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Human resources strategies approach in organizations with network model (supply chain model) "Case study: defense industries organizations"

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Abstract

One of the main areas of research in human resources strategy is the strategy approach accommodation to human resources management and human resources strategy codification. The purpose of strategic actions is about those innovative human resources activities and programs which are designed for creating close relationship between human resources with organization's strategic objectives. The purpose of strategic view in human resources management is a management logic that requires the use of human resources or activities that are closely related to strategic matters or organizational goals (Armstrong, 2010). Human resources strategies should be coordinated with company and business level strategy especially organizational structure approach and strategy (Armstrong, 2010). In this paper, after an overview of the basic concepts, human resources strategy and codification patterns of human resources activities, the organization structured approach have discussed to outsourcing and network and the impact of this approach in human resources strategies pattern. Finally, a comprehensive model of human resources strategies is provided to the Ministry of defense industries organizations.

Keywords: Supply chain management, outsourcing, human resources management, strategic human resources management, human resources strategy.

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1. Introduction

Regarding to changing human resources environment (job's market standardization, universalization, procedure and nature of work, political and legal procedures, etc) to achieve stable efficiency, innovation, creativity and life's suitable quality, the efficient, impressive and intelligent management of human resources is essential. Human as an important part in organizational behavior management and human resources management discussions has an essential position in modern management. Furthermore, the difference between operational and strategic levels of human resources and assets have simulated most attention in organizational literature.

The total purpose of human resources management is to assure that the organization can be succeeded by personnel's help.

One of the main aspects of this study in human resources strategy is strategic theory adaption to human resources management and human resources strategy codification. The purpose of strategic proceedings is about those human resources creative actions and programs which are designed to make close relationship between human resources and organization's strategic goals. The aim of strategic theory in human resources management is a management logic that needs human resources employment and some actions which have close relationship with strategic affairs or organizational goals (Armstrong, 2010).

2. The statement of problem

Today, some challenges are considered in human resources management domain that answer to them have high importance in shaping the changing modern roles for this domain.

- According to organization's approach to outsourcing and supply chain and strategies, how can we make integration and coordination between human resources and these strategies? Up to now, nothing have done around this question in internal or external level.

3. The importance of problem

The reason for choosing this article's subject and the necessity of the subject is about the most organizations approach (internal and external) into outsourcing and creating supply chain and its management (SCM). This approach makes the organizations to commit their duty to other people and practically abandon an enormous part of human staffs and preserve someone that there is no possibility for transferring their duty to outsourcing. In other words, by this approach, organizations can only preserve the main staffs and organization's human resources are the best and we need special strategies for their management that they should be effective and useful in human resources management and also being coordinated with organization's strategies.

There is this gape in thought out organizations and organizations proceed to outsourcing and creating supply chain networks and its management without care to the change of human resources quality and quantity and they did not design human resources strategies according to mentioned approach and there is this necessity that strategies should have designed coordinated with organization's strategies.

4. The purpose of study

In this study, there is following purpose:

The presentation of human resources strategies approach in organizations with network model (supply chain model)

5. Research questions or hypothesis

According to research topic, this question can be provided:

What specifications, components and dimensions are there in human resources strategies approach into organizations with network model?

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6. Theoretical fundamentals of research

Human resources management

Recognition of the central role of human resources have affected the post-industrial societies and organizations, management literature and practices so that not only human resources but also the actions that are implemented to manage it have become key issues for the success of many public sector institutions (Applebaum et al, 2000).

The purpose of human resource management is the policies and actions needed to perform part of the management tasks, which depends on the aspects of employee activities, in particular recruiting, employee training, and performance evaluation, rewarding and creating a healthy environment for the company's employees (Dessler, 2002).

Armstrong believes that the human resources management is strategic and sustainable management of the most valuable assets of the company, that is, the organization in which the employees work individually and together to achieve its goals (Armstrong, 2002).

The Concept of Strategy

The strategy is a concept that was mostly used from the middle of the 1980s. This concept helps organizations to determine their competitive position in the most effective way (Allen & Wright, 2006).

According to Norton (2002), organizations use a strategy to create value for their shareholders. On the other word, an organization's strategy determines how the organization is creating value for shareholders, customers, and citizens (Kaplan & Norton, 2005). The strategy determines the path and method of gaining value for the organization. In fact, the strategy assists the organizations to survive and be more competitive through the coordination of internal capabilities and abilities with the demands and conditions of the environment (Barnett, 2003).

Strategic Management of Human Resources

In recent years, Human Resources Management (HRM) has sought to shift its focus from being a headquarter unit to a strategic factor in seek for analyzing and paying attention to the internal and external factors of organization (Weilemaker & Flint, 2005). The strategic human resources approach focuses on all aspects of the organization, innovative behaviors, effectiveness, integrity and strategic coordination. This focus leads to employee behaviors that bring competitive advantage, profitability, growth, and market value (Hosselid, Schuler & Jackson, 1997; Harris & Ogbonna, 2001; Nankervis, Compton & Savery, 2002; Karami, Analoui and Cusworth, 2004, Becker and Hosselid, 2006).

In fact, strategic HRM is the strategic coordination of the activities and functions of human resources with the goals and mission of the organization in such a way that effectiveness is maximized (Hunt, 2005).

Human Resources Strategy

Although in recent years human resource strategy and human resource management have received a great deal of attention, researchers have not been able to determine a significant difference between meanings of these 2 terms (Bamberger and Meshoulam, 2000).

The process of developing and implementing human resource strategies to link human resource policies and practices to strategic and organizational objectives constitute the main pillar of strategic human resource management. Therefore, if strategic human resource management is a process by which the organization wants to communicate between organization's strategic human, social, and intelligence resources with the needs of its members, then human resource strategy, which is a component or part of the organization, is a way for organizational leaders to maintain this relationship and the human resources strategy is the road or way that is taken. In other words, human resources strategy can be considered as the result of strategic human resource planning.

Human Resources Strategy Models

Over the past decade, scholars have presented a wide range of frameworks that could distinguish between the ideal types of human resources strategies. Some of these Models are intuitively based on the theory, while others are empirically presented.

Rational Models (Based on Organization’s Strategy)

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The first Models for designing a human resource strategy were designed in the mid-1980s with a rational, intellectual and technical attitude and they were based on the "strategy of the organization". The unilateral impact of the organization's strategy on human resource strategies in these Models is shown in Fig. 1-6 (Bamberger and Meshoulam, 2002).

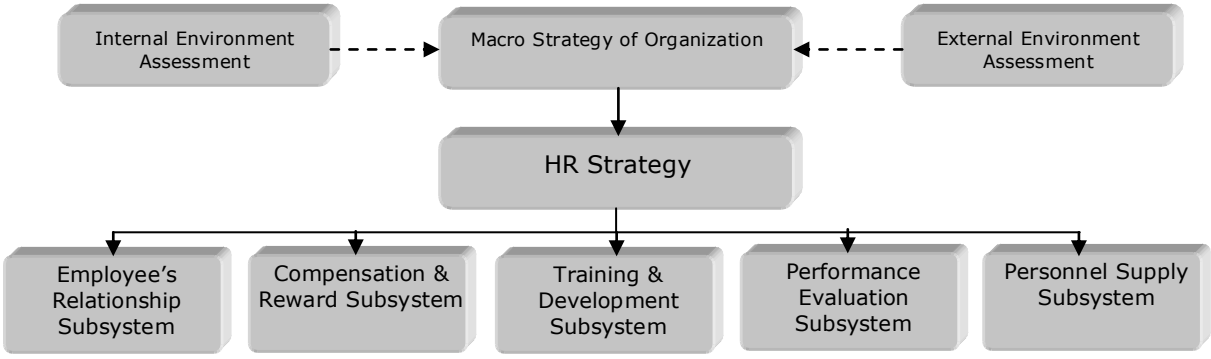


Figure 6-1 the Process of Compiling the Human Resources Strategy in Rational Models

aligned with the organization's strategy. A sample of rational Models can be found in the work of many scholars such as Fombrun, Tichy and Devanna (1984).

Incremental or Real Models (Based on Specific Factors of Human Resources Management)

Since the late 1980s, models have been suggested with an increasing or step-by-step approach that emphasizes the role of political and institutional factors inside and outside the organization in the process of designing human resource strategies, much more than computations and quantitative and technical factors. These Models also, have been able to provide strategic human resource Models without the organization's strategy, because the decision elements in them include specific factors related to human resource management (i.e., the labor market or the controlling method) (Bamberger and Meshoulam, 2002).

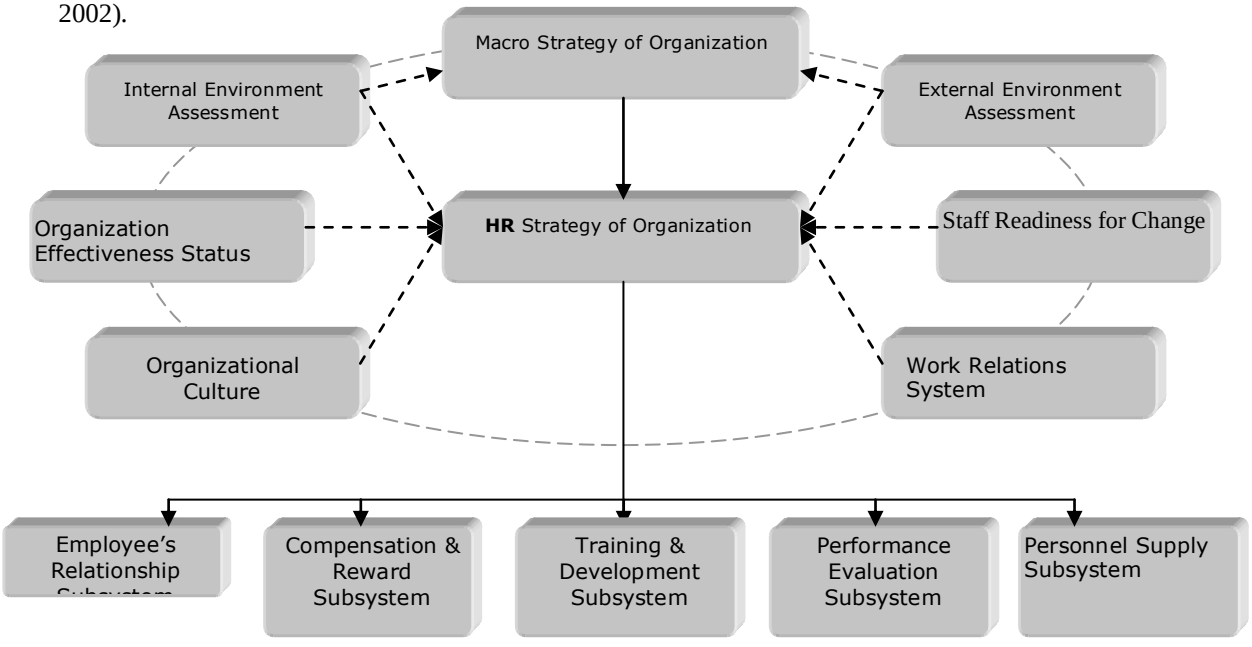


Figure 6-2 the Process of Human Resources Strategy Development Based on the Incremental Model (Natural)

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Other Models

Some Models are designed in terms of the specific features of human resource management and in accordance with the main axis of the philosophy of management theories. In an attempt to mimic or characterize the strategy of human resources, the researchers used one or two of these attitudes. The first attitude is rooted in the nature of the bargaining between the employee and the employer; and more precisely, it is rooted in the labor market parameters that gives rise to this trade. The second approach is rooted in an action that the employer tries to use to control the performance of the employee.

Models Based on Employees Control

In modeling different types of human resources strategy, this approach focuses on the nature of organizational control, and more precisely, on the ways in which the organization seeks to direct and monitor the function of the staff.

These Models emphasize on the "focus" factor, which is the first important axis in the philosophy of management theories. In human resource management, centralization is manifested as controlling the efficiency of employees operations and decentralization is manifested as a control of employee productivity. Nevertheless, the proposed strategies in these models are on a spectrum that has two aspects: process control and product control, and there are also mixed strategies among them:

The proposed strategies have been introduced by 3 single dimensional models based on the control of employees in figure 6-3, 6-4 and 6-5 and also based on outcome / process control (Bamberger and Meshoulam, 2002).

Schuler and Jackson Model (1987)

They emphasized two main control-based logic:

Logic of direct control on the process: This logic is consistent with the Porter's strategy based on leading costs.

Logic of indirect control over outcome: This logic is consistent with the Porter's differentiation strategy.



Figure 6-3

Dyer and Holder Model (1988)

By defining human resource strategy as "decisions about the main goals of human resources and the means to achieve these goals," at first, they identified four types of objectives as follows:

Role-Based Objectives: that address the employee's functional expectations.

Combined Objectives: They deal with the combination of labor.

Competency Objectives: They are related to the level of knowledge, skills and ability of employees to achieve the strategic goals of the organization.

Accountability Objectives: They deal with the degree of employee sense of belonging to the organization.

They have provided three types of HR strategies: inducement, investment, and involvement. These strategies are based on how the objectives and means of reaching them are determined. The four main objectives of human resources are role play, composition, competence and commitment.

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Figure 6-4

Snell Model (1992)

In addition to confirming the human resources strategies at the two ends of the control spectrum, and after providing a definition of control, as "a process that helps coordinating the work of individuals with the interests of the organization" as in the Direr and Holder model, he provided three main types of control: Control Behavior, Control of Outcomes (Returns), Control of Inputs.

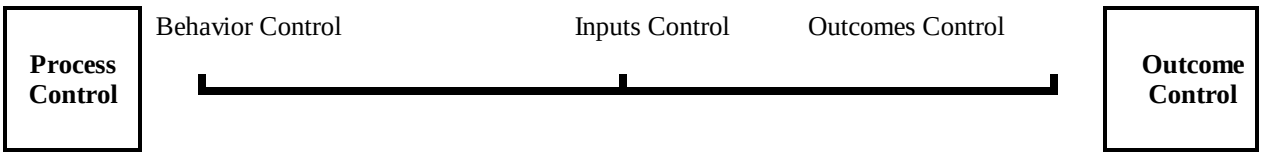


Figure 6-5

Market-Oriented Models

These models, which are themselves in the area of resource-based patterns, are based on the assumption that the complex of behaviors, attitudes and relationships of employees in the organization's HR system can play an important role in implementing the organization's strategy (Kapley & Singh, 1992).

In other words, it can be said that these patterns emphasize the factor of "attention to the internal environment or external environment", which is the second most important axis in the philosophy of management theories. In the management of human resources, attention to the interior is expressed as an emphasis on the labor market within the organization, and attention to the outside, is shown as an emphasis on the labor market outside the organization.

Astermann Model (1987)

He identified four different strategies for human resources, claiming that they are the result of the overall strategy of the organization. These strategies are: skill based strategy, second-hand market (Secondary) based strategy, industrial strategy, and salary-based strategy

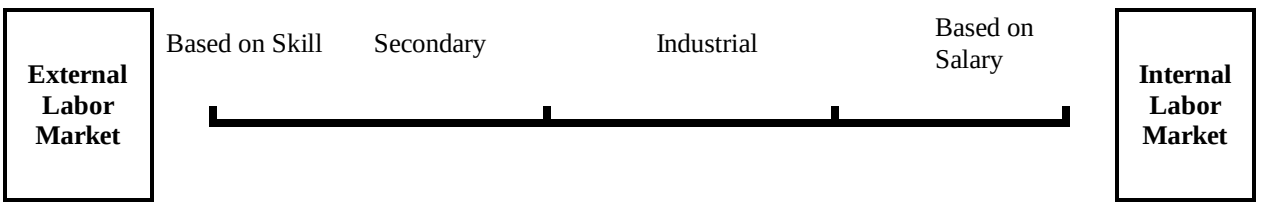


Figure 6-6

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Delirie and Dati Model (1996)
They developed the strategy of organization and logic, related to the HR strategy in Austerlian employment framework. In this regard, three strategies were proposed: market-based strategy, internal labor supply based strategy, and middle-of-the-road strategy that combines these two strategies (Bamberger and Meshoulam, 2002, p. 67).

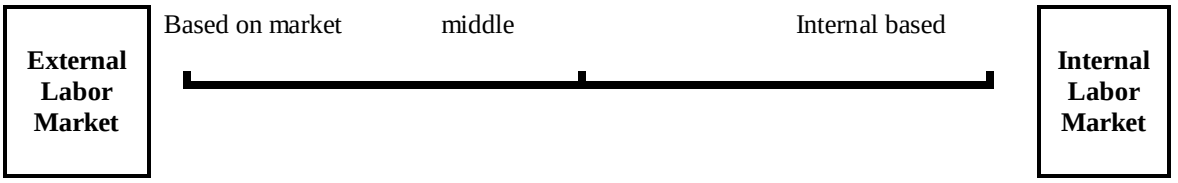


Figure 6-7

Baron and Kreps Model (1999)
These researchers identified three types of human resource strategies as follows (Bamberger and Meshoulam, 2002, p. 68): The strategy of supplying labor from the internal labor market, the secondary strategy (based on commitment), the linking model.



Figure 6-8

Experimental Data-Based Models (Empirical)
Empirical researchers attempt to identify the models by using a variety of statistical methods to identify the statistical tendency of each set of practical methods (i.e. means) to form a cluster (which has a particular strategy) in organizations. It means that, as theoretical models theorists sought to establish a relationship between the means and the theoretical goal, empirical scholars have sought to do the same, of course, experimentally. Two significant models in this area are as follows:
Arthur's Model (1992, 1994)
McDuffie Model (1995)
Integrated Model
The Strategic Reference Points (SRP) approach will allow strategy designers the enjoy both wise and growing models to use the main criterion to determine the general priorities of the system and incorporate it in a strategy, so that all stakeholder groups are managed and lead in accordance with the principles and basics. Objective strategic reference points are the target or indicator models that organizational decision makers use them to evaluate their own ways or options so that they can make strategic decisions and prioritize the entire system to inform the main beneficiary groups (Bamberger and Meshoulam, 2000).
Lepak and Snell Model (1998)
Lepak and Snell (1998, 2002) presented a quadric matrix based on two dimensions of the strategic and unique value of human capital, which is shown in figure 6-9.
1. Traditional Human Resources: This kind of capital, although valuable, is not unique and special.
2. Peripheral Human Resources: This kind of capital has not a lot of value for the customers, nor is it a unique and special for the organization.

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3. The Core Human Resources: When a human resource is valuable and unique, it creates strategic interests for the organization.
4. Idiosyncratic Human Resources: this type of human recourses is unique and special but it is not so much capable of creating value for customers.

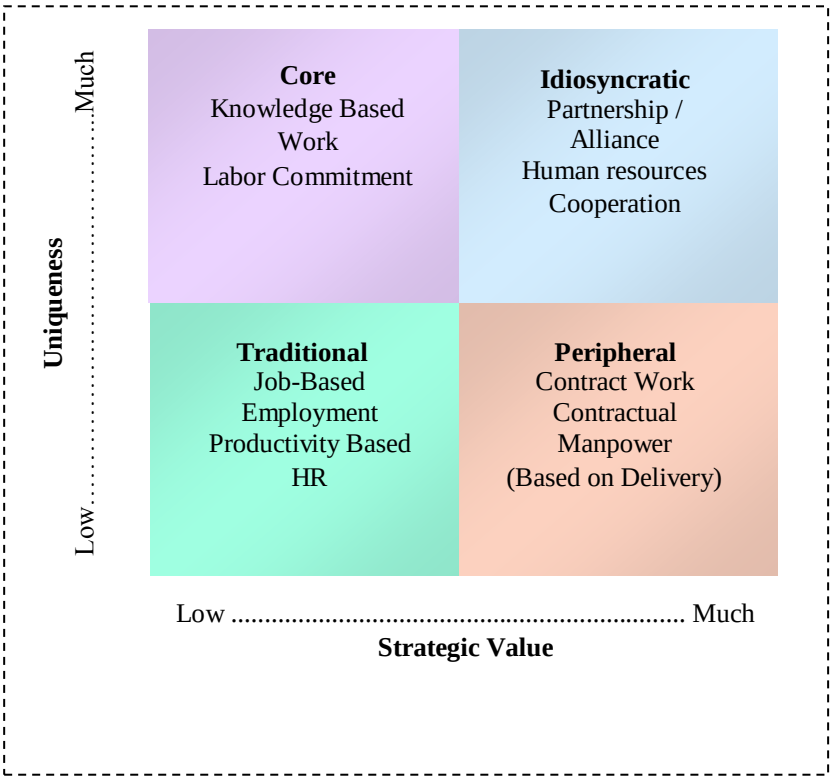


Figure 6-9 Strategic Model of HR based on Lepak and Snell Point of View (1998, 2002)

Stewart & Brown Model (2009)
At the business level, an organization can have a variety of different strategies, but two general strategies at the level of business units are more widely used: strategy of cost leadership and differentiation strategy. In addition to differing competitive strategies, organizations are also different due to paying attention to developing employee skills. An organization that focuses on the internal labor orientation tries to boost its employees and apply them for a long time in the organization. In contrast, an organization that has a

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foreign labor market orientation is looking to purchase its needed talents. Stewart and Brown (2009), based on two dimensions of strategic orientation and labor market orientation, have reached to the quaternary matrix, which illustrates human resource strategies (Figure 6-10).

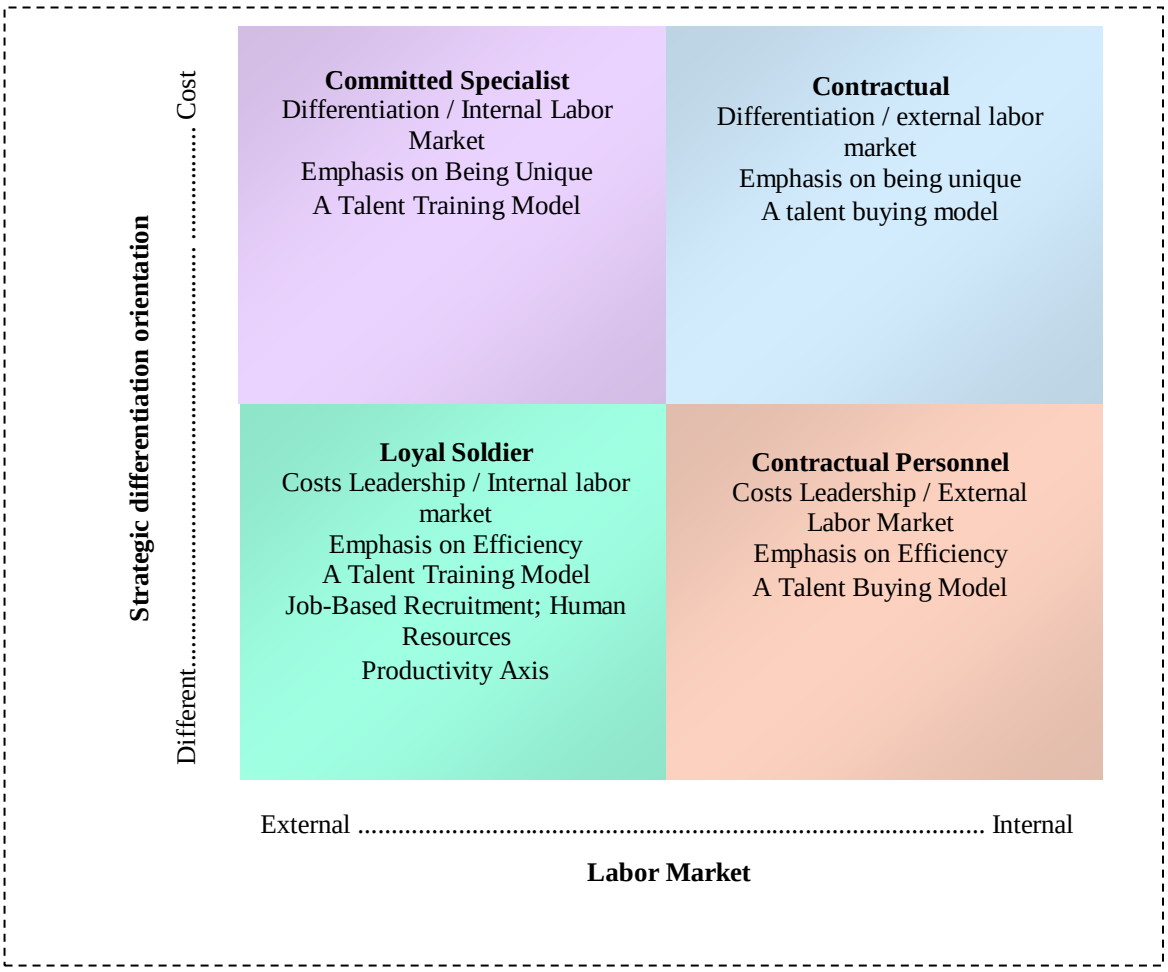


Figure 6-10 The Model of HR Strategies based on Stewart & Brown (2009)

1. Loyal Soldier Strategy: This name has been chosen because in this strategy the focus is on hiring and retaining loyal staff to carry out the affairs of the organization.
2. Contractual Personnel Strategy: The emphasis of this strategy is on employing employees who do not require high wages.
3. Committed Specialist Strategy: The purpose of this strategy is to select and retain expert staff.
4. Contractual Strategy: The Key Emphasis of this Strategy is to Employ People who have the Specialized Skills, but the Organization does not need them for a long time.

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Bamberger and Meshoulam Model (2000)

Bamberger and Meshoulam (2000), in their book entitled "Human Resource Strategy (Formulation, Implementation, and Impact)" combined the employee control based models and labor market based models to create a two-dimensional model called "Integrated Approach" (Bamberger and Meshoulam 2002).

Bamberger and Meshoulam (2000), after examining the previous models of human resources, deeply and accurately identified their model based on two dimensions of control (product or process control) and focus (inside or outside), and introduced four types of HR strategies: "Commitment", "Free Agent", "Parentalistic" and "secondary" that are shown in figure (6-11).

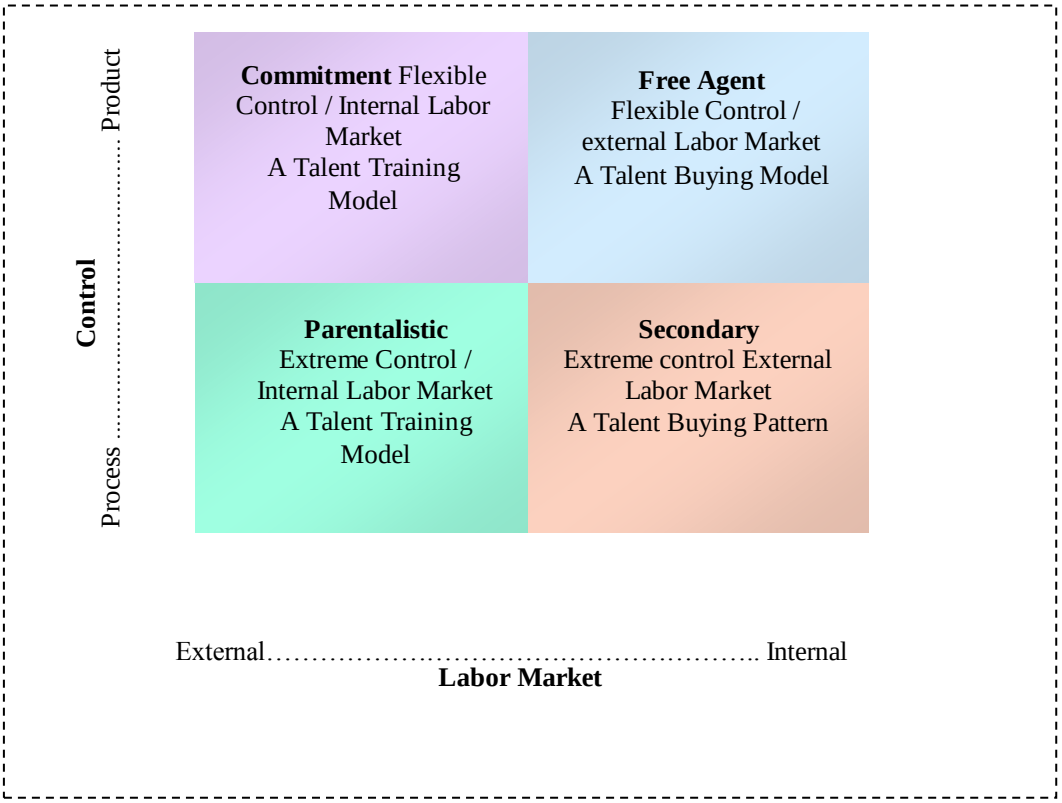


Figure 6-11 HR Strategies Models based on Bamberger and Meshoulam Point of View (2005)

1. Parentalistic Strategy: This strategy applies to simple, repetitive and standardized occupations;
2. Secondary Strategy: This strategy is also suitable for simple, repetitive, and standardized jobs that the labor force is available to them sufficiently in the external marketplace, and there is no need to train and maintain these employees.
3. Commitment Strategy: This strategy is used in complex and specialized occupations, the active experts in these businesses are constantly needed by company and their replacement is not feasible. Therefore, it is necessary to have an effective approach to the intra-organizational labor market (Bamberger and Meshoulam 2002).

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4. Free Agent Strategy: This strategy is also suitable for those complex and specialized professions that the regular recruitment of the relevant experts imposes a high cost on the company, because the company needs these kinds of jobs in short and temporary terms;

Building a Network in Defense Industries Based on Supply Chain Management (SCM)
The realization of the desirable defense industry, which is based on the development of innovation and creation, requires changing attitudes and views on key issues. Without making these changes, most notably cultural and attitudinal changes, one cannot expect a fundamental change. One of the most important changes in attitudes should be created in the area of organizational structure.
At a glance, future defense industries must maintain and develop their key value-creating units. These units are defined in the form of access cores. Any activity that cannot be defined in the form of these cores should be provided in the form of a network of industrial and research cooperation, mainly from outside the defense industry.
Theoretically, the creation and implementation of networks of industrial and research partners based on supply chain management (SCM).

7. Proposal

Given the networking approach, many of the organization's tasks are outsourced and consequently, many of the employees are released. Under these circumstances, it is obvious that human resources must be minimized in order to aggravate the organization and, in this case, the remaining forces have the maximum capability, and these forces are staffed. Then the human resources strategies should focus on them only.
Figure (7-1) assumes that the structure of the organization is task-based and the strategic designation of the organization (structurally) is to make network, it can be seen in below figure:

Task Structure: Organization Temporary Structure Network Structure

Task: Human Resources Strategy Temporary Replacement Desirable (main staff)

Figure 7-1 The Process of Networking and Reforming Human Resource Strategies

Before presenting the model, for designing the strategies of human resources with the network approach, based on the models of human resources strategies presented in the previous section, the viewpoint of the strategic reference points (integrated), which is a more complete model than the two rational and incremental models and other models, is the base of our model and we can combine the two models of Stuart and Raven's and Bamberger and Meshoulam that were earlier proposed as one single model based on below explanations:
The labor market dimension is the same in both models, and the control dimension in the Bamberger and Meshoulam model is the equivalent of the strategic orientation in the Stuart and Brown model, because when the process control is “intense” and the strategic orientation is cost leadership, it emphasizes cost reduction and efficiency increase, and when the control of the product is “return” and the strategic orientation is “differentiation” more powers and innovation is emphasized. Accordingly, strategies 1, 2, 3 and 4 are equal in both patterns.
The proposed model is based on Bamberger and Meshoulam Model and its development. In other words, the effect of structural changes and the type of structure on human resources strategies is not seen in Bamberger and Meshoulam Model. It means that according to the Bamberger and Meshoulam Model, if an organization outsources its tasks, its strategies before and after outsourcing is the same, while after outsourcing the remaining human resources are the main sources of the organization and strategies that are related to the general human resources of the organization cannot be used. Therefore, the Bamberger

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and Meshoulam Model for human resources strategy should be changed in a way that the impact of changing the structural approach can be seen and in this case, in addition to the 2 dimensions of the labor market and the control, a 3rd dimension called the structure (network-task) must be considered, and based on the three dimensions the following model is presented. Here, the structure is a structural task in which the organization carries out all its tasks using its own sources of recruitment and the structure is a structured network in which the organization outsources the main tasks and uses its supply chain to fulfill its tasks outside the organization.

The third dimension refers to the structure that relates to the organization's strategies. If the organization's approach is networking, the organization's strategies must also be designed in accordance with that approach and in coordination with those human resources strategies are affected as well. In this later dimension, as we move from the task structure to the network structure, strategies of Human resources also change from fatherhood to contractor. In the middle of this dimension, human resource strategy is neither fatherhood nor contractual, but it is secondary and committed form as shown in figure (7-2).

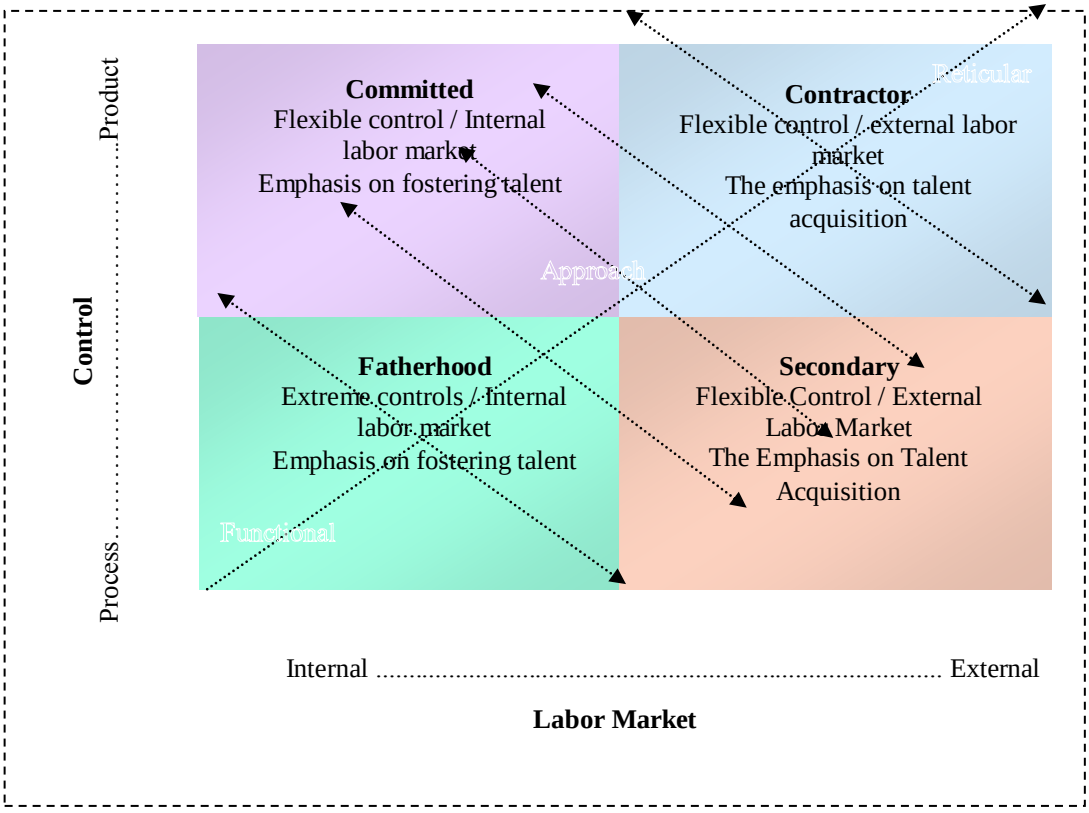


Figure 7-2 HR Strategies Model in the Organizations with Creating Network Approach

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8. Methodology

Based on its objective, this study is exploratory, and based on the method for data collection and analysis it is qualitative and fundamental. Therefore, the qualitative research method is used in the implementation of this project.

Qualitative Method

The approach employed in this method is the analytical approach and methodology of this research, is based on the Delphi strategy. According to this method, the researcher first transforms data from information sources into a set of indicators, components, and dimensions, and then transforms them into some form of theory. In this research, after analyzing the obtained data (from information sources, texts and scientific resources), the characteristics, components and dimensions are extracted and then, by sending a questionnaire, receiving answers and summarizing, and completing the second questionnaire, sending it and repeating this process continues until reaching the model of work. In other words, the data from the sources of information first transform into a set of characteristics, components and dimensions, and after obtaining the opinion of the experts (the statistical society of the experts and method of their selection, that is described in the statistical population section), it becomes a model.

Basics of Classification	
Exploration	Objective & Method of Research
Fundamental	Result of Research
Qualitative	Research Data
Delphi	Research Strategy
Comparative (Non-Statistical)	Method of Analyzing Data

Table 8-1. Basics of Study

Statistical Population, Sample Size Sampling Method

Managers and professionals working in defense industries who have knowledge and experience in networking and outsourcing are selected as the statistical community of experts, which are used in qualitative research.

- The Process of Conducting Research

According to the explanations of the previous sections, the operational process of this research was presented in Fig. 8-1.

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The operational process of conducting research

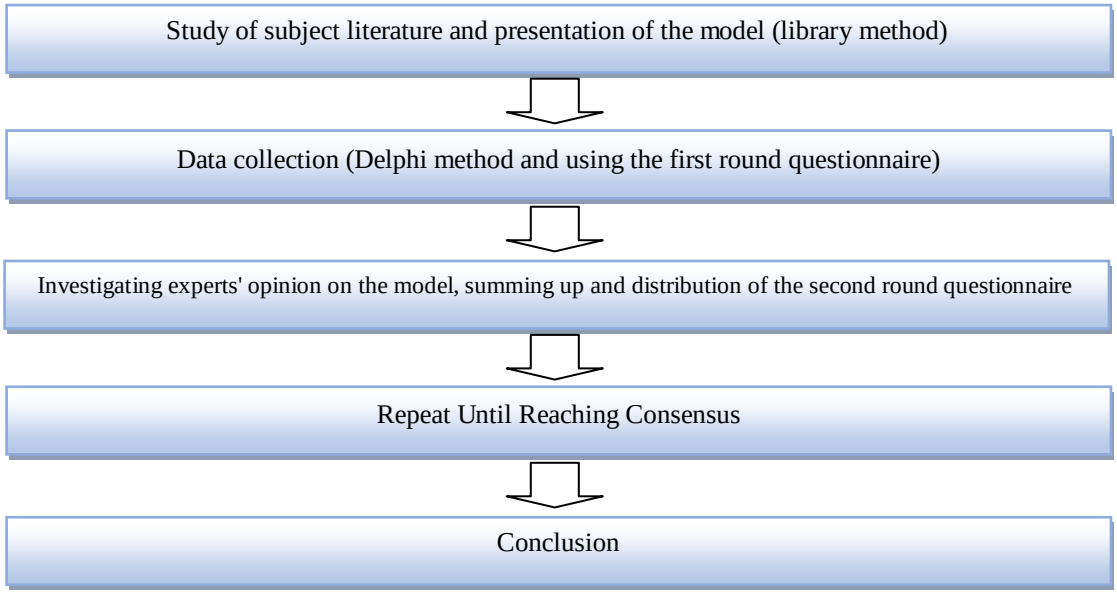


Figure 8-1 The operational process of conducting research

9. Implementing Research

In this research, after a complete review of the research literature, three dimensions for HR strategies in organizations with a network approach (Supply and Distribution Chain) identified and each dimension has two components and each component has seven indices. Thus, in this research, 42 indicators has been identified.

Using the Delphi method, the following measures were taken:

1- After consulting with one of the respected thesis advisors who is familiar with the defense industry organizations, a list of experts related to the topic of the thesis was prepared for membership in the panel of research experts and after consultation with the respected professor, the panel's list was finalized. These experts have one or more of the following features:

1-1- Faculty member of University or Research Institute

1-2. Manager / Senior Advisor for Defense Industries

1-3 the manager / senior expert with the direct involvement in the subject

1-4. Researchers who are familiar with the topic

2- Preparing and setting up the first Delphi questionnaire and sending it to the experts. In the first round, open questions about dimensions, components and indicators were raised.

3- Collecting answers and summing up the answers

In this section, the answers were collected and then summarized. The summary of answers are given in Table (9-1).

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Question 1	Given the approach of defense industry organizations to outsourcing and networking, how much is the proposed model applicable in determining the human resources strategies of these organizations?
Question 2	How much are the proposed model dimensions effective in determining human resources strategies?
Question 3	The dimension of the labor market (both internal and external) is the supply of human resources from inside of the organization (talent training) or outside of the organization (talent purchasing). Based on the declared indicators, who much effective are the components of this dimension in determining human resources strategies?
Question 4	Control dimension (process – outcome/returns) means the amount of human resources control in the organization. Process control means strict control over human resources and control of returns, which means product control and the result of human resources activities. Who much the components of this dimension, in accordance with the mentioned indicators, can be effective in determining the HR strategies?
Question 5	The structure dimension (task based - networking) means that organizations that have a task structure (all activities for the mission and objective of the organization are carried out by the organization's own human resources) to what extent outsource their tasks and whose structure is based on a network of supply and distribution chains, how much the components of this dimension can be effective in determining HR strategies in terms of the mentioned indicators?

#	Expert No.	Question One	Question 2	Question 3	Question 4	Question 5
1	1	Its Practical	Its True	Its Effective	Effective	Effective
2	2	Very Much	-	Very Much	Very Much	Much
3	3	-	Its Important	Important	Important	Effective
4	4	Very Much	Its Effective	Somewhat	Very Much	Somewhat
5	5	Much	Much	Much	Much	Much
6	6	Suitable	Effective	Effective	Effective	Effective
7	7	Its Good	Effective	Its Good	Effective	Applicable
8	8	Its Practical	Effective	Effective	Effective	Effective
9	9	Its Practical	Important	Effective	Effective	Effective
10	10	Applicable	Effective	Effective	Effective	Effective
11	11	Its Helpful	Effective	Effective	Effective	Effective
12	12	Its Effective	Effective	Effective	Effective	Effective
13	13	Its Effective	Effective	Effective	Effective	Effective
14	14	Its Practical	Effective	Effective	Effective	Effective
15	15	Its Good	Its Good	Its Good	Its Good	Its Good
16	16	Much	Effective	Its Good	Much	Effective
17	17	Effective	Effective	Effective	Effective	Very Much
18	18	Its Practical	Its Good	Its Good	Its Good	Its Good
19	19	-	-	-	-	-
20	20	-	-	-	-	-

Table 9-1 Delphi's First Round of Questions and Answers

- Given the open questions in the first round and summarizing the received responses, it has been determined that more than 80% of the panel of experts have confirmed the dimensions and components.

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4- Preparing and setting up the Delphi second round questionnaire and sending it to the experts. Given the complete confirmation of the dimensions and components in the first round, in the second round the questions regarding the indexes included both closed questions and open questions. In the second round questionnaire, the indexes were set as closed questions in the form of a Likert spectrum and sent to panel members, while the possibility of non-confirmation of the index, modification or addition of the new index was also anticipated. At this stage, the responses were summarized and according to the degree of consensus among the experts on the indicators that have been identified using Kendall's Coordination Coefficient a consensus have created and there is no need to continue and set up the next round of questionnaires.

5. After collecting and summarizing the answers, the Kendall Coordination Coefficient is used to determine the consensus among panel members (experts). Table (2-9) indicates the calculation of the coefficient t and the Kendall coefficient for the internal labor market component. For the other five components, there is a similar table that is avoided to prevent the paper from being too long.

Dimension	Labor Market (Supply of Human Resources)							
Component	Internal (Talent Training): Supply of Human Resources inside the Organization							
Index	7	6	5	4	3	2	1	
1	5	3	3	5	5	5	4	
2	3	3	1	3	3	4	4	
3	5	3	3	5	4	5	3	
4	4	2	3	4	4	5	4	
5	5	4	4	5	5	5	5	
6	4	3	3	4	4	4	4	
7	3	3	3	4	3	4	5	
8	5	4	3	5	5	2	5	
9	5	5	5	5	5	4	5	
10	4	4	2	2	5	5	5	
11	5	5	4	5	5	5	5	
12	5	4	3	3	5	4	5	
13	5	5	5	5	4	5	4	
14	5	5	4	4	5	5	5	
15	4	3	2	5	5	4	3	

Dimension	Labor Market (HR Supply)										
Component	Internal (Talent Training): Internal HR Supply										
Index	7	6	5	4	3	2	1		t		
1	5.5	1.5	1.5	5.5	5.5	5.5	3	4	2	1	66
2	3.5	3.5	1	3.5	3.5	6.5	6.5	4	2	1	66
3	6	2	2	6	4	6	2	3	3	1	48
4	4.5	1	2	4.5	4.5	7	4.5	4	1	1	60
5	5	1.5	1.5	5	5	5	5	2	5	1	126
6	5	1.5	1.5	5	5	5	5	2	5	1	126
7	2.5	2.5	2.5	5.5	2.5	5.5	7	2	4	1	66
8	5.5	3	2	5.5	5.5	1	5.5	4	1	1	60
9	4.5	4.5	4.5	4.5	4.5	1	4.5	6	1	1	210
10	3.5	3.5	1.5	1.5	6	6	6	3	2	2	36
11	4.5	4.5	1	4.5	4.5	4.5	4.5	6	1	1	210

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12	6	3.5	1.5	1.5	6	3.5	6	2	2	3	36
13	5	5	5	5	1.5	5	1.5	5	2	1	126
14	5	5	1.5	1.5	5	5	5	5	2		126
15	4.5	2.5	1	6.5	6.5	4.5	2.5	2	2	2	18
Sum of Rates Rj	70.5	45	30	65.5	69.5	71	68.5	420	60		1380
Rj Square	4970.25	20205	900	4290.25	4830.25	5041	4692.25	26749	36000		
S=∑(Rj-Ř)2=∑Rj2-nŘ2								1549			
Given the fact that average rate are dedicated in the rows, we use the modified Kendall formula.											
W=S/K(Kn(n2-1)-∑∑t(t2-1))/12											
Where W is the modified Kendall Adjustment Coefficient and K is the number of experts and n is the number of indexes and t is the number of rates											
Equals in rows and in columns											
						W=0.4785295					
There is no consensus among the experts: H0 is rejected and There is consensus among the experts: H1 is accepted.											
If X = k (n-1) w> x2, and since X = 37.3253 and x2 = 16.81, then H0 is rejected									37.325301		

Table 9-2 Calculation of t and Kendall Coefficient

The results of this step are confirmation of the confirmed model indices of the previous step. Thus, the model, dimensions, components, and indicators of the same are confirmed by experts. Dimensions and components and final indicators are as follows:

#	Dimensions	Components	Indexes
1	Labor Market (HR Supply)	1- Internal (Talent Training): Supply of HR from inside the organization	There is a long-term relationship with employees
			Emphasizes on the promotion of employees
			Long-term and ongoing planning for staff training
			Development of organizational skills is considered
			The organization is strict about unauthorized leave
			Employees have a strong dependence on the organization
			The basis for the cooperation of the staff is loyalty to the organization
		External (Talent Training): Supply of HR from outside of the organization	People with high professional skills are hired
			Emphasizing the use of new forces
			Limited training is available for the staff
			The development of ultra-organizational skills is on the agenda
			Leaving staff is accepted

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			The staff are highly dependent on the profession
			The basis for employee cooperation with the organization is money
2	Control	1-Process control (Extreme): Jobs are designed in such a way that the manager can have a strong control over the staff (processes)	The emphasis is on increasing efficiency
			The emphasis is on the participation of the group
			Focus is on process improvement
			Development of the general skills of the employees is intended
			The tasks are completely predefined
			There is full cooperation between staff
			Activities have been standardized
		2. Product Control (Outcome - Flexible): Jobs are designed to give the employees freedom to use their creativity to create and improve their working methods.	Emphasis on creativity and innovation
			The emphasis is on the participation of individuals
			Focusing on results, outcomes and returns
			The development of specialized skills is intended
			Tasks are flexible
			There is a relative competition between employees
			The rules and procedures are slightly used
3	Structure	1- Task: Perform all tasks using the human resources of the organization	The organization's approach is in-sourcing
			Tasks are completely separated and divided (mechanical structure)
			Works, activities and procedures are fully standardized
			Work processes are completely determined
			The emphasis is on doing everything by using the organization's staff
			The forces required are preferably provided internally
			Development of the required general and specialized skills is intended
		2-Network (Supply and Distribution Chain): The assignment of the organization's tasks through outsourcing to supply and distribution chains	An outsourcing organizational approach
			Tasks are provided through outsourcing supply chains
			There is a coherent relationship (network) between the chains
			There is an emphasis on innovation and creativity
			Valuable and key units are maintained and developed
			External capacity and resources are used to increase network power
			The valuable forces of the organization are preserved

Table 9-3 Dimensions and Components and Final Indexes

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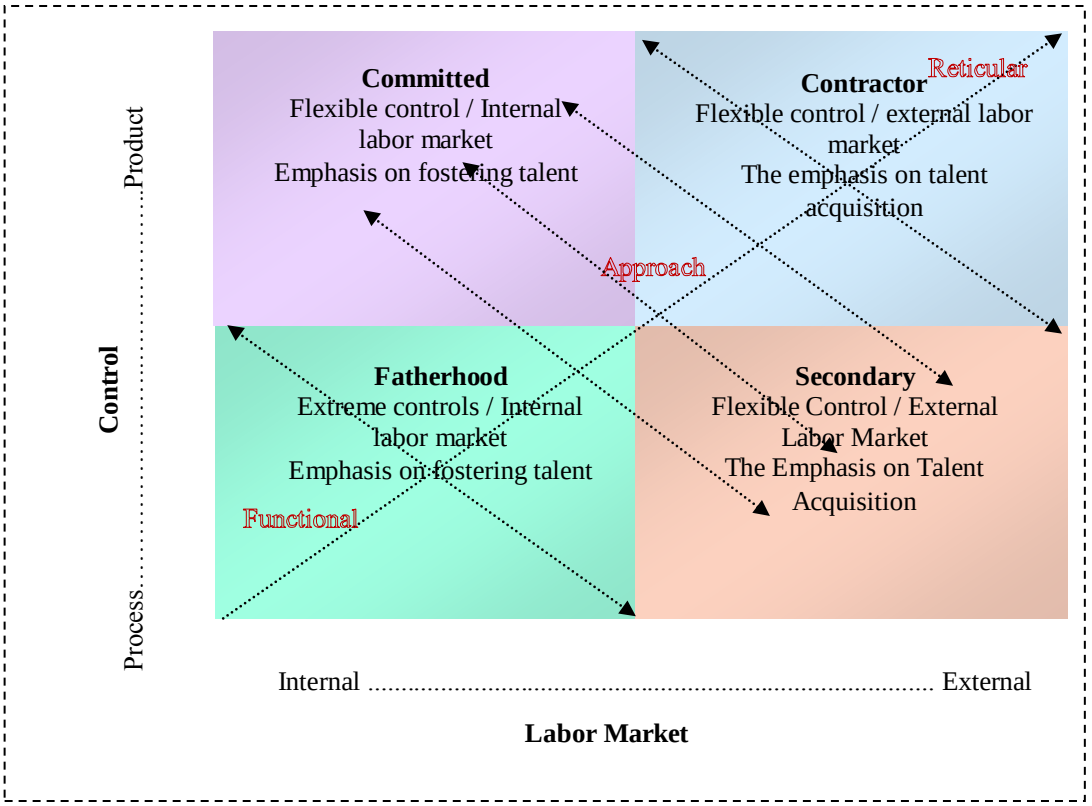


Figure 9-1 Model of Human Resources Strategies in the organizations with a Network-Based Approach (Supply and Distribution Chain)

As we saw, a dimension (structure dimension) was added to the most complete model of human resources strategies (Bamberger and Meshoulam model). This model helps organizations, at whatever level they are able to create networks in their organization, to use a strategy appropriate to the amount of network creation. If the organization is in the middle of creating a network through its outsourcing activities, its human resource strategy is both secondary and committed. As it can be seen in Table (4-9), based on three dimensions of the model, there are eight different modes. The great advantage of this model is the high precision of strategy selection.

Mode	Labor Market	Control	Structure	Strategy
1	Internal	Process	Task Based	Fatherhood
2	Internal	Process	Network Based	Secondary – Committed
3	Internal	Product	Network Based	Committed with trend to Contractor
4	External	Process	Task Based	Secondary with Trend to Fatherhood
5	External	Process	Network Based	Secondary with trend to Contractor
6	External	Product	Network Based	Contractor
7	Internal	Product	Task Based	Committed with trend to Fatherhood
8	External	Product	Task Based	Secondary – Committed

Table 9-4 Strategy of Different Modes of Model

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10. Conclusion

Based on the consensus created during the Delphi era, "The Model of Human Resource Strategies in Organizations with Network Approach (Supply and Distribution Chain) – Case Study: Defense Industries Organizations", with modifications in the indicators, were approved by the Panel of Experts.

Research Role in Knowledge Development

The research is theoretically a developer of knowledge in the design of human resource strategies with a network-based approach. Due to the novelty of this discussion, theoretical literature about it has not grown much and there is a noticeable deficiency in this regard. The research, with a new approach to HR strategy design, will create a new look at human resource management and will provide a basis for future research in this area.

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