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# THE CONCEPTUAL FRAMEWORK FOR LEADER'S COMPETENCE IN QUANTUM ORGANIZATIONS

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## *ABSTRACT*

*The present study aimed to propose a conceptual framework for leader's competence in quantum organizations. The research type was "applied" in terms of purpose, "qualitative" in terms of methodology, and "survey" in terms of field studies. The statistical population consisted of expert professors of management in different universities of Isfahan and Tehran, with a PhD in management and at least 5 years of experience in teaching leadership competencies, among which 15 people were selected as the sample. Data were collected using two researcher-made questionnaires: 1) Determination of leadership competencies and dimensions; and 2) Determination of leadership competencies in quantum organizations. The questionnaires were validated based on theoretical foundations and comments of respondents. Cronbach's alpha coefficient was used to calculate reliability (=0.993). Delphi method was used for data collection. Finally, according to comments of respondents and factor analysis of leadership competency dimensions using PLS software, the conceptual leadership competency model for quantum organizations was extracted. This model involved 5 dimensions of competency (i.e. personal, interpersonal, managerial, analytical / perceptual and technical) and 54 leadership competencies.*

***Keywords:*** *Quantum Skills, Leadership Competencies.*

## INTRODUCTION

In today's turbulent business environment, organizations are competing to identify, attract and retain competent managers as a competitive advantage. In today's complicated and changing societies, leadership competencies development programs at different levels of management are the most important and valuable goals and missions of organizations. In all organizations (either governmental or non-governmental) selection and professional training of effective managers are the major issues. Management jobs are typically complicated and a set of competencies, skills, abilities and specific characteristics is required for their effective performance (Mosazadeh & Adli, 2009: 15).

If managers are correctly selected, they will bring benefits to the organization and society. Therefore, organizations need to hire the most competent and top-performing candidates, especially to serve the government and public services, according to right programs and policies. This is of special importance in the case of selecting managers who work with employees with different cultures and values (Kazemi, 2009: 5).

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The beginning of the 21st century can be called quantum era of technology. Excellent leadership is the key to organizational excellence. There are seven quantum skills that can enable 21st century leaders to build a new level of organizational excellence in order to exploit the world's most powerful energy, i.e. mind energy. If leaders and their organizations want to advance in the new era, an intellectual and skill advancement should emerge in managers following this leadership style. (Afjeh, 2012: 163)

## LITERATURE REVIEW

In today's complicated and changing world, traditional skills gradually become less effective. Traditional skills were useful earlier when organizations were consistent and behaved in a predictable, logical and linear manner. (Shelton and darling, 2003:354)
Nowadays, rapid continuous changes have made the world extremely non- consistent and non-predictable. Hence, the ability of managers to plan, organize, direct, and control is increasingly endangered. Organizations are currently trying to develop these abilities:

- Ability to build query personality
- Ability to communicate
- Ability to develop respectful behavior
- Ability to motivate the audience
- Problem-solving ability
- Free-thinking ability
- Self-control ability

All these abilities result from quantum skills (Salimi et al., 2016: 115).
The major challenge facing today's organizations is to adopt to the changing world and to succeed in this turbulent environment. Their past experiences cannot help organizations in this regard. So, they have no choice but to use modern approaches based on natural sciences.
Quantum system is a new term referring to systems theory based on quantum mechanical model and quantum field theory (Zanotti, 2012: 316).
In the late 19th and early 20th centuries, physicists noticed disability of classical physics in explaining some phenomena, and the new field of quantum mechanics emerged. At the same time, it was found that classical organizations cannot meet the modern needs, and classical management, which was responsive in a consistent environment, failed in the modern changing, complicated, and turbulent environment. Therefore, there was an increasing need for quantum organizations and quantum leadership. (Aghababaei, 2013: 74)
In fact, with the development of Newtonian/mechanical philosophy in the late 19th century, there was a sensation that something was wrong and should to be re-designed. In other words, older theories and solutions, e.g. Weber's bureaucracy, are modern problems. Therefore, it is impossible to plan for future based on today's assumptions. How long or how much of these past solutions can help us. Hence, there is an increasing need for new skills and non-classical organizations (Shelton and yang, 2005: 112). Quantum view provides conceptual foundation of quantum skills which help people not only look at the world from a different perspective, but also live in a new way. Quantum skills are defined as follows:

- Quantum seeing: Ability to see purposefully and intentionally
- Quantum thinking: Ability to think contradictory

- Quantum feeling: Ability to feel vital and vivacious
- Quantum knowing: Ability to know in an innovative and intuitive way
- Quantum acting: Ability to act and behave responsibly
- Quantum trusting: Ability to trust the process of life
- Quantum being: Ability to live in relationships (Charlotte Shelton & Darling, 2001: 265)

When using quantum skills, quantum organizations will be created by accessing infinite potentials of the human mind. Organizations which coordinate with the modern universal quantum-driven paradigm will see, think, feel, know, act, trust, and find innovative solutions to deal with today's challenges and make progress. (Shelton, 1999: 28)

Quantum organizations rely on finding unique solutions, ideas, and insights shared by their members, which coordinate personal skills, talent, insights, experiences, and identities with organizational goals and values. The framework and structure of a quantum organization contains trust, values, learning, spirituality, dialogue, and thinking together to solve problems. The challenge facing organizations is to move away from Newtonian organizations towards quantum organizations. (Deardorff and Williams, 2006: 2)

Garavan (2007), Lypek (1999) and Handri (1990) argued that human resource plays an important role because of its scarcity, valuability, non-substitutability and inimitability. In this regard, competencies of managers, as the most important human sources, are of great importance (Gabrira, 2003: 8).

Quantum skills include 7 skills theoretically defined as follows:

- *Quantum seeing:*

Quantum seeing is defined as the ability to see the world purposefully and intentionally. This skill helps get rid of trammels imposed in childhood and makes it possible to focus on motives which were not previously seen. (Shelton, 2012: 40)

- *Quantum thinking:*

Quantum thinking is the ability to think contradictory. This skill enables you to move beyond the logical binary thinking and find creative solutions for challenges of life. (Shelton, 2012: 61)

- *Quantum feeling:*

Quantum feeling is the ability to feel vital and vivacious. This skill enables managers to correctly regulate their energy systems and keep their internal energy high regardless of what is happening outside. (Shelton, 2012: 81)

- *Quantum knowing:*

Quantum knowing is the ability to communicate with the world's quantum field through non-physical ways. This skill helps managers know intuitively and learn internally. (Shelton, 2012: 99)

- *Quantum acting:*

Quantum acting is defined as the ability to act and respect the whole (the whole person, the whole society and the whole planet) at the same time. Managers use this skill to design a life with impeccable behaviors. Quantum action leads to choose responsibly by considering and thinking about the results and consequences of actions. (Shelton, 2012: 121)

- *Quantum trusting:*

Quantum trusting is the ability to trust the process of life. This skill enables managers to ride the waves of change. This includes full participation in events and endangering themselves without

trying to control the route and knowing that the easiest way to navigate a floating boat is to move along the watercourse (Shelton, 2012: 141)

- *Quantum being:*

Quantum being is defined as the ability to live in relationships which are based on real and unconditional respect. Managers who have this skill can upgrade their ability to easily and unconditionally accept all the people who interact with them or learn to express their affection to all.

*Competency*

Competency can be classified into two categories: 1) Competencies required to specify the skills needed for the minimum performance in a job or task; and 2) Superior competencies based on which the results are higher than the average (Spencer, 1993: 26)

McClelland (1973) defined competency as "the characteristic that determines performance". In general, competency is: "every specific characteristic of an individual which leads to effective performance in a particular role "(Davis 1993: 5)

A competency model involves a complete set of different skills providing an integrated framework for many human resource processes (OSI, 2003)

Freudenberg model (2004) is one of the interesting leadership competency models which considers a hierarchy of competence. He divided competencies into seven categories in which the lower-level competency is a prerequisite for the higher-level competency. As a result, reaching the highest level of competency requires having the lower-level competencies.

As shown in Figure 1, these seven competencies include:

Reasoning competencies: The competencies required for learning, using data and information, and purposeful and rational acting.

Career competencies: Knowledge and skills related to a range of jobs which are acquired through education and experience.

Personal effectiveness: Competencies that enable effective use of personal skills and abilities.

Communicative competencies: Competencies that facilitate exchange of information.

Interpersonal competencies: Competencies that create and retain effective working relationships.

Corporative competencies: Competencies that help create teams, team work and team effectiveness.

Organizational competencies: Competencies that contribute to the effectiveness of the entire organization and system.

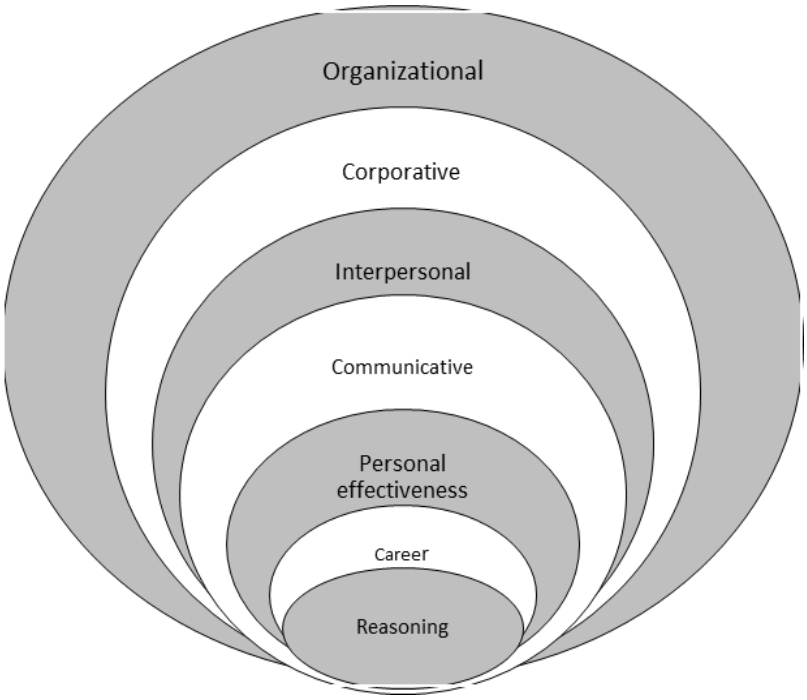


Figure 1: Hierarchy of competence (Freudenberg, 2004)

In Vitala's model (2005), competencies are hierarchically classified into 6 groups as a triangle. This model is shown in Figure 2. (Akrami and Rajabzadeh, 2011: 56)


Figure 2: Hierarchical model of leadership competencies (Vitala, 2005)

Garrett-Owens et al. (2003) proposed another model which is known as triangle of competencies. In this model, competencies are divided into four main groups of business and strategic skills, individual capabilities, human resource skills, and the skills of change processes and culture within a triangle.
This model is shown in Figure 3.

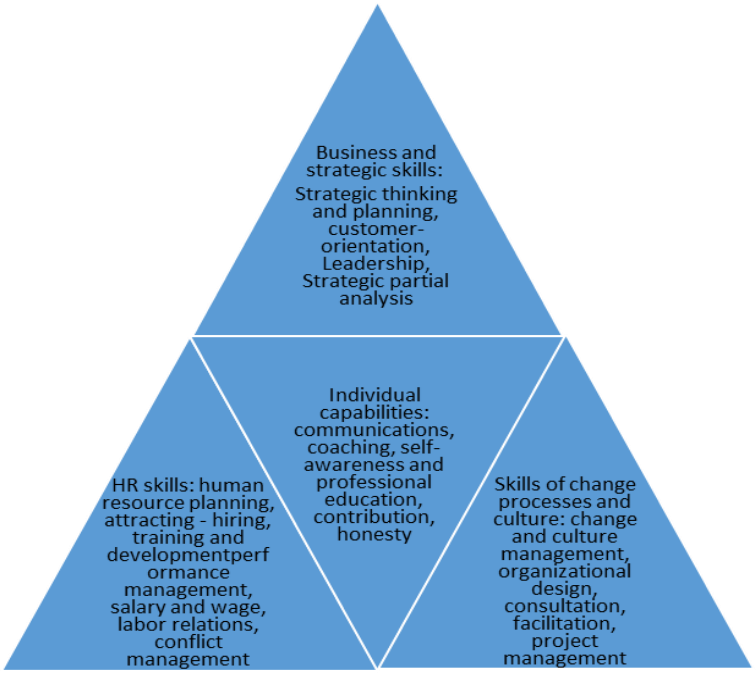


Figure 3: Triangle of leadership competencies (Garrett- Ownsis, 2003)

### *Research questions*

Primary question:
What is conceptual leadership competency model for quantum organizations?
Secondary questions:
What are the leadership competency dimensions in quantum organizations?
What are the leadership competency indicators in quantum organizations?

## METHODOLOGY

The research type was "applied" in terms of purpose, "qualitative" in terms of methodology, and "survey" in terms of field studies. The statistical population consisted of expert professors of management in different universities of Isfahan and Tehran, with a PhD in management and at least 5 years of experience in teaching leadership competencies, among which 15 people were selected as the sample. Data were collected using two researcher-made questionnaires: 1) Determination of leadership competencies and dimensions; and 2) Determination of leadership competencies in quantum organizations. The questionnaires were validated based on theoretical foundations and comments of respondents. Cronbach's alpha coefficient was used to calculate reliability (=0.993).
Statistical analyses including t-test, Kolmogorov-Smirnov test, confirmatory factor analysis and structural equation modeling were used for data analysis in Smart PLS software.

## RESULTS

Leadership competency dimensions in quantum organizations were determined based on the comments of 15 professors of management on the questionnaire "Determination of leadership competencies and dimensions in quantum organizations". The results are shown in Tables 2 and

3. It should be noted that in these tables, scores ranged from 1 to 10 and the minimum averages of 6 was considered for determining dimensions and competencies.
Based on the results given in Tables 2 and 3, leadership competency dimensions in quantum organizations were derived as Table 1:

**Table 1: Leadership competency dimensions in quantum organizations**

| | |
|---|---|
| Individual competencies | Leadership competency dimensions in quantum organizations |
| Interpersonal competencies | |
| Managerial competencies | |
| Analytical / perceptual competencies | |
| Technical competencies | |

**Table 2: The results of determining the dimensions of the competence of leaders from the perspective of experts**

| Competency dimension | Competency | Competency /dimension proportionality | Competency dimension | Competency | Competency /dimension proportionality |
|---|---|---|---|---|---|
| Individual | Self Confidence | 9.50 | Analytical / perceptual | Analytical thinking | 9.20 |
| | Self-esteem | 8.5 | | Strategic thinking | 9.30 |
| | Flexibility | 8.80 | | Systematic thinking | 9.30 |
| | Courage | 8.60 | | Creative thinking | 8.90 |
| | Perseverance and persistence | 8.40 | | Change management | 8.50 |
| | Discipline and arrangement | 7.40 | | Goal-orientation | 7.70 |
| | Continuous learning | 8.80 | | Planning | 7.70 |
| | Organizational commitment | 7.30 | | Conceptual thinking | 8.00 |
| | Responsibility | 8.70 | | Crisis management | 7.78 |
| | Self-motivation | 9.30 | | Continuous improvement | 7.90 |
| | Honesty | 8.90 | Managerial | Self-management | 8.33 |
| | Secrecy | 8.30 | | Professional ethics | 8.67 |
| | Positive thinking | 7.67 | | Team building | 8.67 |
| | Decisiveness | 8.70 | | Network building | 8.44 |
| | Self-awareness | 9.10 | | Motivating | 8.78 |
| | Modesty | 8.80 | | Empowering | 8.78 |
| | Judgment | 8.30 | | Delegation of authority | 8.56 |
| | Independence | 8.00 | | Conflict management | 8.44 |
| Interpersonal | Competitive personality | 7.30 | | Risk taking | 8.22 |
| | Trust building | 8.50 | | Quality-orientation | 7.67 |
| | Verbal communication | 8.40 | | Result- orientation | 7.22 |
| | Written communication | 7.20 | | Coaching | 8.78 |
| | Effective listening | 8.50 | | Decision making and problem solving | 9.22 |
| | Negotiation and bargaining | 8.70 | | Organizing | 8.33 |

| | | | | | |
|---|---|---|---|---|---|
| | Contribution | 9.10 | | Resource management | 9.22 |
| | Cooperation | 8.20 | | Performance management | 8.67 |
| | Justice and fairness in judgment | 6.40 | | Monitoring and controlling | 8.89 |
| | Customer orientation | 7.80 | | Meeting management | 8.44 |
| | Responsiveness | 6.40 | | Leadership | 9.13 |
| | Power of influence | 7.80 | | Information management | 8.00 |
| | Sympathy | 8.10 | | Time management | 8.67 |
| | Knowledge sharing | 8.10 | Technical | Scientific credentials | 8.00 |
| | Rule of law | 6.50 | | Academic education | 8.67 |
| | | | | Experience | 8.67 |
| | | | | Professional expertise | 9.00 |
| | | | | Business acumen | 8.44 |
| | | | | Organizational awareness | 8.56 |

**Table 3: The results of determining the importance of the competence of leaders from the perspective of experts**

| Competency dimension | Competency | Competency /dimension proportionality | Competency dimension | Competency | Competency /dimension proportionality |
|---|---|---|---|---|---|
| Individual | Self Confidence | 8.91 | Analytical / perceptua | Analytical thinking | 8.73 |
| | Self-esteem | 7.91 | | Strategic thinking | 9.91 |
| | Flexibility | 8.45 | | Systematic thinking | 9.27 |
| | Courage | 8.45 | | Creative thinking | 8.91 |
| | Perseverance and persistence | 8.09 | | Change management | 8.64 |
| | Discipline and arrangement | 7.36 | | Goal-orientation | 8.73 |
| | Continuous learning | 9.09 | | Planning | 8.18 |
| | Organizational commitment | 7.45 | | Conceptual thinking | 8.09 |
| | Responsibility | 8.55 | | Crisis management | 8.36 |
| | Self-motivation | 8.91 | | Continuous improvement | 8.18 |
| | Honesty | 8.27 | Managerial | Self-management | 8.60 |
| | Secrecy | 7.73 | | Professional ethics | 9.10 |
| | Positive thinking | 6.80 | | Team building | 9.00 |
| | Decisiveness | 7.91 | | Network building | 9.30 |
| | Self-awareness | 8.18 | | Motivating | 9.50 |
| | Modesty | 7.73 | | Empowering | 8.90 |
| | Judgment | 8.82 | | Delegation of authority | 8.30 |
| | Independence | 7.27 | | Conflict management | 8.80 |
| Interpersonal | Competitive personality | 7.36 | | Risk taking | 8.50 |
| | Trust building | 9.18 | | Quality-orientation | 8.00 |

| | | | | | |
|---|---|---|---|---|---|
| | Verbal communication | 8.55 | | Result- orientation | 8.10 |
| | Written communication | 7.09 | | Coaching | 9.40 |
| | Effective listening | 9.00 | | Decision making and problem solving | 8.80 |
| | Negotiation and bargaining | 8.91 | | Organizing | 8.10 |
| | Contribution | 8.82 | | Resource management | 8.50 |
| | Cooperation | 7.55 | | Performance management | 8.30 |
| | Justice and fairness in judgment | 7.45 | | Monitoring and controlling | 7.90 |
| | Customer orientation | 8.00 | | Meeting management | 7.70 |
| | Responsiveness | 8.18 | | Leadership | 9.44 |
| | Power of influence | 8.82 | | Information management | 7.60 |
| | Sympathy | 8.36 | | Time management | 8.00 |
| | Knowledge sharing | 7.64 | Technial | Scientific credentials | 8.20 |
| | Rule of law | 7.73 | | Academic education | 7.00 |
| | | | | Experience | 8.20 |
| | | | | Professional expertise | 8.80 |
| | | | | Business acumen | 8.30 |
| | | | | Organizational awareness | 9.30 |

## CONCLUSIONS

According to Delphi method and comments of 15 professors of management on the questionnaire "determining the correlations between indicators of leadership competencies and quantum skills", competencies related to each quantum skill were determined. Finally, the conceptual leadership competency model for quantum organizations was extracted using structural equation modeling technique via Smart PLS software. As shown in Figure 4, five dimensions and 54 competencies were confirmed for leaders of quantum organizations based on 7 quantum skills. The results were consistent with the results obtained from Dulewicz (2009) (4 dimensions: mental, personal, interactive and result-orientation and 48 competencies), Epstein and Rankin (2003) (4 dimensions: interpersonal, intellectual-mental, executive and personal, and 28 competencies), Mahmoodi et al. (2012) (3 dimensions: managerial, social and individual, and 39 competencies), and Rahimnia (2012) (4 dimensions: individual, managerial, technical and environmental, and 40 competencies).

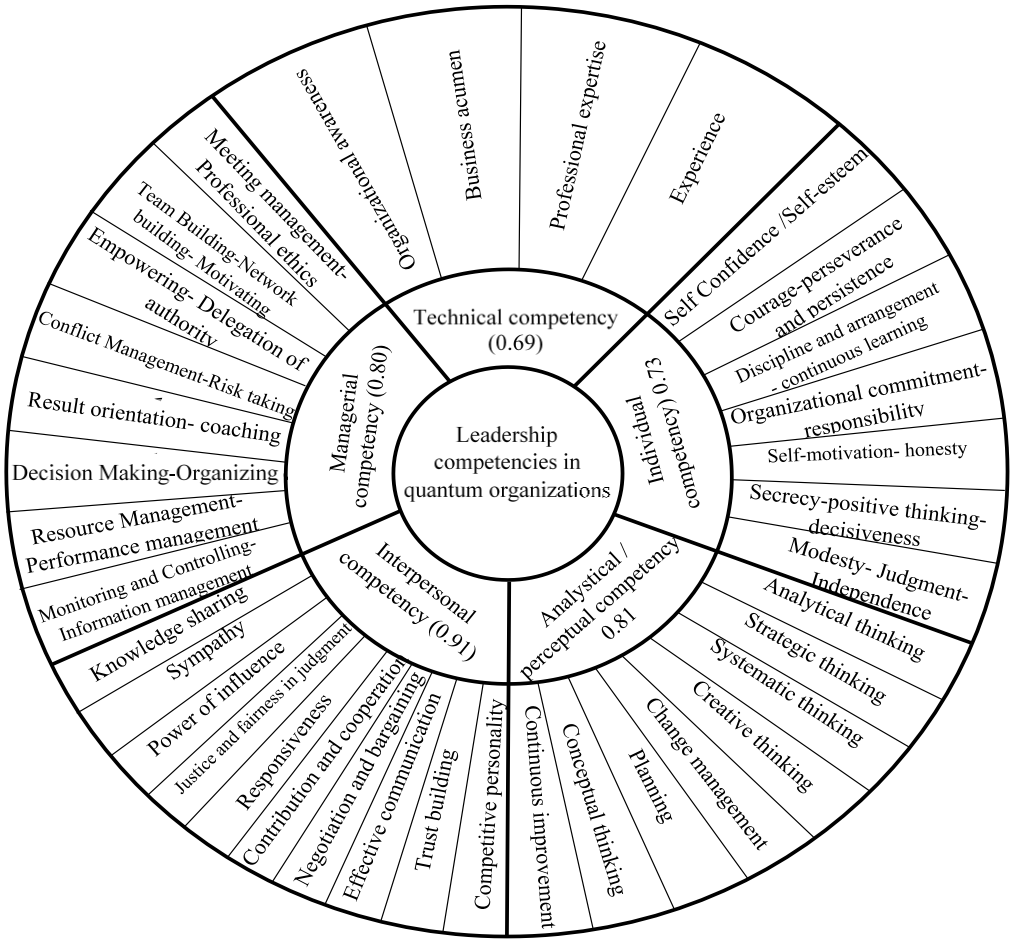


Figure 4: The conceptual framework for leader's competence in quantum organizations.

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