

IMPROVING SUSTAINABLE COMPETITIVE ADVANTAGE WITH THE FOCUS ON SUSTAINABLE HUMAN RESOURCES: A CASE STUDY OF OIL INDUSTRY

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ABSTRACT

In today's competitive and dynamic world and in different business areas the position of human resource management is certainly undeniable. An organization's human resources is also its vital factor in being active and outperforming the competitors. Yet, in the new approach to human resource development, its special place in the studies and literature on strategic management is rarely focused on and investigated. This study, therefore, aims to identify different dimensions of competitive advantage and analyze the role of human resources in its development and improvement. To this end and to evaluate the respective model, this case study is done on National Iranian Oil Refining and Distribution Company (NIORDC). Firstly, the literature on the subject was studied extensively and the criteria were drawn from human resource empowerment models in relation to competitive advantage. Then, three questionnaires were used to obtain data from the statistical population in order to implement the model. Finally, some practical suggestions are offered for improving the condition of utilizing competitive advantage in human resource area.

Keywords: *Competitive Advantage; Sustainable Human Resources; Oil Industry*

INTRODUCTION

The present era with its special changes and evolutions challenges the old management methods and techniques. Some theories which previously had positive effects on organizations and had a leading role in management are gradually losing their place in practice. Today, both limited internal resources and the expansion of competitiveness and innovation in external contexts require that organizations use their internal resources efficiently and endeavor to survive in the unstable external environment. On the other hand, competitive advantage is a combination of factors that make an organization be much more successful than other organizations in a competitive environment, and cannot be easily emulated by the competitors. Since human resources is considered the most valuable production factor, the most important capital, the main source of competitive advantage, and the cause of organizations' basic features and capabilities, one of the most effective ways to achieve competitive advantage in the current situation is making organizations' employees more efficient. In other words, in the present era the competitive advantage of organizations is having employees with positive features and high ability in the work environment. Competitiveness is a process through which each organization or institution tries to outperform and overtake another one. Gaining competitive skills and capabilities in today's world has become one of the major challenges of countries worldwide. All organizations which benefit from modern approaches in their human resources can use wider dimensions of their human resources in the work process and be more prosperous. A capable organization has creative, innovative, satisfied, and committed employees with less stress at work. Having expert and skilled employees in all areas enables organizations to not only be hopeful about their survival in the present competitive and unstable market but also be able to stay ahead in the current business environment and changeable market using their competitive advantage properly (Fallah, 2010). The scarcity of resources and increased competitiveness require that organizations and firms search more sustainable sources of gaining competitive advantage. One of the crucial factors in organizations' success is competitive advantage which is a combination of several factors among which human resources is very different. Due to the pivotal role of human beings and human capital in solving problems and developing advanced technologies as well as the fact that the

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most important factor in organizations' efficiency and in turn the society's efficiency is human resources, there is no doubt that the development of any society depends on the improvement and training of its human resources. Therefore, authorities in organizations, with the help of human resources and behavioral specialists, pay particular attention to training employees (Saatchi, 2007). Competitive advantage requires that resources develop efficiently and effectively so that there is superiority in the market place that creates more financial returns. All competitive advantages are dynamic and depend on some specific features of the market and environment (Christensen, 2001). Competitive advantage results from a dynamic and continuous procedure which with considering the internal and external status is rooted in the organization's resources; using these resources properly creates capabilities that if employed properly bring about competitive advantages for the organization (Payandani, 2013). Zhrzhskv (1976) believes that competitiveness is realized if we accept an exclusive element based on the differences between corporations and businesses. In this condition the competitiveness area is not limited to the number of businesses but depends on the circumstances that cause different behaviors of businesses. In this sense competitiveness is a procedure for finding the best behavior and performance (Jani, 2011). In general, it could be said that the increase in organizations' competitiveness creates a competitive environment in the society and in turn improves the national competitiveness level which paves the way for the globalization process (SeyedJavadin *et al.*, 2010). In today's competitive world organizations must gain competitive advantage to survive. Management science theorists have proposed two approaches for building competitive advantage: one of them is based on environmental opportunities and the other one is based on the organization's internal capabilities (Hajipour *et al.*, 2011). Today, many organizations have gained competitive advantage regardless of external opportunities and threats. This is due to the fact that some organizations have created some elements as sources of their competitive advantage that enable them to outperform their rivals. Based on the resources view it can be said that organizations' competitive advantage is mostly the result of the organization's capability to reduce costs through higher efficiency, producing higher quality products, innovation, and fulfilling the clients' needs (Rahimi *et al.*, 2011).

Theoretical Foundations

Competitive Advantage

Since Adam Smith proposed the theory of absolute advantage, economists have been inclined to investigate the determining factors in the performance of domestic industry. After Adam Smith, Ricardo developed the theory of comparative advantage. The next versions of the theory focused on the differences between the countries in the weather, fertility of land, or natural resources. Then the Heckscher Ohlin model was developed which mainly emphasizes differences between the countries in terms of the main immobile factors of production and differences in the cost of factors resulting from the relative difference in the factor abundance. Gradually as the result of changes in the nature of world trade and the condition and reality of international trade, the international trade theories have undergone significant changes.

Specifically, in the second half of the twentieth century some models such as Technology Gap was proposed by scientists like Porter (1961) and Vornn (1966). Leander (1961) also highlighted the condition of goods market and business in the international market formulated the theory of dynamic comparative advantage and finally Porter (1985) developed the theory of competitive advantage. The latter is more compatible with the realities of modern economics and the new conditions of international trade (ZabihiLahremi, 2010). Competitive advantage refers to an organization's capability to outperform its competitors in its respective industry. Having competitive advantage means providing superior value for customers (Dehyadegari *et al.*, 2005). Both internal and environmental factors affect an organization's competitive advantage; the environmental factor as an influential parameter for competitiveness is actively engaged in different political- economic areas and is noteworthy in various macro and micro international and national dimensions. Intra-organizational factors refer to the controllable factors inside an organization or a business which involve three key factors of resource-based view, market-based view, and knowledge-based view (Abbasi *et al.*, 2012).

Dimensions of Competitive Advantage

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To grasp the concept of competitive advantage, it is necessary to analyze its different dimensions. Based on some studies, the concept of competitive advantage has a direct relationship with the following eight concepts.

Situational Advantage versus Dynamic Advantage

The situational advantage results from an organization's attributes and supplies. Its causal factors are usually static and created based on accessibility. Conversely, the dynamic advantage is created based on dynamic capabilities.

It is the foundation of an organization's efficiency and effectiveness in the market and is usually based on its knowledge and competence. Dynamic advantages help firms do their business activities more efficiently and effectively than their rivals. Dynamic competitive advantages could be classified into four categories:

a) Entrepreneurial Capabilities

These capabilities refer to a company's ability to identify and attract major customers, to use existing opportunities of the market, and to create new opportunities.

b) Technical Capabilities

These capabilities develop and promote the creativity, efficiency, flexibility, pace, or quality of the procedures of company. They also improve the quality of products.

c) Organizational Capabilities

These capabilities include an organization's structural and cultural properties which are essential for the employees' dynamism and mobility, quicker organizational learning, and facilitating necessary changes.

d) Strategic Capabilities

These capabilities are necessary for creating, integrating as well as effective and influential coordination of knowledge and company's various competences, restructuring them, and giving them effective mobility and transfer in accordance with environmental changes and dynamism as well as available opportunities of companies.

Congruent Advantage versus Incongruent Advantage

When an organization and its competitors compete in the same way using similar skills and capabilities, the advantage is congruent. Unlike the congruent advantage, the incongruent advantage primarily plays the role of being different and distinct, and provides a higher value for customers through skills, different combinations of resources, or different products and better services (Hosseini, 2009).

Definite Advantage versus Indefinite Advantage

The definite advantage is based on obvious resources and can be observed in the form of physical data like machinery and equipment.

But the indefinite advantage cannot be easily observed physically. It is latent in certain factors, and is causally unclear and socially complicated (Hosseini, 2009).

Unsustainable Advantage versus Sustainable Advantage

The unsustainable advantage refers to an advantage which is short-term and transferable regarding the function of market. But the sustainable advantage is long-term and is not easy to be duplicated by the competitors (Hosseini, 2007).

Comparative Advantage versus Absolute Advantage

If on comparison there is little difference between the advantage of an organization and that of its competitors, the advantage is comparative. But if the advantage of the organization is dominant over that of its rivals and affects the market considerably, the advantage is absolute (Hosseini, 2007).

Direct Advantage versus Indirect Advantage

The direct advantage directly affects the creation of competitive values of an organization while the indirect advantage plays its role through intermediate factors or agents (Hosseini, 2009).

Potential Advantage versus Actual Advantage

The potential advantage has the potential for enjoying actual competitive value, but the actual advantage plays its role scientifically in the competitiveness mechanism of the market (Hosseini, 2009).

Simple Advantage versus Compound Advantage

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If the competitive advantage functions by itself, it is a simple advantage. But if the advantage interactively functions in its totality as a combination of multiple advantages, it is a compound advantage (Hosseini, 2009),

Dominant Advantage versus Backup Advantage

The main issue is that backup advantages can be created with the aim of better performance of a company. While Canon's dominant advantage is its superior capacity for image processing, its backup advantage is rooted in the understanding of marketing and courage to develop it. The dominant advantage must be more resistant to be able to help with establishing the identity and main goal of the company. However, backup advantages have more flexibility and change in accordance with the competitive situation. In the long term, it is possible that a dominant advantage is abolished or irrelevant, for example, the advantage of IBM in central processing does not help very much with running the PC. Therefore, restoration is done because of submitting its dominant advantage as Schiff products in the industry or standard changes in the market. The question which should always be asked about the dominant advantage is "what is our main capital?". Desini's creativity —Coca Cola's trademark--, and 3M CENTER innovation, that is, Nike logo, are instances of very clear dominant advantages (Tozhan, 2009).

Empowerment

Empowerment is a well-known tool that enables managers to effectively manage modern organizations which have characteristics like variety of impact channels, horizontal and network structure-based development, the narrow gap between employees and managers, and the decreased level of organizational commitment (Mohammadi, 2002). The use of the term empowerment in management refers to administrative democracy and including employees in making organizational decisions under the names of team-making, cooperation, and total quality management. Until about two decades ago, there was no working and precise definition of empowerment. Then in 1988, Conger and Kanungo took a very major step in this regard. According to them, to analyze the concept of empowerment, firstly the historical development of its definitions includes communicative, motivational, and cognitive perspectives.

From the communicative perspective, empowerment is a process through which the manager shares power with his or her subordinates.

In other words, in this approach empowerment is the same as the delegation of authority (Tabarsa and Ahangar, 2008). Based on the motivational approach, any strategy that results in employees' right to decide about job activities, self-directedness, and finally self-efficacy makes them empowered. Empowerment is, therefore, the process of reinforcing organizational members' competence through the identification and removal of conditions fostering powerlessness. From the cognitive perspective, empowerment is increasing intrinsic motivation for doing assigned duties. It refers to the positive experiences people gain directly from doing their duties.

These experiences provide intrinsic motivation for doing assigned duties and as a result increase satisfaction. Thomas and Velthouse (1990) add a psychological aspect to empowerment and define it as a combination of cognitive- motivational domains that includes three other cognitive domains (autonomy, or the right to decide, being significant and effective) in addition to self-efficacy. From this standpoint, every duty or task should have characteristics like autonomy, or the right to decide (i.e. freedom to determine essential activities for performing tasks), being significant (i.e. when the organization's workforce appreciates the value of assigned tasks), and being effective (taking steps towards accomplishing predetermined goals) (Tabarsa and Ahangar, 2008).

Review of the Literature

In a study titled 'explaining and examining the strategy of interaction between learning capabilities, innovation, and sustainable competitive advantage' Dehghan *et al.*, (2012) showed that there is a significant and linear relationship between the variables of marketing capability and sustainable competitive advantage, market learning ability and organizational innovation, marketing capability and organizational innovation, market learning ability and marketing capability as well as organizational innovation and sustainable competitive advantage.

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Mazloumi *et al.*, (2012) did a study titled ‘identifying and ranking key factors in gaining competitive advantage in an insurance company’ and showed that the factors are prioritized based on the final weight table in this order: quality, quick and good service, creating commitment in the organization, managing customer relations and services, customer loyalty, insurance rates, training employees to improve their skills, mutual connection between research and development unit and marketing, ability to hire talented and capable employees, entering new customization markets, investment in significant innovation, innovation in distribution.

In a research titled ‘studying principal components of the competitiveness of enterprises’ Aghazadeh *et al.*, (2007) showed that from the experts’ point of view all components of the competitiveness of enterprises in the business environment in Iran are approved, and most of them are very important and suffer from disadvantages.

In a research titled ‘dynamism of the environment in the direction of competitive advantage’ Popoola (2000) investigated the dynamism of management environment in banks in Nigeria. He also studied the extent to which information affects competitive advantage gain in banking. The components studied were investment analysis, improving the quality of services, resolving conflicts, marketing research, and business strategies. The findings showed that the customers had unclear competitive strategies, and suggested that electronic information should be used in dynamic environments. In another study titled ‘competitiveness in business banks in Ghana’ Biekpe (2011) empirically investigated the extent of competitiveness and the mediating role of efficiency. The results indicated that the non-competitive structure of banking in Ghana impedes financial intermediation, and the banks in Ghana have an exclusive competitive market that hinders their entering into other markets and huge profit for them. Epetimehin (2011) did a study titled ‘gaining competitive advantage in an insurance industry: the effects of marketing innovation and creativity’ to have new achievements, meet the needs of insurance shareholders, develop the product and services of the insurance company, and investigate the role of innovation in marketing and creativity in building competitive advantage. The results showed that marketing innovation and creativity plays a crucial role in organizational success. In fact, through innovation and creativity in marketing of the insurance industry and innovative services as an important factor in gaining customer satisfaction, and accessing new information and technologies to find about the services provided by the rival companies and improve the quality of its services, the insurance company can promote its business and gain competitive advantage.

Research Questions

1. What is the proper theoretical approach that can explain the process of gaining competitive advantage?
 - 1.1. What are the measurement criteria of competitive advantage?
 - 1.2. How can the human resources assist the organization with improving its competitive advantage?
2. What is the relation between different dimensions of competitive advantage and human resource management? And how can we expand the dimensions of competitive advantage through developing and improving human resources?

MATERIALS AND METHODS

Methodology

One of the most important aspects of a research which underlies its credibility is method because its basis, reliability, and validity are mostly depended on it. Without research methodology, the results of investigation and analysis are not reliable and generalizable. Thus, the research methodology is one of the common criteria for assessing scientific studies. With regard to the purpose and goal, this research is an applied one as it considers identifying effective factors in generating competitive advantage in human resources. The research population is National Iranian Oil Refining and Distribution Company (NIORDC)’s 360 employees in Tehran. Using Cochran’s formula, the sample size was determined to be 118. The main data collection instruments in this field study were three questionnaires designed and distributed based on related questionnaires. The first one was filled out by the experts in

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NIORDC to analyze and identify the current situation and determining factors in the empowerment of employees. The NIORDC employees, regardless of their organizational level and position, completed the second questionnaire which aimed to identify factors in and barriers to the employees' empowerment. Both the experts and the employees answered the third questionnaire which dealt with searching for potential solutions and agents in the company for empowering the employees. 114 questionnaires were filled in completely and delivered. In general, the research instruments were questionnaires and interview whose results will be analyzed. The research method was mixed method -- a combination of qualitative and quantitative methods. With regard to the latter, the research was a survey and descriptive, and the data was gathered using the researcher-made questionnaires. The results of the questionnaires are analyzed by SPSS. The reliability of the questionnaire, randomly distributed to 30 members of the population, was estimated against Cronbach's Alpha Coefficient; it was .897 which is highly satisfactory.

Inferential Statistics

In analyzing inferential statistical the concern is that how results of studying a small group called the sample is generalizable to the bigger group, that is, the population. In the present study, this analysis includes testing the research questions through regression analysis, correlations, and the obtained coefficients.

Table 1: The correlation between the variables of management and leadership in the organization and the value of work

Table 2: Regression coefficients and linear equation for the variable of management and leadership in the organization

Variables

Significance values

Linear regression equation

P-value

Since two or more independent variables affect the dependent variable, the coefficient of multiple regression show the intensity of relationship between the independent variables of X and the dependent variable of Y.

In multiple regression the equation of *a model of the form* regression that represents the relation between all variables is expressed as $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$ which is estimated by $y = a + b_1 x_1 + b_2 x_2 + \dots + b_n x_n$.

When some variables simultaneously affect one variable, it is particularly important to determine which variable has been effective and which one has not been effective. When the coefficients are zero we know that there is no relationship between the dependent and independent variable. The variance in this variable with the dependent variable is 23.7% and with other variables is 77.3%. The table including the results of the variable of leadership and management is presented here. To avoid lengthening the text, the remaining statistical results are used in the discussion and suggestion sections.

Table 3: The assessment model of the relationship between the elements of the dependent variable

The Final Testing of the Hypotheses

In every scientific research the researcher should put forward a hypothesis for the research question and build a picture of the question in his/her mind. Of course, this is done according to preliminary studies, investigations, observations, thinking and reflection, etc.

The researcher aims to collect data in a correct and scientific way and analyze them in order to find the answer to the research questions and test the research hypothesis or hypotheses. Therefore, at the end, the researcher should be able to discuss the hypotheses and accept or reject them based on the obtained results.

According to the model used in this study, the first hypothesis which considers the personal factors to be influential in the employees' empowerment is analyzed in this way: among the personal factors, experience and education have the most significant influence on the employees' empowerment while gender and race have the least influence. Thus, it is more necessary to empower the employees with considering personal factors like experience and education to attain the results of the first hypothesis.

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In the second hypothesis, among the internal organizational factors, management and leadership as well as job analysis have the most significant influence and the other variables have a considerable influence. This shows that to empower the employees through organizational factors, it is essential to take account of this set of factors and thus make it possible to reach the results of the hypothesis.

The third hypothesis regards the empowerment of employees a factor in the competitive advantage of the organization. Due to the focus on the importance of human resources as the key factor in competitive advantage, empowering human resources can pave the way for achieving the results of the hypothesis.

To test the research hypotheses and the significance of the coefficients, linear regression equation Y is calculated with considering the P-value. The null hypothesis (H_0) which denotes the lack of relationship between the personal and organizational factors in the empowerment of employees is rejected and the alternative hypothesis (H_1) which denotes a relationship between the variables and empowerment is accepted.

Table 4: Relationships between the dependent variable and independent variables

Table 5: Correlations between the dependent variable and independent variables

As all P-values are smaller than, not being zero is generalizable to all the coefficients, and with the confidence interval of 99.0% it can be said that all coefficients of the linear equation variables are not zero. To confirm the significance of the Interception the linear equation coefficient, we look at the P-value of the Fisher test which is 0 and thus smaller than α (that is, .05). So the linear regression equation Y is confirmed. In fact, the T and F statistical tests show that the obtained coefficients and in turn the linear regression equation calculated by Minitab are confirmed. With regard to the changes and variance, it should be said that 77.3% of the changes are explained by the other variables affecting the dependent variable.

Conclusion and Suggestions

The main goal of every manufacturing, service, cultural, and disciplinary organization is to achieve the optimum levels of organizational efficiency. Efficiency means using various resources effectively to produce goods and services that 1) respond to the demands of consumers, 2) maximize the employees' job satisfaction, 3) increase the desirability of employees' lives in all aspects. A person's job efficiency increases when his/her effectiveness is at an optimum level and his/her job performance is influential.

Results of the comprehensive evaluation of employees' job performance could be used as the main source and the rational defensible basis for making decisions about promotion, pay and wage rise, transfer of employees and encouraging them to participate in special training courses, lay-offs and expulsion of the employees, etc. Moreover, in the comprehensive evaluation of employees' job performance 1) objective information on goods and services production and 2) information about employees' work experience can be used in an effective and non-relationship-oriented way. When the organizational atmosphere and culture is strong and healthy, and its strategies are effective, flexible, and especially taken into consideration by the managers, the organization will have a better economic performance. Competent and qualified managers use organizational and work culture in various effective ways and know that efficient organizational and work culture can:

1. Support the business strategies of the organization,
2. Recommend acceptable procedures for interaction with shareholders, government, or customers to managers,
3. Assist managers with making decisions on choosing people,
4. Identify the criteria for employees' job performance,
5. Determine the nature of acceptable interpersonal relationships in the organization and direct them.

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