



THE IMPACT OF INTELLECTUAL CAPITAL ON ACHIEVING COMPETITIVE ADVANTAGE: A STUDY OF NON-GOVERNMENTAL UNIVERSITIES IN ERBIL CITY

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ABSTRACT

This study focuses on the impact of intellectual capital in achieving competitive advantage. The study aims to determine the impact of intellectual capital in achieving competitive advantage in the non-governmental universities in Erbil city, Iraq. The sample consists 90 of them for this purpose, data were collected from 85 respondents of non-governmental universities using a questionnaire. The collected data were analyzed using SPSS software. The results of the analyses show that is a statistically significant relationship between intellectual capital and competitive advantage. Based on the study it is concluded that universities should focus on intellectual capital as it is an important source in achieving competitive advantage. Also, intellectual capital is a strategic resource for universities and should be protected to be successful in today's dynamic and changing environment.

Key words: Intellectual Capital, Competitive Advantage, Universities.

1.1 INTRODUCTION

The current century experiences tremendous developments in various fields. Business and the economy are among these fields that became big challenges for business organizations. The most obvious of these development sides are globalization and the shift towards a knowledge economy. This economy in which land, labor and capital are not the only the basic resources, but also 'knowledge' appeared as a fourth element as a new type of capital that is based on knowledge and experience. This capital is called "The intellectual capital", and it should be renewed and developed constantly.

The Intellectual Capital can help many firm or institution to achieve excellence and enhance its competitive position, and therefore institutions should work to achieve competitive advantage through their attention toward intellectual capital. We will try through this intervention to identify the intellectual capital and the most important components and measurable indicators, highlighting the importance of intellectual capital in achieving the competitive advantage of the organization. Therefore; we have tried to address the following problem: How does the intellectual capital contributes to achieve competitive advantage in the non-governmental universities?

We tried in this study to answer the above question through the following:

- Explaining the concept of intellectual capital.
- Demonstrating the most important components and indicators for measuring and evaluating the intellectual capital.
- Explaining the relationship among intellectual capital and competitive advantage in the nongovernmental universities.

The contemporary economy is not only concerned with physical assets such as buildings, machinery and capital, but it also pays equal attention to the non-physical asset of intellectual capital; this capital which is the real wealth of the institution and its key to survive and compete in the market.

1.1.1 PROBLEM STATEMENT

The goal of nongovernmental universities (private universities) is to survive and expand, to fulfill this goal, nongovernmental universities are constantly seeking to find methods that enable them to achieve competitive advantage. Therefore, they are focusing on intellectual capital as one of these methods. Intellectual capital can give nongovernmental universities competitive advantage in many areas such as cost, differentiation and flexibility. These factors interact to give new vision. Herein, if intellectual capital is not used properly, we will be in danger of being surpassed by our competitors. In short, the research problem can be highlighted in the following questions:

- 1 - Do nongovernmental universities focus on non-tangible resources such as intellectual capital more than tangible resources?
- 2 - Do nongovernmental universities realize the value of the intellectual capital that they possess?

3 - Do non-tangible resources such as intellectual capital affect the competitive advantage of nongovernmental universities?

1.1.2 IMPORTANCE OF THE STUDY

Research acquires its importance from the following:

- 1 - The importance of intellectual capital in being a contributor to discover and strengthen the cognitive and organizational capacities of individuals, and enhancing the organizations' strength points and being a deferent than other competitors.
- 2 - Draw the attention of managers in the universities to the fact that any institution cannot achieve its objectives efficiently without strong understanding of the intellectual capital and how manage it.
- 3 - Need to maintain the intellectual capital and how to invest it in the form that achieves innovative and creative activities that support organization competitive advantages.
- 4 - The fact that this academic research is an attempt to give attention on the intellectual capital and its increasingly important in business organizations and the economy in general, and how they can develop and maintain it to achieve competitive advantages and support through it.
- 5 - The importance of the empirical side, which shows patterns of enhancing the intellectual capital in non-governmental universities, with explanation of strengths and weaknesses of them, as well as the ways in which in the intellectual capital can be developed and maintained.

1.1.3 OBJECTIVES OF THE STUDY

The objectives of this study is to test the impact of intellectual capital in competitive advantage in nongovernmental universities through:

1. Measure the impact of Human Capital in competitive advantage.
2. Measure the impact of Structural Capital in competitive advantage.
3. Measure the impact of Relational Capital in competitive advantage.

1.1.4 RESEARCH MODEL

The research model is shown in the following figure.

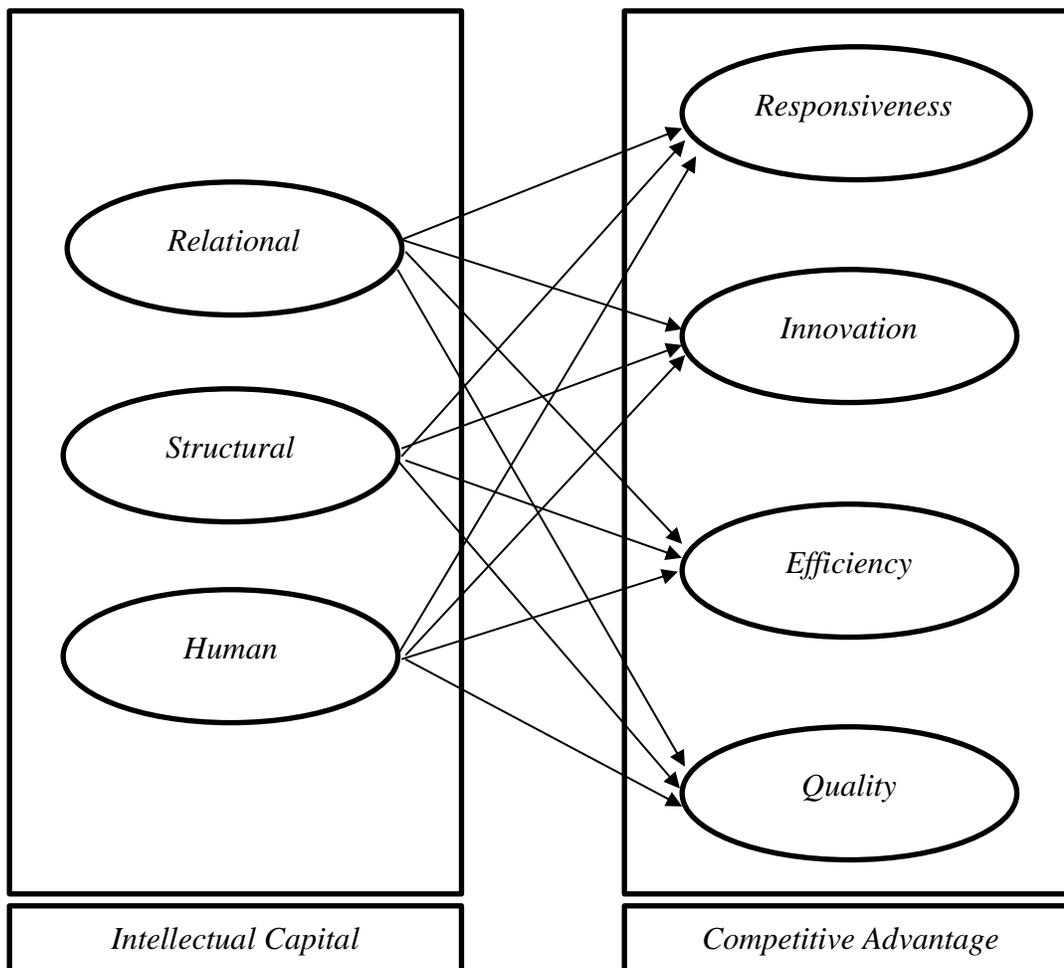


Figure 1. Research model

1.1.5 HYPOTHESES OF THE STUDY

The following hypotheses will be tested in the study.

H1: There is a positive effect of Relational Capital on Competitive Advantage

H1a: There is a positive effect of Relational Capital on Responsiveness.

H1b: There is a positive effect of Relational Capital on Innovation.

H1c: There is a positive effect of Relational Capital on Efficiency.

H1d: There is a positive effect of Relational Capital on Quality.

H2: There is a positive effect of Structural Capital on Competitive Advantage

H2a: There is a positive effect of Structural Capital on Responsiveness.

H2b: There is a positive effect of Structural Capital on Innovation.

H2c: There is a positive effect of Structural Capital on Efficiency.

H2d: There is a positive effect of Structural Capital on Quality.

H3: There is a positive effect of Human Capital on Competitive Advantage

H3a: There is a positive effect of Human Capital on Responsiveness.

H3b: There is a positive effect of Human Capital on Innovation.

H3c: There is a positive effect of Human Capital on Efficiency.

H3d: There is a positive effect of Human Capital on Quality.

2.1 INTELLECTUAL CAPITAL

The concept of "intellectual capital" was introduced by "Galbraith in 1969", for the first time in business and economic area. As a usage, the Popularity of intellectual capital of investigation rooted is not much old. It took its popularity after the announcement of an article written by Stewart in Fortune Magazine, then, he tried to announce it as the amount of manpower' knowledge and ability that could enhance the organization' competitiveness. "Initially, the difference among book value and market value of companies is considered as intellectual capital". (Kamath, 2007,P96) states that yet, from different background researchers have tried to make a specific definition to concepts of "Intellectual capital" in their own words. However, there is no agreement can be seen about the specific definitions of intellectual capital.

In the light of the knowledge economy, intangible assets have become the mainstay of its strategic support for organization wealth and prosperity, and that the success of organizations in the acute competition environment has become dependent on the value of these assets and Strategy management, Because of their active role in the recruitment of the capabilities of employees and their skills and experience in strengthen the competitiveness of enterprise and create value. Thereby, Researchers have dubbed this intellectual capital assets Term. (Stewart, 1997, p5)

This chapter aims to identify about the concept of intellectual capital as well as to know the components and characteristics, moreover, highlighting its importance and its roles and development in the organization.

2.1.1 DEFINITION OF INTELLECTUAL CAPITAL

"Generally, intellectual capital may be regarded as an intangible asset which comes from the disbursements on advertising (marketing), training, startup, research and develop activities, and human resource development disbursements. Organizational structure and process, brand names, copyrights, franchises, future interests, licenses, operating rights, patents, record masters, secret processes, trademarks and trade names are also considered as intellectual capital. In the following section few explanations of the term 'intellectual capital' is presented".

According to Itami (1991,P33) "intangible assets" are invisible assets that represent a huge number of activities including technology, brand image, consumer trust, Management skills and corporate culture.

Hall (1992,P22) defines "intangible assets" "as value bikers that transmutation productive Resources into value added assets." He divides IA into two classes:

- (1) Intellectual property
- (2) Knowledge assets".

Schneider and Samkin, (2007,P27) prescribes "intellectual capital as the economic value of two classes of intangible assets of a corporation: (1) structural capital and (2) human capital. Structural capital can be further partitioned into internal and external capital". "Intellectual capital is the value of companies intangible assets that aren't reflected on the balance sheet". (Mousavi & Takhtaei, 2012,P267)From the above mentioned definitions it is clear that IC is a set of attributes that bring Future benefits to the organization. Such set of attributes are generated from the expenditures of the organization in various developmental activities. However, from the recognition for accounting and reporting purpose most of them are expensed as they are incurred and only those are quantitatively identifiable or externally generated are reported in the balance sheet. From the above discussion it appears that:

- (A) Intellectual capital cannot stand by itself, and hence, it cannot be either identified or valued separable from other assets.
- (B) It is the outcome of the network impact of utilization different intellectual, human and structural source.

For the purpose of this study intellectual capital is considered as intangible and nonmonetary assets owning physical presences and procreates future importance to the organization.

2.1.2 THE IMPORTANCE OF INTELLECTUAL CAPITAL

Intellectual capital Increasingly important at the instant, especially with the growing challenges posed by globalization, Organizations should promote and development the competencies and skills of their employees, so the organization must be well aware of how to utilize These important characteristics for building a strong intellectual base through which it can cope with the intense competition in the Business environment, following it will come with the importance of intellectual capital. (Hejan, 2007,P11)What make the twentieth century defer is the power of emergence of knowledge, which is an important factor that gives the organization the ability The continuity and possession of competitiveness, and there the organizations and governments began to take into account the subject of building a knowledge base and paying enough attention to The importance that they deserve, the need to possess the knowledge and how to manage them, moreover, the resulting is the intellectual capital And the organization that is well aware of how to own, manage, measure intellectual capital, Here the role and importance clarify as follows:

- Helps in the creation of new knowledge.
- Helps increasing the efficiency of utilizing assets and achieve higher productivity and better customer's service.
- Is the most important source of profitability and competitive mainstay of the organization, through it organizations achieve competitive advantage.
- Is an important base in building smart organizations, through the provision of genius minds that possess intelligence and ability to invest other resources and harnessed for the benefit of their organizations aiming to expand the market share.

From the above intellectual capital can be derived strategic role to maximize the value of the organization, it is a vital and cure assets and has the power to influence and change all the organization's activities, in addition, it is considered a pillar key of competitive advantage in the organization also the cause of achieving organizational efficiency, and attract customers and strengthen their loyalty, as well as it can increase the innovative capacity of the organization.

2.1.3 ELEMENTS AND COMPONENTS OF INTELLECTUAL CAPITAL

The authors and researchers disagreed about the number of intellectual capital elements, there are many researchers who set out four elements, while others mentioned more than that. According to Miller (1998,P21) the intellectual capital elements can be divided to (creation of intellectual capital, maintaining intellectual capital, stimulate intellectual capital and customer consideration), based on the opinion of Dzinkawski (1999,P33) intellectual capital is the (creation of intellectual capital, patents, the companies imitating/copy, and customer consideration).

From the previous analysis and opinion from mentioned researchers, indicates that there is an agreement about determination of elements of intellectual capital, several terms to explain elements of intellectual capital or intangible assets can be used, but most authors have mentioned three categories of intellectual capital: (human capital, structural capital and customer/relation capital).

"Human capital relates to the skills, attitudes and efficiency of employees. However, Organization cannot own this type of capital unlike structural capital and is considered as rented capital. Relational capital, on the other hand, maintains the organizational relationship with all its stakeholders. Organizational or structural capital provides supportive infrastructure to employees to work in the organization. Researchers also have argued that organizational culture; process and innovation are part of structural capital" (Marr et al., 2004,P53).

2.1.3.1 Human Capital

It is hard to define human capital accurately due to it relies on the nature and quality of the job and enterprise also the several situational factors which relevant to the job Appuhami (2007,P55). Smith's economic theories, is the roots and base of human capital, where Smith reported the contribution of human asset is substantial to the performance of organization and be side that it's important to the growth of economic of the country as whole. Numbers of studies (Appuhami, 2007; Ashton, 2005,P53, Bontis, 1999; Bozbura, 2004,P357) sees human capital or human asset as the stock of knowledge, skills and ability embodied in the capacity to perform jobs aiming to produce economic value. Therefore, human capital experts described it as the skills and knowledge achieved by a people through previous education and experience (Sullivan and Sheffrin, 2003,P5). Similarly Ashton (2005) enhances the opinion pointing out by others that human capital represents the personnel attributes/manner including

Acquaintance, proficiencies and knowledgeableness. Bozbura (2004,P359) has proposed that human capital "can be acknowledged as an accumulating of general knowledge obtained by employees through their work tenure, leadership skills, the competence to take risking whilst performing the job and making decisions, and the competence to solution ticklers".

Human capital consist the knowledge, proficiencies and efficacy that workers take with them when they tend to leave an organization. It represents knowledge, skills, ability and experience of employees. Roos et al. (1997,P8) "argue that employees generate Intellectual Capital through their ability, their attitude and their intellectual agility. Ability includes skills and education, while attitude covers the behavioural ability of the employees' work. Intellectual agility cans one to change exercising and to think of creativity solves to ticklers.

Components of human capital are mentioned below;

- Knowledge.
- Competence.
- Skills and experiences of employees.
- Creativity capacity, innovation.
- Know-how and last experience.
- Teamwork competence.
- Employee flexibilities.
- Motivation & satisfy.
- Educating Competence etc".

2.1.3.2 Structural Capital

Based on the organizational concept structural capital typifies all most non-human resources of skills and knowledge. It includes of enabling structures which allow the organization to properly utilize Intellectual Capital (Muhammad et al, 2006,P51). It is reported by (Seetharaman et al 2004,P522, Muhammad et al, 2006,P53) that "These structures Range from tangible part of intangible items offered by an organization, such as patents, Copyrights, trademarks, databases, software systems and processes to intangibles such as corporate culture, accountability, efficiency, and trust between employees". Ashton (2005,P55) explained structural capital "as included of different kinds of interior value bikers of a corporation including processes, routines, databases, customer files, work literature or manuals, and

organization structures". Pursuing (Sveiby (1997,P57), Guthrie and Petty,P241, 2000; Lee and Guthrie, 2010,P4) "assert on structural capital consists of internal capital, which includes intellectual property, administration philosophy, company culture, administration processes, information, networking systems and financial relations. Conventionally, mentioned by (Carson et al, 2004,P79) that structural capital "includes the processes and procedures formed by employee's intellectual input". Moon and Kym (2006,P253) have conceptualized "structural capital in terms of organizational culture, processes, information systems and intellectual proprietary".

According to Ashton(2005,P59) Due to structural capital created by outputs, system or products which created by the enterprise over time, so that they cannot include within an employee or individual. Therefore dissimilar human capital, structural capital exists within the company after employees quit working in the organization (Muhammad et al, 2006; Appuhami, 2007; Muhammad and Aida, 2007). Hence, (Bontis et al, 2006; Appuhami, 2007,P77; Edvinsson 1997,P111) propose that the organization administration "must attempt to transmutation the corporations human capital knowledge into structural capital components to guarantee value creating in the long run".

So that the Elements of structural capital can be illustrated as below:

- "Organizational processes,
- Databases,
- Manuals,
- Trademarks,
- Leadership,
- Leaseholds,
- Franchises,
- Patents, etc "

2.1.3.3 Relation Capital

Relation capital refers to all resources which are related to the external relationships of the organization such as customers, suppliers, or so on. Therefore, "relational capital is the knowledge that is included in the relationships with any stakeholder that impact the corporations lives". Capello and Faggian (2005,P75) believe that relational capital is "a collection of various type of relationships like market relationships, power relationships and collaboration". Similarly to others Chen et al (2006,P159) "assert

that relational capital inclusion strong echelons of understanding, trust, relationship and cooperation between strategic alliance partners, and consequently encompasses stocks of conductivities, Interactions, Ties, Proximity , goodwill and homages among a company and its upstream suppliers, downstream clients, strategic partners or external stakeholders". Guthrie and Petty (2000,P247) define relational capital as "external capital, which includes brands, clientele and buyer satisfaction, firm names, circulating aqueduct, business cooperating or cheapening accords".

Elements of relation capital are mentioned below:

- Buyer relationship.
- Buyer devotion and satisfaction.
- Circulating relationships and accords.
- Relationships with other partners and other stakeholders , etc". (Capello R. and Faggian, 2005,P77)

2.1.4 ROLES OF INTELLECTUAL CAPITAL

All organizations are looking for the collection of value-added by intellectual capital, therefor they must think that the intellectual capital's role is only collecting revenue, but that there are areas and other roles should organizations pay attention to it aiming to create value-added, These roles identified by (Sullivan ,2000,P177) as follow:

First defensive roles

These include: the product protection and services generated and created by intellectual capital of the organization, the protection of freedom of design and creativity, decrease conflicts and avoiding complaints and litigation.

Second offensive / attack roles. These include:

- Generate revenue, by Products and services which have been achieved by creations of intellectual capital, intellectual property of the organization, the intellectual assets of the organization, the protection of freedom of design and creativity, decrease conflicts and avoidance of complaints and litigation.
- Devising standards for new markets and new products and services.
- Create penetrate outlets for takeover competitors technology.
- Determination of mechanisms to implement in new markets.
- Formulate a strategy that hampers the entry of new competitors.

And intellectual capital can move from offensive roles to defensive roles and vice versa, and this move should be calculated in advance not a random move.

2.2 COMPETITIVE ADVANTAGE

Organizations business competition has become a reality forcing by the many dynamic changes in the environments on both internal and external sides globally and locally. Hence, organizations begin aware of the competition and its importance, as well as the emergence of many new competitors. Therefore, it encourages organization to look for multiple strategies and policies which it can achieve a competitive advantage and give it continue growingly. Here, organizations in various forms seek to achieve a competitive advantage by focusing on the quality of its services and the patterns are submitted and satisfy the needs of its customers, moreover, they search for best practices that can be applied.

This chapter aims to address the concept of competitive advantage and its definitions, sources and dimensions; in addition, this chapter aims to try to clarify the relationship between intellectual capital and competitive advantage. the chapter is divided into eight sections, discusses the following topics: the concept of competitive advantage, the definition of competitive advantage, sources of competitive advantage, the elements of competitive advantage, the importance of competitive advantage, the dimensions of competitive advantage, the factors affecting the creation of competitive advantage, and finally the relationship between intellectual capital and competitive advantage.

2.2.1 DEFINITION OF THE COMPETITIVE ADVANTAGE

Before we give the definitions of competitive advantage we mention that there is no fixed and agreed definition this is different depending on the environment and thoughtful sector.

(M. Porter definition 1993,P55)

Arise competitive advantage once the organization discovers "new ways to be more effective than those used by competitors, where it is able to embody this discovery in the field, in other words, once you make a creative process in its broadest sense".

(Nabil Khalil Mursi definition 1998,P77)

Competitive advantage as "a feature or element of excellence of the organization which are achieved by applied a certain strategy to compete".

(Ali Selmi Definition 2001,P23)

Competitiveness is "the skill, technical or outstanding resource that allows the organization making production values and benefits to customers more than what is provided by their competitors, and it confirms apart and different from those of competitors from the customer view who accept this difference and excellence, which will bring them more benefits and values that are superior to the other competitors offer".

(Barney 2002, P99).

Defined the Competitiveness as a "corporate is its capacity to achieve its targets. These objectives are likely to be expressed in a diversity of terms depending on the context".

(Heizer & Render 2008,P95)

He defined it as the ability to create a system that has a unique feature compare to all competitors.

Through these definitions it is clear that access to competitive advantage requires the organization to be able to effectively satisfaction the needs of clientele better than contenders, and this is linked primarily the actual added value proposed by the organization, on the basis of the above competitive advantage can be procedural defined as the competitiveness that preference the organization and gives precedence to the customer through the difference in the value of their advantage compared with competitors.

2.2.2 SOURCES OF THE COMPETITIVE ADVANTAGE

The competitive advantage is determined by variety of sources, and it may be a result of the effects of the environment or the efforts of the organization to reach it. Sources of the Competitive Advantage are as follows: (Rababiha, Fatima Ali 2006,P9).

1 - Internal sources: related tangible and intangible resources of the institution, such as the basic factors of production, energy/power And primary resources, distribution channels, assets ...And so on. Beside that also competitive advantage can be derive from the used and developed management systems, organization Administrative styles, methods of motivation, returns from research and development, innovation, and knowledge.

2 - External sources: They are many and varied, shaped by the external environment variables and changing which leads to create opportunities and advantages that organizations can exploit and get benefit from them, situations such as supply and demand for raw materials, finance, human resources and other eligible.

3 – Organizations can build a competitive advantage through its strategic options for horizontal and vertical integration, diversification and strategic alliances and relationship with others.

4 - Discovering and exploiting marketing opportunities before the competition, which leads to get a competitive advantage, because organizations discovered markets in advance can offer the product or service in the level of discovered opportunity.

2.2.3 ELEMENTS OF THE COMPETITIVE ADVANTAGE

Competitive advantage Achievement depends on the availability of many elements and the nature of the interaction and integration with each other and the most prominent elements of the competitive advantage are as following (Rababiha, 2006, p. 8):

1- Natural Resources:

Despite the importance of the availability of natural resources to achieve a competitive advantage for the country or the organization, but the availability is no longer an essential source for this feature as a result of many global and local changes that have occurred in recent times, Since the non-availability of these resources is no longer a barrier to achieving competitive advantage, as is the case in Japan, while there are other countries possessed these resources cannot achieve a competitive advantage, and therefore, the availability of resources is no longer preside over the priorities of the competitive equation.

2- Capital:

A capital availability in the country was able to achieve a high competitive advantage, but the new global economy, cross-border and which allows the transfer of capital from one country to another and not be tied up and geopolitical particular through multinational corporations and investment in developing countries has led to a decline in the importance of the availability of capital of the State or of the organization to achieve its competitive advantage.

3- Technology:

Technological Element plays an important role in improving production efficiency and achieves competitive advantage through the creation of operations and absorbs knowledge, as well as the innovation and application of new technology in business performance. But to take advantage of this element is no longer limited to certain countries, where you can a lot of countries access to technology.

4- Human Resources:

Human resources Represents the quality education and highly skilled which is an important strategic dimension in achieving competitive advantage, As it is one of the most important intangible sources that play a vital role in the creation and application of technology. Due to this source cannot be imitated quickly and easily by competitors.

2.2.4 DIMENSIONS ACHIEVING COMPETITIVE ADVANTAGE

Porter illustrated the low-cost and excellence is the two main strategic to creation value and get a competitive advantage in the industry. Based on what illustrated the writer mentioned, that the competitive advantage (with high profit) achieved by organizations that able to achieve high value, and that the way to creation this value is to reduce costs and to find a way to excellence Business that makes products for consumers who willing to pay the extra price, The Competitive Advantage depends on four dimensions as a high efficiency, high quality, high innovation and High Customer Responsiveness , They units Constructive and comprehensive feature that can be adopted by any organization, regardless of the industry or sector in which it operates, and regardless of the products or services offered to customers (see Figure 2. Source: Hill Charles W. L & Jones. Fareth (2001) strategic management theory 5th ed, Houghton Mifflin Company, Boston, New York, p. 127)

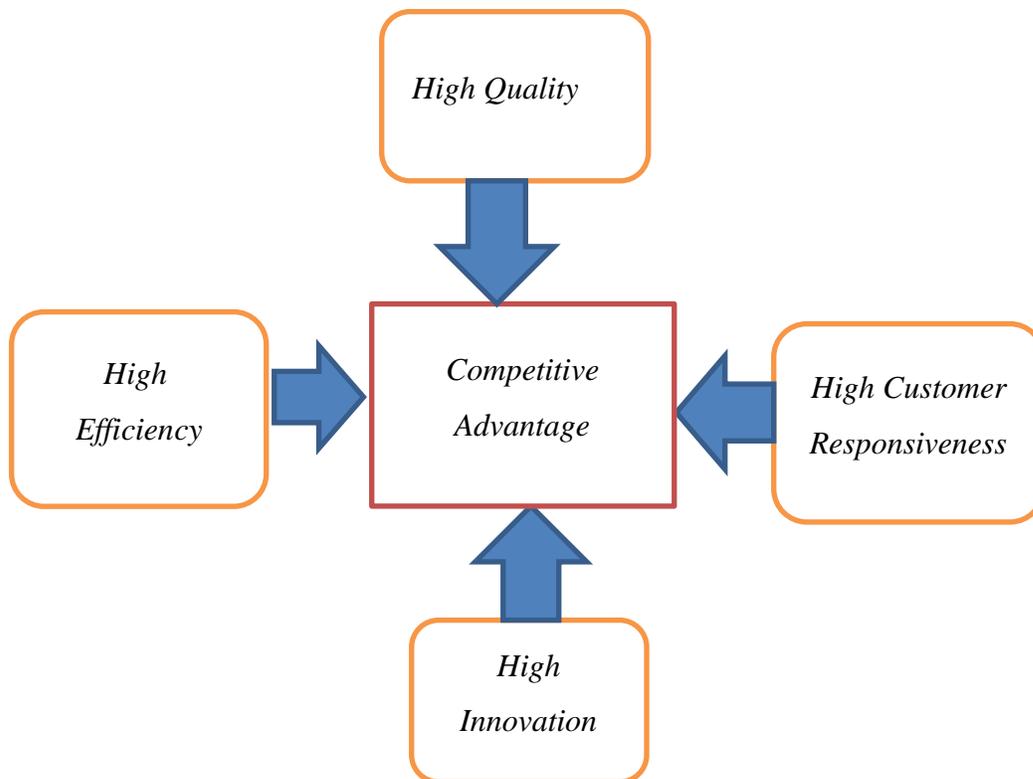


Figure 2. Units of competitive advantage

The following is a brief explanation of the mentioned dimensions:

1 - High efficiency:

Efficiency described as the ratio of outputs to inputs required for the completion Robbins (2005, p 571). By the process can convert the input to output, and that the inputs are the main factors of production such as land, human effort, capital, management and knowing to adapt with technological changes. Output are goods and services produced by The company, the simplest measure of efficiency is the amount of inputs required to produce a given output, The most important case For efficiency, appears such matter for majority organizations is the labor productivity factor which is usually measured by the number of units produced per worker, if Assuming all other variables are constant, the industrial organization in which labor productivity is high can make products with lowest cost and therefore they will attain a competitive advantage based on the lower cost.

2 - High Quality:

The high quality products are reliable goods or services, in the sense that it leads the work they are perfectly designed. For high quality products effect on the competitive advantage in two aspects: first, offering a high quality product increases the product value of the viewpoint of consumers, and in return

the company can sell their goods with high price, and the customer as a result of the above, make a decision to buy Product. (Krajewski, Ritzman, 2012, p96)

The second effect of the high quality on competitive advantage comes from the high efficiency of the company as well as the low cost of production. Whenever less time wasted in making particular products or in providing a secondary service, and the less time to fix mistakes means that turning an increase in worker productivity and reduce the cost per unit. Therefore, the high qualities of the production not only allow the organization Carry high prices of its products, but also allow them to reduce the cost. That is no longer the way to achieve Competitive advantage but has become a way of survival. (Porter 1985,P77).

3- High Innovation:

Innovation is known as something new or unfamiliar in the ways of operating the company or in production that offer. Innovation includes Progress in the types of products, production processes, management systems, organizational structure and strategies conducted by the company.

The innovation could be the most important mark of unity of building competitive advantage for the long term; competition can be seen as a process driven by innovation. Despite the lack of success of each innovation, the successful ones can be the most important source of competitive advantage because it gives the organization something unique - something that competitors cannot have. (J. B. Barney, 1991:pp.99-120)

4 - High Customer Responsiveness:

For the purpose of achieving a high response to the customer, the organization must be able to implement its business better than its competitors that effectively meet the needs of its customers. Therefore, if the organization do so the consumer will be staying in buying their products and be more aware of products value, thus can strengthen the competitive advantage of the organization. Achieving high quality and innovation can be part of the company high response to customer needs. The other important factor in the response for customer needs making goods and providing services, on customer request, whether an individual or a group(Porter)

3. DATA ANALYSIS

About the Practical side the researcher depended on the following ways to obtain the required data in order to finish this side of the study as following:

Personal Interviews has through field visits conducted by a researcher at the universities non-governmental in the city of Erbil for the purpose of closely at the necessary preliminary data. This

research relied on the questionnaire as the main instrument for collecting related data for the study variables.

The population of this study is composed of (Dean, Assistant Dean, head of the department in the nongovernmental University City of Erbil / Iraq) and the sample consists 90 of them. Based on the feedback of pilot study, some minor modifications have been made to the questionnaire and the final form of the questionnaire was used to collect data from 90 persons. It has been received (85) the percentage of the received questionnaires was (% 94) Gathered data are analyzed using the statistical package program SPSS 22.0)

4. FINDINGS AND DISCUSSION

On this section of the study, findings obtained from the analyses will be given and discussed. First of all, descriptive statistics concerning the respondents of the survey will be shown. Secondly, the results of the Regression Analysis test will be given in order to impact of human intellectual capital on achieving competitive advantage.

4.1 DESCRIPTIVE STATISTICS

Descriptive statistics about Gender, Age, Education levels, Number of Training Courses, The Total Number of Years of Service, and Number of years of service in the Current position, responded to the survey are as described in the following tables.

Table 1. Distribution of respondents by gender

Gender	Frequency	Percent
Males	67	78.8
Females	18	21.2
Total	85	100.0

Table 1 gives information related to the gender of respondents. Based on that information, 21.2% of respondents are females and 78% of them are males

Table 2. Distribution of respondents by age

Age	Frequency	Percent
<= 30	3	3.5
31 - 40	27	31.8
41 - 50	28	32.9
51 - 60	9	10.6
61 - 70	17	20.0
71+	1	1.2
Total	85	100.0

Table 2 exposes information concerning respondents age. This information points out that 3.5 % of respondents are younger than 30 years old, 31.8% are between 31-40 years old, 32.9 % are between 41-50 years old, 10.6 % are between 51-60 years old and 20.0 % are between 61-70 years old.

Table 3. Distribution of respondents by education level

Education	Frequency	Percent
PhD	54	63.5
Master	29	34.1
Bachelor	2	2.4
Total	85	100.0

Table 3 discloses information about education level of respondents. 63.5 % of respondents are PhD, 34.1% Master, whereas 2.4% have Bachelor degrees.

Table 4. Distribution of respondents by training courses

Training	Frequency	Percent
Not participate	3	3.5
One training	2	2.4
Two training	17	20.0
Three training	63	74.1
Total	85	100.0

Table 4 exposes information concerning respondents by Number of Training Courses This information points out that 3.5 % of respondents are Not Participate on the training, 2.4 % of respondents are see one training , 20 % of respondents are see two training and 74.1 % of respondents are see three training.

Table 5. Distribution of respondents by years of service

Year	Frequency	Percent
<= 10	23	27.1
11 - 20	27	31.8
21 - 30	16	18.8
31 - 40	14	16.5
41 - 50	4	4.7
51+	1	1.2
Total	85	100.0

Table 5 exposes information concerning respondents The Total Number of Years of Service, information points out that 27.1 % of respondents are less 10 years of Service, 31.8 % are between 11-20 years of Service, 18.8 % are between 21-30 years of Service, 16.5 % are between 31-40 years of Service and 4.7 % are between 41-50 years of Service.

Table 6. Distribution of respondents by years of service in current position

Year	Frequency	Percent
1	38	44.7
2	22	25.9
3	12	14.1
4	4	4.7
5	2	2.4
6	1	1.2
7	2	2.4
8	3	3.5
40	1	1.2
Total	85	100.0

Table 6 exposes information concerning respondents number of years of service in the Current position, information points out that 44.7 % of respondents are 1 year of service in the Current position, 25.9% of respondents are 2 years of service in the Current position, 14.1% of respondents are 3 years of service in the Current position, 4.7% of respondents are 4 years of service in the Current position, 2.4% of respondents are 5 years of service in the Current position, 1.2% of respondents are 6 years of service in the Current position, 2.4% of respondents are 7 years of service in the Current position, 3.5% of respondents are 8 years of service in the Current position and 1.2% of respondents are 40 years of service in the Current position.

4.2 RELIABILITY SCORES

In order to show the reliability of the scales, Cronbach’s alpha scores for each scale is calculated. The results are shown in the following table. As can be seen from the table, scales have enough reliability. The lowest reliability score is for efficiency scale which is 0,649.

Table 7. Reliability of the scales

Scale	Number of Items	Cronbach’s alpha
Human Capital	5	0,771
Structural Capital	5	0,815
Relational Capital	5	0,847
Quality	5	0,887
Efficiency	5	0,649
Creativity	5	0,920
Responsiveness	5	0,859

4.3 CORRELATION AND REGRESSION ANALYSES

In the following table, the correlation coefficients between the variables in the study are shown.

Table 8. Correlation coefficients

	Human Capital	Structural Capital	Relational Capital	Quality	Efficiency	Creativity
Human Capital	1	,671**	,682**	,735**	,476**	,607**
Pearson Correlation						
Sig.	,000	,000	,000	,000	,000	,000
N	85	85	85	85	85	85
Structural Capital	,671**	1	,766**	,760**	,496**	,744**
Pearson Correlation						
Sig.	,000	,000	,000	,000	,000	,000
N	85	85	85	85	85	85
Relational Capital	,682**	,766**	1	,800**	,423**	,798**
Pearson Correlation						
Sig.	,000	,000	,000	,000	,000	,000
N	85	85	85	85	85	85
Quality	,735**	,760**	,800**	1	,432**	,789**
Pearson Correlation						
Sig.	,000	,000	,000	,000	,000	,000
N	85	85	85	85	85	85

Efficiency	Pearson Correlation	,476**	,496**	,423**	,432**	1	,576**
	Sig.	,000	,000	,000	,000		,000
	N	85	85	85	85	85	85
Creativity	Pearson Correlation	,607**	,744**	,798**	,789**	,576**	1
	Sig.	,000	,000	,000	,000	,000	
	N	85	85	85	85	85	85

** . Correlation is significant at the 0.01 level (2-tailed).

In order to determine the impact of intellectual capital on quality dimension of competitive advantage, a multiple regression analysis was performed. The results of the analysis are shown in the following tables. As can be seen from the tables, the model is significant. Independent variables (Relational Capital, Human Capital, Structural Capital) explain 73,1% of quality dimension. All of the independents variables positively affect quality dimension of competitive advantage

Table 9. Regression summary: Quality Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,855a	,731	,721	,39244

a. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 10. Regression ANOVA results: Quality ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33,869	3	11,290	73,304	,000b
	Residual	12,475	81	,154		
	Total	46,344	84			

a. Dependent Variable: Quality

b. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 11. Regression coefficients: Quality Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-,014	,264		-,052	,959
Human_Capital	,328	,096	,283	3,412	,001
Structural_Capital	,264	,098	,254	2,684	,009
Relational_Capital	,425	,099	,413	4,306	,000

a. Dependent Variable: Quality

In order to determine the impact of intellectual capital on efficiency dimension of competitive advantage, a multiple regression analysis was performed. The results of the analysis are shown in the following tables. As can be seen from the tables, the model is significant. Independent variables (Relational_Capital, Human_Capital, Structural_Capital) explain 28,4% of efficiency dimension. The independents variables, except relational capital, positively affect quality dimension of competitive advantage

Table 12. Regression summary: Efficiency Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,533a	,284	,257	,46229

a. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 13. Regression ANOVA results: Efficiency ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6,863	3	2,288	10,705	,000b
Residual	17,311	81	,214		
Total	24,174	84			

a. Dependent Variable: Efficiency

b. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 14. Regression coefficients: Efficiency
Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,955	,311		6,293	,000
Human_Capital	,219	,113	,262	1,933	,057
Structural_Capital	,243	,116	,323	2,099	,039
Relational_Capital	-,003	,116	-,003	-,022	,982

a. Dependent Variable: Efficiency

In order to determine the impact of intellectual capital on creativity dimension of competitive advantage, a multiple regression analysis was performed. The results of the analysis are shown in the following tables. As can be seen from the tables, the model is significant. Independent variables (Relational_Capital, Human_Capital, Structural_Capital) explain 68,0% of creativity dimension. The independents variables, except human capital, positively affect quality dimension of competitive advantage

Table 15. Regression summary: Creativity
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,825a	,680	,669	,46643

a. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 16. Regression ANOVA results: Creativity
ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37,514	3	12,505	57,476	,000b
	Residual	17,622	81	,218		
	Total	55,136	84			

a. Dependent Variable: Creativity

b. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 17. Regression coefficients: Creativity
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,051	,314		,162	,871
	Human_Capital	,040	,114	,032	,351	,726
	Structural_Capital	,351	,117	,310	3,009	,003
	Relational_Capital	,605	,117	,539	5,166	,000

a. Dependent Variable: Creativity

In order to determine the impact of intellectual capital on responsiveness dimension of competitive advantage, a multiple regression analysis was performed. The results of the analysis are shown in the following tables. As can be seen from the tables, the model is significant. Independent variables (Relational_Capital, Human_Capital, Structural_Capital) explain 61,5% of responsiveness dimension. The independents variables, except structural capital, positively affect quality dimension of competitive advantage

Table 18. Regression summary: Responsiveness
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,784 ^a	,615	,601	,44172

a. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 19. Regression ANOVA results: Responsiveness
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,271	3	8,424	43,174	,000 ^b
	Residual	15,804	81	,195		
	Total	41,076	84			

a. Dependent Variable: Responsiveness

b. Predictors: (Constant), Relational_Capital, Human_Capital, Structural_Capital

Table 20. Regression coefficients: Responsiveness Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,460	,297		1,549	,125
Human_Capital	,293	,108	,269	2,708	,008
Structural_Capital	,205	,111	,209	1,850	,068
Relational_Capital	,381	,111	,393	3,428	,001

a. Dependent Variable: Responsiveness

5. CONCLUSION

In this study, we investigated the effects of components of intellectual capital, namely human capital, structural capital and relational capital on the different dimensions of competitive advantage, namely quality, efficiency, creativity, and responsiveness. We tested the hypotheses developed using data collected from non-governmental universities in Erbil city, Iraq. In summary, we showed that intellectual capital positively affects competitive advantage. In other words,

- There is a positive relationship between intellectual capital and competitive advantage in nongovernmental universities.
- There is a positive relationship between human capital and competitive advantage in nongovernmental universities.
- There is a positive relationship between structural capital and competitive advantage in nongovernmental universities.
- There is a positive relationship between relational capital and competitive advantage in nongovernmental universities.

Based on these findings and literature review, we conclude that

- Intellectual capital is the essential backbone for achieving the success of organizations.
- Real capital that it possesses by organizations is not only physical capital but is intellectual capital, which is basically in the knowledge that can be converted into an added value through the successful investment in human capacities and competencies.
- The difference between the nominal value and book value of the organization is represented by its intellectual capital, and is a source of competitive superiority and competitive advantage for it.

- Human capital includes skills and competencies available in an individual that strongly contributes to the competitive advantage of the organization.
- Relation Capital contributes to achieving competitive advantage for the organization.
- Structural Capital contributes to the achievement of competitive advantage for the organization.
- Quality contributes to the achievement of competitive advantage for the organization.
- Creativity contributes to the achievement of competitive advantage for the organization.

6. RECOMMENDATIONS OF THE STUDY

Based on the overall results that have been reached, the researcher proposes some recommendations that can contribute to the development of intellectual capital in nongovernmental universities in determined population in form that leads to their competitive advantage and sustainable development as follows:

- Essential for nongovernmental universities to recognize the importance of their intellectual capital for the purpose of concern in this resource and its development, therefor exploits it to achieve sustainable competitive advantages.
- Increased attention to the intellectual capital and the way of managing it, which must be managed because it is an important source to achieve excellence.
- The need to deal with the intellectual capital as the most important strategic resource possessed by the university, And maintain it constantly because it is the active element for the success of the university especially in light of the massive technological development that appeared in the business environment.
- The need to build universities based knowledge.
- Give great importance to the components of intellectual capital, including Relation capital by improving relations with Customers, and human capital through training and continuing education, and the structural Capital through the modernization of the organizational structures and competencies.
- The need to focus on the process of building intellectual capital by giving individuals the opportunity to encourage them to express their views and suggestions on the development and improvement of work processes, hence creating a creative environment.
- The need to give great importance to meet the needs of customers and the speed of response.

- The essential for universities to pay attention of elements of Relation capital and trying and strive to achieve their loyalty, satisfaction, retention and relation development, moreover, making strong relationships with them and improve relations with customers.
- University managers should increase its efforts in supporting the creativity operations, innovation and retention of human resources who have unique cognitive abilities, and so by getting rid of restrictions that constraints limit the ability of individuals to innovate, additionally allowing them thinking creativity at work.
- University should enhance strategic alliances and relationships with other universities, so that can get benefits from their expertise in the field of work
- Encouraging the building of group working and teams based on self-managing, beside that, organizing teams for research and development.
- The need to work on the development of the organizational structure constantly and make it more flexible, that allowing providing a supportive environment for the development of intellectual capital.

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