A competency model for general health managers
(Case: Iran medical of health and education)

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Abstract

Inevitably, it is essential to identify variant dimensions and indexes of managers' adequacy. This problem is considered as the core of this study. This research makes use of qualitative method and interview. As for sampling, after interviewing 12 participants, this research reached saturation point where repetition was observed. Thematic analysis was utilized to encode data, which resulted in eight dimensions: general knowledge and awareness, intelligence and talent, values and attitudes, personality traits, communication skills, decision-making skills, leadership and management abilities. Moreover, some sub-themes concordant to the related literature were found. Findings of the present study suggest the argument that in order to determine every individual's adequacy positions should be aptly identified by proper procedures firstly. Then, an appropriate competency model in line with the organization should be developed. In addition, such a model needs to fit with the structure of the organization and its positions and strategies.

Keywords

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Introduction

Due to both environmental changes and the arrival of new structures, job analysis approaches cannot keep up with today's dynamic place. These approaches used to include job description and job specification in order to establish fundamentals for the job in question. However, job analysis had two limitations. First, traditional job analysis could not measure employee's performance output or results which show basics of job success. Second, traditional job analysis is becoming obsolete since job activities quickly change in dynamic environments (Lee *et al.,* 2010, p.72).

Given that, the replacement for traditional job analysis i.e., competency model is able to focus on essential competencies for successful performance of a job, team work, section, or organization in a way that in a dynamic environment it can solve organizations' problems. Although some experts believe that job analysis and competency model are the same with regard to their subject, they are different in their processes (Shipmann *et al.,* 2000, p.703). These two are different in at least six dimensions. Describing behavior is the purpose of job analysis. To do so, it sees job as external object to be described, concentrating on job rather than organization. In addition, traditional job analysis has a retrospective analysis approach that has been concentrated on the typical level of performance. Latent trait forms its approach to measuring. On the other hand, the competency model's purpose is to influence behavior. It sees job as a role that needs to be established, focusing on organizations. Its time orientation is based on future and seeks maximum performance. Furthermore, its criterion for measurement is clinical judgment (Sanchez *et al.,* 2009, p.54).

Traditional development strategies and job selection are less flexible when compared to competency-based ones. One of the strengths of competency models is that they are often related to business purposes and organization's strategies (Rodriguez *et al.,* 2002, p.313). These differences demonstrate that in order to remedy the defects of job analysis in organizations with strategic approaches;

Suitable competency models should be used to match the dynamic environment, hence being in line with the strategies of organizations (Sanchez *et al.,* 2009, p.53).

Considering the governmental nature of them, the country's ministries need to be both efficient and effective in every aspect. Managers aware of public advantages and competent enough to provide citizens with:

- Required services seem to be a prerequisite in this regard. On the other hand, lack of such managers in big organizations can result in public dissatisfaction and waste of sources. Taking the above-mentioned arguments into account, the present study sets out to develop a competency model for general managers of such organizations via overcoming obstacles, coordinating general managers' performance with organization's strategies, and effective management of working under them. With regard to the mission and goals of the ministry of health and medical education, it seems vital for this ministry to have managers who direct the staff and resources in an efficient and effective manner. To this end, identification of competencies for recruiting and selecting as well as training and developing are absolutely crucial. Taken together, it still rises the question how a model for managers' competency can be determined in order to overcome the limitations of job analysis, hence improving the managers' performance.

- Due to cultural differences and in order to adapt and localize the existing models in literature, many researches have been conducted on the models of management competency in Iran. Pour-Karimi & Sedaghat (2014) identified elements of managers' competencies after interviewing with 16 managers and entrepreneurs. Taleghani *et al.* (2010) developed a human resources competency model for imam of the mosque, mosque administrators and prayers (Salah). Nasehi-far *et al.* (2010) investigated capabilities and competencies of managers in the ministry of commerce of Iran. Dargahi *et al.* (2010) presented a managerial competency model for cultural management in

Tehran municipality. Hassani (2014) introduced a structural model for core competency assessment for Urmia University faculties. Abdullahi *et al.* (2014) identified a model for teacher's professional competencies. Ranjbar *et al.* (2013) presented a conceptual model for middle manager's competences by structural equation modeling in health care sector. Their research method was quantitative and descriptive and they used a questionnaire of 63 questions for measuring manager's competency.

- Despite the dense literature on the subject (McCredie & Shackleton, 2000), none of the previous studies focused on general managers, especially in the ministry of health and medical education of the Islamic Republic of Iran .

- General managers rank between minister's assistants and operational managers in a ministry. They coordinate their relations between them and are responsible for making crucial decision for their respective general office, and present their reports quickly and accurately to minister's assistants. So, their performance is of high consequences for a ministry's effectiveness and efficiency.

Literature Review

Given the challenges and the opportunities at hand, such a role of managers as an essential source for solving problems in organizations is highlighted even more (Eisenhardt & Graebner, 2007). One of the novel approaches with the purpose of training and developing managers is making use of competencies for designing management development programs (Swayne *et al.,* 2012; Tebes *et al.,* 2011).

According to the resource based view (RBV), organizations differ depending on their resources (including tangible and intangible resources); and therefore they have a different competitive situation. Figure 1 provides a better understanding for this perspective and the hierarchical of organizational competencies that are the basis of this theory (Saedi & Yazdani, 2009).
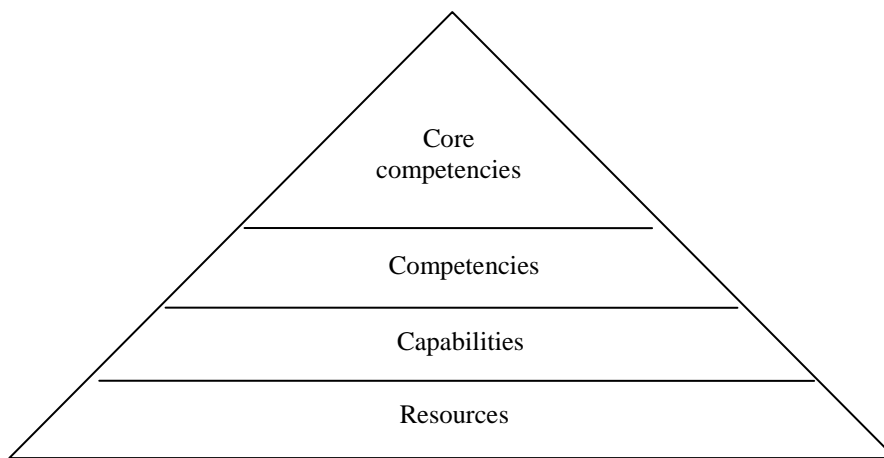
**Fig. 1. Hierarchy of competencies in organizations
(Saedi & Yazdani, 2009).**

Organizations need Core competences for achieving excellence and maturity. Core competencies are derived from the organizational capabilities. Also, based on resource based view (RBV), competences are considered as intangible assets. They help organization to acquire competitive advantage. Competent managers are critical to achieve organization strategy (Saedi & Yazdani, 2009).

The simple meaning of the word 'competence' defined as 'the ability to do something well or successfully' (Young & Conboy, 2013). In the other hand, the term 'competency' was used in a study by Boyatzis for the first time, the purpose being to identify the features which would distinguish average management performance from an excellent one (Wickramasinghe *et al.,* 2011, p.2982).

Individual competencies can be defined as input or output of human behavior. When considered as output, competencies are demonstrated by the staff as the extent to which their jobs are introduced and added to predetermine job standards. When considered as input, competencies consist of branches of knowledge, attitudes, and skills which influence individual abilities when it comes to doing things (Wickramasinghe *et al.,* 2011, p.2983).

Generally, management competencies are the opposite of operational competencies. Management competencies relate to interpersonal relations such as coordination, planning, motivation, and

practice management. Management competencies cover management responsibilities. They fall into five main categories which are usually presented in organizational behavior, planning, organizing, control, motivation, and coordination.

Management competencies can be general in the sense that they can be defined for every management job or particular organization which is related to management and management relations. Taking the discussion noted above, classifications of competency have resulted in eight items:

1. General management behaviors,
2. General management skills,
3. General operational behaviors,
4. General operational skills,
5. Management behaviors of a particular organization,
6. Management skills of a particular organization,
7. Operational behaviors of a particular organization,
8. Operational skills of a particular organization.

This categorization presents a scale for analysis in the sense that it can be used as a framework to identify, classify, understand, and balance those complicated patterns of competencies which are in constant swing between more specific and more general. A comprehensive competency model should be the summation of the competencies that are essential for an organization to achieve its goals, including minimum competencies specific to an organization, basic skills description, and behaviors of both manager and employee levels. General competencies can be insightful and useful in the designing stage for a specific model (Soderquist *et al.,* 2009, p.333).

Competency may be regarded as a tool for description which identifies skills, knowledge, personal features, and required behaviors for effective practice of a role in an organization and helps strategic business goals to be met (Lucia *et al.,* 1999, p.5). Competencies satisfy the dynamic and continuously changing demands of organizational environments. Therefore, competency models are instruments to deal with changes in organizations (Gangani *et al.,* 2006).

Mount used management skill profiles to measure the competency of 250 managers. Three dimensions of competency were found. Namely interpersonal, managerial, and technical skills.

In 2000, the American Management Association (AMA), trying to gauge 921 managers' ideas on management skills and competency, divided management competency into four dimensions: 1. Perceptual skills, 2. Relation skills, 3. Effective skills, and 4. Interpersonal skills. Wangchongming established the competency-based development and management on an intercultural ground having four dimensions:

1. Cultural competency which included cultural adjustment and managerial relation,
2. Success competency including the organization's ability, control ability, and success management,
3. Decision-making competency consisting of risk and responsibility as much as complicated decisions,
4. Team competency including group compatibility and the ability to use team resources. In this view, management training programs can be designed via developing intercultural team leadership competency model (Xuand Wang, 2009).

Van Golder describes three views of competency: first, competency is a basic individual feature (the optimal input approach in the US); second, competency has to do with standards or consequences (specified output model in England); and third, competency is known as both input and output related to behavior or attitudes (Irwin, 2008).

Types of competencies

Carroll *et al.* (1998) introduced competencies in four main categories:

1. Key competencies,
2. Team competencies,
3. Functional competencies, and
4. Leadership and management competencies.

Some other competences include: individual competencies, professional competencies, general competences, core competencies, etc. (Carroll *et al.,* 1998, p.46).

Developing managerial competency model

Morelli *et al.* (2005) describes competency modeling process in three interrelated steps:

Step 1. Defining the objectives (through answering some important questions),

Step 2. Planning the methodology,

Step 3. Identifying the competencies and creating the competency model,
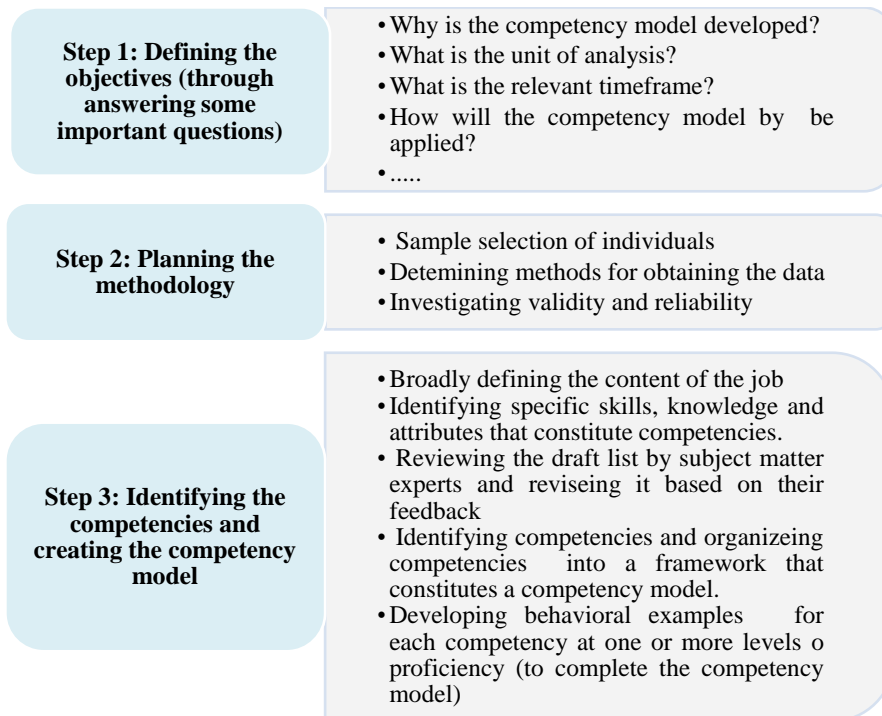
These steps are illustrated in Figure 2.

Step 1: Defining the objectives (through answering some important questions)	• Why is the competency model developed? • What is the unit of analysis? • What is the relevant timeframe? • How will the competency model by be applied? • .....
Step 2: Planning the methodology	• Sample selection of individuals • Detemining methods for obtaining the data • Investigating validity and reliability
Step 3: Identifying the competencies and creating the competency model	• Broadly defining the content of the job • Identifying specific skills, knowledge and attributes that constitute competencies. • Reviewing the draft list by subject matter experts and reviseing it based on their feedback • Identifying competencies and organizeing competencies into a framework that constitutes a competency model. • Developing behavioral examples for each competency at one or more levels o proficiency (to complete the competency model)

Fig. 2. Competency modeling process

Also, Smutný *et al.* (2014) describes the process of creating a generic managerial competency model. They proposed qualitative methods for designing managerial competency model.

Some Iranian researchers developed a managerial competency model in Iran. Pour-Karimi & Sedaghat (2014) identified managers' competencies with mixed method. They gathered their models'

elements by interviewing with experts. Taleghani *et al.* (2010) presented a human resources competency model. They used the Delphi method for developing their models.

Nasehi-far *et al.* (2010) investigated managers' competencies in the Ministry of Commerce of Iran by a descriptive-survey research method. Dargahi *et al.* (2010) and Abdullahi *et al.* (2014) presented an applied model for measuring managerial competency in their research. They used a descriptive-survey research method, too.

Research Method

This article attempts to outline the procedure for performing a thematic analysis (Grounded Theory Oriented). Collecting data by a semi-structured interview. In the current study, after reviewing a variety of competency approaches, the prospective competency study design based on Rothwell (2005) was chosen. In the beginning, complimentarily competency was awareness to interviewees and then by expression questions (according to the definition of merit Boyatzis) such as: What competencies are required to do admirable things for general managers? Was introduced and for each question based on their answer follow-up questions were asked in the following.

General managers of the Ministry of Health and Medical Education of Iran formed the participants of this study. Lincoln & Guba state that in a carefully directed study in which sampling has been done in an evolutionary manner, with around 12 interviewees saturation point is reached and most probably it won't exceed 20 (Maykut & Morehouse, 1994, p.63). In this study, among 24 general managers of the ministry, saturation point was reached after interviewing 12 managers. What's more, to ensure this, the minister's assistants who had higher ranks were also interviewed. All in all, in sampling phase considerations such as time, accessibility of interviewees, and their degree of cooperation were taken into account. So, the "purposive sampling" was used as non-probability sampling method.

Reliability and validity in qualitative method

In the 1980s, Lincoln & Guba proposed the concept of

"trustworthiness" as an alternative measure for reliability and validity in order to increase scientific accuracy of qualitative researches (Danaeefard & Mozaffarii, 2008); while others concentrate on the validity and reliability measurement in qualitative methods (Merriam, 2009).

In this study, Constant Comparison Method is used to measure the validity. Member Check is used for reviewing the issue and the context of the research by the interviewed group, and Discriminative Group is also used to confirm the validity of results.

To ensure the reliability of transcription, two people are used to be consistent in their contents. In categorizing the interviews, paying attention to the percentages reported by two coders is a way of ensuring the reliability of analysis. The degree of agreement of two coders on the content (60% or more) in an interview (analysis control) is another way of determining the reliability of analysis (Kvale, 1996, p.237). This procedure will be discussed later. In the study at hand, to calculate retest reliability, three interviews which were better were selected and each of them after a 15-day interval was codified by the researcher again.

Retest reliability of the interviews of this study is 81.5%. Considering Kvale's criterion (more than 60%), coding reliability is confirmed.

Intercoder reliability (ICR)

The total number of codes recorded by the researchers is 240, the total agreement between them is 180, and the total disagreement is 60. Intercoder reliability of interviews conducted in this study is 75%. Since this percentage is more than 60, coding reliability is confirmed. Therefore, it can be claimed that the reliability of the analysis of interviews is acceptable.

Validity in qualitative method

In a qualitative study, validity refers to the degree to which the researcher's observation has been able to reflect the process in question or its related variables (Kvale, 1996, p.238).

Overall, when it comes to interviews validity should be considered

in each of seven phases of research in order to make the results dependable and credible.

As for choosing a subject for research, theoretical basics and background research on competency in general and managerial competency in particular were investigated. Then, research questions and sub-questions were posed based on previous theoretical studies. In design phase, after reviewing related books, articles, theses (both local and foreign), and using expert opinions, the best possible design was selected. When interviewing, the researcher asked questions, took notes, and behaved similarly all along to ensure the reliability of interviews. With regard to transcription phase, having taken down some notes during the interview, all transcriptions were electronically completed afterwards, hence ensuring the reliability of this phase. In analyzing the interviews, the order of questions was in a reasonable way. First, the subject of the study was explained to the interviewees; then, the required answers were elicited by the main questions which had been suitably designed.

Also in confirmation phase, due to using two ways of determining reliability i.e., content agreement and retest reliability along with that of five phases above, the reliability of this study can be confirmed.

Since validity in reporting suggests if a particular report is a reliable estimate of research findings, this study has tried to both take the reporting stages step by step and keep them clear.

Data Analysis

In this study, themes analysis is applied to analyze the data from interviews. Thematic analysis is a way of locating, analyzing, and reporting the themes present in a set of data. In its minimum, thematic analysis organizes the data and describes them in detail. However, it can go further and interpret different aspects of a research subject (Braun & Clarke, 2006, p.78).

Thematic analysis has six stages: 1. getting familiar with data, 2. creating primary codes, 3. searching themes, 4. defining and naming themes, 5. revisiting themes, and 6. preparing a report.

As the next step, the number of codings which has been obtained

by thematic analysis, its table including main themes and sub-themes and resulted eight dimensions are described. First, each dimension is presented in a table, and then those themes extracted from interviews through coding are presented. Interviewees' statements are written in the next section to clarify each theme. Interviewees' words are separated by the number of interview and quotation marks. It is worth mentioning that table 348, codes, and 50 discovered themes are completely included in Appendices.

Based on available definitions in related literature, the first dimension is called "general knowledge and awareness". In this dimension, seven themes are discovered, each of which is extracted based on processes mentioned above.

Knowledge is a body of conceptual, real, and procedural information which can be directly used for functional operations (Dubois *et al.,* 2000). In another study, knowledge is defined as findings and fundamental information about management, implying a condition in which a manager understands business and has a good knowledge of basic findings surrounding business such as short-term and long-term goals, knowledge increasing, and relations between different sections.

Scaperlanda (1996) argues that technical knowledge includes law making, management techniques, and financial resource or basic knowledge as background to fundamentals of management which encompass planning, organizing, and controlling.

Seven sub-themes discovered by thematic analysis are illustrated here.

Table 1. Themes related to general knowledge and awareness

Main theme	Subthemes	Interview No.
General knowledge and awareness	Job experience and background	1 , 5, 7 , 8, 9, 10, 11, 4
	Specialty and position congruency	3, 5 , 7 , 4
	Updated knowledge	2, 5 , 3, 8
	Familiarity with job, processes, organizational relations (being a generalist)	4, 7, 2, 1, 9
	Knowing rules related to work area	7
	Knowledge of IT	1,7
	Creating an atmosphere for nurturing talents and meritocracy	6, 5 , 9

Job experience and background

"A manager's background should be congruous with his work area" (6th & 11th interviews), consist of education and the experience of individuals. For instance, if a person who is at the level of a health care university, a sanitation and care center, sanitation networks, and different remedial stations of a province does not have enough experience, "Ministry of Health and Medical Education of Iran" won't accept that person for the general manager position. This is because such a person does not have the required experience of administration due to the fact that he has not gone through organizational hierarchies (9th interview). "A manager who has experienced different levels of an organization is different from the one. "Ministry of Health and Medical Education of Iran" has trained the one who has not experienced that" (8thinterview). "University degree is not an indication of merit, but rather, suffering vicissitudes of work is of significant importance" (1st interview). "…should go up step by step and work in positions related to that (5th interview). "To become a general manager overnight is not appropriate" (7th interview). "He needs to be middle-aged, I mean, between fifty and fifty-five" (4th interview).

Specialty and position congruency

"Managers should possess the specialty congruent with their positions, that is, congruence between major and position and being aware of all the breakthroughs around the world. Technical knowledge means when a person is in charge of the sanitation of the environment, he needs to know the needs of society and relevant improvements. The most important aspect of a manager is his knowledge" (3th interview). "Should have knowledge competencies in a sense that he is knowledgeable in the area of his responsibility. For example, one who wants to become the dean of student affairs is expected to be completely familiar with issues related to students so that he will be able to understand students' problems. In other words, he needs to have the required knowledge for the position he aspires to get at his disposal. If he is not a university graduate, he has the specific

knowledge and information for that job at least (4th interview). "Having technical information to a great extent" (5th interview).

"He should major in the related field. For instance, a manager who manages the laboratories of a country needs to have specialty related to laboratory" (7th interview).

Based on available definitions in the literature, the second dimension is called "intelligence and talent". Five themes in this dimension are extracted from the contents of the interviews.

Table 2. Themes related to intelligence and talent

Main theme	Subthemes	interview No.
Intelligence & Talent	Mathematical-logical intelligence	11, 2, 3, 6
	Cultural intelligence	4, 8
	Interpersonal intelligence	5
	Emotional intelligence	4, 6
	Spotting trickery	7

"Intelligence is the knowledge and idealy foreknowlege sought by nations in response to external threats and to protect their vital iterests, especially the well-being of their own people" (Warner, 2002, p.18).

Based on definitions in the literature, the third dimension is called "values and attitudes". Two sub-themes in this dimension are discovered.

Table 3. Themes related to values and attitudes

Main theme	Subthemes	Interview no.
Values & Attitudes	Respecting social values	6, 7, 1, 2, 3, 8
	Idealistic goal-setting	2, 10

Kim *et al.* (2011) argue that in turn, attitudes were found to influence behaviors. Also, they refer to the "value" as an enduring belief that a specific mode of conduct or end-state is personally preferable to its opposite.

The fourth dimension, based on the related literature, is called "personality traits". Ten sub-themes that was extracted from the interviews is shown in Table 4.

Table 4. Themes related to personality features

Main theme	Subthemes	Interview no.
Personal traits	Being suitably attired and organized	1, 9
	Following moral codes	8, 1, 5, 10, 7, 9, 6, 2
	Having a strong sense of justice (justice-oriented)	10, 5, 1
	Being active and agile, effective and efficient	4, 8, 9
	Being law-abiding	2, 5, 1, 4
	Responsibility, authority, and liberty	6, 2, 5
	Self-sufficiency (self-efficacy)	8, 9
	Being open to criticism	6, 5
	Patience	3, 9
	Ambition	10

Personality traits are those characteristics distinct from personalities; besides, thinking is considered as the relative patience of an individual (Dubois *et al.,* 2000).

The fifth dimension, drawing upon the available definitions in the related literature, is called "communication skills". Seven sub-themes are extracted from the interviews discussed.

Table 5. Themes related to communication skills

Main theme	Subthemes	Interview no.
Communication skills	Speaking and listening skills & effective listening	1, 6, 7
	Team orientation	6, 7, 2
	The ability to interact with other sections and organizations	5, 8, 10, 4, 9, 3
	Creating a learning atmosphere in subsets	1, 2, 6
	Rallying support	4
	Interest in solving customers' problems	9
	Organizational acceptance	1, 8, 9

Skill, dominance, ease or dexterity which is gained through experience, education, art, trade, or technique necessitates using hands, body, or mind (Dubois *et al.,* 2000).

"Communication skills have been categorized in a variety of ways. There are some main functions of communication between physicians and patients, and for each function there are specific skills that enable a productive conversation. These functions are fostering healing

relationships; exchanging information, such as what patients want and need; responding to patients' emotions; engaging in informed and collaborative decision making; and enabling patient self-management. Each requires a set of specific communication skills" (Levinson, Lesser & Epstein, 2010).

Social skills and abilities- Bargone and Stewart refer to interpersonal skills as a key job feature of managers. A successful manager needs to practice a range of skills such as communication, delegation, negotiation, paradox resolving, encouraging, power and authority using as various other skills necessary for interpersonal activities (Scaperlanda, 1996).

The sixth dimension, taking into account the available definitions in the related literature, is called "decision-making skills". Five sub-themes are extracted from the interviews.

Table 6. Themes related to decision-making skills

Main theme	Subthemes	Interview no.
Decision-making skills	Collaborative decision-making	6, 8, 4, 3
	Systematic view	5, 1, 2
	The ability to comprehend and convey issues	8, 4
	Accuracy and speed in decision making	1, 5, 2
	The ability to face challenges and mount them	5, 8

Skill is "the ability to deploy knowledge in practice". Skill is gained and developed by repeating knowledge usage in real environment. Skill development without which the managers' information won't be that effective results in the improvement of operation quality. For instance, no manager can acquire team work skills without using and experiencing its principles in practice. Problem-solving and decision-making skills: a manager needs to make a number of decisions. Sometimes he can use reasonable applications as well as optimization techniques. However, there are times when he uses his understanding of advantages and disadvantages of ambiguous or uncertain situations that need high levels of judgment or even intuition. Thus, a manger should develop his judgment skills.

The seventh dimension, considering available definitions in the literature, is called "leadership abilities". Five sub-themes are extracted from the interviews discussed above.

Table 7. Themes related to leadership abilities

Main theme	Subthemes	Interview no.
Leadership abilities	Leadership and guidance role	5, 2, 10
	Helping subordinates mature and develop	4, 7, 2, 1
	Motivating by encouragement, penalizing by extinction	1, 6, 2
	Charismatic personality	10, 5
	Creating an atmosphere for talents to nurture & meritocracy	9, 5, 6

Ability is the quality of performing physical, mental, and financial tasks or a legal power to operate; it is a talent or skill either inborn or acquired (Dubois *et al.,* 2000).

The eighth dimension, considering available definitions in the literature, is called "management abilities". For this dimension, nine sub-themes were extracted from the interviews discussed above.

Table 8. Themes related to management abilities

Main theme	Subthemes	Interview no.
Management abilities	Clarity in encounters	3, 1
	The power of bargaining	6, 3
	Constant monitoring of good performance	3, 5
	Change management	6, 8, 5, 9
	Stability of managers	6, 5
	Appreciation and service compensation	10
	Being rule-oriented	1, 5, 3, 8, 7
	Crisis management	3, 8
	Ability to operate strategic programs	3, 7

Conclusions and Suggestions

This study identified the dimensions and indicators of general managers' competency. Accordingly, eight dimensions are achieved: general knowledge and awareness, intelligence and talent, values and attitudes, personality features, communication skills, decision-making skills, leadership abilities, management abilities.

At the end, it should be noted that this research increased the knowledge about decisive factors in competency of general managers

of the Ministry of Health and Medical Education of Iran. Besides, the priority and degree of effectiveness of each factor on the other one was determined so that in general knowledge awareness job experience and background was pointed out in nine interviews. In intelligence and talent the sub-theme of mathematical-logical intelligence is mentioned in four interviews; respecting social values is noted by six interviewees in values and attitudes. Similarly, in personality features dimension eight interviewees mentioned following moral codes; in communication skills the sub-theme of the ability to interact with other sections and organizations was stated six times; with regard to decision-making skills, collaborative decision-making is mentioned in four interviews; in leadership abilities the sub-theme helping subordinates mature and develop was stated by four interviewees; and in management abilities five of them mentioned being rule-oriented. Therefore, job experience and background, mathematical-logical intelligence, respecting social values, following moral codes, the ability to interact with other sections and organizations, collaborative decision-making, helping subordinates mature and develop, and being rule-oriented are the most important factors which need to be nurtured among general managers.

Results of thematic analysis

Taking the conducted interviews and thematic analysis into account, the final model of this study which is composed of 8 dimensions and 50 variables is developed:
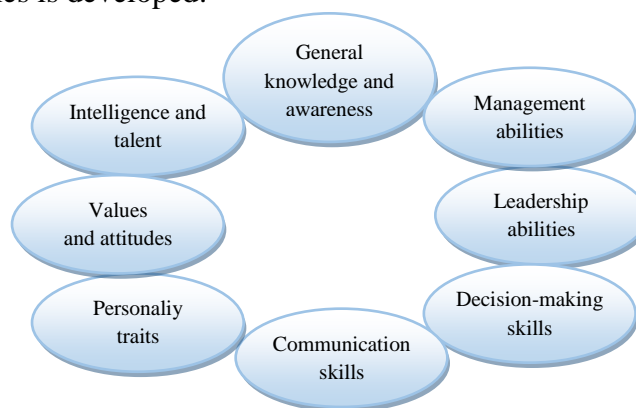

Fig. 3. Competency dimensions

The Lancaster Model of Management Competencies proposed by Burgoyne and Stuart is a framework for management competency. According to this model, there are 11 separate features in three groups and three different levels. In basic knowledge and information group of this model, there are two categories, namely basic knowledge of management and technical knowledge while in exploratory model general knowledge and awareness with indicators like job experience and background as well as specialty and position congruency along with other indicators which do not exist in the Lancaster Model have been discovered. At the level of features and skills, factors such as constant sensitivity and judgment, analysis, decision-making, and problem-solving skills have been highlighted while in the research's model personality features along with communication and decision-making skills were illustrated separately. Based on Lancaster Model, the level of meta-competence is depicted by indicators such as creativity, mental agility, balance in habits, learning skills, and self-consciousness while in this model mental agility was shown in personality features dimension under the title of being active and agile and also self-efficacy. Besides, learning skills was presented in sub-theme of creating a learning atmosphere in subsets.

For measuring a manager's competency, Scaperlanda (1996) in the model of manager competency has enumerated seven necessary variables each of which has a number of dimensions; as a result, 37 dimensions have been identified. These seven variables are trust-building, communication, cooperation with successful teams, customer orientation, developing others, value and plan variation, and organizing. The second dimension is similar to team orientation in the communication skills dimension of the present study. In addition, the indicator of creating an atmosphere for talents to nurture and meritocracy resembles the dimension of developing others in Scaperlanda's model. As for the variable 'communication', it is partly similar to 'communication skills' which has been fully explained. Also, commonalities can be found between value variation in Scaperlanda's model and values and attitudes of the model presented in this study. Similarly, organizing has some areas in common with

familiarity with job, processes, and organizational relations (being a generalist) in general knowledge and awareness.

Lee (2000) in a model for the competency of model managers has categorized competencies into basic and leadership ones. Basic competencies include self-regulation, mutual trust, feelings, optimism, self-development, and possession. On the other hand, leadership competencies are composed of paradoxical (opposite) solutions, administration, planning, creativity, problem-solving, and common with the seventh dimension of this study: leadership abilities. Considering the variables which constitute leadership competencies, there are some overlaps between them and other dimensions of the research's model; for example, ability to plan in management abilities and organizing and planning are along the same line. Moreover, two variables of problem-solving and team work have been covered in the research's proposed model in decision-making skills as the ability to comprehend and convey issues and in communication skills as team-orientation, respectively.

In determining individual competencies, strategic positions of organizations should be found by a suitable method. Then, the appropriate competency model is explained according to the strategies. What's more, a competency model should be developed in line with the structure of the organization and also the positions and strategies of that organization. The managers' statements highlight significant points as follows:

- The existence of organizations which in packages distribute new managerial discussions and already-experienced interactions that have been proved to be useful in order to avoid their lagging behind.
- The necessity for existence of an organization that monitors managers' performance without any superficial judgment so that if it is observed that a manager deviates from the program and the goal, he has to be replaced or limited in his activities since some managers remain in their positions for a long time, hence jeopardizing the future of the country.
- Research is needed to answer this question: which managers

have been more successful, those who have majored in management or those who have majored in other fields (medicine)? Why?

- This study identifies the competencies of general managers in health sector, which is one of the crucial sectors in social services. In an analogy to other studies conducted in the field of competency and according to the findings of Poorkarimi & Sedaqat (2014), the three factors of ethical competency, professional competency and personal competency must be considered in order to measure the competencies. Ethical competency has the most defining role among these factors and the transformational leadership style can be used to predict and explain the managerial competency.

- Ranjbar *et al.* (2013) designed and evaluated the competency model for health sector managers according to middle managers' points of view and assessed the health system by eight factors of behavioral and intellectual skills, service quality, responsibility, personality, professional knowledge, credibility, attitude, vision and moral values and beliefs.

- This study identifies the competency model for the top managers in the General Offices of the Ministry of Health and Medical Education, so the results are suitable only for this organization. The competency model is customized and tailored for this group based on the grounded theory and uses no quantitative method. In addition, the model results are quite different in some of the factors, for example the managerial and leadership skills, talent and intelligence and values are the most important competencies for general managers. Perhaps the shortcoming of this research is the lack of overall dominance of the researcher over health care sector which makes the use of observation tools possible to get more accurate results.

- Finally, some areas for conducting further research are suggested.

- In order to do more comprehensive studies, the degree of importance of a job for the strategies of organizations should be

determined in advance to be able to put forward a competency model for that job in the organization. This is required because finding a key position in any organization is a necessary step toward developing a competency model. Moreover, proposing solutions for measuring the competency model would be helpful. What's more, it is suggested that in conducting such interviews, the "360-degree appraisals" can be used. In other words, in order to measure a manager's competency, his colleague, subordinate, and superior should also be interviewed. This increases the accuracy and dependability of both the interview and the study.

Among limitations of the present study, the following need to be taken into account:

unavailability of case studies (other ministries and important organizations in Iran) with the purpose of generalizing findings, lack of time to present the questions of the interview to the interviewees for further contemplation and more accurate answers, and political and conservative behaviors in the ministry (typical of governmental organizations) which may skew the findings as well as the interviewees' statements.

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