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ORIGINAL ARTICLE

**PRIORITIZING MANAGERIAL SKILLS BASED ON KATZ'S THEORY
CAST STUDY: THE MANAGERS OF SPORTS AND YOUTH IN MAZANDARAN PROVINCE**

Abstract

Today, managers should play different roles to do management task and subsequently they need different skills. Prioritizing skills in management positions is one of challenges in top management especially in physical education offices. The purpose of this research was ranking the managers based on their skills in offices of physical education in Mazandaran province. Research method was descriptive-survey and practical in purpose. The statistical population consists of 18 experts (masters, managers) in offices of youth and sport in Mazandaran province studied in order to be ranked based on their conceptual, human and technical skills. Data analysis is carried out using FMADM method (FAHP technique). Research result suggests that in conceptual skill, the role of strategic and long term objectives and also awareness of rules and regulations, in human skill effective communication and in technical skill delegation of authority have the highest priorities respectively. Planning based on above said results may increase effectiveness and efficiency in related organizations.

Keywords: Manager's skills, AHP-FUZZY, FMADM

INTRODUCTION

The metaphor of transferring knowledge from hands into brain and changing information into knowledge and finally, into works or a determined output with added value means that variety, creativity, technology and knowledge-oriented of organization is an inevitable choice for the organizations in 21st century (Razaghi. 2013a; Mehrara, et al. 2012; Razaghi et al. 2013b).

According to Katz's theory, a successful manager has triplet managerial skills (conceptual, human and technical). The deficiency of each skill loses the chance of being successful manager and generally successful organization. Managerial skills are required to implement quintuplet functions of management (planning, organizing, directing, controlling, evaluating). In modern organizations, successful manager can hardly be imagined without basic skills (Ahmadi, 2011; Katz, 1991; Robbins & Decenzo, 1998; Mirsepassi 1991)

Managerial skills are one of reasons in consecutive organizational successes. Management effectiveness and efficiency require managerial skills. Triplet managerial skills clarify to reconsider educational programs and selection of management in future (Afshari et al 2012a, pp. 388-394).

Today organizations are subject to dramatic and constant change. All aspects of the organizations including their external and internal environment and also human and non human factors are changing from one phase to another with a stunning acceleration (Ahmadi, 2011).

The increase in environmental changes such as development of technology, increase in the intensity of competition throughout the whole business chains and incremental changes in expectations of customers and beneficiaries and satisfying them, has led organizations to adapt to their environment in order to survive, grow and develop (Afshari et al.2013)

We decide to mention to this topic that environment how effect on management skill and this ranking how can make a good result for sport management organization.

Theoretical Part

The first scientific and structured discussion of «Management skill» was presented by Robert L. Katz. The article by this theorist, «skills of an affective administrator», was

published in Harvard Business Review in January 1995. He has classified the required skills for a manager in three groups herein mentioned briefly but in the following sections, due to their pivotal role, each is explained separately and completely. According to his theory, technical skill is more important in lower management levels and conceptual skill is more significant in upper management levels and human skill is regarded equally important in all three management levels (Katz, 1974; Robbins & Decenzo, 1998; Mirsepassi 1991).

- **Technical skill.** As used here, technical skill implies an understanding of, and proficiency in, a specific kind of activity, particularly involving methods, process, procedures or techniques. It is relatively easy for us to visualize the technical skill of the surgeon, the musician, the accountant or the engineer when each is performing his/her own special function. Technical skill involves special knowledge, analytical ability within that specialty and facility in the use of the tools and techniques of the specific discipline (Katz, 1991; Robbins & Decenzo, 1998; Mirsepassi 1991).

- **Human skill.** Human skill is the ability to understand, create motivation and work with employees. According to Robert Katz, human skill is the ability to work effectively as a group member and to build understanding and cooperative effort in the team he leads. Human skill is the ability of manager to work effectively as a group member and to build effective understanding and cooperative effort in the team he leads (Katz, 1991; Ahmadi, 2011; Robbins & Decenzo, 1998; Mirsepassi 1991).

- **Conceptual skill.** One of the triple management skills is conceptual skill also known as perceptual skill, analytical skill, the skill based on general understanding, theoretical skill and cognitive skill. The skill based on general understanding is referred to as the power to consider institute as a whole unity i.e. manager must recognize how different functions of organization depend on one another and change in each part necessarily influences other parts. This skill can be extended to the understanding of the relationship between the said institution and industry in general and also society and political, social and economic factors of an entire nation. By recognizing such relationships and understanding the important elements in any situation, the manager would be able to act in a way that leads to the improvement of organization (Katz, 1991; Robbins & Decenzo, 1998; Mirsepassi 1991).

Literature review

A number of researches are carried out into managers' skills and performance evaluation some of which are stated:

According to the studies, some skills and features change based on organizational level. Technical skill, for instance, is more required in operational manager level than in other levels, which in fact confirms the theory of Katz. In this study, human skill is distinguished from personal interaction skill. (Martina & Karol, 1994, pp.361-369).

Peterson (2004) believes that management skill has led to improve the performance of management and this helps the organization to achieve its goals.

Another research known as the project of human skill education is done. The result of this research shows that the academic education of human and technical skills for managers is of considerable importance and also its necessity is confirmed (Pant, & Barondi, 2008, pp. 124-128). Unger et al. (2009) found slightly significant association between human capital with achievement of managers and entrepreneurs. Dimensions of knowledge and skill were associated more than education and experience. However, it does not indicate high value of human capital considered in entrepreneurship and management literature (Afshari, 2013, pp.398-405).

Sambasivan et al (2009) indicated that personal qualities and management skills have a positive association with Opportunity recognition skills (pp. 798-805).

Eltantawy (2009) also reported that strategic skills and management performance is the mediator and integral part of supplier integration. (Reham, et al. 2009, pp. 925-936).

Naderian and Amirhosseini (2006) carried out a study titled human skills for sport managers (indicators and criteria from managers' perspective). Research results show that sport managers require priority to skills such as providing job security for the subordinates and resolving the conflicts between employees under their supervision, lectureship and rhetorical principles in order to be effective in fulfilling the requirements and influencing the behaviors of human resources. From the perspective of experienced managers, these human skills have a significant influence on managers' job performance.

Jerez Gomez et al. (2005) enumerate four conditions to create and develop capability of organizational learning. First, manager of organization should support organizational learning and associated programs. Second, collective conscience is required to consider organization as a system also shared vision is vital among staff in organization. In other words, staff should consciously perceive the whole of organization and its problems generally. Third, organization should develop organizational knowledge, transmit and integrate individual acquired knowledge. Fourth, not only adaption for environmental changes are demanded to make learning as a source of competitive privilege but also generative learning is needed. Generative learning is worthier than adaptive learning (pp.715-725).

Huusko (2006) examined the lack of skills as an obstacle in teamwork. In this paper two well-known concepts of management and leadership – the idea of Katz– were addressed. Teamwork was studied through fair leadership and required skills. Suitable structure was studied to change traditional and modern team leadership. Essential managerial skills –the idea of Katz: same human skills for same teamwork in all managerial levels- were considered. Fair teamwork requires managerial skills resulting from assigning responsibility to individuals of team. Managers and leaders with effective human skills and communication motivate team to accept responsibilities. Individuals learn skill during teamwork. It is provided under flexible organizational structure which managers assist to increase team skills and empowerment by shifting off responsibility (pp.5-16).

Afshari et al. (2010) in a study titled a study of triple management skills (conceptual, technical, and human) in managers of physical education departments of Iranian universities concluded that there is a significant difference among triple management skills (conceptual, technical, and human) in managers of physical education departments of Iranian universities. The priority of these skills is defined as follows: human skills, technical skills and conceptual skills. They also came to the result that there wasn't a significant difference between the viewpoint of experts of sport management and managers of physical education departments of Iranian universities about necessary triple management skills and their components (pp.105).

Afshari et al. (2013) in a study titled a the role of managerial skills in developing characteristics of learning organization in physical education organization, concluded that organizational learning through skills of top management especially conceptual skill can change physical education organization into learning organization resulting in more efficiency and productivity (pp.398-405).

Before we provide questions about research, we are present important research in sport organization.

Table 1: Result of important research about skill management in sport organization

Researcher	Purpose	Result
(Afshari <i>et al.</i> 2012b)	apply analytic hierarchy process for analyzing the role of managerial skills in developing of organization learning in physical education organization	Results showed that conceptual skill, human skill, and technical skill were related significantly to organizational learning. Triplet managerial skills explained a high variance in organizational learning. Especially, conceptual skill had the strongest statistically significant effect on organizational learning.
(Afshari <i>et al.</i> 2012a)	Prioritizing managerial skills based on Katz's theory in physical education offices of Universities in Iran	The priority was referred to human skill, followed by conceptual skill and followed by technical skill respectively. It was concluded that human skill is prominent in hierarchy of management and organization
(Goodarzi, 2002)	The framework of managerial skills (technical, human, conceptual) in management of physical education organization in Iran	Understood significant relations triplet managerial skills in different organizational levels.
(Seng <i>et al.</i> , 1999)	declare that Katz's theory lacks division of certain environments and organizations	They believe general skill, special skill, business skill and certain organizational skill as managerial skills

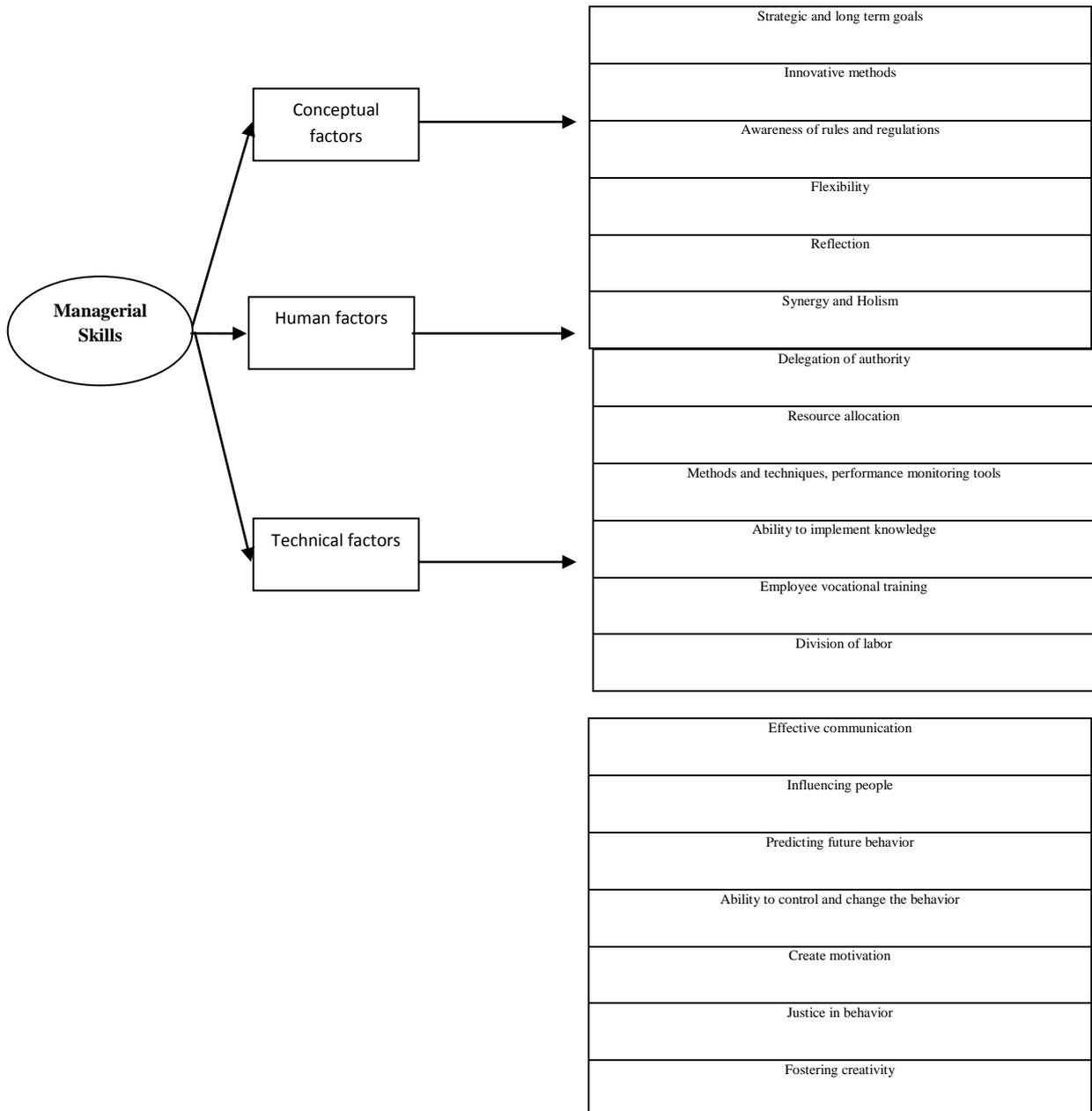
The researcher is to find the answer to the following questions:

- How are technical factors (methods and techniques, performance monitoring tools, employee vocational training, resource allocation, delegation of authority, division of labor, ability to implement knowledge) weighed and prioritized in related organization?
- How are conceptual factors (strategic and long term goals, awareness of rules and regulations of innovative methods, flexibility, reflection, synergy and holism) weighed and prioritized in related organization?

- How are human factors (effective communication, influencing people, predicting future behavior, ability to control and change the behavior, fostering creativity, justice in behavior, create motivation) weighed and prioritized in related organization?

We are providing a conceptual framework to present a better way for prefer answer (Figure1).

Figure 1. Conceptual framework



METHODOLOGY

This research is descriptive of survey type and practical in purpose. The statistical population (experts) comprises of 18 managers of Sports and Youth offices in Mazandaran Province according to the determined characteristics of the researcher based on (main decision maker). In this research field method is used for data collection at first the theoretical framework is gathered through library resources especially R.L. Katz study and then for required data collection, the researcher made questionnaire (FAHP)¹ is utilized for paired comparison method.

Table 2: Guideline of comparisons significant degree of pair comparison

Significant degree of pair comparison	Similar prioritized	Similar to moderately prioritized	moderately prioritized	moderately to much prioritized	much prioritized	much to very much prioritized	very much prioritized	very much to immeasurable prioritized	immeasurable prioritized
Numerical code: priority of number to letter	1	2	3	4	5	6	7	8	9
Letter code: priority of letter to number	a	b	c	d	e	f	g	h	i

Thereafter in order to confirm content and face validity of the questionnaire, 5 experts are consulted. After validity confirmation, the questionnaire is implemented for reliability confirmation. The reliability of the questionnaire is evaluated as good suggesting research results to be reliable. Data analysis method is FMADM (FAHP technique) and equations 1-6 are also used.

Equation (1). calculating S_i for each row of paired comparison matrix

$$\left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1} = \frac{1}{\sum_{i=1}^n u_j} \cdot \frac{1}{\sum_{i=1}^n m_j} \cdot \frac{1}{\sum_{i=1}^n l_j}$$

Equation (2). calculating the degrees of S_i related to each other

1. FAHP Questionnaire composed of six dimensions of managerial skill based on R.L. Katz questionnaire. It was pair-wise comparisons which provided a matrix. The instruction of answering questionnaire is according to row and column. If the comparison is column/row, immeasurable equals 1/9. Otherwise, the comparison is row/column, immeasurable equal's 9/1. Following table was considered to solve complexity of answering questionnaire. Priorities are labeled with numeric codes (1 up to 9) & corresponding letter codes (a up to i). (Table 2)

$$V(M_2 \geq M_1) = \text{hgt}(M_1 \cap M_2) = \mu_{M_2}(d) = \begin{cases} 1 & \text{if } m_2 \geq m_1 \\ 0 & \text{if } l_1 \geq u_2 \\ \frac{l_1 - u_2}{(m_2 - u_2) - (m_1 - l_1)} & \text{otherwise} \end{cases}$$

Equation (3). calculating degree of triangular fuzzy number for k other fuzzy numbers

$$V(M \geq M_1, M_2, \dots, M_K) = V[(M \geq M_1) \text{ and } (M \geq M_2) \text{ and } \dots \text{ and } (M \geq M_K)] \\ = \text{Min } V(M \geq M_i), \quad i = 1, 2, 3, \dots, k$$

Equation (4). calculating weights of alternatives and criteria S in paired comparison matrices

$$d'(A_i) = \text{Min } V(S_i \geq S_k) \quad K=1, 2, \dots, n, \quad k \neq i$$

Equation (5). this weight vector is not normalized

$$W' = (d'(A_1), d'(A_2), \dots, d'(A_n))^T \quad A_i (i=1, 2, \dots, n)$$

Equation (6). calculating final weight vector

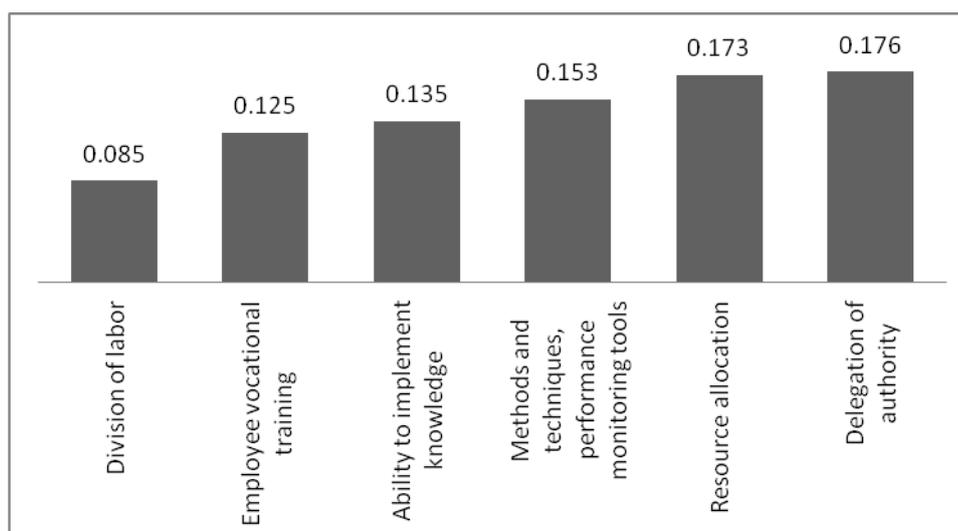
$$W = (d'(A_1), d'(A_2), \dots, d'(A_n))^T$$

RESEARCH FINDINGS

Technical group criteria suggest that delegation of authority and allocation of resources are the most important factors and finally division of labor is the least important criteria. Table 3 and figure 2 shows that all technical factors are based on priority and criteria weight. It is worthy of consideration that the weight of performance monitoring tools criterion is equal to that of methods and techniques.

Table 3: Weight and prioritizing technical criteria

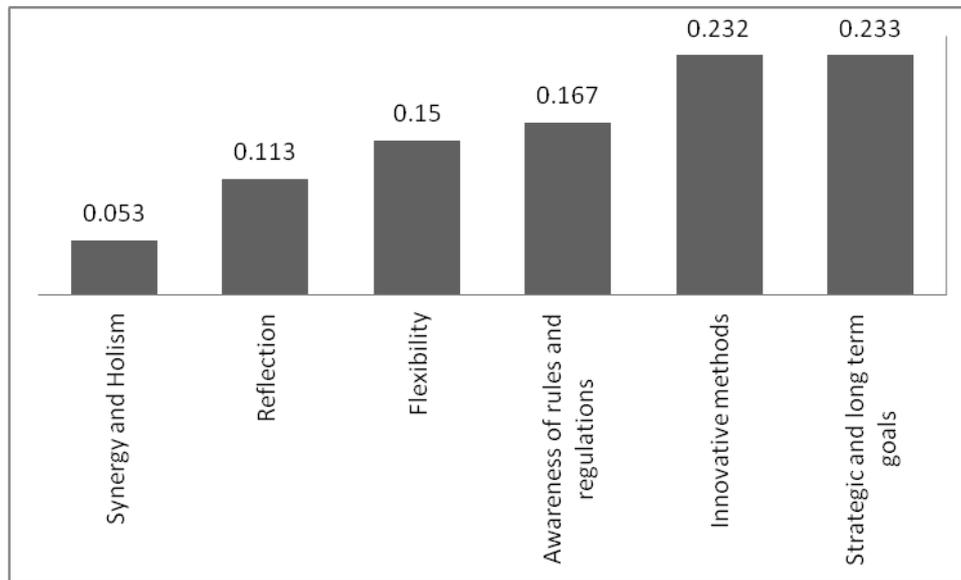
Technical Factors		
Criteria	Weight	Prioritizing
Delegation of authority	0.176	1
Resource allocation	0.173	2
Methods and techniques, performance monitoring tools	0.153	3 & 4
Ability to implement knowledge	0.135	5
Employee vocational training	0.125	6
Division of labor	0.085	7

Figure 2. Weight and prioritizing technical criteria

Conceptual group criteria suggest that strategic and long term objectives and innovative methods are the most important factors and finally synergy and holism are the least important criteria. Table 4 and figure 3 shows that all conceptual factors are based on priority and criteria weight. It is worthy of consideration that the synergy criterion is equal to that of holism.

Table 4. Weight and prioritizing conceptual criteria

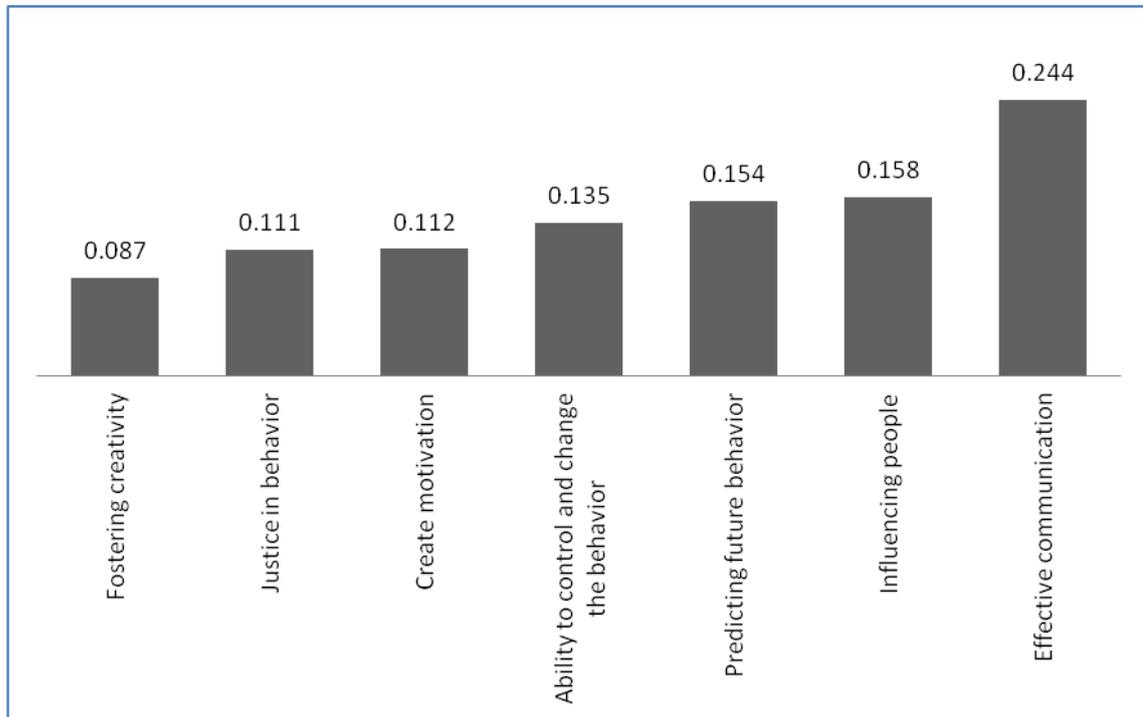
Conceptual Factors		
Criteria	Weight	Prioritizing
Strategic and long term goals	0.233	1
Innovative methods	0.232	2
Awareness of rules and regulations	0.167	3
Flexibility	0.150	4
Reflection	0.113	5
Synergy and Holism	0.053	6&7

Figure 3. Weight and prioritizing conceptual criteria

Human group criteria suggest that effective communication and influencing people are the most important factors and finally creating motivation is the least important criteria. Table 5 and figure 4 shows that all human factors are based on priority and criteria weight.

Table 5. Weight and prioritizing human criteria

Humans Factors		
Criteria	Weight	Prioritizing
Effective communication	0.244	1
Influencing people	0.158	2
Predicting future behavior	0.154	3
Ability to control and change the behavior	0.135	4
Create motivation	0.112	5
Justice in behavior	0.111	6
Fostering creativity	0.087	7

Figure 4. Weight and prioritizing human criteria

Based on the above said findings, stating the least important for a criterion doesn't mean that these criteria are not reliable or valuable but in fact it means that experts do not prefer these criteria to other factors.

DISCUSSION AND CONCLUSION

Managers' competency in management skills is one of the factors aiding to reach sustainable success in any organization (Jiang, & Li, 2008). Managers' effectiveness and efficiency requires having management skills and implementing these skills in various organizational situations and positions leads to achieving the objectives. Therefore, one can say that the manager, who has the required management skills and implements them in appropriate situations and conditions, is successful in fulfilling his duties and roles. Thus an important factor for being successful in management is management skill and ability to implement it properly (Mirsepasi, 1991, p.29). Research findings show that delegation of authority, allocation of resources, methods and techniques, performance monitoring tools, ability to implement knowledge; employee vocational training and division of labor have priority in technical level. Strategic and long term objectives, awareness of rules and regulations, innovative methods, flexibility, reflection, synergy and holism have priority in

conceptual level. Effective communication, influencing people, predicting future behavior, ability to control and change the behavior, fostering creativity, justice in behavior and creating motivation have priority in human level, respectively. The Ranking of triple management skills in Sports and Youth offices in Mazandaran Province shows that conceptual, human and technical skills are respectively ranked according to their importance in managers' performance evaluation. Based on research findings, it is proposed that in technical section, the authority to perform tasks be delegated to subordinates and also special attention should be paid to division of labor so as to enjoy more effectiveness in tasks. It is proposed that in human section, special attention be paid to creativity and innovation in order to be maintained dynamically in turbulent environment of organization. It is proposed that in conceptual section, organization pays special attention to systematic vision part of which is known as holism so as to be able to make best use of all available capacities. Finally, according to the overall research results, the following suggestions are proposed:

- Managers are recommended to pay special attention to conceptual skills in order to improve employee satisfaction and consequently improve their performance more than before.
- Developing strategic plans for offices regarding youth and sport ministry goals.
- Applying innovative and creative methods to resolve organization problems.
- More knowledge and more developed studies by managers to get aware of organizational rules and regulations.
- Applying flexibility, synergy, holism and reflection by managers more than before for the problems faced in offices.

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