

THE ROLE OF MANAGEMENT PARTICIPATION IN MANUFACTURING COMPANIES OF RASHT CITY

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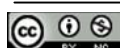
ABSTRACT

Today, all successful organizations and companies around the world have found that intangible assets must be emphasized instead of an emphasis on raw materials. One of the most core assets is innovation and the lack of innovation is a fundamental barrier to the development of big organizations and companies. The purpose of the present study is to answer the key question that: can management participation affect organizational innovation? The present study is applied in terms of purpose and is descriptive-correlational in terms of method. It is also a field study in terms of data collection, the statistical population of this study includes all manufacturing companies in Rasht's industrial town among which 20 companies were selected by convenience non-probability method. The instrument used for data collection is a standard questionnaire that was confirmed in terms of validity and reliability. The results of data analysis that was done by structural equations modeling show that all the hypotheses in the present study, except the effect of management participation on marketing innovation and product innovation were confirmed.

Keywords: management participation, organizational innovation, technical innovation, marketing innovation.

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1. INTRODUCTION

In recent years, an increasing trend was observed in the type and conditions of production. A look at the products of top manufacturers in the world shows that most of them have changed their strategies from production based on competition price to production based on innovation level, (Santamaría, Jesús Nieto, & Miles, 2012, p. 146). All successful organizations and companies around the world have found that intangible assets must be emphasized instead of an emphasis on raw materials. One of the most core assets is innovation and the lack of innovation is a fundamental barrier to the development of big organizations and companies, (Nagano, Stefanovitz, & Vick, 2014, p. 64).

In fact, innovation is a certain factor of empowerment for organizations in order to remain stable and resistant in the modern era. It should be noted that state sectors unlike business organizations, act poorly in terms of innovation that is on the contrary to the necessary norms to attend high-competitive environment, (Kumar & Rose, 2012, p. 142).

It should be accepted that the role of innovation as a key factor was proved in business success. (Bowen, Rostami, & Steel, 2010, p. 1183)

Innovation is the main power of development in all kinds of business, (Anthony, Johnson, & Sinfield, 2008, p. 45). But something that has been neglected is how innovation is represented: an innovation that can be also a kind of risk. (Rosenbusch, Brinckmann, & Bausch, 2011, p. 452) and needs an accurate planning and effective management, (Biemans, Griffin, & Moenaert, 2010, p. 461).

In this regard, it is very critical to identify the factors that can affect organizational innovation. The managers of human resources seek to find leadership styles in order to strengthen organizational performance through the better implementation of management programs and knowledge sharing. Meanwhile, the theory of transformational leadership claims that leaders can improve employee performance and organizational performance by using special factors and improving the innovational thinking of employees. (Birasnav, 2014, p. 1622).

Despite the various studies on the discovery of innovation and its consequences, a few studies have examined the effect of management participation in order to find the effect of this participation on different aspects of innovation. A few studies have dealt with this issue particularly. It can be said that the loop of the relationship between management participation and aspects of innovation is missing. (Wong, 2013, p.710) the status of organizations and

companies requires them to have access to important information of the company and target market. (Elenkov, Judge, & Wright, 2005, p. 669) the nature of innovation is accompanied by risk and management participation plays a very important role in the reduction of the risks related to innovation. Management reduction of the risks related to innovation. Management participation refers to the participation of senior managers in innovation projects. In other words, senior managers are people who make decisions in one decision-making organization or company and are in charge of responding the results of programs and policies of a project. (Luo & Hassan, 2009, p. 1020). They are people who can affect organizational culture and structure and provide enough sources to do a project. (Brown & Anthony, 2011, p. 69) according to what was mentioned, the conceptual model of this study is as figure 1:

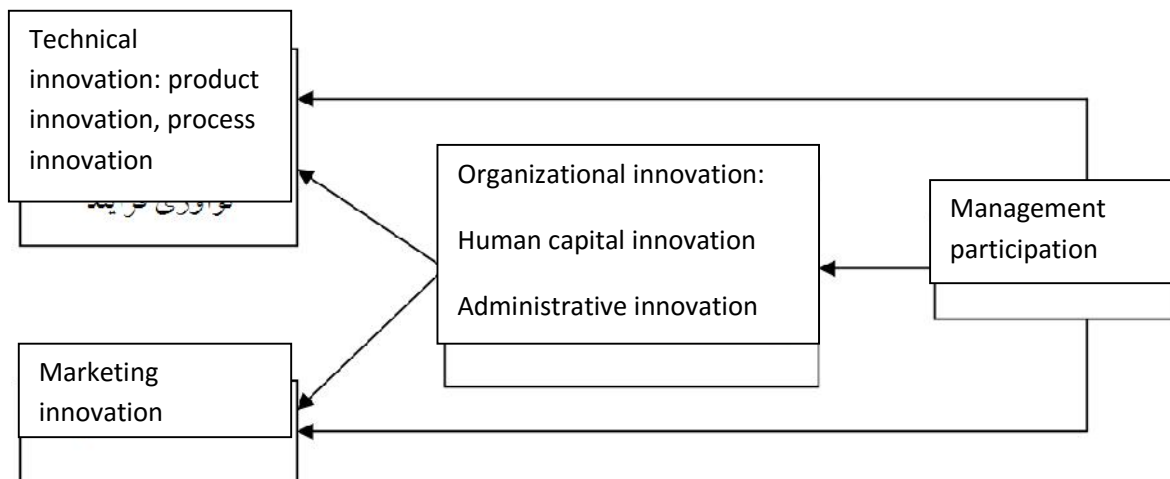


Fig.1. The conceptual model of the study (Wong, 2013, p. 715)

The objectives of the present study are:

- To measure the effect of management participation, organizational innovation, technical innovation and marketing innovation
- To measure the effect of management participation on the organizational innovation of manufacturing companies in Rasht
- To measure the effect of management participation on technical innovation and marketing innovation of manufacturing companies in Rasht

- To measure the effect of administrative innovation on technical innovation and marketing innovation of manufacturing companies in Rasht
- To measure the effect of human capital innovation on technical innovation and marketing innovation of manufacturing companies in Rasht
- To measure the mediating role of organizational innovation in the effect of management participation on technical innovation and marketing innovation of manufacturing companies in Rasht

Testing the research model

These research objectives are studied in the form of the following hypotheses:

Hypothesis 1: management participation affects organizational innovation.

Hypothesis 1 A: management participation affects administrative innovation.

Hypothesis 1 B: management participation affects human capital innovation.

Hypothesis 2: management participation affects product innovation.

Hypothesis 2 A: management participation affects process innovation.

Hypothesis 2 C: management participation affects marketing innovation.

Hypothesis 3: administrative innovation affects technical innovation and marketing innovation.

Hypothesis 3 A: administrative innovation affects process innovation.

Hypothesis 3 B: administrative innovation affects marketing innovation.

Hypothesis 4: human capital innovation affects technical innovation and marketing innovation.

Hypothesis 4 A: administrative innovation affects product innovation.

Hypothesis 4 B: administrative innovation affects process innovation.

Hypothesis 4 C: administrative innovation affects marketing innovation.

Hypothesis 5: organizational innovation plays a mediating role in the effect of management participation on technical innovation and marketing innovation.

Hypothesis 5 A: organizational innovation plays a mediating role in the effect of management participation on product innovation.

Hypothesis 5 B: organizational innovation plays a mediating role in the effect of management participation on process innovation.

Hypothesis 5 C: organizational innovation plays a mediating role in the effect of management participation on marketing innovation.

1. Definition of research variables

1.1. management participate

management participate in the field of innovation can be defined as: it supports the participation extent of senior managers in innovation projects, helps them, plans, guides, organizes innovative activities and provides necessary incentives to change the future. (De Brentani, Kleinschmidt, & Salomo, 2010, p. 147&151). The operational definitions of this variable are: (Wong, 2013, p. 729)

- facilitate teamwork to exchange innovative ideas
- encourage employees to participate in innovative decision-makings
- Consider the activities related to the production of new products performance evaluation.

1.2. Innovation

Organizational innovation can be defined as innovation in administrative systems and innovation in social capital. Administrative innovation means new tools or activities to change organizational structure or administrative steps. Innovation in social capital is related to innovation in new methods and measure related to the process of identification and recruitment of innovative personnel. Innovative people are in fact the same life sparkles that begin innovative activities and provide innovation in organizations by showing their idea, knowledge or effort. (Wong, 2013, p. 729)

Administrative innovation

- New administrative system
- Make effort to find new administrative systems to facilitate innovation
- Introduce new administrative systems

Human capital innovation

- Consider the ability and experience of innovation in the recruitment of trainers
- Consider the ability and experience of innovation in the promotion of employees
- Receive more rewards by those who participate in innovative activities in organizations
- More influence of managers who participate in innovative activities

1.3. Technical innovation

Technical innovation refers to the changes that are necessary to advance functional features of technical standards of a product or process that can be classified in two parts of product innovation and process innovation. Product innovation refers to the changes of name, nature and appearance of a product or service produced by the companies which process innovation refers to the changes of the method by which a product or service is provided in companies. (Wong, 2013, p.712)

The operational definitions of this variable: (Wong, 2013, p.729)

Product innovation

- Introduce more new products in the last 3 years compared to competitors
- Stability in the introduction of new products compared to competitors
- Make more efforts to introduce new products

Process innovation

- Make more efforts to develop new products
- Stability in the introduction of new products
- Give smart answers to the measures of competitors

1.4. Marketing innovation

Marketing innovation means finding new marketing methods that make the study of new opportunities in the market possible and the company can achieve the opportunity and new market through these innovations. (Wong, 2013, p.712)

- Consider the market's opportunities before developing strategies
- Compare the market's performance to its potentials
- Being leader in most of the markets
- Having formal systems to start-up business in new markets
- Having good strategies to make a brand, unite the brand, change and develop the current markets

2. The review of previous studies

In this section, some performed studies on the effect of transformational leadership on organizational effectiveness are presented in the following table:

Table 1. The background of previous studies

Results	Authors	Row
Management participation has a significant positive effect on organizational, technical and marketing innovations	Wong (2013)	1
senior managers use their policies and plans issued in the form of management participation to have a direct and significant effect on changes and innovation of the entire collection	Song et al (2010),	2
Management participation especially senior managers have an effect on innovation and organizational performance	Hegarti and Haffman (1990)	3
Human resource management practices affect organizational innovation through organizational learning	Salimi and Abd Sharifi (1394)	4
Human resource management have an effect on the innovation of these organizations	Izadpanah and Fakhri (1394)	5

3. Research procedure

In the present study, after providing and confirming the articles associated with the thesis, the works related to the translation and development of proposal were performed. Then, the works related to the collection of relevant references to develop the second chapter, distribution of questionnaire and data analysis were performed. The present study is applied in terms of objective and is descriptive- correlational in terms of data collection method. The statistical population of the study includes all manufacturing companies in the industrial town of Rasht that were active full-time and have more than 100 employees. The number of these companies according to the statistics received from the organization of industry, mine and trade is equal to 78 companies. The size of the research sample in this study is 20 manufacturing companies in the industrial town of Rasht that were selected by convenience non-probability sampling method.

In order to collect the required data, a questionnaire derived from Wong's article (2013) was used and then was confirmed by the experts and professors of management. Thus, this

questionnaire has content validity. To measure the reliability of this tool, Cronbach's Alpha coefficient was used and the obtained Alpha coefficient for each variable was given in table 2.

Table 2. Cronbach's Alpha coefficient

Alpha coefficient	Number of questions	Variable name
816 .0	4	Management participation
856 .0	3	Organizational innovation - administrative innovation
826 .0	4	organizational innovation- human capital innovation
815 .0	3	Technical innovation- product innovation
857 .0	3	Technical innovation- process innovation
848 .0	5	Marketing innovation

According to the results obtained from the above table, it can be said that the questionnaire has an acceptable reliability. To analyze the data of this study, SPSS 21 and v.pls1.04b1 software and structural equations modeling were used.

4. Research findings

The description of the variables is as follows:

- Management participation variable has the minimum value 1, maximum value 5, mean 3/5375, standard deviation 0/87462 and variance 0/765.
- Administrative innovation variable has the minimum value 1, maximum value 5, mean 3/6333, standard deviation 1/08094 and variance 1/168.
- Human capital variable has the minimum value 1/75, maximum value 5, mean 3/45, standard deviation 1/00852 and variance 1/017.
- Product innovation variable has the minimum value 2, maximum value 5, mean 3/5, and standard deviation 0/88258 and variance 0/779.

- Process innovation variable has the minimum value 1/33, maximum value 5, mean 3/75, standard deviation 0/95437 and variance 0/911.
- Marketing innovation variable has the minimum value 1/8, maximum value 5, mean 3/66, standard deviation 0/85372 and variance 0/729.

Also on the normality of the research variables, the significance level obtained for Kolmogorov-Smirnov test in all variables is more than 0/05. Thus, all variables in the studied sample have normal distribution. According to the output of v.pls1.04b1 software on the research hypotheses at standard and significance mode, the results of testing the hypotheses in the present study are:

1. The value of T-statistics between the two variables of management participation and administrative innovation is 10/78 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/756. This finding is consistent with the study results of Wong (2013), Song et al (2010), Hegarti and Haffman (1990), Salimi and Abd Sharifi (1394) and Izadpanah and Fakhri (1394).
2. The value of T-statistics between the two variables of human capital innovation and administrative innovation is 9/09 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/747. This finding is consistent with the study results of Wong (2013), Song et al (2010), Hegarti and Haffman (1990), Salimi and Abd Sharifi (1394) and Izadpanah and Fakhri (1394).
3. The value of T-statistics between the two variables of product innovation and administrative innovation is 0/298 and significant because it is in the range (-1/96 and 1/96). Thus, the hypothesis is not accepted. This finding is inconsistent with the study results of Wong (2013), Song et al (2010), Hegarti and Haffman (1990), Salimi and Abd Sharifi (1394) and Izadpanah and Fakhri (1394).
4. The value of T-statistics between the two variables of process innovation and administrative innovation is 0/026 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/236. This finding is consistent with the study results of Wong (2013). Song et al (2010), Hegarti and Haffman (1990), Salimi and Abd Sharifi (1394) and Izadpanah and Fakhri (1394).

5. The value of T-statistics between the two variables of marketing innovation and administrative innovation is 1/39 and significant because it is in the range (-1/96 and 1/96). Thus, the hypothesis is not accepted. This finding is inconsistent with the study results of Wong (2013), Song et al (2010), Hegarti and Haffman (1990), Salimi and Abd Sharifi (1394) and Izadpanah and Fakhri (1394).
6. The value of T-statistics between the two variables of administrative innovation and product innovation is 4/63 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/487. This finding is consistent with the study results of Wong (2013).
7. The value of T-statistics between the two variables of administrative innovation and process innovation is 2/93 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/72. This finding is consistent with the study results of Wong (2013).
8. The value of T-statistics between the two variables of administrative innovation and marketing innovation is 2/05 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/557. This finding is consistent with the study results of Wong (2013).
9. The value of T-statistics between the two variables of human capital innovation and product innovation is 3/98 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/466. This finding is consistent with the study results of Wong (2013).
10. The value of T-statistics between the two variables of human capital innovation and process innovation is 2/86 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/249. This finding is consistent with the study results of Wong (2013).
11. The value of T-statistics between the two variables of human capital innovation and marketing innovation is 2/82 and significant because it is out of the range (-1/96 and 1/96). Thus, the hypothesis is accepted and the value of this effect is also equal to 0/319. This finding is consistent with the study results of Wong (2013).
12. The value of T-statistics between the two variables of management participation and organizational innovation and also organizational innovation and product innovation is

out of the range (-1/96 and 1/96). Thus, the mediating role of organizational innovation in the relationship between management participation and product innovation is accepted. The effect rate is also equal to 0/812. This finding is consistent with the study results of Wong (2013).

13. The value of T-statistics between the two variables of management participation and organizational innovation and also organizational innovation and process innovation is out of the range (-1/96 and 1/96). Thus, the mediating role of organizational innovation in the relationship between management participation and product innovation is accepted. The effect rate is also equal to 0/568. This finding is consistent with the study results of Wong (2013).

14. The value of T-statistics between the two variables of management participation and organizational innovation and also organizational innovation and marketing innovation is out of the range (-1/96 and 1/96). Thus, the mediating role of organizational innovation in the relationship between management participation and product innovation is accepted. The effect rate is also equal to 0/744. This finding is consistent with the study results of Wong (2013).

5. Research suggestions

According to the results of research statistics and testing the research hypotheses, the following suggestions are presented:

1. Since the least mean rate among the items of management participation is related to structure 1 as 35.3, thus it is suggested to use the in-service periods to explain the importance of teamwork for managers, create the necessary changes, facilitate the required conditions and field, encourage teamwork and provide ideas by employees.
2. Since the mean of the first and second items related to administrative innovation has the least mean as 6.3, it is suggested to evaluate the changes of technology are and administrative systems and create the needed changes in order to facilitate innovation.
3. Since the mean of the first and second items related to human capital innovation has the least mean as 45.6, companies are suggested to consider a special score for innovations, mental ability of individuals in providing innovative solutions and other factors that show

the innovation ability of employees. Companies are also suggested to hire or promote those who have higher scores.

6. Research limitations

1. In the present study, also management participation was discussed.
2. In the present study, innovation was considered as dependent variable.
3. In the present study, only questionnaire was used to collect data.

7. Suggestions for future studies

1. It is suggested to study the effect of other management styles like transformational leadership, participatory leadership, servant leadership, and other styles of leadership in addition to the effect of management participation.
2. It is suggested to study the effect of organizational innovation on organizational performance (financial and administrative) in future studies.
3. It is suggested to use interview and observation as aid tools for data collection in future studies.

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