THE EFFECT OF MARKETING CAPABILITIES ON THE PERFORMANCE OF SHIPPING COMPANIES

EL EFECTO DE LAS CAPACIDADES DE MARKETING EN EL DESEMPEÑO DE LAS EMPRESAS DE ENVÍO





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RESUMEN

El objetivo principal de esta investigación es evaluar el rendimiento de las capacidades de marketing en el desempeño de las compañías navieras, con el papel intermediario de orientación de mercado, estrategia de marketing y poder organizacional. Se usaron estadísticas descriptivas y estadísticas inferenciales para analizar los datos. Para probar las hipótesis de investigación, se ha utilizado el modelo de ecuaciones estructurales con la estimación de máxima verosimilitud. Los resultados mostraron que la orientación del mercado tiene un efecto moderador sobre la relación directa entre las capacidades de marketing y el desempeño de una empresa. Basado en el coeficiente estándar de 0.76 y el nivel de significancia calculado (P <0.01), esta hipótesis es confirmada. El poder organizacional tiene un efecto moderador en la relación directa entre las capacidades de mercadeo y el desempeño de la compañía.

Palabras clave: capacidades de mercadotecnia, el desempeño de la empresa, orientación al mercado, estrategia de mercadeo, poder organizacional.

ABSTRACT

The main purpose of this research is to evaluate the effect of marketing capabilities on the performance of shipping companies with the intermediary role of market orientation, marketing strategy, and organizational power. Descriptive statistics and inferential statistics were used to analyze the data. In order to test the research hypotheses, structural equation modeling has been used with the maximum likelihood estimation. The results showed that market orientation has a moderating effect on the direct relation between marketing capabilities and the performance of a company. Based on the0.76 standard coefficient and the calculated significance level (P <0.01), this hypothesis is confirmed. Organizational power has a moderating effect on the direct relation between marketing capabilities and the performance of the company.

Keywords: marketing capabilities, the performance of the company, market orientation, marketing strategy, organizational power

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INTRODUCTION

Strong global competition makes innovation as an essential part of the strategy of the company by which companies can use productive manufacturing processes, to act better in the marketplace and show credibility, fame and positive reputation towards the customers.

This way, they gain a reliable competitive advantage. Therefore, companies need to be able to learn in order to analyze the successful and unsuccessful consequences of their activities which were implemented to produce and improve their products. In this regard, the managers should also acquire new knowledge.

Moreover, performance can be viewed from two perspectives. First, it has a mental concept that is related to the performance of companies towards their competitors and second, performance has an objective concept which is based on its absolute measurement (Barrales-Molina Martínez-López, and Gázquez-Abad, 2014).

The highest-ranked managers' understanding of corporate strategies, norms and values are directly related to their behavior at the time of performing their responsibilities. Since the managers can only influence the individuals who form the company, their personal attitudes andbehavior directly affect the quality and nature of their services and their communication with customers. The strategic orientation will turn to specific attitudes towards work and behaviors that develop marketing capabilities and improve business performance (Buyl, Boone, Hendriks, and Matthyssens, 2011).

The structure of each market can be evaluated by a large number of variables, including the focus of the market. The focus ratio is one of the most important issues in the field of industrial organizing and industrial economics. Shipping companies have an important role in international trade. The massive volume of goods loaded and discharged by the world shipping lines reveals the strategic importance of the maritime transportation industry.

On the other hand, achieving a higher performance is the goal of organizations so they take different measures to reach it. Capabilities play an important role in creating competitive advantages for organizations. In today's world, organizations are looking for ways to find or strengthen the benefits in order to remain in the modern economic system.

Marketing is one of the most fundamental components for corporate competitive advantage and profitability (Davcik and Sharma, 2015) so companies should have a high marketing capability to deliver their products to the market faster and provide their customers with more services than their competitors.

Furthermore, in today's world, due to declining product life and rapidly growing demands, special importance should be given to innovation since it can prolong the life cycle and durability of product life and make it possible remain in competition scene (Hair,Ringle and Sarstedt, 2013). So, in this research, we are trying to evaluate the

effect of marketing capabilities on the performance of shipping companies with the intermediary role of market orientation, marketing strategy, and organizational power.

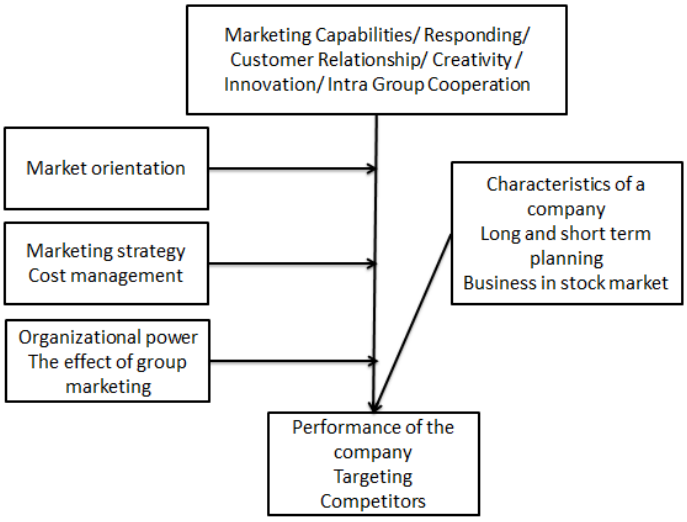


Figure 1. The conceptual model of the research (Cacciolatti, 2016)

MATERIAL AND METHODS

Library method was used to formulate the theoretical foundations. In the field study, standard questionnaires were used. In the questionnaire of marketing capabilities, questions 1 to 4 examine the concept of creativity; questions 5-8 the concept of Innovation; questions 9-12, communication with the customers; questions 13-15, intra-group cooperation; and questions 16-18, responding.

The statistical community of this research is all employees of the shipping company who are over 2,600. Through simple random sampling and based on Morgan table,335 people were selected as samples and participated in this research.

Descriptive statistics and inferential statistics were used to analyze the data. Using the Kolmogorov-Smirnov test, the distribution of data was normal. Amos software was used for the confirmatory factor analysis of company performance questionnaire. In order to test the research hypotheses, structural equation modeling using the Maximum Exponential Method has been used in Amos software version 23.

RELIABILITY USING CRONBACH'S ALPHA METHOD

To confirm the reliability of the questionnaire, AMOS structural equation modeling software was used and to standardize the questionnaire, confirmatory factor analysis was used. Furthermore, the validity of the questionnaire has been approved by the expert judgment.

Table 1 the reliability of 30 questionnaires

Variables	Alpha
The characteristics of the company	0.747
The performance of the company	0.744
Market orientation	0.855
Marketing strategy	0.794
Organizational power	0.734
Marketing capabilities	0.798

Considering the acceptable alpha values, the questionnaire is valid.

THE INFORMATION ANALYSIS METHOD

To analyze the data, SPSS and LISREL and descriptive and inferential statistics were used. To describe the demographic data, descriptive statistics including central indices (mean, median) and dispersion indices (variance, standard deviation, the range of variations) and observation distribution indices (skewness-stretching) were used. Inferential statistics were used to test the hypotheses. In other words, using the Kolmogorov-Smirnov test, the normal distribution of data was confirmed and to test the hypotheses, AMOS software was used. Besides, confirmatory factor analysis, conceptual and regression analysis were used to evaluate the effect of the factors.

The collected data were first introduced in Axel software and then, using structural equation modeling (SEM) and analytical software, the causal relation between the variables of the suggested model was tested. This research was conducted in shipping companies located in Tehran.

The Baron and Kenny (1986) method was also used to test the mediation hypotheses.

DISCUSSION

THE DESCRIPTIVE RESULTS OF PERSONAL IDENTITIES OF EMPLOYEES IN THE STUDIED STATISTICAL SAMPLES

Based on the results, 65.67% of the samples (220 individuals) were males and 26.57% (89 individuals) were females while 76.7% of the statistical community (26 individuals) did not answer the questionnaire. Based on the results, 15.22% of the respondents (53 individuals) were single while 84.18% of them (282 individuals) were married. Also, the first age group (20-30 years old) had a frequency of 27.16% (91 individuals), the second group (31-40 years old) had a frequency of 49.55% (166 individuals), the third group (41 to 50 years old) had a frequency of 13.73% (46 individuals) and the fourth group (51 and older) had a frequency of 55.5% (32 individuals).

The results also showed that 3.58% of the sample (12 individuals) had a diploma degree, 15.22% (53 individuals) had an associate degree, 43.88% (147 individuals) had an undergraduate degree and 36.72% (123 individuals) had a master or a higher degree.

THE RESULTS OF THE DESCRIPTIVE ANALYSIS OF THE RESEARCH VARIABLES

The results of the descriptive analysis showed that the number of respondents is 335. Half of the questions were used for the operational definition of the variables and the minimum rate of changes for the variable of marketing capabilities was equal to 2.2 and the maximum rate of changes for the variable of organizational power was equal to 4.Furthermore, the mean scores of the research variables were higher than 3 (the mean of a 5- point Likert scale), which indicates that the respondents tend to items with moderate, high and very high scores.

Table 2 the central indicators of variables

Variables	Number	Rate of changes	Minimum score	Maximum score	Mean	The standard error of the mean
Creativity	335	3.25	1.75	5	4.0119	.03419
Innovation	335	2.75	2.25	5	3.9142	.02752
Communication with the customers	335	3	2	5	3.2373	.04058
Intra-group cooperation	335	2.67	2.33	5	3.4648	.03272
Responding	335	3.33	1.67	5	3.2564	.03685
The characteristics of the company	335	2.71	2	4.71	3.4438	.02792
The performance of the company	335	3.8	1	4.8	3.2621	.03585
Market orientation	335	3.5	1.50	5	3.5188	.03487
Marketing strategy	335	3.67	1.33	5	3.5045	.03537
Organizational power	335	4	1	5	3.2573	.03526
Marketing capabilities	335	2.2	2.73	4.93	3.5771	.02360

The findings showed that the maximum standard deviation was related to the database variable which indicates the dispersion of this component compared to other components. On the other hand, the least standard deviation is related to marketing capabilities, so the minimum dispersion is related to this component. Given that the absolute value of the skewness coefficient of all variables is smaller than 0.5, the distribution of data is close to the normal distribution. Finally, Kolmogorov-Smirnov test was used to precisely evaluate the distribution of data (table 3).

Table 3 The indices of distribution of observations and dispersion of variables related to research hypotheses

Variables	Number	Standard deviation	Skewness	The standard error of skewness	Stretching
Creativity	335	.62586	-.507	.133	.431
Innovation	335	.50364	-.140	.133	.094
Communication with the customers	335	.74275	.233	.133	-.326
Intra-group cooperation	335	.59884	.173	.133	-.001
Responding	335	.67444	.427	.133	-.018
The characteristics of the company	335	.51101	.008	.133	-.313
The performance of the company	335	.65622	-.040	.133	.857
Market orientation	335	.63825	-.305	.133	.840
Marketing strategy	335	.64732	-.302	.133	.547
Organizational power	335	.64543	.161	.133	.989
Marketing capabilities	335	43186	.683	.133	.649

FACTOR ANALYSIS OF MARKETING CAPABILITIES

The results of confirmatory factor analysis show the standard and significant coefficients. In general, the power of the relation between the factor (hidden variable) and the observable variable is shown by factor loading. The factor loading value is between zero and one. If the factor loading is smaller than 0.3, the relations are considered as weak, the factor loading between 0.3 and 0.6 is acceptable, and if it is greater than 0.6, it is desirable.

In the present factor model, all values of the standard coefficients are greater than 0.3, which indicates that the factor model has a suitable fitness and there is no need to remove any questions. Considering the values suggested by the software, in order to increase the fit of the model, the model will be saturated.

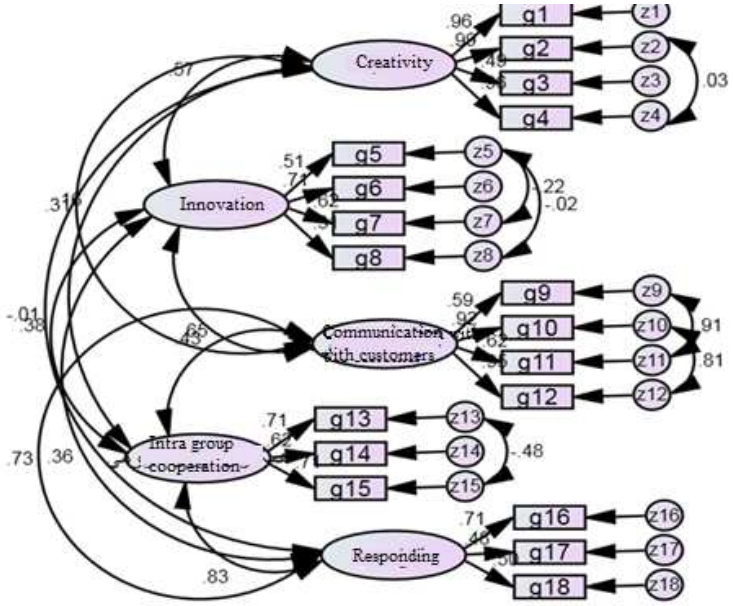


Figure 2 Confirmatory factor analysis of marketing capability questionnaire

According to table 4, the standard factor loads, and the significant coefficients of the questions indicate that the questions had appropriate factor load and their coefficients are significant. Cronbach's alpha values are also calculated for each variable, all of which are above 0.7, so the reliability of the questionnaire is also confirmed.

Table 4 The Results of factor analysis of marketing capabilities

Variables	Index	Standard factor loading	t-value	Cronbach's alpha
Creativity				0.902
	Question 1	.963		
	Question 2	.987	37.754	
	Question 3	.487	9.981	
	Question 4	.964	33.995	
Innovation				0.743
	Question 5	.505		
	Question 6	712	6.744	
	Question 7	.618	6.257	
	Question 8	.307	4.259	
Communication with the customers				0.902
	Question 9	.593		
	Question 10	.918	9.340	
	Question 11	.623	30.882	
	Question 12	.945	9.480	
Intra-group cooperation				0.743
	Question 13	.709		
	Question 14	.619	8.473	
	Question 15	.708	8.513	
Responding				0.716
	Question 16	.711		
	Question 17	.484	7.760	
	Question 18	.502	8.025	

Based on the results, the chi-Square is equal to 432.321. Considering the significance level of 0.0001 is significant at a confidence level of 99%. This value represents the low fitness of the model. In the proposed research model, the chi-squarefor two degrees of freedom equals3.241 which are within the allowable range. The value of Root Mean Square Error of Approximation (RMSEA) is 0.093, which is smaller than the recommended value of 0.1, indicating a high fit of the model with the collected data. The incremental fitting index (IFI) is 0.944, the Normative Fitness Index (NFI) is 0.932, the Confirmatory Fitness Index (CFI) is 0.948, the Goodness Fitness Index (GFI) is 0.962, and the Adjusted Goodness Fitness Index (AGFI) is equal to 0.821; therefore, the fitness indexes are in the desirable level, which indicates the appropriate fitness of the model (table 5).

Table 5. Accepted thresholds and observed values of fitness indices in the questionnaire

Name of index	The recommended value	The value observed in this research
The ratio of chi-square to its degree of freedom		3.241
The root mean square error of approximation (RMSEA)	<0.1	0.093
Normed Fit Index(NFI)	>0.9	0.932
Comparative Fit Index (CFI)	>0.9	0.948
Goodness of Fit Index (GFI)	>0.9	0.962
Adjusted Goodness of Fit Index (AGFI)	>0.8	0.821

RESULTS OF FACTOR ANALYSIS OF THE CHARACTERISTICS OF THE COMPANY

In the present factor model, all values of the standard coefficients are greater than 0.3, which indicates that the factor model has a suitable fit and does not need to remove any questions. In order to increase the fit of the model, the model is subjected to saturation with respect to the values suggested by the software.

The results showed that the questions had appropriate factor load and their coefficients were significant. Cronbach's alpha values are also calculated for each variable, all of which are greater than 0.7, so the reliability of the questionnaire was also confirmed.

The results showed that the chi-square value is 438.522 which is significant at a confidence level of 99%. This value represents the poor fit of the model. In the proposed model, the chi-square for the two degreesof freedom equals 2.621 which is in the acceptable range. The RMSEA value is 0.091(<0.1). This indicates the model has a well fit. The IFI is 0.941, the NFI is 0.932, the CFI is 0.966, the GFI is 0.947 and the AGFI is 0.844. Thus, the fit indexes are desirable so the model has an appropriate fit.

Table 6 The acceptable threshold and the observed values of the fit indexes in the questionnaire

Name of index	The recommended value	The value observed in this research
The ratio of chi-square to its degree of freedom		2.621
The root mean square error of approximation (RMSEA)	<0.1	0.091
Normed Fit Index (NFI)	>0.9	0.932
Comparative Fit Index (CFI)	>0.9	0.966
Goodness of Fit Index (GFI)	>0.9	0.947
Adjusted Goodness of Fit Index (AGFI)	>0.8	0.844

RESULTS OF FACTOR ANALYSIS OF THE PERFORMANCE OF THE COMPANY

Figure 3 shows the output of confirmatory factor analysis of company performance questionnaire. In the results of confirmatory factor analysis, the standard and significant coefficients are presented. In general, the power of the relation between the factor (hidden variable) and the observable variable is shown by factor load. The factor load is a value between zero and one. If the factor load is smaller than 0.3, a weak relation is considered, the factor load between 0.3 and 0.6shows an acceptable relation, and if it is greater than 0.6, the relation is desirable.

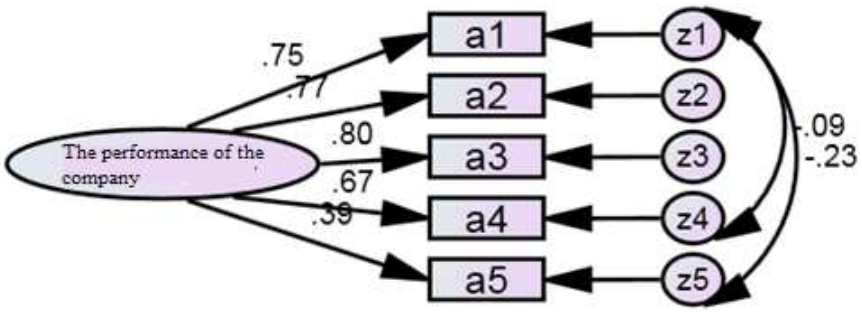


Figure 3The confirmatory factor analysis of the company performance questionnaire

Based on the results, the chi-square value equals 268.832, whichconsideringthe significance level of 0/0001, is significant at a confidence level of 99%. This value represents the poor model fit.

In the proposed model, the chi-square for the two degrees of freedom is equal to 3.801, which is within the acceptable range. The RMSEA value is 0.091 (<0.1). This indicates that the model has a well fit. The IFI is 0.948, NFI is 0.901, the CFI is 0.907, the GFI is 0.948 and the AGFI is 0.848. Thus, the fit indexes are desirable so the model has an appropriate fit (table 7).

Table 7. The acceptable threshold and the observed values of the fit indexes in the questionnaire

Name of index	The recommended value	The value observed in this research
The ratio of chi-square to its degree of freedom		3.801
The root mean square error of approximation (RMSEA)	<0.1	0.094
Normed Fit Index (NFI)	>0.9	0.901
Comparative Fit Index (CFI)	>0.9	0.907
Goodness of Fit Index (GFI)	>0.9	0.948
Adjusted Goodness of Fit Index (AGFI)	>0.8	0.848

RESULTS OF FACTOR ANALYSIS OF THE MARKET ORIENTATION

The results showed that in the factor model of the present study, all values of the standard coefficients are greater than 0.3, which indicates that the factor model has a suitable fit and does not need to remove any questions. In order to increase the fit of the model, the model is subjected to saturation with respect to the values suggested by the software.

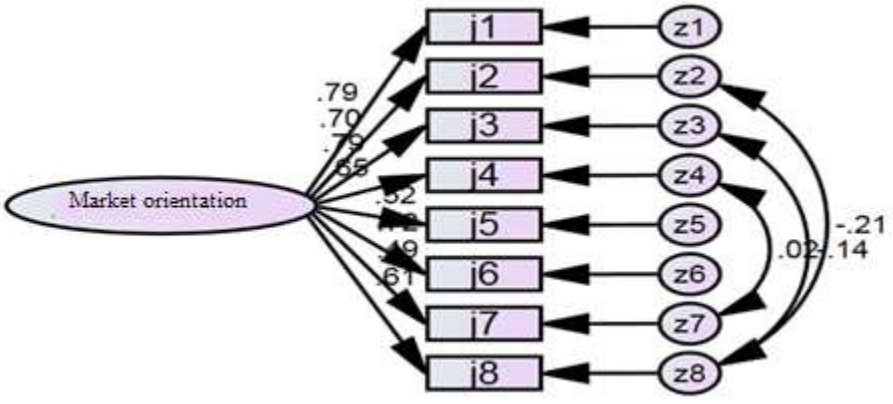


Figure 4the confirmatory factor analysis of the market orientation questionnaire

The chi-square value equals349.201, which is significant at a confidence level of 99%, considering the significance level of 0/0001. This value represents the poor model fit. In the model suggested by this study, the chi-square for the two degrees of freedom is equal to 3.521 which is with in the acceptable range. The RMSEA value is 0.092(<0.1). This indicates that with the collected data, the model has a well fit. The IFI is 0.956, the NFI is 0.931, the CFI is 0.949, the GFI is 0.981 and the AGFI is 0.802. Thus, the fit indexes are desirable so the model has an appropriate fit (table 8).

Table 8The acceptable threshold and the observed values of the fit indexes in the questionnaire

Name of index	The recommended value	The value observed in this research
The ratio of chi-square to its degree of freedom		3.521
The root mean square error of approximation (RMSEA)	<0.1	0.092
Normed Fit Index (NFI)	>0.9	0.931
Comparative Fit Index (CFI)	>0.9	0.949
Goodness of Fit Index (GFI)	>0.9	0.081
Adjusted Goodness of Fit Index (AGFI)	>0.8	0.802

THE RESULTS OF TESTING THE HYPOTHESES OF THE RESEARCH

Amos software shows that the chi-square value equals 350.833 whichis significant at a confidence level of 99%, considering the significance level of 0/0001. This value represents the poor model fit. In the proposed model, the chi-square for two degrees of freedom is equal to 3.742 which are within the acceptable range. The RMSEA value is 0.091(<0.1). This indicates that with the collected data, the model has a well fit. The IFI is 0.956, the NFI is 0.925, the CFI is 0.951, the GFI is 0.923 and the AGFI is 0.866. Thus, the fit indexes are desirable, so the model has an appropriate fit.

Table 9The acceptable threshold and the observed values of the fit indexes in the questionnaire

Name of index	The recommended value	The value observed in this research
The ratio of chi-square to its degree of freedom		3.742
The root mean square error of approximation (RMSEA)	<0.1	0.091
Normed Fit Index (NFI)	>0.9	0.972
Comparative Fit Index (CFI)	>0.9	0.951
Goodness of Fit Index (GFI)	>0.9	0.923
Adjusted Goodness of Fit Index (AGFI)	>0.8	0.866

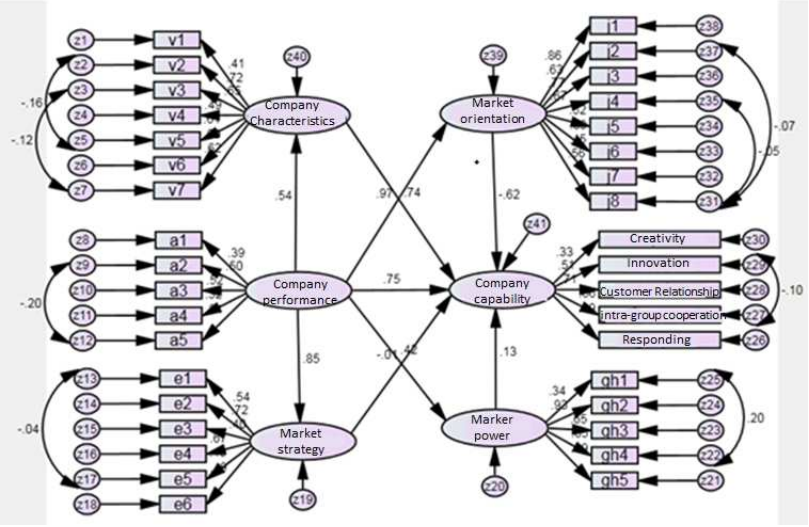


Figure 5The final model of the research

TESTING THE HYPOTHESES

To test the hypothesis, the Baron and Kenny's method has been used. The general view of the model with its full intermediary rolehas been shown in figure 6.

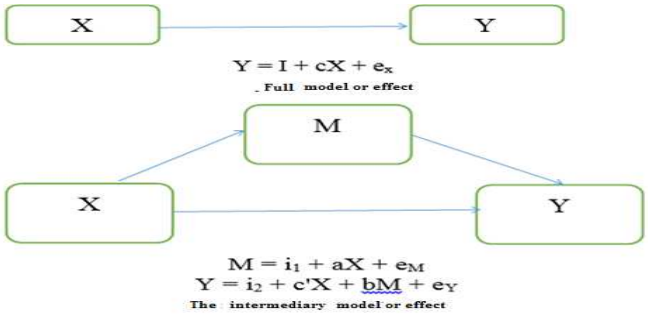


Figure 6Thefull or the intermediary model or effect

Table 10 shows that without anintermediary factor (full effect), therelation between the marketing capability and the performance of the companyis 0.68 while with the presence of the intermediary factor, this valuechanges into 0.75.

Table 10 The standard coefficients of testing the primary hypothesis of the research

Path	Name of the path	Path coefficient	Significance
Marketing capabilities (full)→the performance of the company (effect)	c	0.68	*significant
Marketing capabilities (intermediary)→the performance of the company (effect)	c'	0.75	*significant

- P<0.01

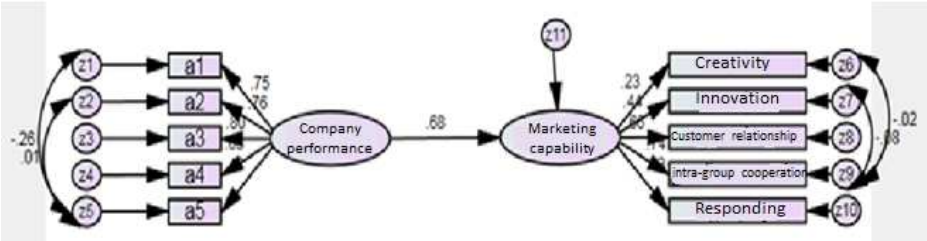


Figure 7The final model of the research without considering the intermediary factor

In general, the results showed that market orientation has a moderating effect on the direct relation between marketing capabilities and the performance of the company since the standard coefficient of 0.76 and the significance level (P <0.01), this hypothesis was confirmed. Furthermore, organizational power has a moderating effect on the direct relation between marketing capabilities and performance of the company and the standard coefficient of 0.85 and the significance level (P <0.01) confirmed it. In addition, the marketing strategy has a moderating effect on the direct relation between marketing capabilities and the performance of the company since the standard coefficient of 0.35 and the significance level (P <0.01) were obtained.

Finally, the characteristics of the company also had a moderating effect on the direct relation between marketing capabilities and the performance of the company as the standard coefficient of 0.76 and a significance level of significance (P <0.01) were confirmed.

CONCLUSIONS

The main aim of the study is to evaluate the effect of marketing capabilities on the performance of shipping companies with the intermediary role of market orientation, marketing strategy, and organizational power. In order to test the sub-hypotheses, structural equation modeling was used. Therefore, Amos software version 23 was used for the maximum likelihoodestimation. In this section, before evaluating the relation between the variables in the optimized model, first, we must ensure that the model is fitted. Based on the results, all the primary and subhypotheses were confirmed. Since the market is dependent on many factors.The results of studies in different countries have shown that factors such as cultural context, political environment, economic conditions, market conditions, industry type, level of competition and type of customers, managers' attitudes, and organizational structure can affect market and its performance. Therefore, it is recommended to the researchers to measure the impact of these factors on market capabilities in different industries in order to achieve a more realistic view.

REFERENCES

Dehghan, N., Dehghan, F.,&Fathi.S.(2012). Explaining and interacting the strategies of learning capabilities, innovation, and sustainable competitive advantage.*Strategic Management Studies, 9*, 128-150.

Cacciolatti, L., & Lee, S. H. (2016). Revisiting the relationship between marketing capabilities and firm performance: The moderating role of market orientation, marketing strategy andorganizational power.*Journal of Business Research, 69*(12), 5597-5610.

Barrales-Molina, V., Martínez-López, F. J., &Gázquez-Abad, J. C. (2014). Dynamic marketing capabilities: Toward an integrative framework. *International Journal of Management Reviews, 16* (4), 397–416.

Buyl, T., Boone, C., Hendriks, W., &Matthyssens, P. (2011). Top management team functional diversity and firm performance: The moderating role of CEO characteristics. *Journal of Management Studies, 48*(1), 151–177.

Davcik, N. S., & Sharma, P. (2015). Impact of product differentiation, marketing investments and brand equity on pricing strategies: A brand level investigation. *European Journal of Marketing, 49*(5/6), 760–781.

Hair, J. F., Ringle, C. M., &Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning, 46*(1), 1–12.