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THE IMPACT OF MARKET ORIENTATION THROUGH TECHNOLOGICAL INNOVATION ON THE FINANCIAL PERFORMANCE OF THE BANK

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ABSTRACT

The main objective of this study is to investigate the effect of market orientation on the financial performance of the bank with an emphasis on the mediating role of technological innovation. The research was descriptive-correlational and the statistical population of the study consisted of all employees of Mellat bank branches in west Mazandaran with 500 people. Simple random sampling method was used to select sample members. For this purpose, at least 200 people were selected by simple sampling method. The data gathering tool in this research is a questionnaire. The research data after the collection were analyzed based on the research hypotheses using Pearson correlation coefficient and structural equation modeling and partial least squares technique in Smart PLS software. The results of the research showed that market orientation has a positive and significant effect on financial performance and technological innovation. And technological innovation has a minor mediator role in the impact of market orientation on financial performance.

Keywords: Market Orientation, Technological Innovation, Financial Performance.

INTRODUCTION

The country's banking system faces new challenges, such as the entry of foreign banks, the emergence of private banks, and increasing the activities of financial and credit institutions, given the issue of joining the WTO.

Therefore, these challenges have led the country's banks to improve their performance in order to survive and compete in this dynamic environment. (Shafi'i, 2005). Nowadays, in competitive markets, innovation has become the focus of attention as one of the main drivers of long-term corporate success (Bergek, 2008). Innovative companies can respond more quickly to environmental challenges and adapt to them. (Grossi Mokhtarzadeh and Zamani, 2015).

Also, the success of the existing competitive environment, especially in the banking industry, is that banks are increasingly turning to marketing approaches, plans and programs. The basis of marketing in any business is the degree of management's belief and attention to market orientation.

Market-oriented is a provider and provider of high-level skills in order to understand and meet the needs and expectations of customers (Cheng & Krumwiede, 2012).

Today, banks and financial institutions that can use the tools and facilities available to themselves will provide a solid foundation for confronting the changing future. The performance appraisal of organizations plays an important role in orienting their future strategic decisions. Today,

banks are more competitive than the past, and financial performance is the main goal of any institution. So, any organization wants to increase its financial performance with different methods (Panigyrakis et al., 2007).

By this description, the success of this industry, as other industries in the country, requires attention to the determinants and factors that their knowledge needs to be scrutinized extensively and scrupulously. Therefore, it seems necessary to address these three categories, namely, market orientation and financial performance of the firm and technological innovation, which are the main elements of the success of modern organizations (Khodadad et al., 2006).

RESEARCH LITERATURE

Market orientation

Kohli and Jaworski (1990) define market-orientation as follows: Market-making is the creation of intelligence throughout the organization in relation to current and future customer needs, the dissemination of intelligence among the departments of the organization, and global accountability to intelligence.

Rueke considers the market economy to be a business unit that is a business unit

- A. Obtain and use information from customers.
- B. Develop a strategy to meet customer needs.
- C. It applies the strategy to meet customers' needs and demands (Panigyrakis et al., 2007).

Technological innovation

This innovation involves the creation of new products and processes and the major technological changes in the two. These changes are considered to be innovations that are marketed (product innovation) or in a production process (innovation in the process)

In the following, we will look at research that studies the impact of market orientation and technological innovation on business performance;

Research results Mohseni Malerdi, Latifi (2016) shows the positive impact of market orientation on competitive advantage and competitive advantage on market performance and financial performance. Also, Mokhtarzadeh and Zamani (2015) showed that market orientation and management innovation have a significant and positive effect on technological innovation. The results also indicated that all three variables of market orientation, management innovation, and technological innovation in products and processes could lead to superior performance of the firm.

Sheikhian and Dostyan (2014) in their research showed that organizational innovation and competitive power have a positive and significant effect on financial performance and market performance of banks. The results of the research, Ashjaji Nayeri (2013), show that market orientation has a positive impact on innovation. Govaertsn et al. (2013) and Ndubisi N. Iftikhar K (2012) in their research showed that innovation as an organizational capability improves organizational performance. Cheng CC. Krumwiede D (2012) concluded in their research that market orientation has an impact on innovation, and innovation can also lead to more performance for organizations. Cheng and Chrom Wade (2012) concluded in their research that market orientation has an impact on innovation, and innovation can also lead to more performance for organizations. Zhang & Duan (2010) in their study showed that market orientation has a positive impact on new product performance in its early stages of its life cycle



and product innovation. Jiang XU. Yuan LI (2008) in their studies have shown that profitability is higher in companies with higher innovation rates.

Given the above, the conceptual model of the research is designed as follows:

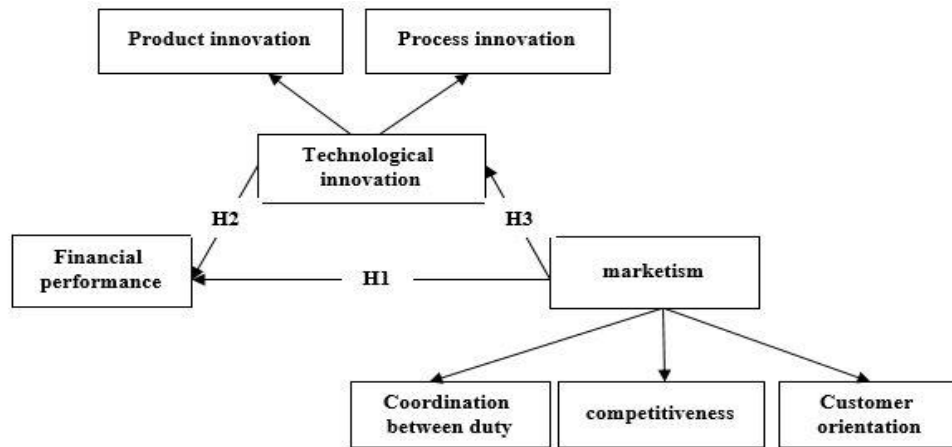


Figure 1: Conceptual model of research

MATERIALS AND METHODS

The research method of the present study is to apply the quantitative, descriptive, and non-correlational nature of the research. The statistical population consists of all employees of Mellat bank branches of Mazandaran province with 500 people. Simple random sampling method was used to select sample members. For this purpose, according to the statistical model used by all employees of Mellat Bank in west Mazandaran province, at least 200 people were selected by simple sampling method.



The data gathering tool in this research is a questionnaire and the validity of the application is based on the Cronbach alpha coefficient for all questions above 80%.

Descriptive Statistics

Characteristics of descriptive statistics The variables studied are presented in Table 1.

Table 1. Characteristics of descriptive statistics of the variables studied (n = 200)

Variables	Average	The standard deviation
Financial performance	64.25	12.515
Market orientation	51.69	7.718
Technological	58.75	10.545

Table 2. Correlation matrix between research variables

Variables	Financial performance	Market orientation	Technological innovation
Financial performance	-	-	-
Market orientation	0.543	-	-
Technological innovation	0.577	0.617	-

**p<0/01 *p<0/05

Regarding the correlation matrix between the variables of research, it can be seen that there is a significant correlation between variables at the level of 0.01.

Exterior Model Research

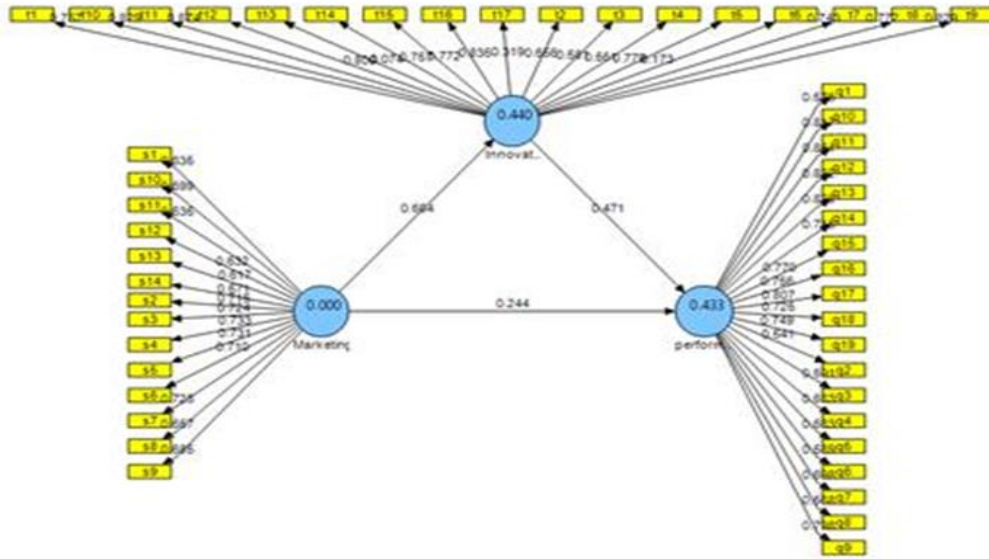


Figure 2. Measurement model in non-standard mode

The above model expresses the factor burden related to the research components. In this form, several clauses are eliminated due to the weakness of factor loads (below 0.5) in the structural model to modify the model. These include the items, (6.13 and 17 technological innovations).

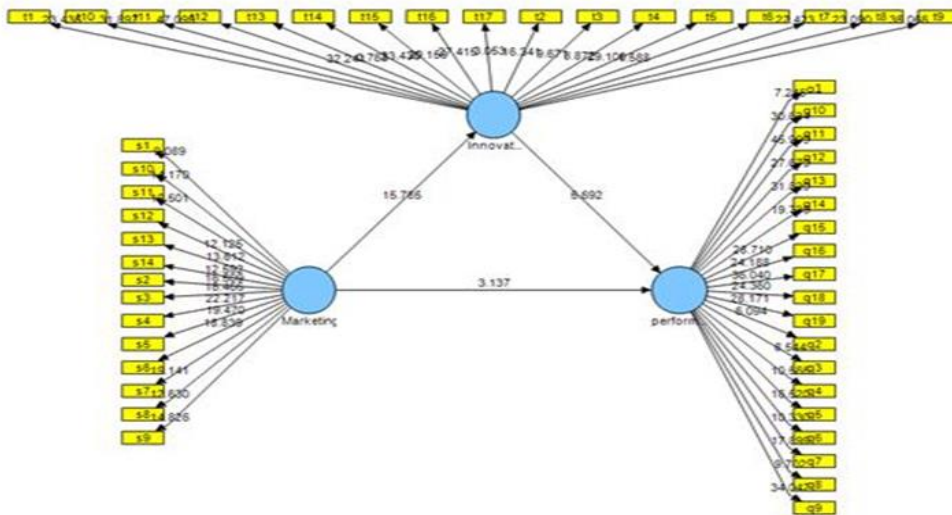


Figure 3. Standard Mode Measurement Model

Structural validity

To evaluate the validity of structures, two convergent and divergent validities are used.

A: Convergent Validity

The convergent validity results are presented in Table 3.

Table 3. Results of the validity of convergence of variables

Variables	AVE	CR
Technological innovation	0.48	0.93
Market orientation	0.47	0.92
Financial performance	0.52	0.95

According to the table, all factor loads are meaningful and higher than 0.5 and the AVE value for each index is higher than 0.4, and also the CR value is greater than the AVE.

B. Diagnostic validity (divergent)

In order to verify the diagnostic validity, the AVE of a structure should be more than the structural integrity of other structures. According to the results of Table 4, we can say that the studied structures in the present study have good diagnostic validity.

Table 4: Diagnostic validity test results

Structures	1	2	3
Technological innovation	0.69		
Market orientation	0.66	0.68	
Financial performance	0.63	0.55	0.72

To assess the quality by fitting the measurement model, Tone House et al. (2005) propose a validation rating index. The positive values of this index indicate the proper quality of the measuring instrument. According to the results of Table 5, the tools used in this study are of good quality.

**Table 5: The results of the credit rating of the structure of the structures**

Structures	SSO	SSE	1 - SSE/SSO
Organizational Ethics for Managers	3400	1943.782	0.428
Organizational effectiveness	2800	1693.892	0.395
organizational health	3800	2007.574	0.471

Internal research model

In the internal model after the removal of questions with a factor load below 0.5, research hypotheses are tested. The results are presented in Table 6:

Table 6. Analysis of hypotheses

Row	Direction	β	T	Result of hypothesis testing
1	Market orientation has a positive and significant effect on financial performance.	0.556	10.806	Confirmation
2	Technological innovation has a significant impact on performance.	0.471	5.718	Confirmation
3	Market-oriented technological innovation has a positive and significant impact.	0.665	17.357	Confirmation

$$1/96 \leq T \leq 1/96$$

Parity criterion (R^2)

Regarding the results of Table 7, the exogenous variable of market orientation explains 0.44% of the variance of technological innovation and 0.43% of financial performance.

Table 7: The coefficient of determination of dependent variables by market orientation

Variable	Coefficient determination
Technological innovation	0.44
Financial performance	0.43

DISCUSSION AND CONCLUSION

Below, each of the research hypotheses is analyzed.

Hypothesis 1: Market orientation affects financial performance. According to the results of the internal model, market orientation has a positive and significant effect on the financial performance ($P < 0.01$, $t = 10.806$, and $\beta = 0.242$). In other words, with increased marketability, financial performance also increases.

The result of this hypothesis is confirmed by Latifi (2016), Mokhtarzadeh and Zamani (2015), Cheng et al. (1999), Sheikhan and Dostyan (2014), Zhang & Duan (2010).

In this regard, we can say that market-orientation is a provider and provider of high-level skills in order to understand and meet the needs and expectations of customers. Marketability can affect the firm's performance in many ways. The resource and program bank shares with other business units in the company. Despite strong marketability, many views on cost and performance are available, and the cost management system is of great quality. Therefore, the following suggestions are made:

- Attention and efforts to satisfy customer satisfaction
- Perform and monitor the strict implementation of obligations to customers
- Understanding the needs of customers.
- The existence of a strong information system for planning and determining the appropriate strategy and improving competitive ability
- Collect information about the organization's costs and use them to reduce costs

Hypothesis 2: Technology innovation affects financial performance.

The results of the internal test of the research showed that technological innovation has a positive and significant effect on performance ($P < 0.01$, $t = 5.718$, $\beta = 0.471$). In other words, with the increase of technological innovation, the performance of mineralization increases.

The result of the hypothesis is confirmed by Cheng CC. Krumwiede D (2012), Mokhtarzadeh and Zamani (2015), Govaerts et al. (2013), Jiang XU. Yuan LI (2008), Ndubisi N. Iftikhar K (2012).

In this regard, it can be said that technological innovation is the result of technological changes, and these developments are due to different reasons: achieving better performance, more capacity and efficiency, providing customers with demand and demand, leading in the supply of new services and products, providing services to New forms include the use of new technology.

Today, banks are facing stronger competition than the past, and financial performance is the main objective of any institution. Therefore, the following suggestions are made:

- Understanding the market environment and customer tastes and customer focus
- Increasing Banking Services for other competitors



- Applying modern banking industry technology to reduce customer referral to the bank
- Holding training courses for innovation and creativity for employees

Hypothesis 3: The market orientation of technological innovation.

The results of the internal test of the research showed that the market orientation of technological innovations has a positive and significant effect ($P < 0.01$, $t = 17 = 357$, and $\beta = 0.666$). In other words, the increase in marketability of technological innovation also increases. The result of this hypothesis is confirmed by Najiri (2013), Mokhtarzadeh and Zamani (2014), Cheng CC. Krumwiede D (2012), Jiang XU. Yuan LI (2008), Shaikhian and Dostyan (2014), Zhang & Duan (2010).

In this regard, it can be said that banks' marketability is regularly measured by customer satisfaction, and the goals of these banks are mainly driven by customer satisfaction. Information about customers, marketing successes and failures with all business operations and the work is related. In the marketplace, creativity and technological innovation are considered. Therefore, the following suggestions are made:

- Identify the causes and factors affecting performance and action to improve and influence the performance of the organization.
- Identify and respond quickly to competitive actions.
- Discussion and information and continuous attention of managers about the strengths and strategies of competitors
- Encourage and persuade employees to make further efforts to provide creativity and innovation to surpass competitors



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