

IDENTIFICATION AND RANKING OF OPERATIONAL MANAGERS COMPETENCIES

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ABSTRACT

Identification the managerial competencies of operational managers due to importance and special sensitivity of operational manager's actions, need for applying an integrated and scientific approach in selecting and developing of this group of managers as well as lack of comprehensive studies about required competency of operational managers is of importance. In the research literature, researchers described the concept of competency, its dimensions and approaches. Then to explain the competency model of the operational managers, paired comparisons questionnaire prepared based on FAHP method and was sent to 10 experts and operational managers and they were asked to indicate their level of importance. FAHP test results indicate that among the dimensions of technical, personal and communication competencies, technical competency has the most importance, individual competency gained medium importance and communication competency has the minimum importance. Then the parameters of each of these aspects have been analyzed.

KEYWORDS: Competency, competency of managers, operational managers.

INTRODUCTION

The most important element in an organization that effects on achieving goals is "management". Manager as the official representative of the organization for purposes of coordinating and enhancing the effectiveness posits at the top of his organization and success of the organization in achieving its goals, depends on the actions of his management. Success in this role and doing this heavy responsibility, more than anything, is related to the capability and effectiveness of managers. The effectiveness of the managers principally depends on their competency, skill, level of knowledge, insight and ability. Because of the importance of these factors in the success of managers, constant searching and sustained efforts is underway to find and train people who have this type of competencies, abilities and skills in order to make them effective managers and useful leaders (Khorshidi and Ekrami, 2011).

In the post-industrial era on one hand, we see the need for professional, expert and developed manpower for guidance and leadership of the organization as well as organizing expert activities and on the other hand we are witnessing the lack of supply of developed and professional manpower. Hence, we can conclude that today's main competition in organizations is recruitment of professional manpower and efforts to develop and enhance their capabilities. On the other view, along with changes and developments that have occurred in the business environment, pattern of supply, recruitment and manpower development has started to change quantitatively and qualitatively. Changes such as maturity and developed employees and the rise of knowledge powers in all fields, knowledge orienting of organizational processes and the need to develop knowledge at all levels of the organization, high Growth rate of new technologies, increased importance of social capital and human capital in the process of growth and development of countries, have caused the new management strategy focused on development of meritocracy. In fact, organizations movement towards the establishment of meritocracy system begins with respect to the fact that development of countries and organizations is associated with creativity and innovation of human resource development and Successful organizations are organizations which can attract the best people with the best ability and competency, foster them and use their services in the best organizational positions (Dergahi *et al.*, 2010).

This is exactly what that has caused in the competition environment, competency become important. Rapid Acceptance and spread of competency-based approach and the implementation of this approach in staff development programs, more than anything, is the result of advantages and utilities which lies in this approach (Yegani, 2010). Based on these findings, following sections will point to the position of competency and specially competency of operations managers.

THEORETICAL FRAMEWORK

Concept of competency

There are numerous expressions which are used for competency such as merit, capability, ability, capacity and skills. One of the well-known definitions of competency says competency is the combination of skills, personal characteristics and personality traits and behaviors that are directly related to successful performance in a particular job (Mousavi Sarizadi, 2007). In fact, there is disagreement about the principle of what can be called competency. Usually four properties have been suggested for competency:

- related to job or organization;
- positively associated with better performance of person or successful performance of role;
- definable as observable behaviors of the Job;
- assessable and trainable (Babaie zakili, 2007)

Today, required characteristics for success in business or superior performance are largely referred to competencies. In fact, competencies imply targeted behaviors that include the following elements:

- Knowledge and awareness: The job knowledge, information and expertise relevant to the job;
- capabilities or skills: the ability to perform tasks related to career goals;
- attitudes and values: preferences or subjective assumptions of person;
- Features: characteristics and quality of reactions to situations and people;
- motivation: intrinsic motivation and enthusiasm for acting;
- Self-concept: Perceptions of oneself;
- Social roles: perceptions of others from person (Dargahi *et al.*, 2010)

The current definition is of a comprehensive definition of competency that encompasses its various components. Figure 1 shows the components of the competency. This figure is the completed form of competency that has been taken from the Schabnover Associates.

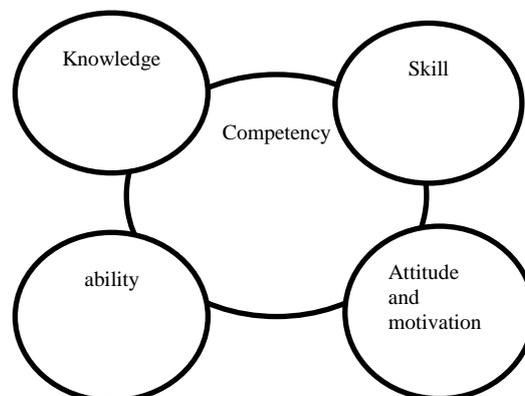


Chart 1: Competency component

Figure1. Components of competency

Knowledge: theoretical information - the oldest dimension of the competency- is the result of researches and studies of scientists. The development process of knowledge and Theoretical information, typically go through studying management often at university-level. Development of knowledge and information is fundamental structure for development of skills and attitudes and per se and by itself does not have much impact on the development of managerial competencies.

- **Skill:** Skill is the "ability of the implementation of science." Skill is acquired and developed through repeated application of knowledge in a real environment. Skill development leads to improved performance quality and without it, in many cases, manager's information would not have much impact on it. For example, no manager just by studying the teamwork skills and without experiencing and using the principles of teamwork can achieve teamwork skills in real

- Ability: Ability is a competence characteristic with large stability which makes it possible for a person to achieve maximum performance in physical and intellectual professions. In fact, ability and skill are equal and their difference is that skill is a particular capacity to perform works physically, but ability determines the capacity of performing intellectual work (Farahi Bouzanjani, 2005).

- Attitude: Attitude is the "mental image of human about the world and its surroundings". Mental Image of man is a framework that explains and forms his thought and action field. Human perception of phenomena around them and his decision to act is based on his mental image. The role of attitude which in fact shapes the human's perception is more important than knowledge and skill in management and process of creation and change of it is also more complicated than acquiring knowledge and skills.

Proposed approaches to competency

Researchers in the literature related to managerial competency, have introduced three main approaches:

- behavioral approach
- standard approach
- situational approach (contingency approach)

- Behavioral approach

In this approach, competency is introduced based on behavioral terminology and this approach, mainly, is introduction of kind of behaviors that are associated with excellent performance. This approach began with an article by David McClelland titled competency test rather than intelligence test, in 1973. Different patterns of this approach are based on the study of the behavior of elite performance. In this approach, competencies in terms of main personal characteristics, such as habits, personality traits, knowledge, skills and motivation of the individual in business and job which are normally associated with superior performance, are defined in different ways.

- standard approach

This approach, based on functional analysis of job or organizational position, introduces minimum performance standards of job in managerial positions to ensure certain quality of outcomes. This approach, principally is related to defining a minimum level of acceptable performance in a job or job position; It seems that this approach emphasizes on real output of job; it means that the focus of this approach is on the job not person who does the job. Necessary competencies for each job or position are identified based on the job task analysis process. Generally, this process means the identification of roles and key elements of job, accurate description of accepted standards and measures of job performance and ultimately Identification the kind of needed competencies to do the job in such a way that the standards are realized. This approach emphasizes on what is, not what it should be. Therefore, this approach determines the minimum level of acceptable performance in a job or position, not the level of excellence and superior performance. This approach has been developed in the last 20 years in UK and standards of it have expanded to almost 85 percent of the workforce. This approach has been much criticized and today's, businesses in the UK prefer more of using a behavioral competency models.

- contingency approach

This approach can also be subset of behavioral approach But focuses more on the fact that whether the situational (contingency) factors can effect on necessary individual competency for excellent performance? Common feature of researches and projects in the contingency (situational) approach is that all these studies emphasize on the importance of situational factors and their goal is introduction the relationship between specific situational factors and required competencies for better managerial performance. In this approach, some researchers have used the definitions of competency on the basis of behavior which can include behavioral approach too. But the difference is that the purpose of their study is more about exploring whether the situational factors impact on competencies required for high-performance? However, the authors of this approach emphasize more on cultures, values and quality of their influence on organizational performance. Typically, their research deals with assessing the values with culture and leadership style and organizational activities. With regards to the fact that understanding cultural diversity is very important for managers, these researchers have not dealt with excellent managerial performance in a specific manner (Dianati and Erfani, 2009).

Management definition

Management is the process of effective and efficient use of human and material resources in planning, organizing, mobilizing resources and facilities, guidance and control to achieve organizational goals based on the acceptable value system (Kuntz *et al.*, 1380).

Peter Drucker says the management task is marketing and innovation. However, recent literature recognizes major functions of management as planning, organizing, leading, recruitment and control. Some of resources removed recruitment in the above list and some have replaced coordination instead of that (Rezayian, 1383).

On the other hand, management in large organizations typically has three levels which this paper studies operational level:

- Operational Management (Supervision)
- middle management
- Top Management (Rezayian, 1383).

Operational Management

The word Supervision is formed of two words “Super” and “Vision”. By definition, supervisor refers to a person that steers and directs others and in organization, unlike other levels of management, directs non-manager persons. Therefore, operational management is the closest level of management to execution and operations in doing activities in the workshop or working scope and reports to middle manager (Seyd Javadin, 2006).

Conceptually, the operational manager is someone who is at the lowest level of the hierarchy of organizational management and Directly, without any Intermediate and Face to Face is working with staffs from various positions in a special unit of the organization; For example, with workers in workshop, with employees in office, with teachers and professors at a university and with soldiers in a garrison. It can be said that success or failure of First-line supervisors of units of any organization has a direct relationship with overall efficiency and productivity of the organization (Saljughi, 2006). In some sources, the supervisors are named as agents of change because if supervisors have the necessary knowledge and skills will be able to manage change and implements the objectives of the change and evolution in operational levels and base of organizational the pyramid. The most important point which propounds the pathology of production management system and human resource management is supervision. Supervisors can increase or reduce organization’s vulnerability (Seyd Javadin, 2006).

Operational managers spend more of their time with subordinates, some of it with colleagues and a little time with superiors or outside the organization (Rezayian, 2004). In fact, these managers are at the lowest level of the organization and are people who are responsible for other’s tasks which lead to call them first-line managers. The low-level managers, superintend employees who don’t do anything about management. Most often, low-level managers are called supervisor (stoner *et al.*, 2004).

Operational managers are busy; they often have to ply for monitoring, they must define specific job missions for their personnel and have to plan operational, detailed and short term program. Contrary to perception, studies suggest that functional managers, spend a little time to planning, reporting, reading, commenting and reviewing. Most of their time is spent with their workers and spend a little time with people outside the organization or Senior managers. These managers communicate quite well with their work environment and solve their problems. In fact, they work in the line of fire, where the operation takes place (Mousavi Sarizadi, 2007).

However, operation management is a general term which embraces both manager and production supervisor at an institute or workshop as well as manager and service supervisor at a service organization. Both managers do operations to attain the objectives of their organizations which is providing services and products and both of them, regardless of the type of service or product, are operational and executive manager and supervisor (Saljughi, 2006). In all titles of supervision, the following common concepts can be perceived:

- Supervisors have several employees and workers who report to them.
- Work done by Supervisors through their subordinates.
- Supervisor’s efforts are toward achieving the objectives and performance indicators which are determined by the top and middle managers.
- Their work is objective, operational and administrative (Seyd javadin, 2006).

Levels of management competency

In the competency literature, competency system consists of three levels of individual, organizational and strategic.

-Individual level:

Competency in this level includes potential knowledge and skill, capacities (abilities) and capabilities of staff.

- Organizational level:

Competency includes a special method of combining different sources with each other. In other words, competency involves mutual combination of knowledge and skills of staff with other resources, such as systems knowledge, current affairs, procedures and technological products.

- Strategic level

What is meant by competency is create and maintain a competitive advantage, through a specific combination of knowledge, skills, structures, strategies and processes (Dianati and Erfani, 2009).

Studies and researches that have been done in the area of managerial competencies have precisely focused on what set of knowledge, skills, behavioral characteristics and personal attributes managers require for effectiveness in doing tasks? Charls Woodruffe has done several studies on competency of managers. He concludes that competency is used for effectiveness in carrying out job (Naderian and Jahromi, 2002). It should be noted that competency approach in human resource management is not a new approach. Ancient Roman in an attempt to provide the characteristics of a "good Roman soldier" applied a form of competency. Introduction of competency-based approaches in the organizational environment begins from the 1970s, and since then, had a rapid development and application. Employment and Training Administration of United States Department of Labor (2010) has proponed the below model:

- **Effective Personal competencies:** Including communication skills, integrity, professional trends, reliability and trust, long-term Educability
- **Academic qualifications:** including scientific, basic computer skills, mathematics, reading, writing, listening and speaking skill, thinking and analysis skills, information literacy;
- **Competencies of workplace:** include Business principles, teamwork, capacity building and flexibility, focus on customer and marketing, design and organizing, decision making and problem solving, working with tools and technology, and reporting;
- **Technical competencies in a range of industries:** Include process of production development and design, production, maintenance and installation and Repair, supply chain logistics, quality assurance and continuous optimization, green manufacturing and maintenance, safety of environment.
- **Technical competencies of industry:** Include managerial competencies, specific requirements of employment.

On the other hand, department of Industry, Innovation, Science and Research of Australia (2012) described that job skills requirement for operational managers include communication skills, cognition and accuracy in reporting issues, organizing skills, teamwork skills, technical skills and use of technical ideas and techniques. This department states that successful operational managers should have the 4 below features:

1. Personal characteristics
2. Behavioral skills
3. Business Skills
4. Technical Skills

Indeed the distinctive features include a wide range of competencies and natural abilities and personal skills such as flexibility, leadership, communications, discipline, organized, certainty, negotiation and consultation.

However, Barry and Posner (1987), argues that three necessary skills for operational managers are analyzing and problem solving, effective communications, and strong initiative and leadership. Farnham and Steven (2000), have expressed that competency requirements of operational managers include organizing skills, result oriented, teamwork, relationship development, performance management, development-oriented, influencing others, self- awareness and responsibility.

Michelle Robinson in his study in 2009 argues that essential competencies for operational managers include skill of problem solving using formal engineering methods, ability to learn and be calm and focus in critical condition, excellent communication skills, self-regulation, organized and professional behavior, ability to participate in necessary meetings and present the results and understand customer needs. He believes that a successful operational manager needs to deeply understand his customers which require understanding and perception of customers' satisfaction. By knowing what will make customers happy, we are able to communicate with them and guide our subordinates on how to satisfy customers' needs. Robinson suggests that required competency of operational managers are following:

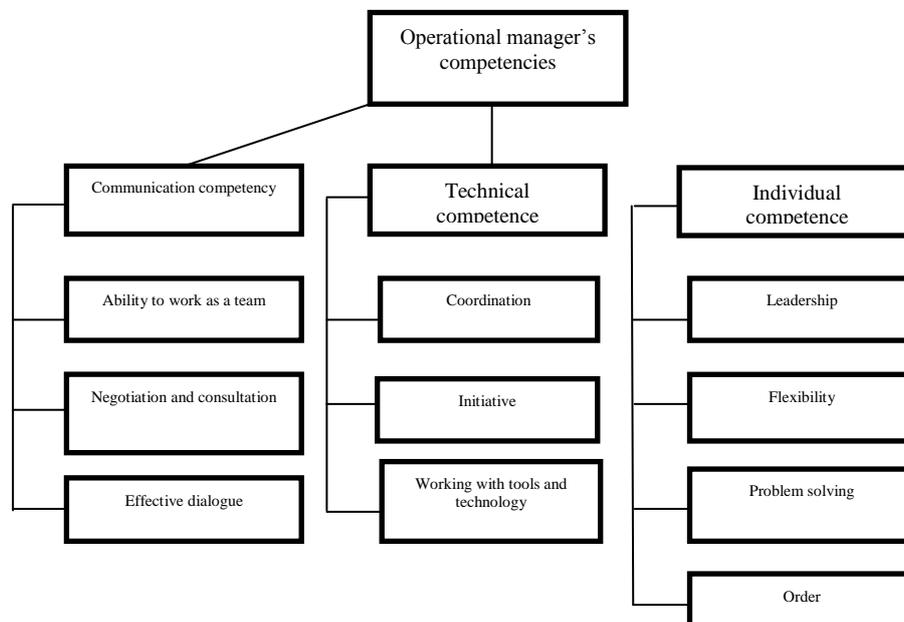
- Effective Communications
- Understand the organization's financial performance
- motivate the team
- Tracking and measuring performance of employee
- Create a learning environment.

Moreover, according to Sohal *et al.* (2004), operational manager skills include the following:

Dimensions	Definition	indicator
Teamwork	Working with others to accomplish tasks	
Planning and organizing	Planning and prioritization of tasks	Compatibility Flexibility Time Management
Creative thinking	Providing innovative solutions	
Problem solving and decision making	Use of critical thinking skills to solve the problem	Identify the problem Create alternative Select and implement solution
Work with tools and technology	Select, use and maintain tools and technologies to facilitate activities	Selection and application Up to date Care and Maintenance
Study, test and record	Entry, transcribing, recording, storing and maintaining the information	
Business Principles	Knowing the basic business principles, methods and economics	Awareness of the condition Entrepreneurship Project Management Focus on the Customer Business Ethics

1. The conceptual model:

As can be seen in the previous section, in researches conducted by previous researchers, three levels of personal, communication and technical competency is common in almost all results. Indeed each of these levels are divided to other common indicators. Thus researcher, based on past researches and discussions with experts in this field, has designed the following model of competency:



Conceptual definition of indicators

Indicator	Definition	Reference
Leadership	Action to encourage others to try looking for goals	(Rezayian, 2011)
Flexibility	The ability to adapt to a changing environment and the position of thought and behavior are considered.	
Problem solving	Attempt to find and implement solutions to improve the situation	
Order	Tool to create the desired behavior and prevent undesirable behavior	(Robbins, 2011)
Coordination	The process by which all constituent parts of a whole are combined for a common purpose.	(Rezayian, 2011)
Initiative	The process of converting new ideas into action	
Working with tools and technology	Effective use of the tools and technology to transform inputs into outputs	(Robbins, 2011)
Ability to teamwork	Dominant team effort in which the overall performance of the functions of each individual is greater.	
Negotiation and consultation	A process in which two groups to exchange goods or services, and any attempt to satisfy their interests.	
Communicating effectively	So that one can listen to the speaker's intention actively and to reap the judgments and prejudices understand.	

METHODOLOGY

The present study is an applied research and in terms of data collection and analysis, is a descriptive-survey research. Data collected from library and field survey. The research population consists of operational managers of industrial factories And since, according to Thomas L. Saaty and other researchers, the small sample size of FAHP does not make a problem, a sample of 10 experts and managers were selected.

RESULTS AND DISCUSSION

After formation of the hierarchical structure of the research framework, a paired comparisons questionnaire was provided and distributed among 10 related experts in order to prioritize the factors and variables of research. In AHP method, after collection of expert's opinions in form of the paired comparisons and combining these views through geometric mean, consistency of judgment matrix is examined using rate adjustment in order to ensure the consistency of paired comparisons and in absence of consistency, questionnaire got returned to respondents for revision.

Table 1 shows the results of rate adjustments of matrices of paired comparisons of different expert views.

Table 1 - rate adjustments of matrices of paired comparisons of different expert views.

Matrix integration	10	9	8	7	6	5	4	3	2	1	Certified CR
0.001	0.071	0.033	0.033	0.00	0.00	0.00	0.00	0.00	0.071	0.056	Operational manager's competencies
0.001	0.057	0.033	0.033	0.00	0.071	0.00	0.00	0.00	0.057	0.071	Communication competency
0.00	0.00	0.025	0.00	0.057	0.057	0.057	0.00	0.00	0.071	0.070	Technical competence
0.001	0.00	0.00	0.044	0.00	0.062	0.044	0.00	0.028	0.033	0.044	Individual competence

To calculate the final weights of each of the elements in the context of research, first we calculate the aggregate matrix of expert opinions through the geometric mean of expert's opinions. After normalization of the matrix, the importance degree of each element is calculated. Final results weights of dimensions and variables listed in Table 2 and 3.

Table2. Importance degree of research Components

Components	Variables	weights
Managerial competency	Communicational	0.184
	Technically	0.547
	Personally	0.269
Communicational competency	The ability of teamwork	0.589
	Negotiation and consultation	0.254
	Effective dialogue	0.157
Technical competency	Work with Tool	0.325
	Initiative	0.161
	Coordination	0.514
Individual competency	Leadership	0.273
	Flexibility	0.117
	Problem solving	0.340
	Order	0.271

Final weight of variables is calculated by multiplying their weights by the weights of original dimensions:

Table 3. The final weights of research variables

Dimension	The final weights	Variables
Communicative competence	0.108	Ability to teamwork
	0.047	Negotiation and consultation
	0.029	Communicating effectively
Technical merit	0.178	Tool
	0.088	Initiative
	0.281	Coordination
Individual merits	0.074	Leadership
	0.031	Flexibility
	0.091	Problem solving
	0.073	Order

CONCLUSIONS AND SUGGESTIONS

Peter Drucker, the father of modern management in the last years of his life, counts the most important competitive advantage of the 20th century, "human capital". In other words, in the twenty-first century competitive advantage is for organizations which in competitive market can better attract, nurture and maintain a diverse group of people with the best and brightest talent than others. In present day, the position and role of manager as planners, directors and administrators of organization is represented; application of Effective selection systems, appointment, training and development of managers is also important. Competencies methodology, offers a new look for designing the integrated system in selection, appointment and training of managers. This study aimed to identify the required competencies of operational managers and its results can be used in organizations.

According to results of Tables 2 and 3, among the dimensions of manager's competency, technical competency by weighing (0.547) is the most important factor. Individual (0.269) and communication (0.184) competencies are on the next priority. In expert opinions, among the variables of communication competency: factor of teamwork ability (0.589), technical competency: coordination factor (0.514) and individual competency: problem solving (0.340) obtains the highest importance. Indeed, according to the results of Table 3 coordination, teamwork and the ability to work with tools variables with weights of (0.281), (0.178), (0.108) respectively have gained first to third degree of importance.

According to the results the following is suggested:

1. Given the importance of development of managers, particularly operational managers, the competency model obtained in this study can be used in Development programs of operational managers in organizations;
2. To assess the capabilities of candidates for managerial positions in order to make decisions relating to recruitment and promotion of operational managers, it is recommended to utilize the results of the research in the evaluating center;
3. The designed model of this research can be used as a tool for education and nurture of managerial competencies.

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