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ANALYZING INNOVATION CAPABILITIES IN OIL AND GAS INDUSTRY AND PROVIDINGIMPROVEMENT STRATEGIES (CASE STUDY: OIL AND ENERGY INDUSTRIES DEVELOPMENT COMPANY OF QESHM)

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ABSTRACT

Innovation is the essence of any successful organization and the key for its development. Today, organizations are successful which make new thoughts applicable in the competitive world. Creating change and evolution in organizations is necessary and inevitable because all communities, organizations and competitors are changing and any organization which does not follow these changes and evolutions, remains stagnant, and does not coordinate with the external environment dooms and goes toward decline and disintegration. The requirement for coordinating with environmental changes is to create a favorable and appropriate environment for the emergence of new ideas and innovation in an organization. In fact, in order for organizations to survive in today's turbulent and variable world, they need to have creativity and innovation and in addition to identify environmental changes, they provide exquisite and fresh responses for facing with them. In the current study, innovation capabilities in Exploitation Company of Oil and Energy Industries Development Company of Qeshm was assessed, the status of the company was determined in each dimension of innovation capability, the rate of gap in each dimension was identified and also, strategies were provided to improve the available status.

KEYWORDS: Innovation, Innovation Capabilities, Innovation System, Technology

Creativity in every social system is a phenomenon based on a logical system and is a function of creativity in individuals of whom the system is formed. As suitable environment and space are required for plant to grow, suitable atmosphere should also exist for flourishing creativity so that individuals' mind could be released to consider new ideas and create new opportunities. Innovation is accompanied with creating value. Creativity is the stimulator of innovation. The basis and essence of creativity is the composition and combination of two or more ideas and thoughts to reach an entirely new idea. Creativity favors and results from a ready mind and is often the result of individual's dissatisfaction with the existing situation. Creativity depends on individual as well as his environment (Tareq Khalil, 2002). In order for organizations to survive, they all require new ideas and innovative opinions. New ideas are as a soul in the body of organization and save it from doom. Therefore, in In a comprehensive definition, innovation refers to the emergence of ideas; methods; processes; structures; behaviors; attitudes; cultures; technologies and new skills.Also, it is defined as to create basic information in order to produce a new product or provide a new service for managing the society or various organizations.Although the recent definition does not completely include the concept of innovation, it covers its main aspects.

today's turbulent and changing world, innovation and creativity are essential and inevitable for survival. Today, due to competitive and challenging environment, key to survival for organizations is coordination with environment through innovation. Nowadays, change and innovation are part of the nature of human social life and during the last two decades, this phenomenon has been developed very rapidly in all fields. What is new is recognizing its importance and its wide application, especially in dynamic organizations and in relation to environment. The importance of innovation is so that nowadays, "Innovate or Die" has increasingly become the slogan of managers in public and private organizations and is a life-giving phenomenon like blood and is the only way for exiting from underdevelopment deadlock of countries (Najaf Beigi, 2001).

REVIEW OF LITREATURE

- Innovative is to make new ideas and thoughts from creativity practical and applicable (Alvani, 1992).
- Innovative means new concept or idea used for providing a product, process or service (Robbins, 1995).
- Hunt has applied innovation in a broad concept as a process for using related knowledge or information in order to create or introduce new and useful things.

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What is induced from the above definitions is that innovation is to make new ideas and thoughts developed in one's mind practical and applicable. In fact, in an organization, innovation is a response to needs and problems of the organization that internal and external environmental pressures, constraints and uncertainty make its necessity doubled and emphasize on that need and necessity lead to innovation. In the way of the emergence of creativity and innovation in an organization, a plan should be so simple that all employees understand its significance and can easily perform it and so comprehensive that has all aspects of operations required for supplying objectives (koontz and weihrich, 1988). In general, the power of innovation and creativity and constructive and informed thoughts play a major role in regulating plans and policies (Dror, 1974).

Process of Innovation

Innovation is a process done to create a new service or product and also new use of products and services in a given organization.

For innovation, Majaro proposes a process starting from kyphosis and continuing through testing it and finally, ending by performing idea. Majaro considers the first stage of innovation (kyphosis) as creativity.

Accordingly, it can be concluded that successful process of innovation includes the following steps:

Needs: need for change and innovation occurs when beneficiaries are dissatisfied with the current performance of an organization. The presence of such problem causes them to seek new methods and get benefit from them.

Opinions or ideas: is to present a new way for doing things. The idea can be considered as a model, plan or program which the organization should implement or a new product or method for monitoring affairs or organization style in the organization. An idea or opinion may be provided in the organization or penetrated from outside into the organization. More than to be accepted by the organization, an opinion or idea should usually be compared with the type of desired need i.e. it can satisfy the need. It should be noted that new ideas and needs can be simultaneously in the early stage of innovation.This means that each of them may be in the beginning stage of innovation.

Acceptance: is the stage in which managers or decision-makers try to perform the proposed idea. For creating a change in an organization, individuals involved in it should confirm it and support the new phenomenon.

Implementation: The implementation phase is when the members of organization make a new idea, method or behavior practical. At this stage, the manager should likely purchase required materials, equipment and machinery and also, the staff should pass courses of new training so that they can perform the new idea or opinion. The implementation stage is very important and without it, previous stages are futile.

Resources: resources are required for creating creativity and some activities should be done in this regard.Innovation does not happen by itself but it requires taking time and resources, in other words, in order to both supply new ideas and make them practical, employees and members of organization should spend required energy or supply it. Most new plans need a thing more than allocated budget and thereby, the manager should supply specific resources.

Characteristics of the Process of Innovation

- The process of innovation is accompanied with uncertainty: innovation results can hardly be assessed in comparison with previous experiments; in other words, the results can hardly obtain specific predictions. Therefore, emphasizing on the scheduled planning is not successful in all cases. The stage of innovate to obtaining success resulted from implementing the project and the interval between invention and commercial production are usually reported between 7 to 15 years and 3 and 25 years, respectively.
- The process of innovation is based on increasing-knowledge and learning: the process of innovation leads to enhance new knowledge and relies on intelligence, individual creativity and mutual learning and due to the speed of new experiences resulted from the process, quick and close connection of all those involved in any part of the process is essential.
- The process of innovation is in contrast to some things: innovation often requires removing some activities in the organization and is typically in contrast with them.
- The process of innovation goes beyond the boundary of different parts of inner- and outer- organization: The process of innovation requires information exchange in various parts of the organization and outside of it and also different units involved in the process of innovation.

Many sources of these ideas are beyond various organizational parts and are resulted from exchange of information between different parts (SultaniTirani, 1999).

Table 1 also reveals some approaches in evaluating innovation.

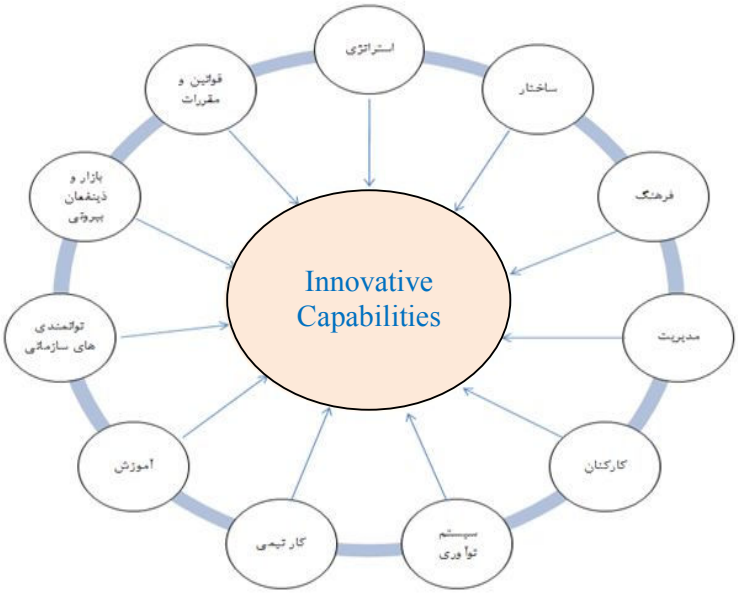
Table 1: Approaches for assessing innovation

First approach	Tidd et al Approach	Tidd et al have considered innovation in strategic perspective and accordingly, assess the innovation in organizational level. The significant point that these people have considered is that the concepts of measuring organization's success in innovation and evaluating the organizational capacity of innovation while having a complementary role; consider the organization in two different aspects. In fact, the concept of measuring organization success is a type of evaluating previous status of the organization in terms of innovation and only evaluating the results and outputs of the organization. In other words, they show the success and health of the organization compared to the desired status of the industry. However, the innovation capacity assessments is indeed the representative of organization's strengths and weaknesses in each basic parameter of innovation and guidance for improving the status of organization or promoting relative advantages to change them to a strategic advantage (Tidd, Bessant; Pavitt, 1998)
Second approach	Cebon et al Approach	Cebon et al (1999) attempted to provide a theoretical framework for formulating markers (indicators) of evaluating the innovation. They mentioned some fundamental differences between innovation concepts that show why formulating simple indicators are difficult to assess innovation (Cebon, 1999).
Third approach	Nivasan and Narayana Approach	The third approach belongs to two Indian researchers, namely Seri Nivasan and Narayana.From the perspective of these researches, the definition of innovation is somewhat different from that of other researchers because they consider the stage of research and development apart from innovation and have token a lot of precision in formulating the innovation criteria and markers and their approach can assist to identify the strengths and weaknesses of agencies.In addition, these researchers have presented useful contents in the field of pathology and the promotion of innovation (boushehri, et al., 2003).
Forth approach	Arasti et al Approach	This approach is the developed approach of the model provided by Morrell and Boolean. This model provides an initial classification of factors forming innovation capacity which are divided into five overall dimensions: 1- Creating appropriate work environment through the leadership of innovative activities; 2- having procedure for processes and intra- and extra-organizational communication; 3- Strategic management of knowledge; 4- Collecting and generating new ideas and 5- Human resource management based on innovation (Arasti et al, 2009).
Fifth approach	Boushehri et alApproach	This model consists of two intra and extra-organizational spaces. In extra-organizational space, industrial relations with customers, suppliers, competitors, markets and scientific professional assemblies are evaluated. The extra-organizational space also consists of three main and moderate systems including: idea generation system, resources supplement and product development that in fact, these three categories compose the innovation system of the organization (Boushehri et al, 2003).

METHODOLOGY AND RESEARCH MODEL

The conceptual research model used for designing the questionnaire and indicators is given in Figure 1. Also, given that the study results can be used in Oil and Energy Industries Development Company of Qeshm, the study is applied in terms of aim and given the presence in the organization and obtaining information from inside the organization using questionnaire for collecting data from experts, it is considered as a survey research and field study. Also, given that the result of the study is obtained in Oil and Energy Industries Development Company of Qeshm, the study is a case study. The validity and reliability of the study questionnaire were confirmed by experts' judgment and alpha coefficient of 0.91, respectively.

Figure 1: Conceptual model of the study (Khamse et al, 2013)



RESEACH OBJECTIVES AND QUESTIONS

This study aims to specify the status of using knowledge management in Qeshm Oil and Energy Industries Development Company and identify the gaps and provides solutions to compensate for the gap. Concerning research objectives, research questions are:

1. Where is knowledge management in Qeshm Oil and Energy Industries Development Company and how is the present gap in each dimension in respect to desired level?

2. How is the prioritization of dimensions of knowledge management in Qeshm Oil and Energy Industries Development Company?

INTRODUCTION OF STATISTICAL POPULATION

Oil and Energy Industries Development Company of Qeshm (OEID) was established in order to develop technical knowledge of oil upstream industries in the country and by focusing on collecting and producing technical knowledge through powerful and extensive presence in doing domestic and international projects in the field of oil and gas upstream industries. One of the main subject matters of the company includes doing services in terms of general contracting and doing all engineering, designing and executive activities and operations related to projects of oil industries (including earth's surface and underground). Therefore, it can be stated that according to its mission and activity type in oil industry, OEID Company is of active companies in the field of activities in oil upstream industries and performs oil projects as management services, designing and making EPC, contract management, general contractor and consulting services.

Given the limited number of experts, the present study was conducted as the total number and middle and senior managers and experts of Oil and Energy Industries Development Company of Qeshm as experts with the educational degree of Bachelor, M.A. and work experience more than one year formed the study population (Table 2).

Table 2: Characteristics of the statistic population

Education	Number	Total Percentage	The mean work experience (year)
Bachelar	12	34	7
M.A	23	66	6.4
total	35	100	6.5

SUMMARIZATION OF RESEARCH FINDINGS

Research question No.1: What is the level of each indicator composing levels of innovative capabilities in Oil and Energy Industries Development Company of Qeshm?

Based on the data collected by the questionnaire and summarizing them, levels of innovative capabilities in Oil and Energy Industries Development Company of Qeshm were determined in each indicator according to Table 3.

Table 3: Level of innovative capabilities in Oil and Energy Industries Development Company of Qeshm in each indicator

Dimensions	Question	Mean (%)	Gap (%)
Strategy	How much has innovation been considered in the strategy of your organization?	70.29	29.71
	To what extent are the managerial levels of the organization aware of the status of innovation in the organization strategy?	79.14	20.86
	To what extent are the organization employees aware of the status of innovation in the organization strategy?	50.86	49.14
Structure	To what extent does the available organizational structure assist to promote and develop innovation?	40.29	59.71
	To what extent does the available organizational structure facilitate the teamwork and problem solving groups?	60.29	39.71
Culture	To what extent are employees' failures and errors in innovation tolerated by the organization?	60.57	39.43
	To what extent does the organization environment encourage individuals to innovate?	29.14	70.86
Management	To what extent do the organization managers support innovators and their activities?	60.29	39.71
	To what extent do the organization managers have a positive view to employees taking risk and creating innovation and support them?	70.57	29.43
	To what extent do managers attempt to produce further ideas in relation to the current and future needs of customer?	60.29	39.71
	To what extent do managers attempt to expedite the process of generating ideas?	21.43	78.57
	To what extent do managers attempt to supply the financial resources required for new ideas?	22.57	77.43
Training	To what extent are attention given to topics related to innovation such as technology- and innovation management, entrepreneurship, marketing, communication techniques with customer and etc. in your organization training programs?	75.71	24.29
	To what extent has the provided training had a positive effect on innovation?	81.43	18.57
	To what extent are the educational facilities such as libraries, internet, participating in the specialized training courses and seminars about the study, research and learning for the organization's aims given to employees?	69.71	30.29
	To what extent is teamwork and formation of middle part teams pervasive for innovation in		

Teamwork	organization?		
	To what extent mechanisms and teams for problem solving are used on innovation in organization?		
Employees	To what extent policies of support from innovative employees (job promotion, materialistic and non- materialistic encouragements are used?	70.00	30.00
	To what extent innovations have suffered from employees in the organization?	38.00	62.00
	To what extent employees new ideas are used in your organization?	40.57	59.43
	How much are rules and regulations of organization facilitator of innovation?	58.00	42.00
	How much are rules and regulations of organization facilitator of innovation?	34.57	65.43
Dimensions	Question	Mean (%)	Gap (%)
Rules	To what extent do governmental rules lead to stimulate the organization to innovate?	26.00	74.00
Innovation system	To what extent determined mechanisms (participation systems, mechanisms of definition and approval of project etc.) are used to capture innovative ideas of employees?	29.43	70.57
	To what extent various techniques (problem-solving methods, concurrent engineering, cross-functional teams, QFD and etc.) are used to create new ideas?	80.57	19.43
	To what extent do various organizational units communicate and interact with each other in order to do and develop innovations?	61.71	38.29
	How much has the time taken to provide the necessary resources for innovation projects been appropriate and on time?	69.43	30.57
	How much have the innovative projects enjoy the required speed to fruition in time?	74.57	25.43
Market and outer beneficiaries	To what extent are decisions related to innovation taken based on market research and awareness of competitors in your organization?	60.57	39.43
	How much have innovations suffered from contact with customers and awareness of their needs?	61.14	38.86
	To what extent have marketing and sales unit involved in the innovation organization?	39.71	60.29
	To what extent have innovation suffered from informing products and processes of competitors?	59.71	40.29
	To what extent has innovation suffered from relationship with suppliers?	29.71	70.29
Organizational capabilities	To what extent do you consider your organization's ability for creating technology or fundamental improvement in the available technology?	50.00	50.00
	To what extent do you consider quality and standard are succeed in the success of new (innovative) products provided by your organization to?	38.57	61.43
	To what extent are experiences of the previous provided innovations used in the current and future innovations in the organization?	66.00	34.00
	To what extent have provided ideas been suitable and practically used in creating innovation?	76.86	23.14
	Timely To To what extent have innovation projects been timely completed and provided to market to?	66.00	34.00
	To what extent do you think is the organization capable in doing the process of innovations in order to reduce organization’s costs and increase productivity?	76.29	23.71

Second research question

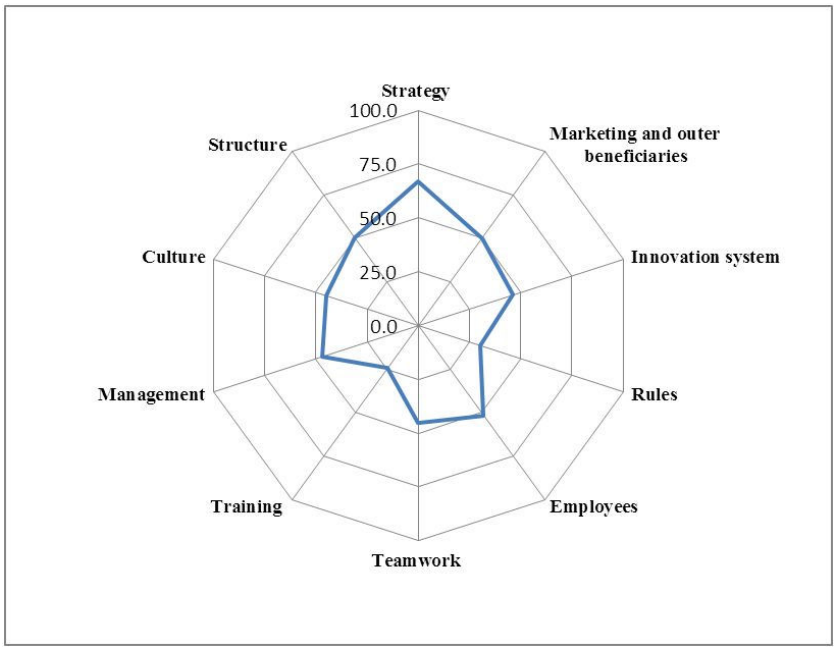
To what extent are innovative capabilities in Oil and Energy Industries Development Company of Qeshm? And what is the rate of the gap in each dimension of the innovative capabilities compared to the desirable level?

Comparison of the level of available innovative capabilities for each dimension of innovative capability and also the rate of gap compared to the optimum level have been given in Table 4 and Diagram 2.

Table 4: Comparison of the level of capabilities with optimum level of each dimension

Dimensions	The mean available innovative capabilities (%)	Gap compared to the optimum level
Strategy	66.8	33.24
Structure	50.3	49.71
Culture	44.9	55.14
Management	47.0	52.97
Training	24.4	75.62
Teamwork	45.1	54.86
Employees	51.6	48.36
Rules	30.3	69.71
Innovation system	63.1	36.86
Marketing and outer beneficiaries	50.2	49.83
Organizational capabilities	62.3	37.71
Total mean of innovative capabilities	**51.19**	**48.81**

Diagram 2: Comparison of the current status of innovative capabilities in each dimension



Research question No. 3

What strategies are applied to compensate and improve gaps in each dimension of innovative capabilities in Oil and Energy Industries Development Company of Qeshm?

Strategy dimension

In order to improve the status of the index of organization's strategies attention to innovation which is with the gap of 29.71%, it is recommended that in formulating its strategies, the organization emphasize more on programs for encouraging creativity and innovation.

In order to improve the status of the index of organization's employees' awareness of innovation status in the strategy of the organization which is with the gap of 49.14%, it is recommended that the organization act for training its employees and for encouraging the organization's personnel to become aware of the status of innovation by encouragement incentives.

Structure dimension

In order to improve the status of the index of assisting to promote and develop innovation which is with the gap of 59.71, it is recommended that the education unit hold training courses and perform practical projects.

In order to improve the status of the index of facilitating teamwork and problem-solving groups which is with the gap of 39.71%, it is recommended that one criterion for evaluation be the performance of employees, teamwork item etc. and in order to improve this, necessary incentives be applied.

Culture dimension

In order to improve the status of the index of tolerance for employee's failures and mistakes in the field of innovation by the organization which is with the gap of 39.43%, it is recommended that the organization have a positive perspective to formulating its strategies and operational budgeting, forecast its budget and determine the limitation and rate of taking risk and strategies considered to reduce damages from mistakes by the help of employees themselves.

In order to improve the status of the index of encouraging individuals in the organization environment to innovation which is with the gap of 70.86%, it is recommended that, first, through making innovative ideas practical in managing the organization, a positive perspective to individuals' innovation be created and in this regard, it be cultured at all levels of the organization.

Management dimension

In order to improve the status of the index of the protection of organization's managements from innovation and their activities which is with the gap of 39.71%, it is recommended that meetings be held to analyze benefits of creating such issue in the organization and identify barriers to protect and eliminate them.

In order to improve the status of the index of protection from employees who take risk and are innovative which is with the gap of 29.43, it is recommended that in addition to material incentives, spiritual incentives be also considered more.

In order to improve the status of the index of manager effort to produce more ideas in relation to the current and future customer needs which is with the gap of 39.71%, it is recommended that environmental marketing be done and modern instruments of understanding customer desires be used.

In order to improve the status of the index of manager effort to accelerate the process of generating ideas which is with the gap of 78.57%, it is recommended that benchmarking of successful organizations in innovation be done and meanwhile analyzing advantages of protection of building-idea in the organization, the decision- makers' attention in the organization be addressed and then, in this regard, operational and motivational programs be designed.

In order to improve the status of the index of effort to supply financial resources required for new ideas which is with the gap of 77.43%, it is recommended that senior managers consider an outline under the same title on the budget while company's operational planning budget and estimate amount for realizing it and for its continuity, supply the excess amounts by benefits from the realized innovations.

Educational dimension

In order to improve the status of the index of considering issues related to innovation in the educational programs of the organization which is with the gap of 75.71% and index of putting educational facilities surrounding study, research and learning in line with organization's objectives which is with the gap of 69.71%, it is recommended that since educational outlines of each organization are formed through following macro strategies of the organization, the decision-makers in the organization should be first encouraged and have a positive perspective and then, the innovation courses be performed based on educational needs on organization's need and localized outlines be included in the training calendar for the organization.

In order to improve the status of the index of the positive impact of provided trainings on innovation which is with the gap of 81.43% it is recommended that making course materials more practical, relating the application of courses to individuals' activities and rewards and evaluating their performances be emphasized.

Teamwork dimension

In order to improve the status of the index of vogue of teamwork and forming among-sections teams for innovative in the organization which is with a gap of 75.71% and the index of using mechanisms and problem-solving teams on the innovation issues with a gap of 34%, necessary suggestions have been provided to the structure dimension.

Employee's dimension

In order to improve the status of the index of organization's success in attracting and maintaining innovative employees in the required fields which is with the gap of 30% and the index of applying policies of supporting innovative employees which is with the gap of 62%, it is recommended that mechanisms of material and spiritual encouragement be increased.

In order to improve the status of the index of the rate of innovation from employees within the organization which is with the gap of 59.43% and the index of the rate of organization use of employees' new ideas which is with the gap of 42%, it is recommended that a teamwork from managers and employers be formed in the organization and the possibility of registration of individuals' ideas in the organization be provided and then to what extent the organization supports ideas of its employees and their implementation be determined.

Rules dimension

In order to improve the status of the index of facilitating organization's rules and regulations which is with the gap of 65.43%, it is recommended that the organization's experts hold systematic meetings and model successful organizations for applying necessary modifications in rules.

In order to improve the status of the index of creating motivation and stimulation in the organization by governmental rules and regulations for innovation which is with the gap of 74%, it is recommended that more emphasis be applied on facilitating domestic regulations.

Innovation system dimension

In order to improve the status of the index of using various techniques to create new ideas which is with the gap of 70.75%, it is recommended that the organization form evaluation teamwork, make technique applicable and identify strengths and weaknesses of their application in the organization.

In order to improve the status of the index of effectiveness of organization research and development unit on the offered innovations of the organization which is with the gap of 19.43 and the communication and interaction index of various organizational units in order to conduct and develop innovations which is with the gap of 38.29%, it is recommended that the responsibility survey and case study of ideas raised in the organization in describing duties of this unit be formulated and the employees of these units pass specialized courses about influential methods and more active coordination meetings be held among those units.

In order to improve the status of the index of being appropriate and spent on time for providing necessary resources for innovation projects which is with the gap of 30.57%, it is recommended that predictions be done based on experiences and with more precision.

Market and outer beneficiaries dimension

In order to improve the status of the index of making organizational decisions related to innovation based on market research and awareness about competitors which is with the gap of 39.43% and the index of innovations' size from notifying about products and processes of competitors which is with the gap of 40.29%, it is recommended that appropriate environmental marketing with the field of company activity be done and research team be formed they continuously upgrade their information on the issue.

In order to improve the status of the index of the rate of innovations caused by relationship with the customers and awareness of their needs which is with the gap of 38.86%, it is recommended that research and development unit use modern tools and technologies in order to recognize the customers' needs.

In order to improve the status of the index of involvement of marketing and sales unit in organizational innovations which is with the gap of 60.29%, it is recommended that the organization's human resources unit schedule for formulating the value- and supply chain of organization so that all units, especially marketing unit participate in the material and spiritual profit of benefit from attracting and identifying innovative ideas in the organization and in this regard, using more active individuals is necessary.

In order to improve the status of the index of innovations from relationship with supplier which is with the gap of 70.29%, it is recommended that daily and instantaneous communication network be created.

Organization capabilities

In order to improve the status of the index of organization capability in creating technology or fundamental improvement in existing technology which is with the gap of 50% and the index of timely completing and providing innovation projects to the market which is with the gap of 34%, it is recommended that the improvement elegances in this field be considered in meeting with experts and research and development and human resources units so that by exact coordination among units, timely registration and implementation of the effective innovative ideas be done in the organization and the dissemination of its results to their products market.

In order to improve the status of the index of quality- and standard success in the success of new (innovative) products provided by the organization which is with the gap of 61.43%, it is recommended that control be more carefully done in all units of guild in all stages of manufacturing products and services with the help of employees.

RESULT

According to the results of table 3

In the dimension of strategy, the highest and lowest scores are related to the index of informing management levels and organization employees of the innovation status in organizational strategy, respectively.

In the dimension of structure, the highest score is related to the index of facilitating teamwork and problem-solving groups, whereas the lowest score is related to the index of promotion and development of innovation.

In the dimension of culture, the highest score is related to the index of tolerating failures and mistakes of employees in the field of innovation by the organization, while the lowest score is related to the index of individuals to be encouraged and stimulated in organization environment.

In the dimension of management, the highest score pertains to the index of positive perspective of the organization's managements to the innovative and risk taker employees, while the lowest score is related to the index of the effort of managements for quick producing process and effort for supplying financial resources for new ideas.

In the dimension of education, the highest score is given to the index of educational facilities such as libraries, internet, participating in courses and specialized training seminars, whereas the lowest score is related to the index of the positive effect of presented educations on innovation.

In the dimension of teamwork, the highest score is related to the index of mechanisms problem-solving teams in the organization; however, the lowest score is related to the index of teamwork vogue and forming among-sections teams for innovation in the organization.

In the dimension of employees, the highest score refers to the index of organization's success in attracting and maintaining innovative employees in the required fields; while the lowest score is related to the index of policies supporting innovative employees (job promotion, material and non- material encouragement).

In the dimension of rules, the highest and the lowest scores are related to the index of measuring the organization motivation and stimulation by the governmental rules and regulations for innovation and facilitating innovation of organizational rules and regulations, respectively.

In the dimension of innovative system, the highest and the lowest scores are related to the indexes of using the specific mechanisms in order to attract employees' innovative ideas and using the various techniques for creating new ideas, respectively.

In the dimension of market and outer beneficiaries, the highest score is related to the index of the rate of innovations from suppliers, while the lowest score is related to the index of innovations from relationship with customers and awareness of their need.

In the dimension of organizational capabilities, the highest score is related to the index of the role of quality and standard in the success of new (innovative) products provided by the organization; while the lowest score is related to the indexes of being appropriate and practical ideas to create innovation and organizational ability in doing the process innovations in order to reduce the organization costs of increase productivity.

Furthermore, according to the results of table 5

Among from dimensions of innovative capabilities, the dimensions of "strategy" with the score of 66.8% and "education" with the score of 24.4% were determined as the strongest and weakest dimensions, respectively.

Among from dimensions of innovative capabilities, the dimensions of "strategy" with 33.24% and "education" with 75.62 % have the minimum and maximum gaps compared to the desired level of experts, respectively.

Among from all indicators of innovative capabilities, the positive effect of provided educations on innovation with 18.57% has the lowest score and the index of using the determined mechanisms (participating system, mechanism of definition and approve projects etc.) for attracting employees' innovative ideas with 80.57 % has the highest score.

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