


# Examining the Impact of Marketing Capability Innovation on International Investment Performance with the Mediating Role of Behavioral Marketing Communications and the Moderating Effect of Technological Turbulence

Elham. Moghadamnia<sup>1\*</sup> 

<sup>1</sup> Department of Technology Management, Faculty of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran

\* Corresponding author email address: e.Moghadamnia@srbiau.ac.ir

## Article Info

### Article type:

Original Research

### How to cite this article:

Moghadamnia, E. (2023). Examining the Impact of Marketing Capability Innovation on International Investment Performance with the Mediating Role of Behavioral Marketing Communications and the Moderating Effect of Technological Turbulence. *International Journal of Innovation Management and Organizational Behavior*, 3(1), 101-107.

<https://doi.org/10.61838/kman.ijimob.3.1.12>



© 2023 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

## ABSTRACT

**Objective:** The purpose of this study is to examine the impact of marketing capability innovation on international investment performance with the mediating role of marketing communications and the moderating effect of technological turbulence.

**Method:** In terms of objective, this research is applied and is categorized as survey research since it utilizes field data for testing hypotheses. The study population consists of board members, managers, and deputy managers of the Mapna Group companies, totaling about 240 individuals. A sample size of 144 was obtained using Morgan's table, and a simple random sampling method was employed. To measure research variables, a standard questionnaire was used, which was deemed to have suitable validity, and the reliability of the questionnaires was confirmed through Cronbach's alpha. This research utilized structural equation modeling approach and PLS software for data analysis.

**Findings:** The results indicated that marketing capability innovation positively and significantly affects competitive strategy, export investment performance, and behavioral marketing communications. Moreover, competitive strategy has a positive and significant impact on export investment performance. On the other hand, behavioral marketing communications significantly influence export investment performance and also mediate between competitive strategy and export investment performance.

**Conclusion:** Finally, the results showed that technological turbulence plays a moderating role between marketing capability innovation and behavioral marketing communications, as well as between marketing strategy and behavioral marketing communications.

**Keywords:** *Marketing Capability Innovation, International Investment Performance, Behavioral Marketing Communications, Technological Turbulence*

## 1 Introduction

As global trade has increasingly become important, the primary role of small and medium-sized enterprises (SMEs) with innovation in advanced technologies that exploit international trade opportunities is crucial for understanding investment performance (Zhou et al., 2012). New international investments are attracted to SMEs with advanced technology that seek significant competitive advantage from the outset in utilizing resources and leveraging innovation in high-yield international sales capabilities (Martin et al., 2020). Rennie (1993) was the first to identify and discuss this new type of companies that respond to environmental changes through rapid innovation and internationalization (Rennie, 1993). The study of new international investments in developing countries is significant due to the difficulty of accessing information on SMEs in these countries, a major reason limiting researchers' analysis to multinational companies (Brenes et al., 2014). International entrepreneurship literature has long overlooked studies in this area (Cuervo-Cazurra & Ramamurti, 2014). The present study aims to help fill this research gap and void.

New international investments are companies that are vulnerable to barriers related to resource limitations. Although studies have shown that marketing capabilities play an important role in explaining the performance of new international investments (Oliveira & Cadogan, 2018), limited information exists between marketing capability innovation and other factors to meet competitive needs to achieve competitive advantage, in fact, marketing capability innovation can be identified through features such as the ability to develop and deliver superior value to customers by combining existing resources (Martin et al., 2020).

Discussions in the literature on international marketing capabilities have two aspects. On one hand, most studies on marketing capabilities claim superior performance is the result of acquiring and exploiting unique resources (Kaleka, 2012). This resource-based view has been criticized for its emphasis on creating and maintaining capabilities without considering continuous changes in external market conditions (Knight & Liesch, 2016).

On the other hand, the highly competitive demand for new international investments requires them to be aware of the nature of their marketing environment to create an appropriate configuration of marketing capability innovation. In international entrepreneurship literature, recognizing the impact of external factors and their influence on internal factors led to a demand for a broader resource-

based view that encompasses both aspects. Furthermore, with recent advancements in new media and computer technologies, behavioral communications are more important than ever for understanding the external marketing environment, as communications play a crucial role in attracting and retaining customer behavior (Batra et al., 2016). Analysis of external factors shows that external competition is challenging for new international investments. Companies are constantly improving their strategies and related actions to compete in regional and global markets. One of these challenges is the rate of technological changes in the market, particularly more so for new international investments based in emerging markets with limited resources (Fernhaber & McDougall-Covin, 2014).

Technological turbulence can be considered a threat to company performance as it creates an unstable environment that ultimately contributes to a reduction in company performance (Gu et al., 2008; Zhou et al., 2012). While some research indicates that unstable conditions can make new international investments vulnerable (Autio et al., 2000), other studies show that technological changes can have a positive impact on the performance of new international investments (Efrat & Shoham, 2012; Song et al., 2005). However, how technological changes can positively affect the performance of new international investments remains underexplored.

Research on marketing capability innovation has increasingly played a crucial role in the survival and success of new international investments in international markets. However, the focus on the impact of external factors, such as technological changes, on new international investments should also be considered (Moghadam Nia et al., 2020; Moghadam Nia et al., 2021). In this study, considering the extensive and tangible presence of the Mapna Group companies in exporting products and services to other countries in recent years and given the volume of new foreign investments by this company in future projects and missions, paying attention to marketing capability innovation, behavioral marketing communications, and changing conditions of global technologies appears crucial for better and more desirable performance of the company's investments and the probabilities of success or failure. Based on what has been said, the present study aims to answer the following question: Does marketing capability innovation have a significant impact on international investment performance with the mediating role of behavioral

marketing communications and the moderating effect of technological turbulence?

## 2 Methods and Materials

The current study is applied in nature. Based on the data collection method, this type of research is descriptive-survey using the structural equation technique. The research population includes board members, managers, and deputy managers of the Mapna Group companies, totaling

approximately 240 individuals. A sample of 144 was obtained using Morgan's table, and questionnaires were distributed to the sample using a convenience random sampling method. A standard questionnaire is the tool for data collection in this research. The questionnaire items were designed based on variables in a standard manner (Martin et al., 2020) and consist of 34 questions. Each questionnaire item is aligned with the main objective and the questions considered, arranged on an ordinal scale and a five-point Likert scale.

**Table 1**

*Cronbach's Alpha Values for Research Variables*

Variable	Cronbach's Alpha
Marketing Capability Innovation	
- New Product	0.731
- Services	0.895
- Distribution and Broadcasting	0.786
Competitive Strategy	
- Delivery and Distribution Differentiation	0.771
- Marketing Differentiation	0.832
- Cost Leadership	0.795
Behavioral Marketing Communications	
- Marketing Communications	0.803
Technological Turbulence	
- Technological Changes	0.835
Export Performance	
- Efficiency	0.799
- Effectiveness	0.841
- Adaptation and Compliance	0.855

For hypothesis testing, structural equations were analyzed using the PLS software. The Cronbach's alpha test was used to calculate the reliability coefficient of the questionnaire and ensure internal consistency of the

measurement tool, with the results presented in Table 1. It is worth noting that the Cronbach's alpha for all variables in this questionnaire is above 0.7.

**Table 2**

*Composite Reliability (CR) and Average Variance Extracted (AVE)*

Index	CR	AVE
Behavioral Marketing Communications	0.855	0.644
Competitive Strategy	0.900	0.751
Competitive-Marketing Moderator	1	1
Capability-Marketing Communications Moderator	1	1
Technological Turbulence	0.844	0.718
Investment Performance	0.908	0.767
Marketing Capability Innovation	0.873	0.698

## 3 Findings and Results

As mentioned above, the results for Cronbach's alpha coefficient, composite reliability, and convergent validity are provided. Given the specified thresholds for each of these

three criteria, we conclude that the Cronbach's alpha coefficients, composite reliability, and the average variance extracted (AVE) coefficient for all constructs of the study are acceptable.

**Table 3**

*Fornell-Larcker Criterion for Assessing Discriminant Validity*

Construct	Behavioral Marketing Communications	Competitive Strategy	Competitive-Marketing Moderator	Capability-Marketing Communications Moderator	Technological Changes	Investment Performance	Marketing Capability Innovation
Behavioral Marketing Communications	0.815						
Competitive Strategy	0.866	0.517					
Competitive-Marketing Moderator	-0.111	-0.298	1				
Capability-Marketing Communications Moderator	-0.49	-0.323	1	0.08			
Technological Changes	-0.092	-0.142	0.544	0.671	0.848		
Investment Performance	-0.618	-0.259	-0.179	0.757	0.6	0.876	
Marketing Capability Innovation	-0.683	-0.602	-0.374	-0.075	0.774	0.484	0.835

Table 3 also presents the results for discriminant validity. To examine discriminant validity, the square root of AVE values was calculated, and these values should be greater on the diagonal of the correlation matrix than the correlation values of that variable with other variables, indicating appropriate model discriminant validity.

The square root of AVE values of the latent variables in the current study is greater than the correlation among the latent variables; therefore, it can be said that in the model,

constructs (latent variables) interact more with their own questions than with other constructs, indicating appropriate discriminant validity of the model.

To assess the status of research hypotheses, data distribution was initially examined. Then, based on the type of data distribution, the correlation between variables was demonstrated. Table 4 displays the data distribution using the Kolmogorov-Smirnov test.

**Table 4**

*Normality Test (K-S)*

Components	Statistic	Sig
Behavioral Marketing Communications	2.103	0.055
Competitive Strategy	1.734	0.069
Technological Changes	2.380	0.102
Investment Performance	1.422	0.077
Marketing Capability Innovation	1.015	0.090

The results of the Table 4 showed that since the significance value for all variables is greater than 0.05, the null hypothesis is not rejected, and the normality of the data is confirmed.

In this research, the impact of research variables was examined using Smart-PLS software and the structural equation modeling method. For this purpose, the model was examined in both standard and significant states.

**Table 5**

*Hypothesis Results*

No.	Hypothesis	Standard	Significance	Result
1	Marketing capability innovation affects competitive strategy.	10.45	0.67	Confirmed
2	Competitive strategy affects export investment performance.	3.902	0.47	Confirmed
3	Marketing capability innovation affects export investment performance.	4.66	0.186	Confirmed
4	Marketing capability innovation affects behavioral marketing communications.	3.67	0.139	Confirmed
5	Behavioral marketing communications affect export investment performance.	3.102	0.26	Confirmed
6	Technological turbulence moderates between marketing capability innovation and behavioral marketing communications.	9.39	0.59	Confirmed
7	Technological turbulence moderates between competitive strategy and behavioral marketing communications.	6.10	0.87	Confirmed

Table 5 reports the path coefficient along with significance values. Using the results of this table, research hypotheses can be evaluated.

The Sobel test is used to examine the significance of the mediating effect of a variable in the relationship between two other variables. In this test, the Z-value is obtained through the formula below, and if this value exceeds 1.96, it can be stated with 95% confidence that the mediating variable is confirmed.

$$\begin{aligned}
 Z - Value &= \frac{3.902 \times 3.102}{\sqrt{(9.62 \times 0.22) + (15.22 \times 0.69) + (0.22 \times 0.69)}} \\
 &= 6.23
 \end{aligned}$$

Based on the results obtained, the Z-value was (6.23), which is greater than 1.96, indicating the mediating role of marketing communications between competitive strategy and export investment performance. The effect size of the mediating variable was found to be 0.93.

To examine the overall model, which controls both the measurement and structural parts, the GOF (Goodness of Fit) criterion was calculated. GOF indicates the desirable quality of the measurement model and the structural model.

$$\begin{aligned}
 GOF &= \sqrt{\text{Communality} \times \bar{R}^2} \\
 GOF &= \sqrt{0.646 \times 0.681} = 0.66
 \end{aligned}$$

A positive GOF index value, which is 0.66 in this model, indicates overall model fit and suggests the appropriateness and quality of the model.

**4 Discussion and Conclusion**

Various studies have been conducted in the fields of marketing frameworks, innovation capabilities, and export investment performance, such as those by Morgan et al. in

2004. Other studies have discussed the importance of behavioral marketing communications, such as Batra and Keller in 2006. However, to date, no study has addressed the research gap investigated by this study. The research findings confirm eight hypotheses. The first hypothesis claimed that marketing capability innovation has a significant impact on competitive strategy. The level of marketing capability innovation on competitive strategy, being (0.67), indicates that marketing capability innovations, as a source of sustainable competitive advantage in international trade and in young international businesses, have been validated. Companies with innovations in new product development capability, service capability, and distribution capability can effectively develop new products, services, and distributions, thereby creating a competitive advantage based on differentiation and cost leadership to meet the needs of international consumers. The results are consistent with previous findings (Blesa & Ripollés, 2008; Martin et al., 2020; Oliveira & Cadogan, 2018). The second hypothesis claimed that competitive strategy has a significant impact on export investment performance. The results showed that the significant path number between the two variables is (3.90) and was confirmed. These findings align with previous studies (Martin et al., 2020; Oliveira & Cadogan, 2018). The third hypothesis claimed that marketing capability innovation has a significant impact on export investment performance, and given that the significant path number is (4.66), it shows that employing integrated innovation processes with added value can meet competitive demands. This integrated process involves the use of knowledge and skills playing a crucial role in deploying market-related resources to respond to the changing environment. These findings align with previous studies (Martin et al., 2020). The fourth hypothesis claimed that marketing capability innovation has a significant impact on behavioral marketing communications, and with a



significant path number of (3.67), it shows that marketing capability innovations include the company's ability to produce and disseminate information to generate appropriate responses to current and future needs amid dynamic competitive changes. Behavioral marketing communications enable companies to manage export customers' value perceptions, persuade customers to have a positive view of their products, and thus create a distinct image and brand awareness. These findings align with (Martin et al., 2020). The fifth hypothesis claimed that behavioral marketing communications play a mediating role between competitive strategy and export investment performance. Based on the obtained result, a significant number of (6.23) was obtained and confirmed. The effect size of the mediating variable was found to be 0.93. These findings align with (Martin et al., 2020). The sixth hypothesis claimed that behavioral marketing communications have a significant impact on export investment performance. The results showed that the significant path number between the two variables is (9.39), indicating that developing behavioral marketing communications capabilities leads to improved investment performance. Given the competitive challenges most companies face, managers should rapidly identify and respond to investment opportunities for growth by creating and maintaining strategic behavioral marketing communications capabilities. These findings align with (Martin et al., 2020). The seventh hypothesis claimed that technological turbulence plays a moderating role between marketing capability innovation and behavioral marketing communications. A significant value of (9.39) indicates that as the technological environment changes rapidly, companies must create product development opportunities through innovation to overcome challenges. Thus, rapidly changing technologies compel companies to use new skills for the quick introduction of products with high-quality distribution services and after-sales services using behavioral marketing communications. These findings align with (Martin et al., 2020). The eighth hypothesis claimed that technological turbulence plays a moderating role between marketing strategy and behavioral marketing communications. Behavioral marketing communications are considered a marketing strategy because its processes should be embedded in organizational routines and actions

## References

- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth. *Academy of Management journal*, 43(5), 909-924. <https://doi.org/10.5465/1556419>

(Moghadam Nia et al., 2020; Yousefi Nejad Attari et al., 2022). Marketing communications mean performing certain functions at an acceptable level that provides advantages (Efrat & Shoham, 2012). Companies adopting an appropriate strategy must be adaptable to technological changes. These findings align with (Cavazos-Arroyo & Puente-Diaz, 2019; Evers et al., 2012).

Based on the obtained results, it is recommended that:

Investment in developing marketing capability innovations to strengthen behavioral marketing communications and competitive strategy in environments with higher technological turbulence be emphasized.

New export products be launched relying on marketing capability innovation.

Companies use various pricing strategies to quickly respond to market changes.

Companies prioritize offering high-quality after-sales services for competitive advantage.

The maintenance of after-sales service personnel for behavioral marketing communications be specially considered.

A high level of support by competitive distributors be a focus for managers.

Proximity to distributors be considered a crucial strategy for better investment performance.

## Acknowledgments

The cooperation of all participants in the research is thanked and appreciated.

## Declaration of Interest

The authors of this article declared no conflict of interest.

## Authors Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

## Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

- Batra, Keller Rajeev, & Kevin, L. (2016). Integrating Marketing Communications: New Findings, New Lessons, and New Ideas. *Journal of Marketing*, 80(6), 122-145. <https://doi.org/10.1509/jm.15.0419>
- Blesa, A., & Ripollés, M. (2008). The influence of marketing capabilities on economic international performance. *International Marketing Review*, 25(6), 651-673. <https://doi.org/10.1108/02651330810915574>
- Brenes, E. R., Montoya, D., & Ciravegna, L. (2014). Differentiation strategies in emerging markets: The case of Latin American agribusinesses. *Journal of Business Research*, 67(5), 847-855. <https://doi.org/10.1016/j.jbusres.2013.07.003>
- Cavazos-Arroyo, J., & Puente-Díaz, R. (2019). The Influence of Marketing Capability in Mexican Social Enterprises. *Sustainability*, 11(17), 4668. <https://doi.org/10.3390/su11174668>
- Cuervo-Cazurra, A., & Ramamurti, R. (2014). *Understanding multinationals from emerging markets*. Cambridge University Press. <https://doi.org/10.1017/CBO9781107587632>
- Efrat, K., & Shoham, A. (2012). Born global firms: The differences between their short- and long-term performance drivers. *Journal of World Business*, 47(4), 675-685. <https://doi.org/10.1016/j.jwb.2012.01.015>
- Evers, N., Andersson, S., & Hannibal, M. (2012). Stakeholders and Marketing Capabilities in International New Ventures: Evidence from Ireland, Sweden, and Denmark. *Journal of International Marketing*, 20(4), 46-71. <https://doi.org/10.1509/jim.12.0077>
- Fernhaber, S., & McDougall-Covin, P. (2014). Is more always better? Risk trade-offs among internationalizing new ventures. *European Business Review*, 26(5), 406-420. <https://doi.org/10.1108/EBR-02-2013-0030>
- Gu, F. F., Hung, K., & Tse, D. K. (2008). When Does Guanxi Matter? Issues of Capitalization and Its Dark Sides. *Journal of Marketing*, 72(4), 12-28. <https://doi.org/10.1509/jmkg.72.4.012>
- Kaleka, A. (2012). Studying resource and capability effects on export venture performance. *Journal of World Business*, 47(1), 93-105. <https://doi.org/10.1016/j.jwb.2010.10.024>
- Knight, G. A., & Liesch, P. W. (2016). Internationalization: From incremental to born global. *Journal of World Business*, 51(1), 93-102. <https://doi.org/10.1016/j.jwb.2015.08.011>
- Martin, S. L., Javalgi, R. G., & Ciravegna, L. (2020). Marketing capabilities and international new venture performance: The mediation role of marketing communication and the moderation effect of technological turbulence. *Journal of Business Research*, 107, 25-37. <https://doi.org/10.1016/j.jbusres.2019.09.044>
- Moghadam Nia, E., Toloei Ashlaghi, A., & Afshar Kazemi, M. (2020). Analysing the Role of Technology Transfer in the Professional Ethics of Employees [Research]. *Ethics in Science and Technology*, 15(1), 162-165. <http://ethicsjournal.ir/article-1-1778-en.html>
- Moghadam Nia, E., Toloei Ashlaghi, A., & Afshar kazemi, M. a. (2021). Designing a change model for developing human resource training in technology transfer in learning organizations using a metaheuristic framework. *Educational Development of Judishapur*, 12(2), 657-665. <https://doi.org/10.22118/edc.2020.249401.1538>
- Oliveira, J., & Cadogan, J. (2018). A multilevel perspective to the study of export venture performance. *International Marketing Review*, 35, 00-00. <https://doi.org/10.1108/IMR-12-2016-0213>
- Rennie, M. W. (1993, 1993 Autumn). Born global. *The McKinsey Quarterly*, (4), 45+. <https://link.gale.com/apps/doc/A15424561/AONE?u=anon~635dd998&sid=googleScholar&xid=90011bdb>
- Song, M., Droge, C., Hanvanich, S., & Calantone, R. (2005). Marketing and technology resource complementarity: an analysis of their interaction effect in two environmental contexts. *Strategic management journal*, 26(3), 259-276. <https://doi.org/10.1002/smj.450>
- Yousefi Nejad Attari, Ahmadi Mahdi, Ala Mohsen, Moghadamnia Ali, & Elham. (2022). RSDM-AHSnet: Designing a robust stochastic dynamic model to allocating health service network under disturbance situations with limited capacity using algorithms NSGA-II and PSO. *Computers in Biology and Medicine*, 147, 105649. <https://doi.org/10.1016/j.compbimed.2022.105649>
- Zhou, L., Wu, A., & Barnes, B. R. (2012). The Effects of Early Internationalization on Performance Outcomes in Young International Ventures: The Mediating Role of Marketing Capabilities. *Journal of International Marketing*, 20(4), 25-45. <https://doi.org/10.1509/jim.12.0076>