade
83%	15	Ph.D	Grade
39%	7	15- 20 years	
61%	11	Over 20 years old	Work Experience
100%	18	Total	

In this research, the information obtained from the interviews was analyzed using the grounded theory method. First, the text of each interview was reviewed and studied several times. Then, the data was divided into semantic units in the form of sentences and paragraphs related to the main meaning, the semantic units were also reviewed several times. Finally, the appropriate codes for each semantic unit were recorded and classified based on semantic similarity. The interviews continued until theoretical saturation was reached. The criterion for achieving theoretical saturation has been achieving repetition in extracted codes (Minooie et al.,

2020). In the open coding phase, 245 codes were identified. In axial coding, 6 main categories, 10 subcategories, and 63 indicators were obtained. The selective coding stage is the main stage of this theorizing, from the point of view that it connects the Axial phenomenon to other parts with a systematic structure and expresses them in the framework of a narrative. Finally, according to the researcher's perception and interpretation of the studied phenomenon, the final theory is presented (Rafiei & Mirzaei, 2018). Finally, the paradigm model of green marketing based on managers' emotional intelligence is presented in Figure 1.

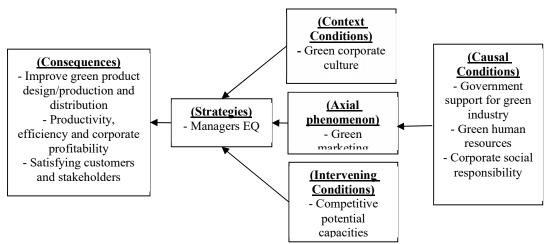


Figure 1. Paradigmatic Model of Green Marketing Based on the Emotional Intelligence of Managers

Three indices of convergent validity, composite reliability, and Cronbach's alpha are used to evaluate the validity of the external model (measurement). The convergent validity of the model was checked from the average variance extracted (AVE). This

criterion shows the degree of correlation of a structure with its indicators, the higher the correlation, the better the fit (Taqipour, 2021). For convergent validity, and composite reliability (CR), the following relationships must be established:

2) CR>0.7; CR>AVE; AVE>0.5

The results of the external model are presented in Table No. 3. It can be seen that the obtained factor loadings are greater than 0.5, and the t statistic is greater than 1.96. Therefore, the external model is approved. It can also be seen that the average variance

extracted (AVE) is greater than 0.5, so there is convergent validity. Cronbach's alpha of all variables is greater than 0.7, so the reliability is confirmed. The combined reliability value (CR) is also greater than the AVE, and in all cases, it is greater than the threshold of 0.7, so the third condition is also met.

 Table 3. Results of the External Model (Measurement Model)

AVE	CR	t-value	Cronbach's alpha	Estimate	Statement	Main categories
		23.087		0.774	Q01	
		23.276		0.746	Q02	
0.542	0.077	14.366	0.922	0.698	Q03	Green corporate
0.543	0.877	20.994	0.832	0.744	Q04	culture
		20.869		0.733	Q05	
		18.292		0.726	Q06	
		24.731		0.785	Q07	
		22.282		0.721	Q08	Government
0.569	0.869	21.702	0.811	0.766	Q09	support for green
		22.531		0.759	Q10	industry
		18.463		0.741	Q11	
,		19.056		0.726	Q12	
		18.935		0.739	Q13	0 1
0.548	0.858 24.7	24.795		0.777	Q14	Green human resources
		17.799		0.733	Q15	
		16.768		0.723	Q16	
		18.048		0.748	Q17	Corporate social responsibility
0.570	0.041	20.453	0.740	0.749	Q18	
0.570	0.841	19.49	0.749	0.761	Q19	
		19.961 0.762	0.762	Q20		
		20.907		0.739	Q21	
		22.433		0.758	Q22	
		18.173		0.714	Q23	
0.524	0.885	18.99	0.848	0.714	Q24	Green marketing
		19.202		0.708	Q25	
		16.359		0.708	Q26	
		19.029		0.725	Q27	
		19.968		0.728	Q28	
		22.237		0.723	Q29	
		25.237		0.751	Q30	
		21.312		0.740	Q31	
0.517 0.90	0.906	16.343	0.883	0.671	Q32	Managers EQ
		19.608		0.715	Q33	5
		18.881		0.714	Q34	
		17.376		0.710	Q35	
		19.899		0.716	Q36	
		22.253		0.757	Q37	
0.534	0.889	21.252	0.854	0.757	Q38	

AVE	CR	t-value	Cronbach's alpha	Estimate	Statement	Main categories
,		17.454		0.685	Q39	
		17.611		0.720	Q40	Competitive
		17.466		0.713	Q41	potential
		18.281		0.708	Q42	capacities
		24.95		0.769	Q43	
,		20.82		0.741	Q44	
		21.08		0.729	Q45	_
		16.653		0.717	Q46	Improve green
0.541	0.541 0.892	22.769	0.858	0.758	Q47	product design/productio
	17.635		0.725	Q48	n and distribution	
		26.223		0.766	Q49	11 4110 4101110 411011
		17.622		0.709	Q50	
		21.392		0.740	Q51	
		17.777		0.729	Q52	
		15.419		0.685	Q53	Productivity,
0.535	0.890	20.401	0.855	0.752	Q54	efficiency and corporate
		20.16		0.726	Q55	profitability
		20.804		0.751	Q56	
		20.802		0.736	Q57	
		19.587		0.729	Q58	
		18.481		0.739	Q59	~
0.556	0.883	22.011	0.840	0.760	Q60	Satisfying customers and
0.330	0.883	22.369	0.840	0.757	Q61	stakeholders
		20.355 0.735	Q62	Stakenoiders		
		22.427		0.752	Q63	

Divergent validity refers to the low correlation of the items of one latent variable with other latent variables. Based on this, the acceptable divergent validity of a measurement model indicates that a construct in the model interacts more with its indicators than with other constructs. In the PLS method, this is done by a matrix whose rows contain the values of correlation coefficients between constructs, and the main diameter of the

matrix is the square root of the AVE values of each construct (Hossein Zadeh et al., 2022). The divergent validity matrix is presented in Table 4. It can be seen that the root of AVE reported for each construct (principal diameter) is higher than its correlation with other constructs of the model, which indicates acceptable divergent validity for measurement models.

Table 4. Divergent Validity Assessment Matrix

	•	•	_							
10	9	8	7	6	5	4	3	2	1	Research structures
									0.740	Green human
									0.740	resources(1)
										Improve green product
								0.735	0.217	design/production and
										distribution(2)
							0.724	0.297	0.630	Green marketing(3)
										Productivity, efficiency
						0.732	0.586	0.344	0.540	& corporate
										profitability(4)
					0.746	0.307	0.178	0.142	0.259	Satisfying customers
					0.746	0.307	0.1/8	0.142	0.358	and stakeholders(5)

10	9	8	7	6	5	4	3	2	1	Research structures
				0.755	0.618	0.671	0.391	0.317	0.429	Government support for green industry(6)
			0.737	0.375	0.226	0.483	0.619	0.272	0.759	Green corporate culture(7)
		0.755	0.434	0.323	0.168	0.419	0.474	0.345	0.401	Corporate social responsibility(8)
	0.719	0.153	0.371	0.268	0.187	0.214	0.255	0.301	0.300	Managers EQ(9)
0.731	0.165	0.267	0.393	0.380	0.282	0.173	0.175	0.328	0.390	Competitive potential capacities(10)

Validation of the model was done with partial least squares technique. The results of running the model in the standard estimation mode show the direction and intensity of the relationship between the variables. The output of SmartPLS software (standard estimation) is presented in Figure 2.

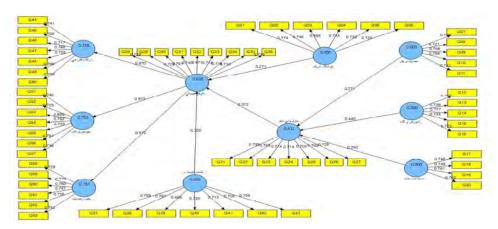


Figure 2. Model Validation Output with Partial Least Squares Method

To check the significance of the relationships between the variables of the model, the bootstrap method was used, which gives the t statistic. At the 5% error level, if the value of the bootstrap statistic is greater than

1.96, the observed correlations are significant. The t statistic and bootstrapping value to measure the significance of relationships are also presented in Figure 3, and the overall results are in Table 5.

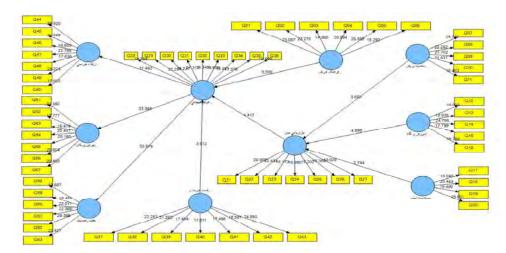


Figure 3. Significance of Variable Relationships with Partial Least Squares Method (Bootstrapping)

Result	(F^2)	t statistic	Impact factor	Relation
Ok	0.079	3.853	0.271	Government support → green marketing
Ok	0.024	4.698	0.440	Green human resources → Green marketing
Ok	0.067	2.744	0.250	Corporate social responsibility → green marketing
Ok	0.161	4.412	0.372	Green marketing → managers EQ
Ok	0.079	3.280	0.271	Green corporate culture → managers EQ
Ok	0.114	3.612	0.320	Potential competitive capacities → managers EQ
Ok	0.114	37.493	0.870	Managers' EQ → Improve green product design/production and distribution
Ok	0.204	33.384	0.873	Managers' EQ → corporate productivity, efficiency and profitability
Ok	0.173	33.879	0.872	Managers' EQ → gaining the satisfaction of customers and stakeholders

Table 5. Summary of the Results of the Structural Part of the Model (Relationships of Model Variables)

The effect size index(F^2) is the amount of changes that the independent variables have on the dependent variables. The values of 0.02 (weak), 0.15 (medium), and 0.35 (large) are considered. Effect size values are presented in the above table. It can be seen that the effect size was not less than 0.02 in any of the cases and it was estimated between medium and strong in most cases.

In the present study, the coefficient of determination index(R^2) and the predictor relevance index (Q^2) were used to measure the predictive power of the model. These two

indices are calculated for endogenous variables. The coefficient of determination shows the number of changes in dependent variables by independent variables. The higher the coefficient of determination of endogenous structures of the model, the better the fit of the model. Three values of 0.19, 0.33, and 0.67 are used as criteria for weak, medium, and strong fit of the structural part of the model, determined by the coefficient criterion. If the value of the predictive relevance index (Q^2) is positive, it shows that the model has good predictive power.

Table 6. Prediction Power of the Model

Q^2	\mathbb{R}^2	Main structures
0.403	0.756	Improve green product design/production and distribution
0.413	0.812	Green marketing
0.393	0.763	corporate productivity, efficiency and profitability
0.410	0.761	gaining the satisfaction of customers and stakeholders
0.425	0.838	Managers' EQ

Based on the results of Table 6, the value of the green emotional intelligence coefficient of managers is reported to be 0.838, which is an acceptable value. This shows that the variables of the model have been able to explain 84% of the changes in the green emotional intelligence of managers. The index(Q^2) is also obtained in all positive cases, so the model has a good predictive capability.

The goodness of fit index is an index that is used to check the fit of the overall model (measurement part and structural part). Three values of 0.01, 0.25, and 0.36 have been

introduced as weak, medium, and strong values for GOF. The GOF index of the present study was 0.654, so the model has a good fit.

$$GOF = \sqrt{\overline{communalities} \times \overline{R^2}}$$

$$= 0.654$$
(3)

Conclusion

In this study, a model for green marketing based on managers' emotional intelligence was presented in the qualitative part. Based on the results of the research, it was determined that government support, green human resources, and corporate social responsibility are the basic factors affecting green marketing. The component of government with the results support aligns Mohammadifar & Soleimani's study (2021). It was also shown that managers' emotional intelligence plays a strategic role in the implementation of this marketing approach, and potential competitive capacities play an intervening role in this regard. The studies of Nekmahmud & Fekete-Farkas (2020) and Soltani et al. (2022) highlight the importance of acquiring a competitive advantage, which is somewhat consistent with the results of this research. The results of the research identified green corporate culture as a contextual condition in the presented model, and it was determined that through the emotional intelligence of managers, consequences such as improving the design, production, and distribution of green products, enhancing the productivity and profitability of the company, and increasing the satisfaction of customers and stakeholders can be achieved. In the studies by Khobreh et al. (2022) and Olson (2022), the components of productivity, efficiency, and profitability are mentioned, and from this perspective, they are compatible with the results of the present research.

In the quantitative part, based on the validation of the research model and hypothesis testing, it was concluded that government support for green industry, green human resources, and corporate social responsibility (causal conditions) have a positive and significant effect on green marketing (central phenomenon). The positive result of the government's financial support for the green industry is similar to the research results of Saadia (2018), Aastvedt et al. (2021), Bhardwaj et al. (2023), and Obeidat et al. (2020), who concluded that human resources play a role in promoting environmental sustainability. Furthermore, the positive and significant effect of green marketing (central phenomenon), green corporate culture (contextual conditions), and potential competitive capacities (intervening conditions) managers' on emotional intelligence (strategies) was confirmed. The creation of a green research and development department and gaining a competitive advantage through the implementation of green marketing principles aligns with the research results of Nekmahmud & Fekete-Farkas (2020), Soltani et al. (2022), and Saadia (2018). Finally, it was concluded that the emotional intelligence of managers (strategies) has a positive and significant effect on the promotion of green product design/production and distribution, productivity/efficiency, corporate profitability, and the satisfaction of customers and stakeholders (consequences). The results of the studies by Gultom (2022), Arici & Uysal (2022), Hu et al. (2023), and Keshavarz et al. (2021) were somewhat consistent with the results of this research.

Based on the research findings and assumptions of the research, the following practical suggestions are presented:

Causal conditions in green marketing based on managers' emotional intelligence were identified in three main categories: government support, green human resources, and corporate social responsibility.

Based on the results of the research, it was concluded that government support has a positive and significant effect on green marketing (hypothesis 1). Therefore, concerning the category of government support, it is suggested that banking facilities be provided to cover the company's green expenditures and offer support. Financial and budgetary measures should be taken for the development of the green oil and gas industry. For example, one governmental measure to support the green oil and gas industry could be the establishment of Sanat Naft Bank to allocate a part of the income from the sale of this industry's products to this bank. This would provide the possibility of better financial circulation, obtaining additional income from banking operations, investing in profitable non-oil projects, and finally, financing the costs needed to carry out green activities in this industry. Additionally, the government's support for oil companies to implement green strategies by providing tax exemptions is also crucial in establishing the green marketing model of the oil industry. Moreover, it is necessary to sustain government support through continuous collaboration with parliament to enact environmental protection laws and fully

implement green laws within industries.

Based on the results of the research, it was concluded that green human resources have a positive and significant effect on green marketing (hypothesis 2). Therefore, regarding the category of green human resources, it is important to observe the principles of meritocracy in the hiring and employment of green-minded managers and Relevant managers should employees. monitor the implementation of environmental principles in the company by periodically reporting their green actions to top managers. The practical implementation of the learning organization theory is essential at all levels of green companies. In such companies, employees and managers must continuously learn and teach from each other and from the experiences of leading green companies. By establishing coordination and continuous cooperation with universities and scientific centers, they can achieve important and practical results. It is also recommended that the managers of the country's oil industry implement global standards in environmental protection by participating in scientific research conferences and enhancing their own and their company's awareness. Furthermore, it is suggested that along with the Oil Industry Research Institute and the Quarterly Journal of Strategic Studies in the Oil and Energy Industry, decision-makers should seek the necessary permissions to establish a journal in the field of energy and environment research. In terms of corporate social responsibility, serious action should be taken to address environmental issues alongside the interests of the company and its stakeholders. Adopting global environmental protection standards, equipping the company with new highefficiency technologies, and respecting environmental issues in the supply chain of materials, all production (exploration, drilling, extraction, etc.), transportation, distribution, and sale of products are strongly recommended.

Based on the results of the research, it was concluded that corporate social responsibility has a positive and significant effect on green marketing (hypothesis 3). Therefore, concerning the category of corporate social

responsibility, it is suggested that companies active in the oil industry equip themselves with new technologies and implement global standards of environmental protection in upstream and downstream operations while respecting environmental issues in the extraction and production of oil and gas to protect resources and the environment for future generations through practical and effective action.

Based on the results of the research, it was concluded that green marketing has a positive and significant effect on the emotional intelligence of managers (hypothesis 4). Therefore, regarding the Axial phenomenon, it is suggested that Iranian oil industry managers continuously benefit from the experiences of professors and experts in the field of green marketing, as well as train employees to implement green marketing across all parts of the company. Appropriate and principled budgeting to achieve the company's green strategic goals and identifying and promoting the company's brand as a green brand to the people of the world through advertisements and international media will enhance public goodwill. In this context, the effective use of the promotional capacities of the Internet and virtual media is one of the elements that should not be neglected.

Based on the results of the research, it was concluded that the green corporate culture has a positive and significant effect on the intelligence emotional of managers (hypothesis 5). Therefore, concerning the Context Conditions, it is suggested to utilize the many capacities of advertising in virtual media and the Internet; in addition to introducing the benefits of green products to the public, efforts should be made to establish and institutionalize a green-thinking and demanding culture in society, ultimately creating value for the company. In this regard, the optimal use of all the company's resources will contribute to the achievement of green goals. Additionally, it is necessary to create a research and development department focused on green culture in oil and gas companies, which specifically addresses environmental challenges. These companies should also continuously inform buyers and the public about their environmental performance and related activities through the company's media and marketing team. Enhancing the green space of the activity area will foster green thinking within the company, and as a company that prioritizes environmental issues in its activities, it will attract customers and the general public to its products, ultimately increasing the productivity and profitability of the company.

Based on the results of the research, it was concluded that potential competitive capacities have a positive and significant effect on the emotional intelligence of (hypothesis Therefore, managers 6). concerning the Intervening Conditions and the enhancement of potential competitive capacities, it is suggested that relevant managers should facilitate the growth of market share and the development of target markets by developing green investments for the company and creating green branding for Iran's oil industry. Additionally, by using advertising and establishing active and continuous communication with the target community and differentiating the product competitors' products introducing and advertising the company as a green company that is constantly adapting to the principles and techniques of producing products that conform to global green standards), it is possible to position the in the company global competitive environment to increase market share and attract competitors' customers.

Based on the results of the research, it was concluded that managers' emotional intelligence has a positive and significant effect on promoting the design, production, and distribution of green products (hypothesis 7). Therefore, regarding the strategies and actions, it is suggested to create a meritocracy in hiring and appointing green-thinking managers, employing managers who are full of green emotional intelligence and have the ability to influence the minds and souls of employees to cultivate green-thinking and creativity. Managers with green emotional intelligence, having a proper understanding of current issues in the field of global trade, will have the ability to envision and implement green policies and strategies in the company. Furthermore, with the training

employment of such forces, they will be held accountable for the actions and decisions taken and the results of those actions. The use of managers with green emotional intelligence will lead to consequences such as the training of a green workforce, the institutionalization of green actions and activities in the production operations department, and, ultimately, the distribution of products.

Based on the research results, it was concluded that managers' emotional intelligence has a positive and significant effect on corporate productivity, efficiency and profitability (hypothesis 8). Therefore, it is suggested that the company's environmental performance be improved by reducing operating costs and obtaining side profits with government financial support for the oil industry, as well as allocating a percentage of its foreign exchange amounts to the industry itself. It is also recommended to create sustainable industries in addition to the production of oil and gas products by participating in the production of clean fuels such as solar and wind power generation and in construction projects such as road transportation. construction. construction, and oil insurance. These initiatives, while improving the company's image at the global level, will increase the company's sales while preserving the environment for future generations, promote the country's economic development, and finally create environmental, energy, and social security for the country.

Based on the results of the research, it was concluded that the emotional intelligence of managers has a positive and significant effect on the satisfaction of customers and stakeholders (hypothesis 9). Therefore, it is suggested to continuously cooperate with the business professors of the universities and organize orientation classes for the managers and employees of the industry to enhance the awareness and sensitivity of the consumers towards environmental issues. As previously stated, the credibility of the company will increase with measures such as participation in side projects and non-profit projects, compliance with the principles of green activities across all chains (supply, production, and distribution), and finally, public awareness of green initiatives. These efforts have improved the attitude of customers (both domestic and foreign) towards the company's products, increased the attractiveness of purchasing the company's green products, and by creating loyalty among them, will have auspicious consequences for the country's industry and economy.

REFERENCES

- Aastvedt, T. M., Behmiri, N. B., & Lu, L. (2021). Does green innovation damage financial performance of oil and gas companies?. *Resources Policy*, 73, 10223, 1-10.
 - 10.1016/j.resourpol.2021.102235
- Afrasiabi, H., Beheshtifar, M., & Ziaaddini, M. (2022). Identification and validation of effective tactics and strategies in the maturity of green human resource management in the first class areas of the National Iranian Petroleum Products Distribution Company. *Strategic Studies in Petroleum and energy Industry*, 14(53), 77-92 [In Persian].
- Alhazza, M. M., & Macasukit, L. (2021).

 Antecedents of Emotional Intelligence in Oil and Gas Industry in the Middle East.

 International Journal of Intellectual Human Resource Management (IJIHRM), 2(01), 06-20.

 10.46988/IJIHRM.02.01.2021.002
- AlNuaimi, B. K., Al Mazrouei, M., & Jabeen, F. (2020). Enablers of green business process management in the oil and gas sector. *International Journal of Productivity and Performance Management*. 69(8), 1671-1694. 10.1108/IJPPM-11-2019-0524
- Amirghodsi, S., & Bonyadi Naeini, A. (2018). Investigating the relationship between emotional intelligence, organizational commitment and job satisfaction of employees with the demographic factors (case: Iranian Central Oil Fields Company). Strategic Studies in Petroleum and energy Industry, 9(35), 105-134. [In Persian].
- Arici, H. E., & Uysal, M. (2022). Leadership, green innovation, and green creativity: A systematic review. *The Service Industries Journal*, 42(5-6), 280-320. 10.1080/02642069.2021.1964482
- AvakhDarestani, S., & Fazel, F. (2020). The Impact of Green Training on

- Organizational Performance through the Mediating Role of Green Supply Chain Management (the Case: National Oil Products Distribution Company of Guilan). *Industrial Management Studies*, 18(56), 245-274. [In Persian]. 10.22054/jims.2019.22352.1776
- Bhardwaj, S., Nair, K., Tariq, M. U., Ahmad, A., & Chitnis, A. (2023). The State of Research in Green Marketing: A Bibliometric Review from 2005 to 2022. *Sustainability*, 15(4), 2988. 1-16. doi.org/10.3390/su15042988
- Cabras, C., Mondo, M., Diana, A., & Sechi, C. (2020). Relationships between Trait Emotional Intelligence, mood states, and future orientation among female Italian victims of Intimate Partner Violence. *Heliyon*, 6(11), 1-6. e05538.
- Chevallier, J., Goutte, S., Ji, Q., & Guesmi, K. (2021). Green finance and the restructuring of the oil-gas-coal business model under carbon asset stranding constraints. *Energy Policy*, 149, 1-13. *112055*.
- Faturachi, Z., Ebrahimpour, H., & Babaei, Y (2021). Evaluating the effect of green marketing on the buying behavior and loyalty of food products customers. *Business reviews*, 104, 95-113. [In Persian]
- Gultom, M. (2022). Green Leadership as a Model of Effective Leadership in Hospital Management in the New Normal Era. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 5(3), 19900-19910. 10.33258/birci.v5i3.6008
- Hosseinzadeh, M., VahabzadehMunshi, S., AbbasiNami, H., Mehrani, H., & Shahrabadi, A. (2022). Developing a conceptual framework for the use of digital marketing in the capital market based on theories of planned behavior and technology acceptance Case study: stock

- brokerage companies in Tehran. *Financial Economics*, 16(61), 129-156. [In Persian]. 10.30495/fed.2023.698846
- Hu, X., Li, R. Y. M., Kumari, K., Ben Belgacem, S., Fu, Q., Khan, M. A., & Alkhuraydili, A. A. (2023). Relationship between Green Leaders' Emotional Intelligence and Employees' Green Behavior: A PLS-SEM Approach. Behavioral Sciences, 13(1), 25. 1-18 10.3390/bs13010025
- Ifelebuegu, A. O., Martins, O. A., Theophilus, S. C., & Arewa, A. O. (2019). The Role of Emotional Intelligence Factors in Workers' Occupational Health and Safety Performance—A Case Study of the Petroleum Industry. *Safety*, 5(2), 30. 1-16. 10.3390/safety5020030.
- Jalali, S. H., Khalil Nezhad, S., & Golmohammadi, E. (2019). Strategic Capabilities in the Oil and Gas Industry: A Study in the Midstream Sector. *Innovation Management Journal*, 7(4), 51-80. [In Persian]
- Jarboui, S. (2021). Renewable energies and operational and environmental efficiencies of the US oil and gas companies: A True Fixed Effect model. *Energy Reports*. 8667-8676. 10.1016/j.egyr.2021.04.032
- Khobreh, A., Kashefi Neyshabouri, M. R., Naami, A., & Hashemi, S. M. (2022). Clarifying the Effect of Porter Greening the Competitive Advantage in the Marketing Process by Emphasizing the Marketing Information System and Information Behavior (Case Study: Oil Industry). *Human Information Interaction*, 8(4), 66-81. [In Persian]
- Keshavarz, M., Damghanian, H., Ebrahimi, S., & Rastgar, A. (2021). Investigating the Role of Organizational Nudge, Emotional Intelligence, and Intrinsic Motivation in Creating Proenvironmental Behavior of Employees. *Organizational Behaviour* Studies Quarterly, 10(1), 103-125. [In Persian]. 20.1001.1.23221518.
- Kircaburun, K., Demetrovics, Z., Griffiths, M. D., Király, O., Kun, B., & Tosuntaş, Ş. B. (2020). Trait emotional intelligence and internet gaming disorder among gamers: The mediating role of online gaming motives and moderating role of age

- groups. *International Journal of Mental Health and Addiction*, 18(5), 1446-1457. 10.1007/s11469-019-00179-x.
- Mahmoud, M. R. (2023). The Impact of Emotional Intelligence on Organization Citizenship Behavior: An Applied Research on Investment Petroleum organizations in Egypt. *Journal of Business*, 11(1), 22-33. 10.12691/jbms-11-1-2
- Mensah, A. O., Afum, E., & Sam, E. A. (2021). Does GHRM spur business performance via green corporate citizenship, green corporate reputation and environmental performance?. *Management of Environmental Quality:* An International Journal. 32(4), 681-699. 10.1108/MEQ-01-2021-0004
- Minooie, M., Gharebeygloo, H., Alavimatin, Y., & Fakhimiazar, S. (2020). Provide a sensory marketing model in the food industry. *Political Sociology of Iran*, 3(1), 489-508. [In Persian]. 10.30510/psi.2021.315144.2634
- Mohammadifar, Y., & Soleimani, M. (2021).

 Designing a Multi-Level Construct for the Successful Implementation of Green Marketing in Food Companies. *New Marketing Research Journal*, 11(1), 179-200. [In Persian]. 10.22108/nmrj.2021.124538.2214
- Nekmahmud, M., & Fekete-Farkas, M. (2020). Why not green marketing? Determinates of consumers' intention to green purchase decision in a new developing nation. *Sustainability*, 12(19), 1-31. 10.3390/su12197880
- Ndubisi, N. O., Al-Shuridah, O., & Capel, C. (2020). Greening multinational enterprises in the oil, gas and petrochemicals: Environmental sustainability and the moderation role of environmental sensitivity. *International Journal of Manpower*. 0143-7720, 1-19. 10.1108/IJM-08-2019-0361
- Obeidat, S. M., Al Bakri, A. A., & Elbanna, S. (2020). Leveraging "green" human resource practices to enable environmental and organizational performance: Evidence from the Qatari oil and gas industry. *Journal of Business Ethics*, 164(2), 371-388. 0.1007/s10551-018-4075-z

- Olson, E. L. (2022). Advocacy bias in the green marketing literature: Where seldom is heard a discouraging word. *Journal of Business Research*, 144, 805-820. 10.1016/j.jbusres.2022.02.052
- Priyadarshi, A., & Prasad, D. (2023). An Evaluation of Green Marketing Policies on Millennial Customers towards the Environment. *Available at SSRN* 4400380.
- Pugazhendhi, A., Alagumalai, A., Mathimani, T., & Atabani, A. E. (2020). Optimization, kinetic and thermodynamic studies on sustainable biodiesel production from waste cooking oil: An Indian perspective. *Fuel*, 273, 117725.
- Qayyum, A., Jamil, R. A., & Sehar, A. (2022). Impact of green marketing, greenwashing and green confusion on green brand equity. Spanish Journal of Marketing-ESIC, (ahead-of-print).1-20. 2444-9709 10.1108/SJME-03-2022-0032
- Rafiei, Y., & Roozbeh, M. (2018). Modeling Tourism Development of Folklore Music in Iran: A Grounded Theory Approach. Sociology of Social Institutions, 5(11), 181-201. [In Persian]. 10.22080/ssi.2018.1913
- Rokhmawati, A. (2021). The nexus among green investment, foreign ownership, export, greenhouse gas emissions, and competitiveness. *Energy Strategy Reviews*, 37, 1-11. *100679*.
- Saadia, K. H. (2018). Green Marketing Practices of Petroleum Companies in Arab Countries. *International Journal of Information and Electronics Engineering*, 8(4).50-57. 10.18178/IJIEE.2018.8.4.694
- Sichigea, M., Siminica, M., Cristea, M., Noja, G. G., & Circiumaru, D. (2021).

- Materiality Conditions in the Interplay between Environment and Financial Performance: A Graphical Modeling Approach for EEA Oil and Gas Companies. *Complexity*, 2021. 1-16, 10.1155/2021/7380759
- Taqipour, H. A. (2021). Providing an appropriate model of human capital according to the components of knowledge management in improving the performance of the staff of Imam Khomeini University in Nowshahr. *Journal of Research on Management of Teaching in Marine Sciences*, 8(2), 42-54. [In Persian]. 10.22034/rmt.2021.529764.1833
- Tang, H., Wang, G., Zheng, J., Luo, L., & Wu, G. (2020). How does the emotional intelligence of project managers affect employees' innovative behaviors and job performance? The moderating role of social network structure hole. SAGE Open, 10(4), 2158244020969382.
- Völker, J., & Mannheim, C. (2021). Tuned in on senders' self-revelation: Emojis and emotional intelligence influence interpretation of WhatsApp messages. *Computers in Human Behavior Reports*, 3, 1-9.. 100062.
- Wolniak, R., Wyszomirski, A., Olkiewicz, M., & Olkiewicz, A. (2021). Environmental Corporate Social Responsibility Activities in Heating Industry—Case Study. *Energies*, 14(7), 1-19. 1930.
- Yurdakul, M., & Kazan, H. (2020). Effects of eco-innovation on economic and environmental performance: Evidence from Turkey's manufacturing companies. Sustainability, 12(8), 1-22. 10.3390/su12083167