



**THE ROLE OF THE INTELLECTUAL CAPITAL IN
ACHIEVING COMPETITIVE ADVANTAGE: A COMPARATIVE
STUDY BETWEEN PRIVATE UNIVERSITIES OF TURKEY
AND UAE**

NIMA ALFARRA

SEPTEMBER 2018

**ÇANKAYA UNIVERSITY
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
INTERNATIONAL TRADE AND FINANCE**

MASTER THESIS

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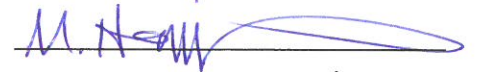
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ABSTRACT

THE ROLE OF THE INTELLECTUAL CAPITAL IN ACHIEVING COMPETITIVE ADVANTAGE: A COMPARATIVE STUDY BETWEEN PRIVATE UNIVERSITIES OF TURKEY AND UAE

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This study aims to examine the reality of intellectual capital in the private universities of Turkey and UAE and the role of intellectual capital in enhancing their competitive advantage. In this regard, it explores the extent to which each element of intellectual capital influences the competitive advantage of the universities under the study and whether there is a difference between universities in how to manage the intellectual capital that they own. Accordingly, the study first explains the definition of intellectual capital and its elements (human capital, structural capital, relational capital), as well as the definition of the competitive advantage and its dimensions and fields of achievement in the universities under the study; Besides, it also investigates the relationship between the administrative procedures followed by these universities in the management of intellectual capital and in enhancing their competitive advantage from several aspects (innovation, quality, flexibility, development, and quality of service). The study relied on the selection of a simple convenience sampling method of the population of private universities in Turkey and UAE by a descriptive analytical approach, so a survey was made to verify the approaches in the theoretical frameworks of the intellectual capital and its relation to the dependent variables, which is the competitive advantage. The hypotheses were tested based on statistical analysis programs. The statistical analysis points to several important results and implications. Findings of the study reveal that there is a statistically significant relationship between the ability of the private universities in

Turkey and UAE to manage their intellectual capital and enhance their competitive advantage, while the management of human capital, structural capital, and relational capital seem to have a similar impact rate on the Turkish and UAE private universities in enhancing their competitive advantage. Findings of the study further indicates that there is no statistically significant difference in the average responses of sample members on the level of the availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to some variables like gender, age, qualifications, years of service, years of service in the current position, job title.

Keywords: intellectual capital, competitive advantage, private universities, Turkey, UAE



ÖZET

REKABET- AVANTAJI SAĞLAMADA ENTELEKTÜEL SERMAYENİN ROLÜ: TÜRKİYE VE BAE ÖZEL ÜNİVERSİTELERİNİN KARŞILAŞTIRMASI

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Bu çalışma, Türkiye ve BAE özel üniversitelerinde entelektüel sermayenin gerçekliğinin yanı sıra entelektüel sermayenin onların rekabet üstünlüğünü artırmadaki rolünü ve entelektüel sermayenin her unsurunun, çalışma kapsamındaki üniversitelerin rekabet avantajını ne ölçüde etkilediğini ve sahip oldukları entelektüel sermayenin nasıl yönetileceği konusunda üniversiteler arasında bir fark olup olmadığını incelemeyi amaçlamaktadır. Bu bağlamda, çalışma entelektüel sermayenin ve onun unsurlarının (beşeri sermaye, yapısal sermaye, ilişkisel sermaye) tanımının yanı sıra, çalışma kapsamındaki üniversitelerde rekabet üstünlüğünün boyutlarının ve başarı alanlarının tanımını ortaya koymaktadır. Ayrıca araştırma, entelektüel sermayenin yönetimi ve çeşitli yönlerden (yenilik, kalite, esneklik, gelişim ve hizmet kalitesi) rekabet avantajlarını artırma konusunda bu üniversiteler tarafından takip edilen idari prosedürler arasındaki ilişkiyi de araştırmaktadır. Araştırma, Türkiye ve BAE de özel üniversitelerin nüfusuna yönelik basit bir örnekleme yönteminin betimsel bir analitik yaklaşımla seçilmesine dayanmaktadır, böylece entelektüel sermayenin teorik çerçevelerindeki yaklaşımları ve bağımlı değişkenlerle- (rekabet avantajı) olan ilişkisini doğrulamak için bir araştırma yapılmıştır Hipotezler istatistiksel analiz programları baz alınarak test edilmiştir. Araştırma, Türkiye ve BAE'deki özel üniversitelerin entelektüel sermayelerini

yönetme ve rekabet avantajlarını artırma yetenekleri arasında istatistiksel olarak anlamlı bir ilişki olduğunu ve beşeri sermaye, yapısal sermaye ve ilişkisel sermaye yönetiminin, Türk ve BAE özel üniversitelerinde rekabet avantajlarını artırmada benzer bir etki oranına sahip olduğunu göstermiştir. İlişkisel sermaye, Türk ve BAE özel üniversitelerinde rekabet avantajlarını artırmak için benzer bir etki oranına sahiptir. Ayrıca, cinsiyet, yaş, nitelik, mevcut pozisyonda hizmet yılı, iş unvanı gibi bazı değişkenlerde Türkiye ve BAE'deki özel üniversitelerde entelektüel sermaye gereksinimlerinin mevcudiyeti ve rekabet üstünlüğünün elde edilmesi konusunda ortalama yanıtlarda istatistiksel olarak anlamlı bir fark yoktur.

Anahtar Kelimeler: entelektüel sermaye, rekabet avantajı, özel üniversiteler, Türkiye, UAE.

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CHAPTER I

INTELLECTUAL CAPITAL

1.1. Introduction

Today organizations are working in an age of rapid change, accumulation of knowledge, the proliferation of means of communication, and access to information. These changes and developments in the environment have resulted in a gradual shift from tangible resources to intangible resources, represented in human elements because they are responsible for all the activities and functions of the institution, which is the responsibility of the success and survival of the organization; Thus, we find the interest in human elements particularly in intellectual resources represented in intellectual capital as one of the most valuable assets that possess the capabilities and expertise, the source of innovation and renewal, the need to manage and maintain development, and the successful organizations which care about their customers, their needs, and desires. The main challenge for organizations today is to ensure that skilled and distinguished individuals are available and to train, maintain, and develop their skills in a way that supports the competitive position of the organization and provide it with a competitive advantage from the rest of the competitors and maintain its survival and continuity.

Intellectual capital methods have become of a major rank in higher education institutions, whereas knowledge is their base output and input. Universities yield knowledge, either through technical and scientific researches (the results of the investigation, publications, etc.) or through teaching; Moreover, their most energetic resources include teachers, researchers, administration and service staff, university committees and students, with all their organizational relationships and daily routines.

It is the responsibility of the departments in the Turkish and UAE universities to help the university move forward, enabling it to keep abreast of the developments in the various fields of higher education on the one hand and to benefit from the resources it possesses and to provide the necessary means to achieve the desired progress. And made it a prestigious place among its competitors from other universities on the other hand. Higher education in both Turkish and UAE private universities has witnessed tremendous development over the past two decades, which has witnessed a great growth in the number of students enrolled in higher education institutions. This increase in the number of students led to the emergence of several institutions of higher education providing educational services in different ways and means, which increased competition between these universities, whether locally or globally.

The official statistics by Turkish Ministry of Education and Higher Education indicates that the number of students enrolled in private Turkish universities for 2011-2012 was realized as 240,107, while the statistics registered with the Ministry of Education shows that 569,026 students registered in the private Turkish universities in 2016-2017. But the official statistics recorded in the UAE Ministry of Education and Higher Education indicate that 5,814 students graduated from private universities in 2013-2014, an increase of 166.9% in the number of graduates compared to the previous years (2008-2009) (Abu Dhabi Statistical center, 2015). This is reflected in the development of education as well as the emergence of new educational institutions, each seeking to develop itself and reserve a place among local and international universities, and try to achieve further progress and development, as evidenced by the statistics of the high turnout to join universities in the recent period. And from here it set out the idea of interest in the intellectual capital and its initiatives in the Turkish and UAE private universities which were launched to help them achieve the desired excellence. Against this background, this study aims to explore the role of intellectual capital in achieving.

To put differently, the research problem can be highlighted in the following main question: “How intellectual capital can contribute to the achievement of

competitive advantage of private universities in Turkey and the UAE Under this main question”, the following sub-questions:

- Is there an interest in intellectual capital in Turkish and UAE private universities?
- Are intellectual capital requirements and components available in Turkish and UAE private universities?
- Is there an impact of intellectual capital on achieving the competitive advantage of Turkish and UAE private universities?

Based on this research problem, and the questions that it will try to answer it, this study seeks to achieve the following objectives:

- Ensure the existence of the impact and relationship between the intellectual capital represented by its components (human, structural, customer) and competitive advantage, and determining the correlation between the variables of the study
- Identify the level of availability of intellectual capital requirements of the universities under study.
- Highlight the role of intellectual capital and its components in achieving the competitive advantage of the private universities in Turkey and UAE.
- Gain knowledge of the efficiency of the universities under study in the use of intellectual capital.
- Identify the level of importance of intellectual capital and competitive advantage in the universities under study.
- Determine the impact of intellectual capital in its dimensions on achieving competitive advantage.
- Build a model that represents the relationship between the variables of study and their effect on each other.

- The impact of achieving the competitive advantage of universities under study in the face of contemporary challenges.
- Reach some conclusions and make some recommendations in an attempt to contribute to the activation of intellectual capital and its use in increasing the competitiveness of universities under study.

The importance of this research stems from the practical and scientific benefits that can be achieved as follows:

- The study draws the attention of leaders and employees that no organization can achieve its objectives efficiently without an in-depth understanding of its intellectual capital and how to manage it.
- The study explains the impact of intellectual capital (human capital, structural capital, and relational capital) on competitive advantage in private universities in Turkey and the UAE.
- The study highlights the most important intellectual capital requirements to be created, which will create the competitive advantage of private universities in Turkey and the UAE.
- The study derives its importance from its findings, which will enable the decision center in the universities under study to recognize the importance of investing in intellectual capital as a way to achieve competitive excellence.
- The study shows the importance of preserving intellectual capital, and the ways to invest it in achieving innovative and creative activities that fulfill and support competitive advantages.
- The study identifies the most important obstacles to the generation of intellectual capital in the private universities of Turkey and the UAE.

This study tested these hypotheses by utilizing a questionnaire survey which is distributed to the deans, assistant deans, head of the departments in the private universities in Turkey and UAE. The collected information analyzed by using

Predictive Analytic Software (PASW version 18), which is also named as SPSS statistical software.

According to our empirical analysis, the study showed several results, the most important of which is the existence of a statistically significant relationship between the management of intellectual capital and the achievement of competitive advantage, and that there is a disparity in the relationship between components of intellectual capital (human capital, structural capital, relative capital) in the Turkish and UAE private universities.

The remaining parts of this thesis are structured as follows. Chapter I includes the introduction and subject of intellectual capital as follows: the concept of intellectual capital, its importance, its components, its characteristics, and hence an introduction to the management of intellectual capital, models for the management of intellectual capital in universities, methods of measuring and evaluating intellectual capital, intellectual capital in institutions of higher education. Chapter II presents the competitive advantage as follows: the concept of competitive advantage, its characteristics, sources, types, dimensions and indicators of competitive advantage, and hence the concept of competitive advantage in universities, their dimensions, and constraints. Chapter III provides the research methodology and includes a review of the theoretical and empirical literature, whereas Chapter IV summarizes statistical analysis and discussion. The last chapter will make the conclusion and suggestions.

1.2. Emergence of Intellectual Capital

Modern management focused on intellectual or intangible and physical assets because they realized that the wealth of the organization lays in their intellectual assets. This concept emerged in the 1990s and became the true wealth of a competing and successful organization rather than a material resource. Yet, this does not mean that the concept of intellectual capital did not exist before the 1990s, what we mean is that it was not under consideration; it was known as "shop fame" and contains all

the intangible assets of the organization and appears in its budget (Sullivan, 2001: 23).

Moreover, Al-Anzi and Saleh (2009) identify three stages which paved the way for the emergence of intellectual capital and contributed to the development of its concept, which is as follows:

- **The First Stage:** Early trends of attention to human capabilities:

The economists and accountants of the previous era, which extended from the seventeenth century to the end of the seventies of the twentieth century, confirmed the human capabilities (intellectually and physically). They are assimilated in one person so that the main purpose of this emphasis is to identify the category of the personas skilled, semi-skilled, unskilled... etc, and then to determine the level of attention each person deserves in the light of this classification. In this way, attention was drawn to the importance of human capital, which is the main point of references for studying the subject of the intellectual capital.

- **The Second Stage:** Conceptual hints and trends of mental competence:

In the early 1980s, there was a strong conviction among managers and academics that intangible assets, especially the intellectual capital, were often the secret of the success, survival, and growth of the organizations they owned. This stage dealt with many proposals and opinions of the people who are interested in intellectual capital that led to the emergence of a new concept in 1991, which is the “intellectual capital,” which is concerned with the intellectual abilities of the organization.

- **The Third Stage:** Intensifying research efforts and the birth of theory:

Since the mid-nineties of the last century, the research on the subject of intellectual capital began to increase significantly. In 1995, there was a meeting of the representatives of organizations that are active in extracting the value of intangible assets. It was under the title Management of Intellectual Capital, which

was included in its agenda to agree on a unified concept of intellectual capital and determine its basic components and the way to extract value from it.

In 1999, the European Union chose a special project on intellectual capital, while a conference on intellectual capital was held in 2001 in Canada, and in 2002, a Taiwan-based private enterprise was established under the name of the Taiwan Intellectual Capital Research Center. So, at this stage, research efforts began to emphasize intellectual capital in an attempt to find a theory for it to serve as an indicator of judgment and evaluation of the intangible assets of the organization.

1.3. Definition of Intellectual Capital

Intellectual capital is becoming the preeminent resource for creating competitive advantage. There is no doubt that tangible assets such as property, plant, and equipment, etc. are important and constitute an important factor in stimulating and increasing competitive advantage, however, their relative importance has diminished over time, in contrast, there has been an increase in the importance of intangible assets based on knowledge. Therefore, intellectual capital is seen as a measure of the success and ability of the organization or institution to continue and compete in the labor market. It is also an important variable that has a great impact on the success or failure of the organizations.

There were many definitions of intellectual capital set by academics and researchers; they were defined from different perspectives; academic, administrative, economic and other. Hamel and Heene (1994:19) were from the first to explain that the intellectual capital is a unique ability that the organization excels over its competitors to achieve integration in the different skills that individuals possess and which contribute to increasing the value offered to buyers; it is a source of a competitive advantage. Four years later, Ulrich (1998:02) defined it as a set of skills available in the organization that has a broad knowledge that makes it capable of making the enterprise global by responding to customer's requirements and opportunities to be produced by technology.

Later on, Bontis (2001:45) defined the intellectual capital as “the sum of everything that everyone in the organization knows and achieves a competitive edge in the market. Then Organizations for Economic Cooperation and Development (OECD) defined this concept as an economic value of two types of intangible assets of the organization: structural capital, including regulatory processes, procedures, technology, intellectual property and distribution networks, human capital within the organization, and clients and suppliers of the organization, including expertise, knowledge and innovations (Malhotra, 2003:3). In the same year, Wall et al (2003:15) defined the Intellectual capital as intellectual material that has been formalized captured and leveraged to produce a higher-valued asset.

While Stewart in (2010), defined intellectual capital as the intellectual material knowledge, information, intellectual property, experience- that can be set to use to create wealth. In the background of that, Ousama et al (2014) defined intellectual capital as intangible sources that include knowledge, experience, management philosophy, intangible assets and human resources, which are used to help create and increase the value of the company and the economic knowledge that lead organizations to rely on intellectual capital to achieve their objectives.

Important underlying concepts in these definitions include the notion that intellectual capital is the result of the interaction between all the intangible assets of the organizations which include the competence, expertise, and skill of the employees of the organization, the external relations and customers it possesses, and the organizational structure it possesses. All of which help the institution to expand and improve its market share and enhance its competitiveness in the market, and not to focus intellectual capital at a particular managerial level.

The concept of intellectual capital differs from physical capital, and the difference between intellectual capital and physical capital can be distinguished by the following table (2.1):

Table 1.1: Differences between physical and intellectual capital

Data	Physical capital	intellectual capital
The core feature	Physical - concrete and perspective	Intangible - ethereal - and invisible
Location	Within the company	In the minds of individuals
Sample	Machine	The individual
Returns	Declining	Increasing
Wealth pattern	In resources	Inattention and concentration
Individuals Workers	Manual workers	Knowledge workers and professionals
the value	Value of use and exchange value	Exchange value when used
Strength and weakness	aging Cycle (weakness)	Self-generating and strengthening cycle (strength)

Source: (Phillips and Phillips, 2002:4)

1.4. The Importance of Intellectual Capital

The subject of intellectual capital is one of the topics in the field of human resources, where it focuses on a particular group of working persons who have special skills and knowledge. Intellectual capital is becoming increasingly important in current time, especially with the increasing challenges posed by globalization to organizations to develop the skills and competencies of their workers.

The importance of intellectual capital is that it helps to create new knowledge (Leontiades, 2001:175) and to increase asset efficiency and achieve higher productivity and better customer service (Bontis and Fitz-enz, 2002:07). Intellectual capital gives the organization the capabilities and competencies that are central to its success; it has the potential to create a fictional fortune by being able to register patents. Intellectual capital also allows the management of the organization to work strategic options based on these intellectual assets and exploit them well in the light of the nature of opportunities and external environment. Since intellectual assets represent the intangible force that ensures the survival and sustainability of the

Organization, it is therefore considered the fundamental weapon of the Organization (Johansson. U, et al., 2001).

Organizations and governments have seriously started to take the issue of building a knowledge base, and knowing how to manage it. The result of this effort is intellectual capital, and the organizations must be well aware of how to own, manage, and measure this intellectual capital.

Therefore, the importance of intellectual capital has been addressed through the benefits it achieves to the various parties involved, as follow:

- For citizens (general public): It is given confidence that they will receive the highest possible levels of public service performance.
- For the customers: gives an indication of the value they will receive in the future.
- For the investors: It is evidence of the organization's ability to serve future competition and achieve a remarkable return (Maximize earnings share).
- For the human resources expected to join the organization: It gives an indication of how the organization's resources are used and how these resources can be developed.
- For the organization: Helps in identifying and defining the development strategy from the analysis of the environment (internal and external).
- For the cooperating partners (or allies): The power of intellectual capital enables the organization to have an alliance with high-powered partners.
- For the political system: It is useful in assessing the organization's characteristics and qualities, the extent of the organization's ability to start and achieve the development rates, and the social welfare (Sanjoy and Thomas, 2007).

In view of large business organizations, one can identify the great importance of intellectual capital. A study on the financial situation of IBM showed that the market value of the company in 2000 reached 70.7 billion dollars, while the book value of the company was realized at 16.7 billion dollars. The difference between the two values is due to the company's intellectual capital (Prusak and Cohen, 2001).

In a survey conducted by *Criminal Injuries Compensation Authority (CICA)*, the presidents of the 300 largest Canadian companies and 500 American companies believe that intangible assets represented in intellectual capital, such as knowledge and expertise, are the key to success in the current era and the ratio of book value of fixed assets to market value of many organizations fell from 58% in 1991 to 32% in 2000 (Dzinkowski R., 2000:07).

In 1996, the Brookings Research Institute found that the physical capital of the establishment represented 62% of its value, and in 2002, one study indicated that this ratio dropped to 38% and continued to decline as managers became more interested and aware of the intellectual capital of the institution (Williams, 2002:48).

The current researcher believes that the importance of intellectual capital can be illustrated by the following points:

- 1- The contribution and influence of intellectual capital for achieving results and objectives constitute one of the points which show the importance of intellectual capital.
- 2- The survival and sustainability of institutions in the conduct of their activities and actions are strongly linked to capacity, and the different skills and roles played by the human factor, which is the basic component of intellectual capital

1.5. Characteristics of Intellectual Capital

After reviewing many of the literature on the characteristics of intellectual capital, it can be said that there are a number of characteristics that can be summarized by organizational characteristics, professional characteristics, and behavioral and personal characteristics, as follows:

1.5.1. Organizational Characteristics

These characteristics are related to the institutional environment, including the presence of intellectual capital at all levels of management and flexibility, which help the continuous renewal through individuals and also appear in formal and informal relations in the organization with the absence of administrative centralization. Intellectual capital cannot be obtained by money alone because it is a combination of thought, experience, and practice (Hilali, 2011:6).

1.5.2. Professional Characteristics

These characteristics are linked to the exercise of human elements within the organization, which include attention and focus on education and organizational training, not necessarily academic certification. (Peflefer and Sutton, 1999:83). Intellectual capital is characterized by high skills, diversity, and long experience (Hilali, 2011:23).

1.5.3. Behavioral and Personal Characteristics

These characteristics are linked to the human element and its self-construction, where intellectual capital tends to be risky, so it tends to deal with proven issues (Davis, 1995). Intellectual capital is inclined to initiating and submitting ideas and constructive proposals; it also has the ability to resolve

decisions without hesitation, in addition, it has high levels of intelligence and perseverance in work and high self-confidence (Hilali, 2011:23).

The availability of the previous features and characteristics of intellectual capital has become an urgent need for the success of different institutions for different objectives, products, and services that they provide. Their availability is a real guarantee for the sustainability of the enterprise in the business.

1.6. Components of Intellectual Capital

It has become common knowledge that the intellectual capital of institution is the sum of its human capital (skills and expertise), structural capital (intellectual property, software, and documents) and relationship capital (relation with customer and suppliers)

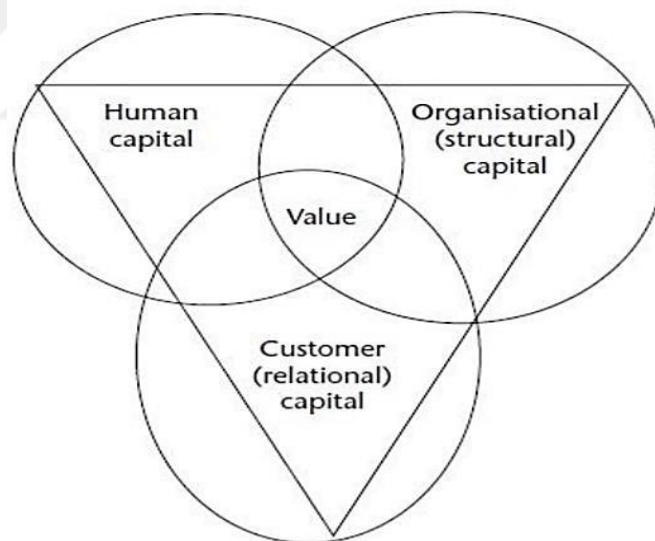


Figure 1.1: The Main Components of Intellectual Capital

Source: (Wall et al., 2003)

1.6.1. Human Capital

Presumably, the biggest evolution in the economics of education in the past 30 years has been revolving around the idea that of physical capital, as embodied in

tools, machines, and other production equipment, as well as human capital (Schultz 1961; Becker 1964). Coleman (1988) was from the first to mention how it was created by changes in individuals that bring about skills and capabilities that make them able to act in new ways. Similarly, Florin and Schultze (2000) defined Human Capital as the skills and capabilities of people that constitute an important source of competition for individuals, organizations, and communities.

While Luthans et al (2004: 45–50) defined the concept of human capital as the individuals working at all standers of the institution and the economic capital as the resources withdrawn from consumption that are invested for future expected return. Later on in the same year, April and Izadi (2004: 59) defined human capital as the individual capabilities, knowledge, skills, experience, and problem-solving abilities that reside in the people of a department or division.

The organization must treat employees as an integral part of the organization as they are the most important factors for the success and continuity of the organization. So, employees must be loyal to the organization through a sense of belonging and continuity; this is because, in our recent days, employees have a constant tendency to show loyalty for their profession and their community rather than showing that loyalty for their employers. Human beings cannot be owned but can be hired.

Human capital is composed of the following types:

- Creativity: It means the ability to provide new solutions instead of using continuously traditional methods; this part of human capital is essential to the employees' innovation and the organization's ability to adapt to new situations.
- Professional competence: It is the educational level and experience owned by employees, as well as the knowledge used to effectively run a business.

- Social competence: It is the ability of interaction and connection with others; it is necessary for the cooperation of individuals in the organization to achieve the desired performance (Nedjema, 2016: 30-57).

1.6.2. Structural Capital

Structural Capital come out from human capital as a mixture of knowledge and intangible assets resulting from the processes within the institution as well as encompasses elements of efficiency, procedural innovativeness, and access to information for codification into knowledge (Edvinsson, L., Malone, M. S., 2001: 149). Also, it is the backing of infrastructure that companies tool up to their human capital (Sullivan, 1998: 23). As well as (Luthy, David, H, 1998) who defined as everything in an organization that supports employees (human capital) in their work, and it is owned by an institution and remains with the institution even when people leave.

Meanwhile, Fazlagić and Erkol (2017:184), Stewart (2007,2010), Huysman and Wit (2002), Köper and Zaremba (2000), and Guthrie and Petty (2000: 241-251), they included in the definition of Structural Capital, systems and work processes that involve quality and reach of information technology systems, company images, hardware, software, database, organizational structure, patents, documents, trademarks, and other codified knowledge. Moreover, Choo and Bontis (2002: 632) defined Structural Capital as the critical link that allows intellectual capital to be measured and developed at the organizational level.

The structural capital is composed of the following types

1- Knowledge Transfer:

- Frequent informal contacts of other departments.
- Training system/ coaching/ mentoring.
- In-house consulting organization.

- Employees working with the customer.

2- Process and Procedure of Innovation:

- Document management system.
- Routines of skill management.
- Customer acquisition perspective.

3- Knowledge Management:

- Semantic web services - Information retrieval system

4- Corporate Culture:

- Person-to-person communication
- Decision-making process. (Cabezas, R., 2014: 42)

1.6.3. Relational Capital

The main theme of relationship capital is knowledge of market channels and of customer and supplier relationship as well as a sound understanding of government or industry association impacts (Choo, Bontis, 2002:632). In contrast, Ordoñez and Edvinsson (2015) defined the relational capital as the sum of the organization's relations with customers, suppliers, partners, and the public.

According to Viedamand and Cabrira (2012), the relational capital is knowledge entrenched in the relationships with any investor that effects on the institution's life. Partially agreeing with their definition is Fazlagi (2017:184) who described it as the knowledge entrenched in the relationships of an institution with its customers, suppliers, strategic alliance partners, and stakeholders.

Guthrie and Petty (2000:241-251), found it proper to define it as the external structure, which consists of relationships with customers and suppliers, brand names, trademarks, and reputation. Similarly, (Wasim et al, 2011: 8-16), defined it as the

relationship of a company with external stakeholders. It includes the cumulative confidence, experience, and knowledge that form the essence of the relationship between businesses and their customers.

The relational capital is composed of the following types

External: customer (relational) capital

- Brands
- Clients
- Client loyalty
- Firms names
- Distribution channels
- Commercial collaborations
- Licensing contracts
- Favorable agreements
- Franchising contracts (Guthrie, J., 2001:24-41).

The following table illustrates the names and components of intellectual capital from the perspective of a group of researchers (Table 2.2):

Table 1.2: The components of intellectual capital and the differences in its division from the points of view of some researchers.

Component of Intellectual Capital	Research Studies
Human Capital – knowledge contributed by people in an organization	Edvinsson and Malone (1997), Stewart (1997), Roos et al. (1998), Allee (1999), Sullivan (1999), Saint-Onge (1999), Sullivan (1999), Harrison and Sullivan (2000), Joia (2000)
Alternative classification: Human-Centered Assets Individual Competence Human Resources	Brooking (1996) Sveiby (1997) Fletcher et al. (2003)
Structural Capital - Knowledge owned by the organization	Edvinsson and Malone (1997), Stewart (1997), Roos et al. (1998), Allee (1999), Saint-Onge (1999), Fletcher et al. (2003)
Alternative classification: Infrastructure Assets Innovation Capital Internal Structure Structural Assets Structural Resource	Brooking (1996) Joia (2000) Sveiby (1997) Sullivan (1999), Harrison and Sullivan (2000) Fletcher (2003)
Additional Component: Intellectual Property Assets Process Capital	Brooking (1996) Joia (2000)
Customer Capital - Knowledge accessible to the organization from customers	Stewart (1997), Saint-Onge (1999)
Alternative naming: Market Assets External Structure External Capital Relationship Capital Relational Resources	Brooking (1996) Sveiby (1997) Allee (1999) Joia (2000) Fletcher et al. (2003)

Sours: Mitchell H, (2010)

1.7. Principles of Intellectual Capital Management

Intellectual Capital Management is an advanced administrative field that dates back to the mid-1980's and was developed by the influential publications of Prof. David Teece, which draws value from creativity. Meantime, advisor Karl Eric Seviby has developed knowledge management in his writings. Since then, the motivation, new ideas, and innovations in this field have been developed by companies that manage intellectual capital. The intellectual capital field has developed in two distinct aspects of focus: value generation (Sullivan, 1998: 22).

The management of intellectual capital is known as the procedure of extracting the value of knowledge, which can produce profit for the institution; intangible resources are considered intellectual capital. In this context, when determines the methods of evaluating intangible assets and intellectual capital, which are related knowledge, it is believed the information could provide institutions with profits and smooth their management (Osinski et al., 2017: 480-481).

Previous literature provides basic principles for the effective management of intellectual capital, including the following principles:

- 1- To benefit as much as possible from the ideas and works of intellectual capital for the benefit of the organization to establish friendly relations with its users, customers, and suppliers in the long term.
- 2- To provide the necessary resources to help build an internal information network, promote teams, attract groups and any other forms of learning, and allow such people to use everything that gives them more skills, information, and knowledge in their interests.
- 3- Do not exaggerate in the management of intellectual capital and allow them to put their ideas without hesitation, and this is the secret of the success of the administration in investing and maintaining the intellectual capital and the opportunity to instill the spirit of the innovative initiative through the administrative practice that sponsors creative and enlightening ideas.

- 4- To direct the flow of information to the intended site with logical quantity, and this is one of the principles of effective management of intellectual capital because exceeding the required threshold may lead to the nondiscrimination between them in terms of importance.
- 5- To complete the structure of intellectual capital by storing information within an efficient system so that it is easy to refer to the time such information is needed and to use it for necessary purposes.

Based on the above, effective and efficient management of intellectual capital can guide its intellectual assets, creativity, and excellence for it has the ability to attract people with the necessary skills and knowledge to work for them. Successful management recognizes that the knowledge and skill gained through practical experience is deeper and more stable in the mind than theoretical experiments. Therefore, management should motivate individuals as it is a source of strength for the organization and is constantly striving to achieve a competitive advantage.

1.8. Measurement of Intellectual Capital

1.8.1. Importance of Measuring Intellectual Capital

The objective of measuring intellectual capital is to identify the usefulness of the capital investments spent by the Organization in the areas of human development, structural development, and the acquisition of customers in order to maintain excellence compared to competitors in the long term. The measurement process is not an end in itself; it is a tool to gain, support and promote strengths, as well as to identify weaknesses and try to cure and prevent them in the future (Jadalrab and Sayed, 2006).

Roos, et al, (2001) pointed to the need to build an effective model for measuring intellectual capital, and the success of this model is achieved if it includes both financial indicators and non-financial indicators together, reflecting the

Organization's operations under the effects of the knowledge economy. This model led to the provision of accurate and adequate data and information, in a timely manner, to ensure the successful management of knowledge. One of the main obstacles to building an integrated approach to measuring intellectual capital lies in the lack of commitment of senior management to actively participate in building this portal and not providing adequate support for the effectiveness of this approach.

The measurement of strategic performance also indicates that organizations usually have good financial measures and processes, for example measuring profit or market share. However, these organizations do not have good standards for their intangible intellectual assets, which vary according to the nature of organizations. These standards increase when the strategic decision is taken because it leads to achieving strategic goals through the combination of external standards and a set of standards related to the situations and the development of intellectual capital (Roos, et al, 2001).

Based on the above, many quantitative and non-quantitative measures have been put forward to measure intellectual capital by researchers who still debate and discuss their relevant accuracy and measurement correctly.

1.8.2. Intellectual Capital Measurement Methods

In the literature of management and accounting, there are a number of models that are used to measure and evaluate intellectual capital, and the most important of these are the following (Najm, 2016: 222-226):

1.8.2.1. Descriptive Models

which define the attributes and characteristics of the intellectual capital and focus on the survey of opinions and trends, which affect the performance of

knowledge processes, even indirectly, and depending on the self-experience of the model and include the following models:

- 1- Management Knowledge Assessment Tool, a tool that consists of a questionnaire consisting of five sections: Knowledge Process, Leadership, culture, technology, and measurement in knowledge management. Through this questionnaire, the performance and productivity of knowledge work in the organization can be assessed between an excellent level and a lower level where there is no knowledge management.
- 2- Self-assessment of Professional Productivity Knowledge: This assessment involves directing four questions to knowledge professionals to determine for themselves whether they are productive or not.
- 3- Balanced Scorecard (BSC): Focused on translating the organization's message and strategy into a comprehensive set of subjective and objective metrics, the organization's performance is measured in four areas: financial perspective, customer perspective, internal processes perspective, and the perspective of learning.

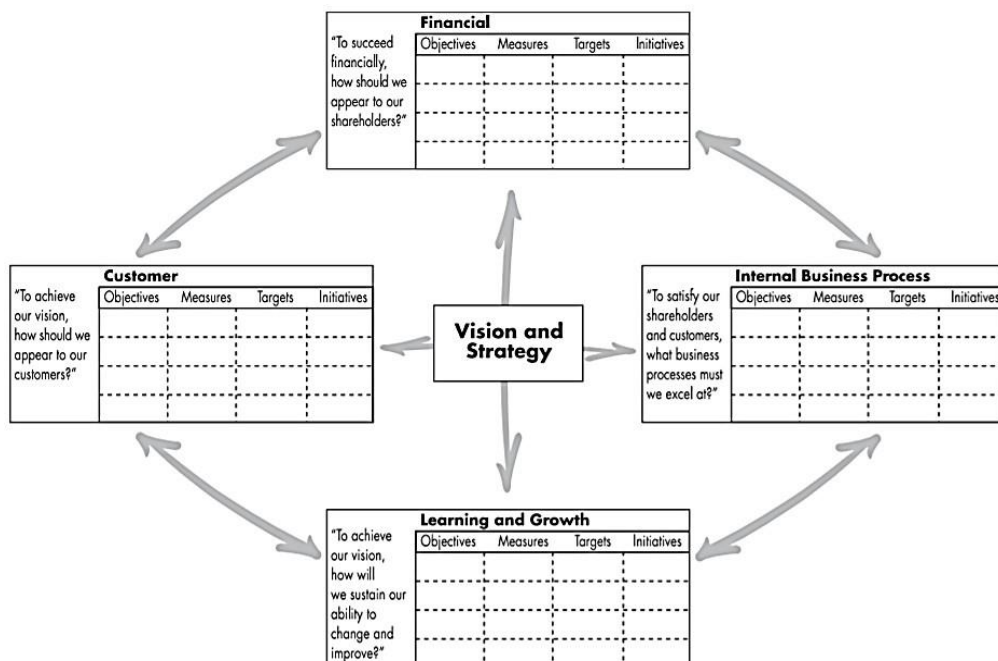


Figure 1.2: Sample of the Balanced Scorecard (BSC)

Sours: R. Kaplan and Norton, (1996:76)

1.8.2.2. Measures and Models Related to the Measurement of Components of Intellectual Capital

These measures focus on measuring the value of intellectual capital and its basic components (structural capital, human capital, and relational capital). These measures transfer knowledge and non-cognitive assets in the various departments of the company to forms of intellectual property to be more specific and easier to use in creating better results in the organization. Include the following models:

1- Transform knowledge into intellectual property

Knowledge and knowledge assets in a company are transformed into intellectual capital and intellectual property in more practical and specific forms. This conversion takes place in four areas:

- Transform of knowledge into intellectual property (patent, trade secrets, trademark, and copyright).
- Transform relationships into networks: the network is a source of privileged access and an opportunity that produces a mutual economic gain.
- Transform individuals into talents: Transform individuals into high-performance experiences and capabilities as compared to competitors or at the global performance level.
- Transform the reputation to a mark: where the good mark makes the possibility of buying and repurchasing exists here and everywhere.

2- Intellectual Capital Model

This model divides intellectual capital into structural capital, human capital, and relational capital. Each section is evaluated separately.

3- Information Guide – communications:

The guide provides several indicators based on the correlation between changes in information, communications, and changes in the market. The guide is based on four criteria: relational capital, infrastructure capital, human capital, and innovative capital.

4- Method of valuation of intellectual assets:

It is based on the evaluation of intellectual property and its returns, which make the method specific to the components of the intellectual property.

5- Dow Chemical Company Model:

In this model, knowledge is the key to wealth creation. This model consists of six steps: strategy development, identification, and classification of current intellectual assets, assessment of these assets, the decision to invest in new knowledge through the development and acquisition of technology and skills, and eventually knowledge portfolios for each company's global business unit.

1.8.2.3. Market Value Measurements and Models

These measures focus on the difference between the book value of the assets of knowledge and their market value, and the difference between the value of these measures is often based on financial and accounting foundations and principles. The most important examples include market value, book value, calculated integer value:

1- Market value to book value

This model calculates the difference between the market value of the company and its book value. The rationale for this model is that the market value signifies the real value of the firm, as well as tangible assets and intellectual capital.

Intellectual capital= market value + book value

2- Market value allocated for investment

This method is based on taking the real value (the market value which means "tangible capital + intellectual capital") of the company and dividing it into its components: tangible capital, intangible capital (knowledge and related), and sustainable competitive advantage.

1.8.2.4. Models and Methods of Return on Knowledge

Models and methods of measuring the return on knowledge can be classified into four groups:

1- These models are based on the calculation of return on assets (ROA), which is done by dividing the pre-tax income on the tangible assets of the organization.

Return on assets (ROA) = pre-tax income / tangible assets of the organization, and it is then compared to the average industry, and the difference is a return on the organization's knowledge.

2- Intangible integer value:

This method calculates the return on tangible assets and then uses this figure as the basis for determining the proportion of returns attributable to intangible assets. It can also be used as an indicator of the profitability of investments in the assets of knowledge.

3- Knowledge Capital Gains:

Gains of knowledge capital are calculated as a percentage of official gains on expected gains from book assets.

4- Value Added Method (return on knowledge):

This method is based on learning time in core processes. This method can be identified through seven steps: identifying the core process and its sub-processes, the formation of common units for measuring learning time, calculating learning time for each sub-process, determining the sampling period for a representative sample of the core process, multiplying the learning time for each subprocess by the number of subprocess times, allocating the proceeds of the sub-processes in proportion to the quantities generated in the previous step, and calculating costs for each sub-process and finally calculating the return on knowledge and interpreting the results.

1.9. Errors Associated With Measurement of Intellectual Capital

- The measurement process is not linked to a strategy: mixing the selection of the reference frame that governs the measurement process, the balanced performance card or a set of ready-to-use indicators is a common mistake; the indicators are chosen without understanding or analysis of causal relationships. There are those who use the indicators used by other organizations; while each organization must choose the appropriate indicators for its activity and strategy.

- Non-activation of links between causes and results: Although there are many organizations that use models of cause and effect, few of them test the effectiveness of the links between them. Many managers pay more attention to perceptions that prioritize customers, shareholders, investors, suppliers or employees, but these perceptions, which may seem obvious, may be wrong at least in parts of them. Testing these data in the light of clear and specific elements is rare in many organizations. Therefore, the activation of links between causes and results periodically enables the correction of the measurement model and its revision.

- Lack of setting good goals for performance: High-level of non-financial performance is not useful and may lead to a negative outcome. Few organizations know when they have exceeded the required level and produced a higher level of

quality required. For example, a 100% satisfaction of the customer is not possibly necessary. On the other hand, setting low-level goals is not right; the challenge lies in the ability to reconcile the appropriate goal with the means available to achieve it with sufficient motivation.

- Wrong measurement: Many organizations do not take the necessary precautions to verify the veracity and validity of their measurement processes. The validity of the measurement reflects the ability to express what is required to be represented; as for the veracity is that the measurement represents the correct level of performance and its changes. And, no change or error may result when veracity is collected. In addition, the measurement may be wrong due to its inconsistency with the various units of the organization (Inter and Larcker, 2003).

1.10. Building and Developing Intellectual Capital

Contemporary institutions are in need of employees who have a wide scope of knowledge and skills and who can innovate for their organizations in the future. For this need to be attained, the organization should be built with intellectual assets, as it is the most successful way to upgrade the organization to its real potential. Bontis (1998, p 70-73) developed Stewart's idea and recommended that managers who have interests are in strategic management of intellectual capital for their own organizations have to follow 10 steps, first of all, they should do an initial intellectual capital check, then they have to make knowledge management a condition for assessment purposes to apiece employee, after that define the role of knowledge in the commercial and manufacturing, and the next step is centered on that they should recruit and appoint head in charge of the intellectual capital improvement of the organization as well as categorize the intellectual portfolio by producing a knowledge map of the organization, thereafter to benefit from information systems and sharing tools that aid in knowledge interchange and codifying, posteriorly the organizations ought to send employees to seminars and trade exhibitions, after that they should conducting intellectual capital audits continuously to re-evaluate the accumulation of knowledge at the organization, and the next steps identify gaps to be

filled or holes to be plugged based on weaknesses relative to competitors, customers, suppliers, and best practices. Finally, compile the organization’s new knowledge portfolio in an intellectual capital addendum to the annual report (Van Deventer, 2002).

1.11. Intellectual Capital in Institutions of Higher Education (universities)

The university is the top of the pyramid in the education system around the world and is the cornerstone of sustainable human development, especially in the present age, where the university is one of the social educational institutions that has become the focus of many different fields. For this educational institution to achieve a real development of the intellectual capital, on a scientific basis, educators must adopt advanced strategies in education and training. They should focus on the cognitive processes required by intellectual development plans and employ modern technologies in an effective manner to achieve the desired results in the management, measurement, and development of intellectual capital (Hilali, 2011: 4).

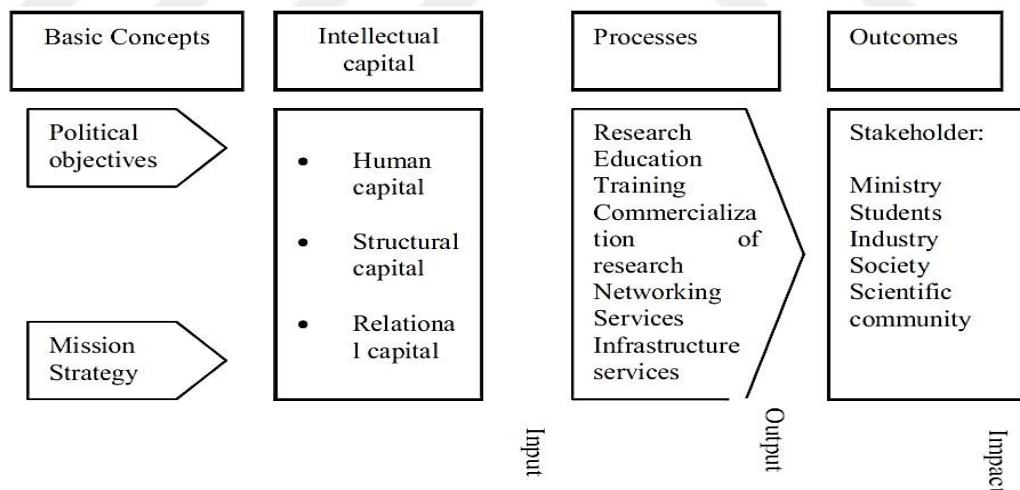


Figure 1.3: Model of intellectual capital reporting at universities

Source: Brătianu, C, (2009)

The left-hand side of the model represents the general framework comprising politics, mission, general objectives, and strategy. It also shows the way this model affects the development of intellectual capital in institutions. These institutions can

be placed in the context of their intellectual capital and their pursuit of development, according to Hilali (2011:54) as follows:

- Human Capital: Universities are generally proud of their efforts to prepare young people to meet the demands of the labor market. The universities strive to emphasize that their training is focused on competition and help employees acquire the necessary knowledge and skills to perform their work at the required level and standards with less cost and effort. To achieve its objectives in this regard, the university places great importance on research and encourages faculty members to participate in qualitative research procedures in their specialties.

- Structured capital: The University consists of a group of colleges and auxiliary deanships and includes the basic system to support teaching infrastructure, research activities, and facilities such as the library, information technology, and labs.
- Relational Capital: It includes external relations of the university, mutual trust between a university and other universities and other community institutions and standards of conduct.

1.12. The Role of Universities in the Knowledge-Based Society

Knowledge societies are aptitudes of identification, production, dispensation, transformation, distribution, as well as use the information to build and apply knowledge for human development. They need a certified social vision that holds plurality, inclusion, solidarity, and contribution (UNESCO, 2003). As knowledge can be shaped, engrossed, and applied just by the educated mind, schools in general, and universities, in particular, are going to play progressively energetic roles as societies enter this new era. Which knowledge is the medium of the university through the activities of discovery, shaping, achieving, transmitting, and applying knowledge. The university serves society in many ways: educating the young, preserving our cultural heritage, providing the basic research so essential to our security and well-being, training our professionals, and accrediting their competence, stimulating our society and inspiring social change (Duderstadt, 2002).

Obviously, higher education is going to flower in the coming periods ahead. In a knowledge-intensive society, the necessity for advanced education will become ever more demanding, both for persons and society. Yet, it is also possible that the university, as it positions today, (or rather, the present collection of diverse organizations that make up the higher education enterprise), will change in irresistible ways to make a change in the world (Duderstadt, 2000:37-44).



CHAPTER II

COMPETITIVE ADVANTAGE

2.1. The Concept of Competitive Advantage

It is a real revolution in the world of business management at the academic and scientific level, and academia no longer considers the competitive advantage as an internal concept or as a temporary confrontation. Rather, competitive advantage is seen as a dynamic and continuous process that aims to achieve the superiority and sustainable excellence of the organization on competitors, suppliers, buyers, and others.

The competitive advantage is one of the most prominent features of the modern era. It is a fact that competitive advantage determines the success or failure of institutions. So, today's institutions seek to acquire sustainable competitive advantages through which they achieve survival and continuity. The institutions have great challenges in the difficulty of survival, continuity, and maintaining their competitive advantages for a long time. Therefore, owning and developing competitive advantage have become a strategic goal that institutions seek to achieve by using many methods, most notably intellectual capital, which plays an important role in supporting sustainable competitive advantage. So, a competitive advantage is an important source for developing knowledge and skill gained and increasing efficiency and organizational effectiveness.

2.2. Definition of Competitive Advantage

The competitive advantage is a very important strategic element in providing an essential opportunity for the organization to achieve continuous profitability compared to its competitors.

First to propose a definition was (Porter, 1993: 48) who said: The competitive advantage is that "the new methods discovered by the institution, which are more effective than those used by competitors so that they can apply this discovery on the ground. 3 years later, Pitts and lei (1996: 68) thought that it is the organization exploits its internal strengths in the performance of its own activities so that a value can be generated that competitors cannot achieve in the performance of their activities.

Later on, Lambin (1998) defined the competitive advantage as the sum of characteristics or attributes that characterize the product or mark, which gives the organization some superiority over its immediate competitors. (Kotler, 2000), defined it differently from Lambin, saying it's as the capacity of the organization is to conduct its work in one or more ways, it is hard for competitors to keep pace with or imitate the organizational capabilities.

On the same year, Lynch (2000), said that competitive advantage is to look for something unique and different from what competitors offer. Generally, it is the process of finding or creating a system that has a unique and distinct advantage that is superior to that of competitors and that the idea focuses on creating value that is provided to the customer in an efficient way (Heizer and Render, 2008). Moreover, Macmillan and Tampoe (2000: 89), defined it as the means by which the organization has a unique advantage.

At the beginning of the 21st century, Peteraf and Barney (2003) defined competitive advantage as the additional economic value that the company creates because of its efficiency that exceeds the efficiency of competitors in the product market. The last one to put up a definition was David (2009), where he explained it

as the ability of the organization to apply new production processes that have not been applied in competing organizations, mainly when these organizations cannot obtain the resources to imitate those processes.

Thoroughly, competitive advantage can be defined as the ability of the organization to acquire a set of characteristics and the elements through which it can achieve progress and superiority over other organizations operating in the same field. Accordingly, it represents the strength point distinguishing the organization from its competitors.

2.3. Characteristics of Competitive Advantage

The competitive advantage is characterized by many characteristics: it is continuous and sustainable so that it is established in the long term, it deals with future opportunities, and it depends on the difference and excellence and not similarity (Porter, 1985).

Competitive advantage is relative to competitors or compared to different periods of time; it is achieved by comparison and is not absolute. It is described as renewable according to the external environment on the one hand and the capabilities and resources of the internal institution on the other hand. It is also flexible in the sense that other competitive features can be replaced with ease. The use of these competitive advantages is consistent with the objectives and results that the organization wishes to achieve in the short and long-term (Galby and Idris, 2007:310).

Competitive advantage leads to the achievement of excellence and superiority over competitors. It stems from within the institution and its value, reflected in the efficiency of the performance of the organization in its activities or in the value of what it offers to customers. It also affects customers and their perception of the preference offered by the organization and motivates them to buy more (El Maghraby, 1999:139).

2.4. Objectives of the Organization to Gain Competitive Advantage

For Al-Salami (2001, p104), the most important results that the institution will achieve from its competitive advantage include:

- The ability to convince its customers of its products that are distinctive and different from what competitors offer.
- Creating new marketing opportunities.
- Entering a new competitive field as a new market entry or dealing with the new type of customers or a new type of goods and services.
- The possibility of access to a better and larger market share than competitors and the continuation of this success will be reflected in increased material returns and net profits.
- Creating a new vision for the goals that the organization wants to achieve and the big opportunities it wants to capture.
- Competitive advantage is an important criterion for identifying successful organizations because successful organizations are characterized by the creation of unique and new models that are difficult to imitate and simulate.
- Creating value for customers as the organization strives to achieve and maximize this value to reach customer satisfaction and ensure its survival in the current competitive market.

2.5. The Sources of Competitive Advantage

Porter (1985) provides three key sources of competitive advantage: cost Leadership Strategy, Differentiation Strategy, and Focus Strategy. These sources are key themes for Porter in designing his competitive strategies, applied in business organizations according to surrounding environmental conditions. For Grant (1991: 119) the sources of competitive advantage are achieved through unique skills that

include technical, managerial and functional skills, as well as resources owned by the organization, such as distribution networks, production capacity, marketing power, and technology.

2.5.1 Strategic Management

Institutions are based on specific strategies to take precedence over their competitors by acquiring a competitive advantage, and the strategy is the structure that the institution takes to achieve its objectives. In this sense, strategic management is one of the most important sources of competitive advantage through the application of competitive strategies and alternatives; Porter (1985) rates strategies as follows:

2.5.1.1. Cost Leadership Strategy

The cost strategy of the company and the location of its relative cost derive from the value activities of the company to compete in a given field. It aims at achieving a lower cost compared to competitors, and this strategy includes the presence of encouraging opportunities to reduce cost and improve efficiency. It promotes the production of products at a very low cost and provides to consumers who are very interested in the price.

The cost leadership strategy has a lot of advantages: Lowering the price of inputs is a common way to decrease costs, having immunity against powerful customers as they cannot bargain to reduce prices, having immunity against the powerful suppliers who determine the price of inputs, having an excellent competitive position that gives it the ability to reduce the price, being able to face any attack from the new competitor compared to its competitors, and it can use the price reductions as a weapon against alternative.

2.5.1.2. Differentiation Strategy

The organization seeks to be unique in its field along with some dimensions that are widely valued by customers. It selects one or more attributes that many customers in the field perceive as important and uniquely positions itself to meet those needs. Organizations should strive to differentiation but they should not ignore the cost so that one of the differentiation aims to achieve parity in cost or proximity for its competitors by reducing costs in all areas that do not affect differentiation. This strategy aims at producing outstanding goods and services at the industry level and directing them to consumers who are relatively sensitive to price. The advantages of differentiation include the differentiation based on technical excellence and differentiation based on quality and services.

2.5.1.3. Focus Strategy

This strategy is quite different from the other strategies because it aims to produce goods and services that meet the needs of a small group of people consumers and focus on some particular segments and designs its strategy to serving them while excluding others.

Some of the advantages of the focus strategy include the differentiation of products through better quality and better services to satisfy the needs and desires of the target market, provide lower product costs in the target sector compared to competitors, and discrimination in quality, service, and cost together.

2.5.2. Tangible and Intangible Resources

To ensure the success of the competitive advantage, there is a need for high resources and competencies, since competition is not limited to the development of competitive strategies, but it is extended to research and development on an ongoing

basis, relying on resources and competencies. According to (Bushnav, 2002: 48-49), these resources are divided into:

2.5.2.1. Tangible Resources

- Primary resources: which have a significant impact on product quality.
- Production equipment: It is a very important asset of the organization and fulfill the added value resulting from the transformation of raw materials into products, so the organization has to ensure its safety, operation, and embalmment.
- Financial resources: it permits the formation of new products as well as set them on the market or enlarge them in a bigger field like opening new distribution channels.

2.5.2.2. Intangible Resources

It is possible to differentiate between several intangible resources as a way of retaining a competitive advantage for the organization, the most important of it include:

- Quality: The institution looks for reach a high market share based on quality, which denotes the ability of the product or service to meet or exceed consumers' expectations and seeks to gain the trust of customers through quality.
- Technology: It is an important internal resource capable of making a competitive advantage, and each institution has to choose the appropriate technological means to it.
- Information: Information has a significant role due to it is a source of detection of competitors' plans and movements and market variables, allowing for making the right decisions at the right time.

- Knowledge: means technical and scientific information and new knowledge of the organization's activity as it is derived from research centers and universities. Knowledge contributes to the incessant improvement of inventive capabilities, allowing the creation of competitive advantages.

2.6. The Basic Factors of Building the Competitive Advantage

Hill and Jones (1989: 113) identify the four factors that build competitive advantage: efficiency, quality, innovation, customer's responsiveness as in figure (3.1).

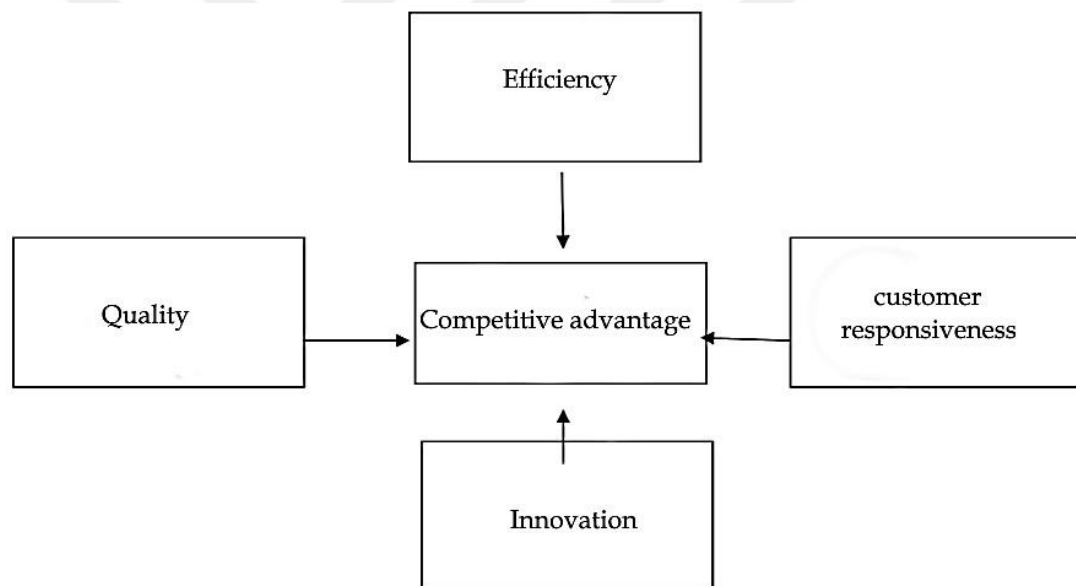


Figure 2.1: Competitive advantage building factors

Sours: Hill and Jones, (1989: 113)

Any company can adopt factors regardless of their industry or products or services provided by all these elements integrated with each other. Hill and Jones (2010) explain to them as follows:

2.6.1. Efficiency

Efficiency can be measured by the amount of input that the company needs to produce a product. The more efficient a company is, the fewer the inputs required to produce a given output and the lower its cost structure will be. The company has efficiency when its production is high and at lower costs than its competitors.

Primary Roles of Value Creation Functions in Achieving Superior Efficiency:

Infrastructure (leadership)	<ul style="list-style-type: none">• Provide a company-wide commitment to efficiency• Facilitate cooperation among functions
Production	<ul style="list-style-type: none">• Where appropriate, pursue economies of scale and learning economics• Implement flexible manufacturing systems
Marketing	<ul style="list-style-type: none">• Where appropriate, adopt aggressive marketing to ride down the experience curve• Limit customer defection rates by building brand loyalty
Materials management	<ul style="list-style-type: none">• Implement IT systems• Implement supply-chain coordination
Research and Development (R & D)	<ul style="list-style-type: none">• Design products for ease of manufacture• Seek process innovations
Information systems	<ul style="list-style-type: none">• Use information systems to automate processes• Use information systems to reduce costs of coordination
Human resources	<ul style="list-style-type: none">• Institute training programs to build skills• Implement self-managing teams• Implement pay for performance

3.6.2. Quality

The concept of quality is associated with the reliability and excellence of products. A product can be thought of as a package of properties. The properties of many physical products include the form, features, performance, durability, reliability, style, and design of the product. The high quality gives the company many advantages, including the good reputation that allows the company to provide products that vary remarkably from its competitors' and therefore create customer responsiveness, which gives the company the chance to increase the prices for its products. Also, it means eliminating defects and errors that occur in the production process, reducing waste, increasing efficiency, and lowering the cost structure of the company in order to increase its profitability.

Functional Roles for Achieving Superior quality:

Infrastructure (leadership)	<ul style="list-style-type: none">•Provide leadership and commitment to quality and Find ways to measure quality•Set goals and create incentives and Solicit input from employees•Encourage cooperation among functions
Production	<ul style="list-style-type: none">•Shorten production runs•Trace defects back to the source
Marketing	<ul style="list-style-type: none">•Focus on the customer•Provide customers' feedback on the quality
Materials management	<ul style="list-style-type: none">•Rationalize suppliers•Help suppliers implement quality-improvement methodologies•Trace defects back to suppliers
Research and Development (R & D)	<ul style="list-style-type: none">•Design products that are easy to manufacture
Information systems	<ul style="list-style-type: none">•Use information systems to monitor defect rates
Human resources	<ul style="list-style-type: none">•Institute quality-improvement training programs•Identify and train "black belts"•Organize employees into quality teams

2.6.3. Innovation

Innovation is one of the most important factors of competitive advantage. It leads to new products that aim to better satisfy customer needs by improving quality or reducing cost, and because competitors are always trying to imitate successful innovations and often succeed, so if the company seeks to maintain the competitive advantage, it must have a continuing commitment to innovation. Such innovation comes through:

- (1) Differentiating the products and charge a premium price
- (2) Lowering the cost structure below that of its rivals.

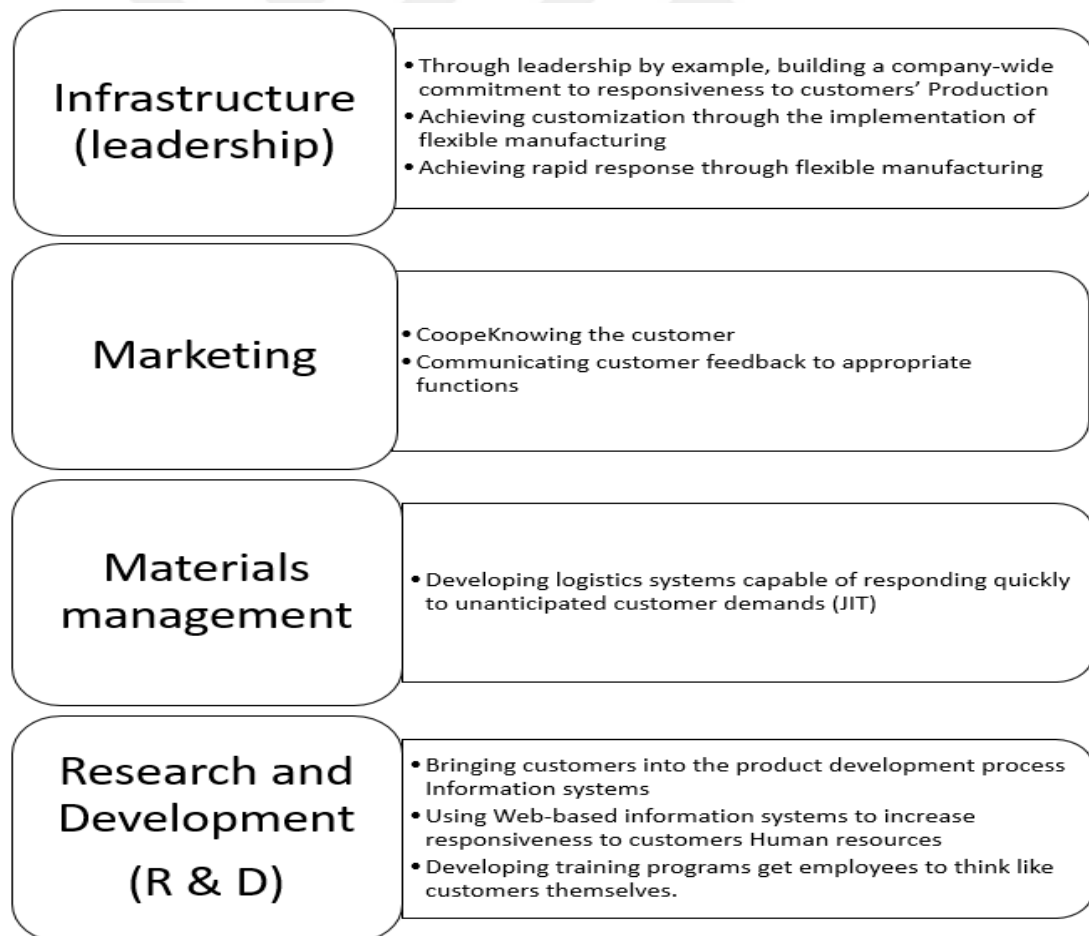
Functional Roles for Achieving Superior Innovation:

Infrastructure (leadership)	<ul style="list-style-type: none">• Managing overall project (i.e., manage the development function)• Facilitating cross-functional cooperation
Production	<ul style="list-style-type: none">• Cooperating with R & D on designing products that are easy to manufacture• Working with R & D to develop process innovations
Marketing	<ul style="list-style-type: none">• Focus on the customer• Provide customers' feedback on the quality
Materials management	<ul style="list-style-type: none">• Providing market information to R & D• Working with R & D to develop new products Materials management
Research and Development (R & D)	<ul style="list-style-type: none">• Developing new products and processes• Cooperating with other functions, particularly marketing and manufacturing, in the development process
Information systems	<ul style="list-style-type: none">• Using information systems to coordinate cross-functional and cross-company product development work
Human resources	<ul style="list-style-type: none">• Hiring talented scientists and engineers

2.6.4. Customer Responsiveness

Responding to customers is a special and important feature provided by any company because it helps build brand loyalty and strong product differentiation. This benefits the company by giving it more pricing choices. The firm can impose a higher price for its goods or keep prices low to sell more products and services to its customers. In both cases, a firm that is more receptive to the needs of its customers than its competitors will have a competitive advantage and can get the response of customers by giving them what they want and may require new products and new features. To achieve superior responsiveness to customers, the firm has to listen to its customers, explore their needs and identify them and need to pursue better ways to satisfy those needs continuously.

Functional Roles for Achieving Superior Customer Responsiveness:



2.7. Factors Affecting the Creation of Competitive Advantage

2.7.1. Internal Resources

They are associated with the organization's tangible and intangible resources such as the factors of production, energy, primary resources, distribution channels, assets, etc. Competitive advantage can also be obtained through the management systems used and developed, methods of management organization, methods of stimulation, the returns from research, development, creativity, and knowledge.

2.7.2. External Resources

There are various external resources, and they are formed through the variables of the external environment, which leads to the creation of opportunities and advantages. They are exploited by the organization for a lot of benefits; they include supplying conditions and demands for primary resources, financial resources, human qualified resources and other.

The organization can adopt a competitive advantage through its strategic options for horizontal and vertical integration, diversity, strategic alliance and relationship with others (Pitts and Lei, 1996: 70).

2.8. Determinants of Competitive Advantage

Competitive advantage is determined by two important dimensions, competitive advantage size and scope of competition (Nabil, 1996: 76-77):

2.8.1. Competitive Advantage Size

The continuation of competitive advantage depends on the ability of the organization to maintain it despite the competition it faces. And, when the size of this advantage increases, the competitive institutions will have great difficulty in simulating or eliminating it.

The competitive advantage has a lifecycle like the products; it begins with the introduction stage or rapid growth, which is one of the longest stages because it needs a lot of thinking and human, financial and material readiness. Then, there is the recession stage where competitors begin to emulate and imitate the competitive advantage and try to overcome it. Next, there is the adoptions stage by the competing institutions. Finally, the necessity stage, in which the institution needs to improve the current advantage, develop it quickly, and create a new advantage on a basis completely different from the foundations of the current advantage to achieve greater value to the customer.

2.8.2. The Scope of Competition or Target Market

The scope of the competition includes four dimensions:

1. Market segment: it reflects the variety of the institution's outputs and the variety of the customers who are served, and there is an option between concentrating on a specific sector of the market or serving the whole market.
2. Vertical Scope: it is the extent to which the institution achieves its activities internally or externally Depending on different sources of supply.
3. Geographical scope: The number of geographic areas or countries with which the institution competes; this scope allows organizations to achieve competitive advantages by providing a single quality of activities and functions across several geographic areas. This is an important advantage

for international organizations offering their products or services throughout the world.

4. The scope of Industry: it reflects the interconnectedness of the industries under which the institution works. The linkages between various activities across sundry industries create opportunities for many competitive advantages and the same qualifications or technologies. Also, the expertise may be used across the different industries to which the institution belongs.

2.9. Conditions of Competitive Advantage

Most of the researchers put together a set of conditions that must be met to achieve a competitive advantage. These conditions are not related to the market nor to the product as Peteraf (1993) stated, rather they are related to the characteristics of the resources and competencies owned by the organization.

- Value creation: it is achieved through the outstanding performance that is reflected in the products and services provided, in order to achieve customers' satisfaction that is compatible with expectations or even implicit aspirations.

- The Scarcity: Resources must be scarce so that only a few organizations can obtain them, or only one organization according to Barney (1991). For Grant (1991), scarcity is not intended for a limited or rare number of resources, but that the process of conversion is not possible for all (incomplete).

- The Permanence: Montgomery et al (1995) considered that a condition of competitive advantage is the permanence of its creative resources. While Grant (1991) argued that competencies are more sustainable, he said that existing resources could be replaced with new future resources, which would serve and help extend the lifespan of efficiency.

- The impossibility of imitation: It is hard to mimic human resources and competencies due to the nature of the institution's culture and performance criterions which cannot be embodied in a different environment. As well, it is hard to accurately determine the contribution of each person or efficiency to the value created in the institution because of the overlap of various activities. It is also difficult to repeat social relations with the intrinsic characteristics back the process of creating value due to the social complexity of relations.

- The Possession: According to Barney (1995), it is another important element of the feature requirement, which organizations should consider and organize their methods and structures to deliver and collect the value of the resources and competencies its own.

- The requirement of resource sustainability relates to several factors: the duration of the life cycle of technological innovation and the rate of entry of new competitors, among others Laroche and Nioche (1998:173-175).

2.10. Reasons for the Development of Competitive Advantage

There are many reasons that led to the development of the priorities of competitive advantage. First, the evolution of technology, so the introduction of modern technology in industries, in general, is one of the important reasons because of their direct impact in the process of application of the product and methods of submission. Second, change in resource costs and availability which can significantly affect costs and how to access the resource and the emergence of new needs for consumers. Third, the modern development increased consumer desires and changed their aspirations, which led to a change in the policies of the institution and structure and strategies. Forth, the emergence of new sectors in the market which led to the emergence of new competition but in ways and new business sectors that are working on innovative and new ways to meet customers' needs (Laudon, 2004).

2.11. The Relationship between Intellectual Capital and Competitive Advantage

Organizations face many changes both in the internal or external work environment. These changes have increased the pressures on the organization to make the necessary changes to meet these challenges. Organizations wishing to stay in business must strive to achieve some competitive advantages. One of the most important areas in which the organization can achieve a competitive advantage is its human resources, and these human resources should be more skill, efficient, capable, knowledge, and commitment (Hassan, 2005: 3).

Many studies have attempted to link intellectual capital and competitive advantage in terms of standards and outcomes. Stewart (1999: 3) explained that intellectual resources are the most important resources of the institution and that the investment of mental capacity and the promotion and effective management of intellectual capacity achieve intellectual performance. All of which can lead to competitive excellence through the transformation of the abandoned value available in the minds of the employees of the institution and the loyalty of customers and systems and collective knowledge.

Stewart (1996: 2) considers that the true value of the enterprise lies in its intellectual capital and ability to employ the knowledge inherent in it and turn it into applications that achieve high performance and thereby improve its competitiveness. Yet, Beatty (1996:2) pointed out that in the analysis of competitive intellectual capital through strategic management of performance, the productivity of intellectual assets was the focus of the institution's work and the basis of its success.

Thus, the effective investment of intellectual capital is the main determinant of the supremacy of competencies, especially if the organization can attract specific competencies.

2.12. Competitive Advantage in Universities

The new terms and concepts appear first in the fields of industry, trade, and economy, and gradually move to the field of education. Accordingly, the concept of competitiveness has begun to move to the field of education, where educational institutions, especially universities, face new challenges. As a result, higher education institutions have become obliged to build competitive capacities search for superiority and excellence from other institutions, and this is done by believing in the inevitability of change in the philosophy of higher education.

Issues such as change, competition, accountability, the combination of laboratory and field research on the one hand and applied research on the other hand, the development of strategic alliances, dealing with learners rather than students, lifelong learning as a new definition of continuing education, effective response to university stakeholders, among other issues have had a significant impact on the survival of these institutions (Rowley, 2004).

The competitiveness of the academic institution depends on two main areas. First, the ability of excellence on competing universities in vital fields, such as study programs, the characteristics of faculty members, information technology and tools, physical and research equipment, management style and quality systems, and the creation of new training systems and programs to cope with environmental developments. Second, the university's ability to attract students, support and funding from local and overseas markets. The success of the second part depends on the success of the first part. Therefore, the competitive context of higher education calls on the institutions of higher education to exert efforts in defining the beneficiaries of their activities and services, as well as distributing them to target slices and groups so that they can work on their needs and desires and try to satisfy it to achieve their goals and aspirations in the future (Suarez, 2006: 314).

CHAPTER III

LITERATURE REVIEW

3.1. Previous Studies on Intellectual Capital

Bontis and Fitz-enz (2002) report described the results of a ground-breaking research study that measured the antecedents and consequences of effective human capital management. The study specimen consisted of 76 senior executives from 25 firms in the financial services metier. The results of the study yielded an inclusive causal map that incorporated concepts from the fields of intellectual capital, information technology, and accounting, knowledge management, human resources, and organizational behavior.

Marr, et al. (2003) study reported the outcome of a systematic investigation into the theoretical foundations of why companies measure their intellectual capital and as long as empirical evidence that helps to prove that the measurement of intellectual capital is worthy. The study then criticizes the status of research evidence in the field. The main discovery of this study is that the majority of researches within the intellectual capital measurement area is at the theory building stage, and that very small of the proposed measurement theory has been tested. This study summed up possible avenues ways might seek to achieve more development in the Intellectual capital measurement area.

In his paper, Mitchell (2010) study's aim was to explore how to manage intellectual capital in institutions through the development of a model prepared by the researcher, based on the vision and strategy of the organization. The study proposed that the intellectual capital has three basic components: human capital, internal capital, and external capital. They include the major competitive advantage

of the organizations. The study was applied to a sample of 71 individuals divided as follows: (9) chief executives of the independent business units in a large New Zealand firm he interviewed to understand why and how they managed the firm's intellectual capital, (18) workers in these firms, (44) other individuals through a questionnaire prepared to determine their views about issues related to intellectual capital, especially sharing knowledge within their firms. The derivation of the study suggested that although there were aspects of intellectual capital management, there isn't enough awareness and sufficient cognizance to manage intellectual capital as required.

Sharabatia, et al. (2013) study aimed to investigate the influence of Intellectual Capital (IC) on Jordanian Telecommunication Companies' (JTC) Business Performance (BP). A survey was conducted and answered by the managers at JTC companies. Practical data were used in the empirical analysis collected from 84 managers out of approximately 500 managers, by means of a questionnaire. The results showed a positive significant effect of IC on JTCs' BP. The results also indicate that RC positively and significantly affects JTCs' BP, while SC and HC do not significantly affect JTCs' BP. The Empirical results also indicate that there were strong interconnected relationships and interactions among the three components of IC. The use of a single industry study design limits its generalizability to other industries, so extending the analysis to other industries represents future research opportunities. IC should be taken into serious consideration when formulating the companies' strategy. Finally, it is also recommended carrying out researches that compare results with other organizations and industries under similar assessment and measurement conditions.

Chahal and Bakshi (2016) study aimed to develop, establish, and empirically validate the intellectual capital scale in the banking sector, in the context of emerging economies like India. Data were collected from three executives from 144 branches of 21 public and 7 private commercial banks operating in Jammu city, India. The three senior executives were selected as they have more knowledge and experience. The study found that the human capital dimension consisted of important elements as

staff creativity, training and education, experience, behavior and innovative employees.

Alnachef, et al. (2017) study aimed to establish impacts of elements of intellectual capital on competitive advantage in Syrian pharmaceutical companies. This study extracted four aspects of intellectual capital which includes human capital, structural capital, relational capital, and spiritual capital. The results of a survey conducted on 306 respondents from 47 companies in the Syrian pharmaceutical sector and the results indicated that there is a significant positive correlation between human capital and structural and relational capitals and competitive advantage. Moreover, there is a positive relationship between structural capital and relational capital and competitive advantage. Not to mention that there is a statistically significant relationship between relational capital and spiritual capital and a competitive advantage.

3.2. Previous Studies on the Focus of Competitive Advantage of Higher Education Institutions

Greco, et al. (2013) study aimed to analyze the elements of the university (University of Cassino), through which it can achieve a competitive advantage with its counterparts from other universities by analyzing some elements of the intellectual capital owned by that university. The study used data analysis by conducting a series of interviews with the representatives of the University and its administrative management, such as CEO - faculty members and beneficiaries of dealing with the university. The study concluded with a framework that contributed to the creation of a competitive advantage at the university by making the most of the intellectual capital features that it owns the university. This framework has contributed actively to the development of work within the university and to the improvement of the mechanism of dealing with the external and internal beneficiaries of the university. The study proposed a mechanism to deal with and benefit from the potential of human resources and how to manage relations with customers.

Todericiu and Serban (2015) study aimed to investigate the role of intellectual capital in nowadays modern organizations and its relevance for educational institutions such as universities. A preliminary study on the concept and implications of intellectual capital (IC) in modern organizations, with the aim of better understanding of its characteristics at the universities, was conducted to the pilot sample. The results indicated that measuring intellectual capital can lead to administrative, cultural, and organizational changes and can allow the planning and management of intangible resources in line with the institution's strategy to create a value. Universities can benefit from improved assessment of their intangible assets, performance measures, resource allocation, and measurement practice.

Alserhan (2017) study aimed to define the role of intellectual capital and its components (human capital, relational capital, and structural capital) and to achieve the competitive advantage and its dimensions in the Jordanian private universities in the northern region. The study sample includes (90) individuals of the total study population (120). A questionnaire was designed to verify approaches in the theoretical frameworks of the intellectual capital independent variable and its relation to the dependent variables, which is the competitive advantage. One of the important results of the study is the existence of a statistically significant relationship between intellectual capital and its three dimensions and achieving competitive advantage. The study showed that the dimensions of human and social capital are more available than structural capital, so both share into the competitive advantage more than structural capital.

3.3. Previous Studies on Intellectual Capital and Management in Promoting or Achieving Competitive Advantage

Suciu (2006) study aimed to provide a definition of intellectual capital and its importance in the economy. It is one of the most important sources of competitive advantage of companies. The study also aimed to define the definition of a global composition of the components of intellectual capital, as the global economy now depends primarily on knowledge and intangible assets that are usually difficult to

manage in traditional accounting systems. The study provided a set of examples that helped measure and control the intellectual capital and presented a set of conclusions. It showed that there is a strong and positive relationship between the components of intellectual capital and intellectual property investments and that the high value of investment in intellectual property does not mainly guarantee that there is intellectual capital.

Appuhami (2007) article aimed to investigate the effect of the value formation efficiency on investors' capital earning on shares. To examine the effect of corporate value creation efficiency on investors' capital advances, the author used the data collected from listed companies in Thailand's stock market and Pulic's (1998) Value Added Intellectual Coefficient (VAIC TM) as the measure of intellectual capital and a developed multiple regression model. The article found that intellectual capital has a significant positive relationship with its investors' capital gains on shares. The results boost the knowledge base of intellectual capital and improve a concept of intellectual capital in reaching competitive advantages in emerging economies such as Thailand's.

Kamukama, et al. (2011) paper aimed to examine the mediating effect of competitive advantage on the relationship between intellectual capital and financial performance in Uganda's microfinance institutions. MedGraph program (Excel version) was used to analyze the results, and one of the most important findings of the study was that achieving the competitive advantage of the organization makes it a mediator between intellectual capital and overall performance improvement. It also has a distinctive effect on the relationship between intellectual capital and improving the financial performance of the organization.

Almbaidin (2013) study sought to answer the following main question: what are the role of intellectual capital and the way to manage it to raise the performance level of the organization? The study has presented the concept of competitive advantage for the organization and its types, factors that affect them, and the essential determinants. The study also focused on the way to manage intellectual capital to raise the level of performance of business organizations in a changeable environment.

To reach the expected results of the search, the researcher used the descriptive analytical method. The collected data and information available from various sources were processed. The results specified that the intellectual capital is the foundation for the construction of economic progress in general as well as the success of institutions. Utilization of resources and competencies in an effective manner. Furthermore, the main focus was the thought of the new administration to create a competitive advantage and intellectual capital management effectively.

3.4. Commentary on Previous Studies

- 1- The previous studies presented a set of specialized studies and researches in the intellectual capital, explaining its components, methods of measurement and its importance for achieving competitive advantage, wealth and progress in work for all organizations in different fields of work.
- 2- There is a great interest in intellectual capital in previous studies, and this is evident in the large and specialized studies and references on this subject in various fields.
- 3- A group of studies presented different models and how they are applied in the management of intellectual capital in the organizations and applied in several fields, including industrial and educational.
- 4- The studies demonstrated the importance of intellectual capital in organizations of different nature of its work and services, with the difference in places of these institutions, which confirms the importance of the subject matter of the study.
- 5- Studies have provided a set of courses that examine a range of factors and methods that bring competitive advantages to organizations such as such as TQM application, technology, and training.
- 6- There are many areas of the studies such as highlighting the importance of achieving competitive advantage among institutions of higher education.

- 7- Studies have presented several areas of competitive advantage that higher education institutions can achieve, including adopting excellence policies, improving the quality of university education, and a few studies have also presented several proposed scenarios to achieve the necessary advantage of universities.
- 8- There is a range of different samples that have been considered in the workshops to achieve competitive advantage in organizations, which illustrated the importance of intellectual capital in various fields of work.
- 9- The different samples and purposes used in these studies showed the influence of intellectual capital on organizations in various fields, to mainly attain or enhance the competitive advantage that organizations usually seek to achieve in various fields.

3.5. The Reasons That Distinguish This Study from Previous Studies

- 1- The current research addresses the concept of intellectual capital management in organizations in general and the private Turkish and UAE universities in particular. It also focused on the ability of organizations to enhance their competitive advantage through managing the intellectual capital they possess and the extent of their differences from one organization to another by applying the study to a society of The private universities in Turkey and the UAE, which are rich in various types of intellectual capital, this issue is not dealt with in previous studies.
- 2- The current research focuses on the university education community, in which the concept of competitive advantage differs from other organizations. Competitive excellence has several aspects and focuses on creativity and innovation in providing the educational process, which is different from the work of other organizations such as industrial and commercial.
- 3- The current research addresses the issue of intellectual capital management, which stems from its importance to universities as an input

to enhance its competitive advantage, which in turn requires an in-depth study of the resources available in the universities through which it seeks to develop its work.

- 4- The current research provides management models that will help in the development of the available funds at the universities in the various fields of work.

The current research addresses the methods used in the management of intellectual capital in the universities and tries to help improve and develop its management at the intended universities of different nature.



CHAPTER IV

RESEARCH METHODOLOGY

4.1. Introduction

This chapter addresses description of a comprehensive field study action carried out by the research team to achieve the objectives of the study and includes the hypotheses of the study, and the literature review , and the identification of the approach taken in the study, and the study population and the study sample, and then deals with the study tool, and how to build it, and procedures that have been used in the examination of the study tool (validity and reliability of the study tool), and statistical methods and treatments that have been reliable in the analysis of data and test hypotheses to reach the results that reflect the reality of the phenomenon under study.

4.2. Hypotheses of the Study

The following hypotheses are tested in the study:

H1: There is a statistically significant relationship between the ability of the private universities in Turkey and UAE to manage their intellectual capital and enhance their competitive advantage.

H1a: There is a statistically significant relationship between human capital and competitive advantage in the private universities in Turkey and UAE.

H1b: There is a statistically significant relationship between Relational capital and competitive advantage in the private universities in Turkey and UAE.

H1c: There is a statistically significant relationship between structural capital and competitive advantage in the private universities in Turkey and UAE.

H2: There are statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to some variables like gender, age, qualifications, years of experience, job title.

4.3. Methodology

Based on the nature of the study, and the objectives sought to be achieved, the study used a descriptive analytical approach which is based on the study of the phenomenon, and it illustrates its characteristics through information gathering, analysis, and interpretation, and then apply the results. As well as the conclusions to be reached will contribute to the understanding of reality through the analysis of the phenomenon or management problem, interpretation, and then reaching meaningful generalizations which make the study increase the credit of knowledge on the phenomenon, and contribute to the development and reality of phenomenon destination and improve it.

4.4. Population & Sample of the Study

The study population consists of the deans, assistant deans, head of the departments in Turkey and UAE private universities, and the study relied on the selection of a simple convenience sampling method of the study population.

The number of individuals who cooperated with the study and responded to the research application form 140 individuals; 70 individuals were from private Turkish universities, and 70 individuals were from UAE universities and so we have a Random study sample composed of 140 Observations, and this size is adequate to give accurate results on the subject under study, as shown in table (3.1) shows their properties according to their personal data.

Table 4.1: Distribution of the sample study according to the demographic data.

		Turkey		UAE		All Sample	
		#	%	#	%	#	%
Gender	Male	54	77.1	46	65.7	100	71.4
	Female	16	22.9	24	34.3	40	28.6
Age	20-30 years	1	1.4	10	14.3	11	7.9
	30-40 years	17	24.3	29	41.4	46	32.9
	40-50 years	22	31.4	13	18.6	35	25.0
	50 years and more	30	42.9	18	25.7	48	34.3
Academic achievement	PhD	63	90.0	41	58.6	104	74.3
	Master	5	7.1	20	28.6	25	17.9
	Higher Diploma	1	1.4	4	5.7	5	3.6
	Bachelor	1	1.4	5	7.1	6	4.3
The total number of years of service	Less than 1 year	2	2.9	3	4.3	5	3.6
	1-5 years	6	8.6	13	18.6	19	13.6
	5-10 years	12	17.1	15	21.4	27	19.3
	10-15 years	11	15.7	13	18.6	24	17.1
	15 years and more	39	55.7	26	37.1	65	46.4
Number of years of service in the Current position	Less than 1 year	4	5.7	3	4.3	7	5.0
	1-5 years	26	37.1	34	48.6	60	42.9
	5-10 years	23	32.9	18	25.7	41	29.3
	10-15 years	6	8.6	9	12.9	15	10.7
	15 years and more	11	15.7	6	8.6	17	12.1
Total		70	100.0	70	100.0	140	100.0

The following diagram shows this:

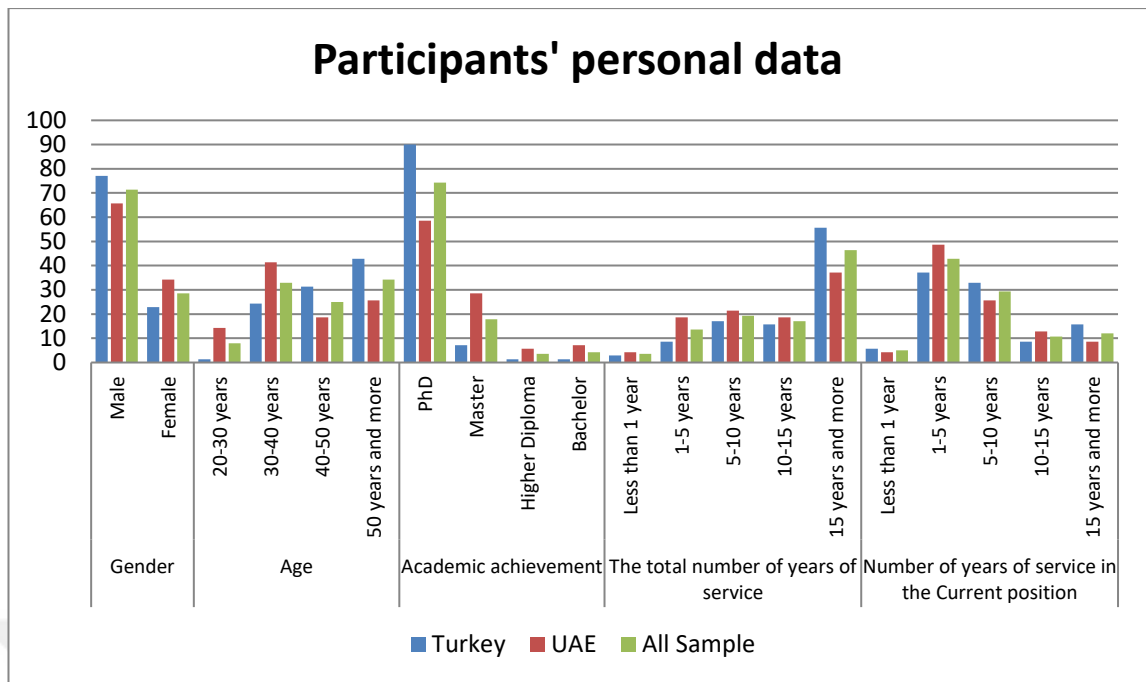


Figure 4.1: Properties according to their personal data

4.5. Tool of the Study

Study tool represented in a form of a questionnaire, which is formed of two main sections, the first section represents personal information researched and specified by gender, age, academic achievement and the total number of years of service and in the current position. While the second section representing the axes of study, which aims to identify the availability of intellectual capital and realize the extent of interest in private universities about that subject.

Intellectual capital consists of three parts: human capital (skills and expertise), structural capital (intellectual property, software, and documents) and relationship capital (relation with customer and suppliers) and the competitive advantage depend on four dimensions as high efficiency, high quality, high innovation, and high customer responsiveness.

4.5.1. Correct Tool of the Study

Questionnaire has been designed according to five Likert scales, where answers are given numerical weights that present the answer degree to every statement, so it would be as follows, (Strongly agree) = 5, (Agree) = 4, (Neutral) = 3, (Disagree) = 2, (Strongly disagree) = 1.

Based on the calculation of the answers average to each axis of the axes is determined by the level of the answer, were levels of answers according to the value of the arithmetic mean and the value of the relative weight and as shown in Table (4.2) below.

Table 4.2: Correct Tool of the Study

Mean	Relative Weight	Level
From 1 to less than 1.79	From 20% to less than 36%	Strongly disagree
From 1.8 to less than 2.59	From 36% to less than 52%	Disagree
From 2.6 to less than 3.39	From 52% to less than 68%	Neutral
From 3.4 to less than 4.19	From 68% to less than 84%	Agree
From 4.2 to 5	From 84% to less than 100%	Strongly agree

4.6. Reliability & Validity

4.6.1. Validity

1. Face validity

The face validity way was used to ensure the questionnaire validity and its' suitability to the research goals, the questionnaire was evaluated by a group of experts, academics, and specialists, and they were asked for their opinion about every paragraph in the questionnaire, and it's suitability for measuring what it designed to measure, and they were asked to add, delete or reformulate.

The researcher followed the instructions and modified the questionnaire.

2. Internal Consistency

Internal consistent means consistency of each paragraph of the questionnaire with the axis that belong to that specific paragraph, so correlation coefficients have been calculated between the degree of each paragraph and the total score of the axis to which it belongs, in order to verify the validity of the questionnaire, the results indicate validity consistency of internal data in the study where values of correlation coefficient ranged for all phrases in all study axes between 0.541 to 0.886, and these values were significant at the 1% level, as shown in table (4.3).

Table 4.3: Internal consistency of the first axis paragraphs.

No.	Item	Corr. Coefficient	Sig.
1	The university sets a clear policy to attract outstanding personnel.	.541**	.000
2	The university is keen to maintain teachers with diverse knowledge.	.700**	.000
3	The teachers at the university characterized by possessing high levels of knowledge.	.720**	.000
4	The university puts the right person in the right place according to his specialization, experience, and ability.	.801**	.000
5	The University offers training programs and development of human cadres which reflects on their performance.	.757**	.000
6	The University rewards the creators of academic and administrative work according to the specific and clear program.	.739**	.000
7	The university offers various attractive incentives to attract the expertise and competencies from outside and inside the country.	.785**	.000
8	Taken into account the suggestions and opinions of teachers in the development of the university.	.775**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.4: Internal consistency of the second axis paragraphs.

No.	Item	Corr. Coefficient	Sig
1	The administrative structure of the university contributes to ease of communication between all administrative levels of the university.	.785**	.000
2	The University's structure helps employees provide outstanding services to students and the local community.	.767**	.000
3	The University has a well-publicized administrative structure that helps to deliver its services distinctly from others.	.759**	.000
4	The University considers that the administrative structure it possesses is one of the most important pillars of competition and excellence achieved by its competitors from universities.	.768**	.000
5	The University provides all the means that allow employees to access the University's regulations and information and services that she presents.	.769**	.000
6	The University documents its programs and experiences for subsequent use.	.796**	.000
7	The University discovers and strengthens the flow of knowledge and organizational capabilities.	.776**	.000
8	Organizational relations between the university faculties and their scientific departments are characterized by cooperation, integration, and exchange of experiences.	.813**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.5: Internal consistency of the third axis paragraphs.

No.	Item	Corr. Coefficient	Sig.
1	The University has a clear policy to develop its relationship and reputation with clients who deal with the University.	.822**	.000
2	The University has extensive scientific and research relations with research and consulting centers, which enhance the university's reputation and its ability to innovate.	.825**	.000
3	The university is interested in developing relations with universities and other scientific bodies.	.826**	.000
4	The University cares about the opinions of its customers and takes their observations seriously.	.790**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.6: Internal consistency of the fourth axis paragraphs.

No.	Item	Corr. Coefficient	Sig
1	There's belief by senior management to focus on quality as a strategic requirement.	.655**	.000
2	The University follows clear rules and policies in selecting a distinguished human cadre to contribute to the provision of high-quality services.	.792**	.000
3	The university is interested in providing quality academic programs that are not available in other universities.	.793**	.000
4	The University's commitment to clear rules and policies in the selection of its outstanding employees gives it an advantage in providing services in a new and sophisticated manner in the delivery of services.	.780**	.000
5	The University has an integrated system for quality assurance compared to other universities.	.587**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.7: Internal consistency of the fifth axis paragraphs.

No.	Item	Corr. Coefficient	Sig.
1	The University encourages its teachers to take initiatives to improve educational services in a way that distinguishes them from other universities.	.845**	.000
2	The University is characterized by the rapid response in adopting modern technology in its educational and administrative processes.	.812**	.000
3	The University creativity cares to expand the horizons of development and Renewal to achieve competitive advantage.	.886**	.000
4	The university is achieving a competitive advantage through the innovative use of modern methods in the implementation of training programs, such as brainstorming method.	.839**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.8: Internal consistency of the sixth axis paragraphs.

No.	Item	Corr. Coefficient	Sig.
1	The university seeks to maintain the competent teachers, which avoids increasing costs resulting from recruitment and selection.	.798**	.000
2	The university is characterized by lower cost of services compared to the other universities costs.	.682**	.000
3	The university is keen to build a management information system and make it marked a point compared to universities that do not have the information system.	.788**	.000
4	The university seeks to develop and innovate methods of preparing and qualifying teachers at the university that lead to lower costs.	.801**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

Table 4.9: Internal consistency of the seventh axis paragraphs.

No.	Item	Corr. Coefficient	Sig.
1	The university is characterized by a rapid response to the changes that occur around it compared to its competitors.	.826**	.000
2	The university teachers have the ability to do more than one task at the same time.	.677**	.000
3	The university has the ability to Responsiveness rapidly and adapts to provide a variety of services to its customers to meet their needs and desires on time.	.778**	.000
4	The University is keen to precede its competitors by providing fast service to customers.	.753**	.000

*Significant at the 0.05 level **Significant at the 0.01 level

4.6.2. Reliability

There are many methods in which it can be measured in order to ascertain the extent of the reliability, but in this study, Cronbach's Alpha method used to calculate the reliability in the data collected through the study tool (questionnaire), as shown in the table (4.10)

Table 4.10: Shows the stability factors using Cronbach's Alpha method

Dimensions	N of Items	Cronbach's Alpha
The first axis	8	0.873
The second axis	8	0.906
The third axis	4	0.832
The fourth axis	5	0.770
The fifth axis	4	0.866
The sixth axis	4	0.769
The seventh axis	4	0.767
Total reliability	37	0.963

Table (4.10) shows that the reliability variables: 0.873 in the first axis, 0.906 in the second axis, 0.832 in the third axis, 0.770 in the fourth axis, 0.866 in the fifth axis, 0.769 in the sixth axis, 0.767 in the seventh axis, and these results indicate the good reliability. In the data of the study axes, in addition to the total reliability coefficient reaching up to 0.963, is considered as a good value of the Cronbach's Alpha.

4.7. Test of Normal Distribution

Normal distribution of data is one of the most important conditions for the use of parametric tests, and to verify this condition for study variables Kolmogorov-Smirnov test was used. The results indicate that all study variables of the data follow a normal distribution, where the level of a significance test for all the variables was higher than 5%, and Table (4.11) below illustrates this.

Table 4.11: Test of Normal Distribution

Variable	Test-Value	Sig
Dimensions of intellectual capital	0.838	0.483
Dimensions of competitive advantage	0.633	0.817
Questionnaire as a whole	0.657	0.782

4.8. Statistical Methods

The statistical analysis program (SPSS v.21) was been used in the study in data entry and analysis, with the use of necessary statistical methods to achieve the objectives of the study. The following statistical methods were used:

1. Frequencies & Percentages: which is used for describing personal data for the study sample.

2. Mean: to identify to what extent the responses for sentences and the main dimensions of the study.

3. Standard Deviation: shows how much variation or dispersion exists from the average (mean), or expected value, The more values came close to zero the more responses are centered and dispersion decreased.

4. Cronbach's Alpha: to estimate the reliability of the questionnaire questions.

5. Kolmogorov-Smirnov test: To verify the condition of the normal distribution of the data.

6. Pearson Correlation Coefficient: To measure the sincerity of internal consistency and the correlation coefficient, which is used to study the relationship between variables.

7. T-test for independent samples: To test the presence of statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to gender.

8. Analysis of Variance- ANOVA: To test for the presence of statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to demographic variables.

CHAPTER V

DATA ANALYSIS AND DISCUSSION

5.1 Introduction

This chapter addresses the most important statistical results that have been reached about the problem of the study, which aims to study the role of the intellectual capital in achieving competitive advantage in private universities: The case for turkey and UAE", in addition, this chapter includes the results of hypothesis testing, discuss and comment upon and interpreted in line with the reality of the study.

5.2. The Results of Intellectual Capital

5.2.1. Human Capital

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Human Capital", results have been reached as shown in the table (5.1).

Table 5.1: Result of the first axis "Human Capital".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The university sets a clear policy to attract outstanding personnel.	3.41	1.070	68.29%	Agree	5	3.39	1.067	67.71%	Neutral	5
	The university is keen to maintain teachers with diverse knowledge.	3.73	.883	74.57%	Agree	1	3.60	.999	72.00%	Agree	2
	The teachers at the university characterized by possessing high levels of knowledge.	3.44	1.016	68.86%	Agree	3	3.74	.943	74.86%	Agree	1
	The university puts the right person in the right place according to his specialization, experience, and ability.	3.39	1.081	67.71%	Neutral	7	3.46	1.099	69.14%	Agree	3
	The University offers training programs and development of human cadres which reflects on their performance.	3.44	1.125	68.86%	Agree	3	3.37	.995	67.43%	Neutral	7
	The University rewards the creators of academic and administrative work according to the specific and clear program.	3.23	1.144	64.57%	Neutral	8	3.31	1.015	66.29%	Neutral	8
	The university offers various attractive incentives to attract the expertise and competencies from outside and inside the country.	3.46	1.099	69.14%	Agree	2	3.39	1.040	67.71%	Neutral	5
	Taken into account the suggestions and opinions of teachers in the development of the university.	3.40	1.134	68.00%	Agree	6	3.43	1.071	68.57%	Agree	4
	All items	3.44	.806	68.75%	Agree		3.46	.723	69.21%	Agree	

The results in private universities of Turkey and UAE indicated that there is agreement by the respondents on all the phrases of this axis and through this results, we found that the UAE private universities achieved the highest rate in the human capital (3.47) with relative weight (69.21).

The phrase "The teachers at the university characterized by possessing high levels of knowledge." was ranked first with relative weight 74.86%, helping to gain quality in competitive advantage areas, while the phrase "The university is keen to maintain teachers with diverse knowledge" was ranked first in the private universities of Turkey with relative weight 74.57% by maintaining them and preventing them from leaking to competitors or depriving them of their services, which helps in gaining quality in performance in the areas of competitive advantage, and the phrase.

As we as the phrase " The teachers at the university characterized by possessing high levels of knowledge", was ranked second in the private universities of UAE with a relative weight of 72.00%. This is evidence of the university's knowledge of the importance of possessing teachers with high knowledge and experience, believing that this represents the most important pillars of the competition, and the belief that teachers with high knowledge have a key role in their development and that they must keep them from leakage and transfer their experiences to competitors, which may affect their positions between universities, while the phrase "The University offers training programs and development of human cadres which reflects on their performance" were ranked second in the private universities of Turkey with relative weight 68.86%. This indicates that the development and creativity of the human cadres are increased by increasing the scientific, training and research achievements, as this has implications for the university's name, reputation, and places among the universities. This is done only by the university administration and providing the necessary manpower to produce its creative and research capabilities. Creativity contributes greatly to the improvement and development of scientific and practical level within the university.

While the phrase "The University rewards the creators of academic and administrative work according to specific and clear program" was the last order in the private universities of Turkey with a relative weight of 64.57% and in private universities of UAE with a relative weight of 66.29%. Where the existence of a clear program to reward creators creates a spirit of competition and discipline and creativity at work, and therefore it will reflect on the nature and quality of services provided by employees and the university, and may be due to the absence of what shows keenness Universities to reward the creators and the absence of incentive programs, which may be caused by the conditions surrounding the universities and the lack of care that exists among decision-makers in universities to follow the creators and motivate them because of great concern in the performance of their duties.

5.2.2. Structural Capital

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Structural Capital", results have been reached as shown in the table (5.2).

Table 5.2: Result of the second axis "Structural Capital".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The administrative structure of the university contributes to ease of communication between all administrative levels of the university.	3.64	1.117	72.86%	Agree	3	3.46	.973	69.14%	Agree	6
	The University's structure helps employees provide outstanding services to students and the local community.	3.65	.974	72.94%	Agree	2	3.46	1.017	69.14%	Agree	6
	The University has a well-publicized administrative structure that helps to deliver its services distinctly from others.	3.54	1.086	70.86%	Agree	5	3.36	.993	67.14%	Neutral	8
	The University considers that the administrative structure it possesses is one of the most important pillars of competition and excellence achieved by its competitors from universities.	3.87	1.034	77.43%	Agree	1	3.77	.871	75.43%	Agree	1

Table 5.2: Continues

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The University provides all the means that allow employees to access the University's regulations and information and services that she presents.	3.47	1.059	69.43%	Agree	8	3.71	.801	74.29%	Agree	2
	The University documents its programs and experiences for subsequent use.	3.53	1.176	70.57%	Agree	6	3.53	.880	70.57%	Agree	5
	The University discovers and strengthens the flow of knowledge and organizational capabilities.	3.60	.954	72.00%	Agree	4	3.59	.789	71.71%	Agree	4
	Organizational relations between the university faculties and their scientific departments are characterized by cooperation, integration, and exchange of experiences.	3.51	1.171	70.14%	Agree	7	3.64	.817	72.86%	Agree	3
	All items	3.60	.890	71.96%	Agree		3.56	.634	71.29%	Agree	

The results in private universities of Turkey and UAE indicated that there is agreement by the respondents on all the phrases of this axis and through this results, we found that the private universities of Turkey achieved the highest rate in the structural capital (3.60) with the relative weight of 71.96%.

The phrase "The University considers that the administrative structure it possesses is one of the most important pillars of competition and excellence achieved by its competitors from universities" was ranked first in private universities of Turkey with relative weight 77.43%, and 75.43% in private universities of UAE, which mean that the development of the administrative structure owned by the private universities in both countries has recorded the highest percentage in supporting the competitive advantage of the universities. This is achieved through the universities' keenness on quality in providing their scientific and research services. As well as the development of the administrative structure of universities, which helps facilitate communication between all levels of management reflects the development and quality in the provision of services to the University in support of them in enhancing their competitive advantages.

As well as the phrases "The University's structure helps employees provide outstanding services to students and local community", was ranked second in the private universities of Turkey with relative weight 72.94%. Provide outstanding services to both students and the local community is an important advantage and one of the most important aspects of attracting and distinguishing the university from others, and the phrase "The University provides all the means that allow employees to access the University's regulations and information and services that she presents." was ranked second in the private universities of UAE with relative weight 74.29%, while it was the last order in the private universities of Turkey with relative a weight of 69.43%. This shows that UAE private universities are seeking more to increase the efficiency of its staff by providing mechanisms that help to raise the overall performance and harness the structure of their service and disseminate the information they may need through the development of data that may be necessary. Which reflects the evolution of management and transparency practiced through the advanced management methods it uses.

The phrase "The University has a well-publicized administrative structure that helps to deliver its services distinctly from others" was the last order private universities of UAE with a relative weight of 67.14%. The administrative structure is one of the most important pillars of the university, and attention to its modernization and development helps in the development of the administrative process and serves it greatly. Which is one of the most important aspects of university excellence and helps in applying the structure of the university in the desired manner. However, administrative policies adopted by the university may prevent continuous development, making it one of the least administrative procedures used in the structural development of universities.

5.2.3. Relational Capital

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Relational Capital", results have been reached as shown in the table (5.3).

Table 5.3: Result of the second axis “Relational Capital ”.

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The University has a clear policy to develop its relationship and reputation with clients who deal with the University.	3.44	1.187	68.86%	Agree	4	3.41	.925	68.29%	Agree	4
	The University has extensive scientific and research relations with research and consulting centers, which enhance the university's reputation and its ability to innovate.	3.70	1.095	74.00%	Agree	1	3.60	.999	72.00%	Agree	3
3.	The university is interested in developing relations with universities and other scientific bodies.	3.67	1.126	73.43%	Agree	2	3.74	.943	74.86%	Agree	2
4.	The University cares about the opinions of its customers and takes their observations seriously.	3.47	1.151	69.43%	Agree	3	3.83	.947	76.57%	Agree	1
All items		3.57	.993	71.43%	Agree		3.65	.703	72.93%	Agree	

The results in private universities of Turkey and UAE indicated that there is agreement by the study members on all the phrases of this axis, the UAE private universities achieved the highest rate in the relational capital (3.65) with relative weight 72.93%.

The phrase " The University cares about the opinions of its customers and takes their observations seriously" was ranked first in private universities of UAE with relative weight 76.57%, and this shows that the universities allocate human and financial staff for this matter. Which in turn can contribute to improving the quality of the services it provides as well as achieving quality in the provision of its services, while the phrase " The University has extensive scientific and research relations with research and consulting centers, which enhance the university's reputation and its ability to innovate" was ranked first in private universities of Turkey with relative weight 74.00% which enhance the university's reputation and its ability to innovate, as well as has a profound impact on how the bright image of the university to others.

The phrase "The University is interested in developing relations with universities and other scientific bodies" was ranked second in private universities of Turkey and UAE with relative weight 73.43% second in private universities of Turkey, and 74.86% in private universities of UAE .The good relationship between the university and universities and other scientific bodies reflects the degree of discipline and respect that the university has, which in turn helps to raise the reputation and prestige of the university.

While the phrase "The University has a clear policy to develop its relationship and reputation with clients who deal with the University" was the last order in both countries private universities with a relative weight of 68.86% in the private university of Turkey and 68.29% in the private university of UAE. The University's keenness to continuously communicate with customers and open the way to develop relations with them to communicate their good image to them and to impose the name and reputation of the university to the customers, which helps to enhance the competitive advantages that it possesses significantly. The university may consider this difficult because of the diversity and multiplicity of relationships

with clients and the required allocation of financial and human cadres, which increases the burden of the university.

5.3. The Results of Competitive Advantage

5.3.1. Quality

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Quality", results have been reached as shown in the table (5.4).

Table 5.4: Result of the second axis "Quality".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	There's belief by senior management to focus on quality as a strategic requirement.	3.47	1.046	69.43%	Agree	4	3.64	1.036	72.86%	Agree	3
	The University follows clear rules and policies in selecting a distinguished human cadre to contribute to the provision of high-quality services.	3.49	1.046	69.71%	Agree	3	3.64	.762	72.86%	Agree	3

Table 5.4: Continues

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The university is interested in providing quality academic programs that are not available in other universities.	3.31	1.123	66.29%	Neutral	5	3.70	.857	74.00%	Agree	1
	The University's commitment to clear rules and policies in the selection of its outstanding employees gives it an advantage in providing services in a new and sophisticated manner in the delivery of services.	3.50	1.126	70.00%	Agree	2	3.54	.973	70.86%	Agree	5
	The University has an integrated system for quality assurance compared to other universities.	4.04	.875	80.86%	Agree	1	3.67	.829	73.43%	Agree	2
All items		3.56	.789	71.26%	Agree		3.64	.620	72.80%	Agree	

The results in private universities of Turkey indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 71.26%. The phrase "The University has an integrated system for quality assurance compared to other universities" was ranked first with relative weight 80.86% and the phrase "The University's commitment to clear rules and policies in the selection of its outstanding employees gives it an advantage in providing services in a new and sophisticated manner in the delivery of services" was ranked second with relative weight 70.00%, while phrase "The university is interested in providing quality academic programs that are not available in other universities" was the last order with relative weight of 66.29%.

The results in private universities of UAE indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 72.80%. The phrase "The university is interested in providing quality academic programs that are not available in other universities." was ranked first with relative weight 74.00% and the phrase "The University has an integrated system for quality assurance compared to other universities" was ranked second with relative weight 73.43%, while phrase "The University's commitment to clear rules and policies in the selection of its outstanding employees gives it an advantage in providing services in a new and sophisticated manner in the delivery of services" was the last order with relative weight of 70.86%.

5.3.2. Creativity

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Creativity", results have been reached as shown in the table (5.5).

Table 5.5: Result of the second axis "Creativity".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The University encourages its teachers to take initiatives to improve educational services in a way that distinguishes them from other universities.	3.60	1.109	72.00%	Agree	2	3.61	.856	72.29%	Agree	3
	The University is characterized by rapid response in adopting modern technology in its educational and administrative processes.	3.86	.937	77.14%	Agree	1	3.66	.915	73.14%	Agree	1
	The University creativity cares to expand the horizons of development and Renewal to achieve competitive advantage.	3.42	1.158	68.31%	Agree	4	3.66	.899	73.14%	Agree	1
	The university is achieving a competitive advantage through the innovative use of modern methods in the implementation of training programs, such as brainstorming method.	3.50	1.060	70.00%	Agree	3	3.49	.959	69.71%	Agree	4
	All items	3.61	.934	72.21%	Agree		3.60	.734	72.07%	Agree	

The results in private universities of Turkey indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 72.21%. The phrase "The University is characterized by rapid response in adopting modern technology in its educational and administrative processes" was ranked first with relative weight 77.14% and the phrase "The University encourages its teachers to take initiatives to improve educational services in a way that distinguishes them from other universities " was ranked second with relative weight 72.00%, while phrase " The University creativity cares to expand the horizons of development and Renewal to achieve competitive advantage" was the last order with relative weight of 68.31%.

The results in private universities of UAE indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 72.07 %. The phrases "The University is characterized by rapid response in adopting modern technology in its educational and administrative processes" and The University creativity cares to expand the horizons of development and Renewal to achieve competitive advantage” were ranked first with relative weight 73.14% and the phrase "The University encourages its teachers to take initiatives to improve educational services in a way that distinguishes them from other universities " was ranked second with relative weight 72.29%, while phrase "The university is achieving a competitive advantage through the innovative use of modern methods in the implementation of training programs, such as brainstorming method" was the last order with relative weight of 69.71%.

5.3.3. Efficiency

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Efficiency", results have been reached as shown in the table (5.6).

Table 5.6: Result of the second axis "Efficiency".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
	The university seeks to maintain the competent teachers, which avoids increasing costs resulting from recruitment and selection.	3.41	1.173	68.29%	Agree	2	3.41	1.014	68.29%	Agree	3
	The university is characterized by lower cost of services compared to the other universities costs.	3.48	1.145	69.57%	Agree	4	3.50	.959	70.00%	Agree	1
	The university is keen to build a management information system and make it marked a point compared to universities that do not have the information system.	3.56	1.016	71.14%	Agree	1	3.49	.974	69.71%	Agree	2
	The university seeks to develop and innovate methods of preparing and qualifying teachers at the university that lead to lower costs.	3.41	1.210	68.29%	Agree	2	3.36	1.008	67.14%	Neutral	4
All items		3.46	.906	69.24%	Agree		3.44	.722	68.79%	Agree	

The results in private universities of Turkey indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 69.24%. The phrase "The university is keen to build a management information system and make it marked a point compared to universities that do not have the information system" was ranked first with relative weight 71.14% and the phrase "The university is characterized by lower cost of services compared to the other universities costs" was ranked second with relative weight 69.57%, while phrases "The university seeks to maintain the competent teachers, which avoids increasing costs resulting from recruitment and selection" and "The university seeks to develop and innovate methods of preparing and qualifying teachers at the university that lead to lower costs" were the last order with relative weight of 67.71%.

The results in private universities of UAE indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 68.79%. The phrase " The university is characterized by lower cost of services compared to the other universities costs" was ranked first with relative weight 70.00% and the phrase " The university is keen to build a management information system and make it marked a point compared to universities that do not have the information system" was ranked second with relative weight 69.71%, while phrase "The university seeks to develop and innovate methods of preparing and qualifying teachers at the university that lead to lower costs" was the last order with relative weight of 67.14%.

5.3.4. Responsiveness

The researcher calculated the mean, standard deviation, relative weight, level of approval and the order of each phrase in the axis "Responsiveness", results have been reached as shown in Table (5.7).

Table 5.7: Result of the second axis "Responsiveness".

No.	Item	Turkey					UAE				
		Mean	Std.D	Rel. Wei.	Level	Order	Mean	Std.D	Rel. Wei.	Level	Order
1.	The university is characterized by a rapid response to the changes that occur around it compared to its competitors.	3.62	1.152	72.46%	Agree	2	3.41	1.042	68.29%	Agree	4
2.	The university teachers have the ability to do more than one task at the same time.	3.60	1.174	72.06%	Agree	3	3.81	.856	76.29%	Agree	1
3.	The university has the ability to Responsiveness rapidly and adapts to provide a variety of services to its customers to meet their needs and desires on time.	3.59	1.011	71.76%	Agree	4	3.53	1.003	70.57%	Agree	3
4.	The University is keen to precede its competitors by providing fast service to customers.	3.76	.939	75.14%	Agree	1	3.54	.879	70.86%	Agree	2
All items		3.63	.811	72.67%	Agree		3.58	.730	71.50%	Agree	

The results in private universities of Turkey indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 72.67%. The phrase "The University is keen to precede its competitors by providing fast service to customers" was ranked first with relative weight 75.14% and the phrase "The university is characterized by rapid response to the changes that occur around it compared to its competitors" was ranked second with relative weight 72.46%, while phrase "The university has the ability to Responsiveness rapidly and adapts to provide a variety of services to its customers to meet their needs and desires on time." was the last order with relative weight of 71.76%.

The results in private universities of UAE indicated that there is agreement by the study members on all the phrases of this axis, according to the relative weight of 71.50%. The phrase "The university teachers have the ability to do more than one task at the same time" was ranked first with relative weight 76.29% and the phrase "The University is keen to precede its competitors by providing fast service to customers" was ranked second with relative weight 70.86%, while phrase "The university is characterized by rapid response to the changes that occur around it compared to its competitors" was the last order with relative weight of 68.29%.

Based on the results of the above we can arrange the dimensions of the competitive advantage in terms of importance as follows:

1- The Quality

The table (5.4) shows that the quality came in the first ranking in the private Turkish universities while the third rank in the UAE private universities. This indicates that the private Turkish universities are concerned about the quality of human resources, the quality of the academic programs and their ability to respond to the changes and rapid developments surrounding them.

2- Creativity

The table (5.5) shows that creativity ranked first in private universities in the UAE, while it ranked third in private Turkish universities in terms of relative

importance given to from the sample. This shows that private universities in the UAE give greater importance to creativity by encouraging teachers to take initiatives to improve educational services in a way that distinguishes them from other universities, adopting new technology in their educational and administrative processes, and seeking to gain competitive advantage through expansion of innovation, innovative use of modern methods in the implementation of training programs

3- Efficiency

The table (5.6) shows that efficiency ranked last in the Turkish and UAE private universities. This reflects the lack of sufficient attention from the universities to provide material or moral resources that will support the efficiency and excellence in work, whether by the human cadres by providing material or moral incentives on the one hand, or through the provision of infrastructure and the provision of the necessary equipment and devices that support efficiency, The development and quality of performance, which involve under the administrative procedures of human capital and structural capital, may be attributed to the high cost required by the required support, as well as the absence of clear policy in the universities reward creativity and excellence

4- Responsiveness

The table (5.7) shows that the response ranked second in the private universities of Turkey and the United Arab Emirates. It is one of the elements of achieving the competitive advantage resulting from the development of the systems used. It reflects the flexibility in the university's structure and its ability to adapt to the modern technological revolution and its keenness to precede its competitors through its ability to respond quickly and adapt to providing a variety of services for their customers to meet their needs and desires on time.

5.4. Test Hypotheses

5.4.1. The first Main Hypothesis

There is a relationship between the ability of the private universities in Turkey and UAE to manage their intellectual capital and enhance their competitive advantage, as shown in the table (5.8).

Table 5.8: The relationship between intellectual capital and competitive advantage.

		Turkey (N=15)		UAE (N=15)	
		Corr. Coefficient	Sig.	Corr. Coefficient	Sig.
Intellectual capital	Quality	0.872**	0.000	0.920**	0.000
	Creativity	0.907**	0.000	0.897**	0.000
	Efficiency	0.778**	0.001	0.570*	0.026
	Responsiveness	0.902**	0.000	0.808**	0.000
	Competitive advantage	0.909**	0.000	0.911**	0.000

*Significant at the 0.05 level **Significant at the 0.01 level

The previous table shows the Pearson Correlation Coefficient between intellectual capital and competitive advantage, as follows:

- The correlation coefficient between intellectual capital and quality at the private universities in Turkey 0.872 which is statistically significant at the 0.01 level, and the correlation coefficient between intellectual capital and quality at the private universities in UAE 0.920 which is statistically significant at the 0.01 level, indicating the existence of a relationship between intellectual capital and quality.
- The correlation coefficient between intellectual capital and creativity at the private universities in Turkey 0.907 which is statistically significant at the 0.01 level, and the correlation coefficient between intellectual capital and creativity at the private universities in UAE 0.897 which is

statistically significant at the 0.01 level, indicating the existence of a relationship between intellectual capital and creativity.

- The correlation coefficient between intellectual capital and efficiency at the private universities in Turkey 0.778 which is statistically significant at the 0.01 level, and the correlation coefficient between intellectual capital and efficiency at the private universities in UAE 0.570 which is statistically significant at the 0.05 level, indicating the existence of a relationship between intellectual capital and efficiency.
- The correlation coefficient between intellectual capital and responsiveness at the private universities in Turkey 0.902 which is statistically significant at the 0.01 level, and the correlation coefficient between intellectual capital and responsiveness at the private universities in UAE 0.808 which is statistically significant at the 0.01 level, indicating the existence of a relationship between intellectual capital and responsiveness.
- The correlation coefficient between intellectual capital and competitive advantage at the private universities in Turkey 0.909 which is statistically significant at the 0.01 level, and the correlation coefficient between intellectual capital and competitive advantage at the private universities in UAE 0.911 which is statistically significant at the 0.01 level, indicating the existence of a relationship between intellectual capital and competitive advantage.

Thus we conclude that the first mean hypothesis, There is a relationship between the ability of the private universities in Turkey and UAE to manage their intellectual capital and enhance their competitive advantage, is correct.

From this hypothesis, three sub-hypotheses were derived, and to test the validity of the main hypothesis we should test all these sub-hypotheses validities, by using Pearson Correlation Coefficient, The results were as shown below:

Hypotheses 1a:

"There is a relationship between human capital and competitive advantage in the private universities in Turkey and UAE ", as shown in the table (5.9).

Table 5.9: The relationship between human capital and competitive advantage.

		Turkey		UAE	
		Corr. Coefficient	Sig.	Corr. Coefficient	Sig.
Human capital	Quality	0.681**	0.000	0.474**	0.000
	Creativity	0.766**	0.000	0.565**	0.000
	Efficiency	0.641**	0.000	0.458**	0.000
	Responsiveness	0.619**	0.000	0.571**	0.000
	Competitive advantage	0.729**	0.000	0.644**	0.000

*Significant at the 0.05 level **Significant at the 0.01 level

The previous table shows the Pearson Correlation Coefficient between human capital and competitive advantage, as follows:

- The correlation coefficient between human capital and quality at the private universities in Turkey 0.681 which is statistically significant at the 0.01 level, and the correlation coefficient between human capital and quality at the private universities in UAE 0.474 which is statistically significant at the 0.01 level, indicating the existence of a relationship between human capital and quality.
- The correlation coefficient between human capital and creativity at the private universities in Turkey 0.766 which is statistically significant at the 0.01 level, and the correlation coefficient between human capital and creativity at the private universities in UAE 0.565 which is statistically significant at the 0.01 level, indicating the existence of a relationship between human capital and creativity.

- The correlation coefficient between human capital and efficiency at the private universities in Turkey 0.641 which is statistically significant at the 0.01 level, and the correlation coefficient between human capital and efficiency at the private universities in UAE 0.458 which is statistically significant at the 0.01 level, indicating the existence of a relationship between human capital and efficiency.
- The correlation coefficient between human capital and responsiveness at the private universities in Turkey 0.619 which is statistically significant at the 0.01 level, and the correlation coefficient between human capital and responsiveness at the private universities in UAE 0.571 which is statistically significant at the 0.01 level, indicating the existence of a relationship between human capital and responsiveness.
- The correlation coefficient between human capital and competitive advantage at the private universities in Turkey 0.729 which is statistically significant at the 0.01 level, and the correlation coefficient between human capital and competitive advantage at the private universities in UAE 0.644 which is statistically significant at the 0.01 level, indicating the existence of a relationship between human capital and competitive advantage.

Thus we conclude that the first sub-hypothesis, there is a relationship between human capital and competitive advantage in the private universities in Turkey and UAE is correct.

Hypotheses 1b:

"There is a relationship between relational capital and competitive advantage in the private universities in Turkey and UAE ", as shown in the table (5.10).

Table 5.10: The relationship between relational capital and competitive advantage.

		Turkey		UAE	
		Corr. Coefficient	Sig.	Corr. Coefficient	Sig.
Relational capital	Quality	0.758**	0.000	0.653**	0.000
	Creativity	0.819**	0.000	0.516**	0.000
	Efficiency	0.771**	0.000	0.430**	0.000
	Responsiveness	0.728**	0.000	0.515**	0.000
	Competitive advantage	0.828**	0.000	0.662**	0.000

*Significant at the 0.05 level **Significant at the 0.01 level

The previous table shows the Pearson Correlation Coefficient between relational capital and competitive advantage, as follows:

- The correlation coefficient between relational capital and quality at the private universities in Turkey 0.758 which is statistically significant at the 0.01 level, and the correlation coefficient between relational capital and quality at the private universities in UAE 0.653 which is statistically significant at the 0.01 level, indicating the existence of a relationship between relational capital and quality.
- The correlation coefficient between relational capital and creativity at the private universities in Turkey 0.819 which is statistically significant at the 0.01 level, and the correlation coefficient between relational capital and creativity at the private universities in UAE 0.516 which is statistically significant at the 0.01 level, indicating the existence of a relationship between relational capital and creativity.
- The correlation coefficient between relational capital and efficiency at the private universities in Turkey 0.771 which is statistically significant at the 0.01 level, and the correlation coefficient between relational capital and efficiency at the private universities in UAE 0.430 which is statistically significant at the 0.01 level, indicating the existence of a relationship between relational capital and efficiency.

- The correlation coefficient between relational capital and responsiveness at the private universities in Turkey 0.728 which is statistically significant at the 0.01 level, and the correlation coefficient between relational capital and responsiveness at the private universities in UAE 0.515 which is statistically significant at the 0.01 level, indicating the existence of a relationship between relational capital and responsiveness.
- The correlation coefficient between relational capital and competitive advantage at the private universities in Turkey 0.828 which is statistically significant at the 0.01 level, and the correlation coefficient between relational capital and competitive advantage at the private universities in UAE 0.662 which is statistically significant at the 0.01 level, indicating the existence of a relationship between relational capital and competitive advantage.

Thus we conclude that the second sub-hypothesis, there is a relationship between relational capital and competitive advantage in the private universities in Turkey and UAE is correct.

Hypotheses 1c:

"There is a relationship between structural capital and competitive advantage in the private universities in Turkey and UAE ", as shown in the table (5.11).

Table 5.11: The relationship between structural capital and competitive advantage.

		Turkey		UAE	
		Corr. Coefficient	Sig.	Corr. Coefficient	Sig.
structural capital	Quality	0.726**	0.000	0.561**	0.000
	Creativity	0.778**	0.000	0.611**	0.000
	Efficiency	0.776**	0.000	0.514**	0.000
	Responsiveness	0.734**	0.000	0.627**	0.000
	Competitive advantage	0.809**	0.000	0.721**	0.000

*Significant at the 0.05 level **Significant at the 0.01 level

The previous table shows the Pearson Correlation Coefficient between structural capital and competitive advantage, as follows:

- The correlation coefficient between structural capital and quality at the private universities in Turkey 0.726 which is statistically significant at the 0.01 level, and the correlation coefficient between structural capital and quality at the private universities in UAE 0.561 which is statistically significant at the 0.01 level, indicating the existence of a relationship between structural capital and quality.
- The correlation coefficient between structural capital and creativity at the private universities in Turkey 0.778 which is statistically significant at the 0.01 level, and the correlation coefficient between structural capital and creativity at the private universities in UAE 0.611 which is statistically significant at the 0.01 level, indicating the existence of a relationship between structural capital and creativity.
- The correlation coefficient between structural capital and efficiency at the private universities in Turkey 0.776 which is statistically significant at the 0.01 level, and the correlation coefficient between structural capital and efficiency at the private universities in UAE 0.514 which is statistically significant at the 0.01 level, indicating the existence of a relationship between structural capital and efficiency.
- The correlation coefficient between structural capital and responsiveness at the private universities in Turkey 0.734 which is statistically significant at the 0.01 level, and the correlation coefficient between structural capital and responsiveness at the private universities in UAE 0.627 which is statistically significant at the 0.01 level, indicating the existence of a relationship between structural capital and responsiveness.
- The correlation coefficient between structural capital and competitive advantage at the private universities in Turkey 0.809 which is statistically significant at the 0.01 level, and the correlation coefficient between structural capital and competitive advantage at the private universities in UAE 0.721 which is statistically significant at the 0.01 level, indicating

the existence of a relationship between structural capital and competitive advantage.

Thus we conclude that the third sub-hypothesis, there is a relationship between structural capital and competitive advantage in the private universities in Turkey and UAE is correct.

5.4.2. The second Main Hypothesis

There are differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to the variables of (gender, age, qualifications and years of service in the Current position).

From this hypothesis, five sub-hypotheses were derived, and to test the validity of the main hypothesis we should test all these sub-hypotheses validities, by using T-test, and ANOVA test, the results were as shown below:

Hypotheses 2a:

"There is a significant difference at 0.05 level in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to gender", as shown in the table (5.12).

Table 5.12: T-test Between Male & Female

	Gender	N	Mean	Std. Deviation	T-test	P-value
Turkey	Male	54	3.49	.784	1.188	.239
	Female	16	3.75	.736		
UAE	Male	46	3.59	.558	.799	.427
	Female	24	3.48	.543		

Previous table shows (T-test) result to verify the existence of statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to gender, where the results indicate that there is no difference in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to gender.

Hypotheses b2:

"There is a significant difference at 0.05 level in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to age", as shown in the table (5.13).

Table 5.13: ANOVA-test between age Levels.

	Age	N	Mean	Std. Deviation	F-test	Sig
Turkey	20-30 years	1	1.92	.	1.891	.140
	30-40 years	17	3.41	.923		
	40-50 years	22	3.58	.787		
	50 and more	30	3.65	.633		
UAE	20-30 years	10	3.51	.427	.838	.478
	30-40 years	29	3.45	.604		
	40-50 years	13	3.70	.568		
	50 and more	18	3.64	.514		

Through the table above it is clear that the analysis of variance test result (ANOVA) indicate that there are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to age.

Hypotheses 2c:

"There is a significant difference at 0.05 level in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to qualifications ", as shown in the table (5.14).

Table 5.14: ANOVA-test between qualifications.

	Qualifications	N	Mean	Std. Deviation	F-test	Sig
Turkey	PhD	63	3.59	.731	1.569	.205
	Master	5	3.18	1.192		
	Higher Diploma	1	3.76	.		
	Bachelor	1	2.17	.		
UAE	PhD	41	3.59	.604	.424	.736
	Master	20	3.44	.504		
	Higher Diploma	4	3.59	.394		
	Bachelor	5	3.69	.419		

Through the table above it is clear that the analysis of variance test result (ANOVA) indicate that there are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to qualifications.

Hypotheses b4:

"There is a significant difference at 0.05 level in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service ", as shown in the table (5.15).

Table 5.15: ANOVA-test between years of service.

	years of service	N	Mean	Std. Deviation	F-test	Sig
Turkey	Less than 1 year	2	2.82	1.280	1.298	.280
	1-5 years	6	3.31	1.108		
	5-10 years	12	3.87	.647		
	10-15 years	11	3.35	.884		
	15 and more	39	3.58	.694		
UAE	Less than 1 year	3	3.50	.176	.717	.584
	1-5 years	13	3.41	.400		
	5-10 years	15	3.46	.736		
	10-15 years	13	3.74	.554		
	15 and more	26	3.59	.524		

Through the table above it is clear that the analysis of variance test result (ANOVA) indicate that there are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service.

Hypotheses 2d:

"There is a significant difference at 0.05 level in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service in the Current position", as shown in the table (5.16).

Table 5.16: ANOVA-test between years of service in the Current position.

	years of service in the Current position	N	Mean	Std. Deviation	F-test	Sig
Turkey	Less than 1 year	4	2.89	.744	1.487	.216
	1-5 years	26	3.56	.769		
	5-10 years	23	3.44	.857		
	10-15 years	6	3.99	.468		
	15 and more	11	3.73	.660		
UAE	Less than 1 year	3	3.57	.292	1.537	.202
	1-5 years	34	3.51	.544		
	5-10 years	18	3.64	.511		
	10-15 years	9	3.27	.669		
	15 and more	6	3.94	.496		

Through the table above it is clear that the analysis of variance test result (ANOVA) indicate that there are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service in the current position.

CHAPTER VI

CONCLUSION AND SUGGESTIONS

In this study, we investigated the effects of the components of the intellectual capital (human capital, structural capital, relational capital), which will help the university to enhance its competitive advantages with its different dimensions (quality, efficiency, creativity, and responsiveness). We tested the hypotheses developed using data collected from private universities in Turkey and UAE.

In summary, we showed that intellectual capital positively affects competitive advantage.

In other words, we concluded that:

- There is a relationship between the ability of the private universities in Turkey and UAE to manage their intellectual capital and enhance their competitive advantage.
- There is a relationship between human capital and competitive advantage in the private universities in Turkey and UAE.
- There is a relationship between relational capital and competitive advantage in the private universities in Turkey and UAE.
- There is a relationship between structural capital and competitive advantage in the private universities in Turkey and UAE.
- There is no statistically significant difference in the average responses of sample members on the level of the availability of intellectual capital

requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to gender.

- There are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to age.
- There are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to qualifications.
- There are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service.
- There are no statistically significant differences in the average responses of sample members on the level of availability of intellectual capital requirements and achievement of competitive advantage in the private universities in Turkey and UAE due to years of service in the Current position.
- The management of Human capital has a similar impact rate on the Turkish and UAE private universities in enhancing their competitive advantage. This shows the universities' knowledge of the importance of human capital and the importance of developing and maintaining it.
- The management of structural capital has an impact rate that closely resembles the Turkish and UAE private universities in enhancing their competitive advantage. This shows the interest of the universities in supporting and developing the administrative structure that distinguishes them from other universities.
- The management of the relational capital has an almost similar impact rate in the Turkish and UAE private universities in enhancing their competitive advantage. This indicates the strength of their relationships with their

customers, and the keenness of universities to communicate their developments and what they offer to the community and its clients, and their great interest in announcing of local and international successes and achievements.

Based on the study, in order to enhance the ability of the university to compete with other national and international universities worldwide, certain suggestions may be recommended, which include the need to:

- Develop a clear program of the promotion mechanisms and assume administrative positions in the universities to open the way for employees with high competence to assume sensitive administrative positions on one hand, and reflect the extent of administrative transparency and to enhance the managerial trust of the employees on the other hand, and to instill the spirit of the competition and ambition among the employees to improve their careers.
- Support the University for Scientific Researches, and allocate annual material and moral returns to the distinguished scientific achievements, especially at the international level.
- Support the University for Training Programs that develop human staff and allocate material and moral revenues annually for that.
- Give attention to raising the efficiency of administrative and academic staff through the existence of a range of materials and moral incentives that will help in raising morals and fuel the spirit of the competition and diligence among the employees.
- Provide all the possibilities that aid the employees, students, and clients to obtain the information they need in carrying out their procedures or when conducting researches and studies, which in turn reflects a good image and high transparency of the university.
- Have a continuous improvement in the structure of universities and support to the decision-makers, which will help facilitate communication between

administrative structures in universities, which in turn will help improve the quality of services provided in the universities.

- Take into account the suggestions of individuals and institutions cooperating with the University in accomplishing its work and providing its services, and this helps in improving the ways of providing services in a qualitative manner.
- Consider the importance of strengthening relationships with clients because of their influence to reflect the bright image of the university to others.
- Strengthen relationships with clients and work to familiarize them with the university's scientific and practical services.

A propose Plan to Implement the Researcher's Recommendations

Figure (6.1) Shown the proposed plan to implement the researcher's recommendations about the human capital management:

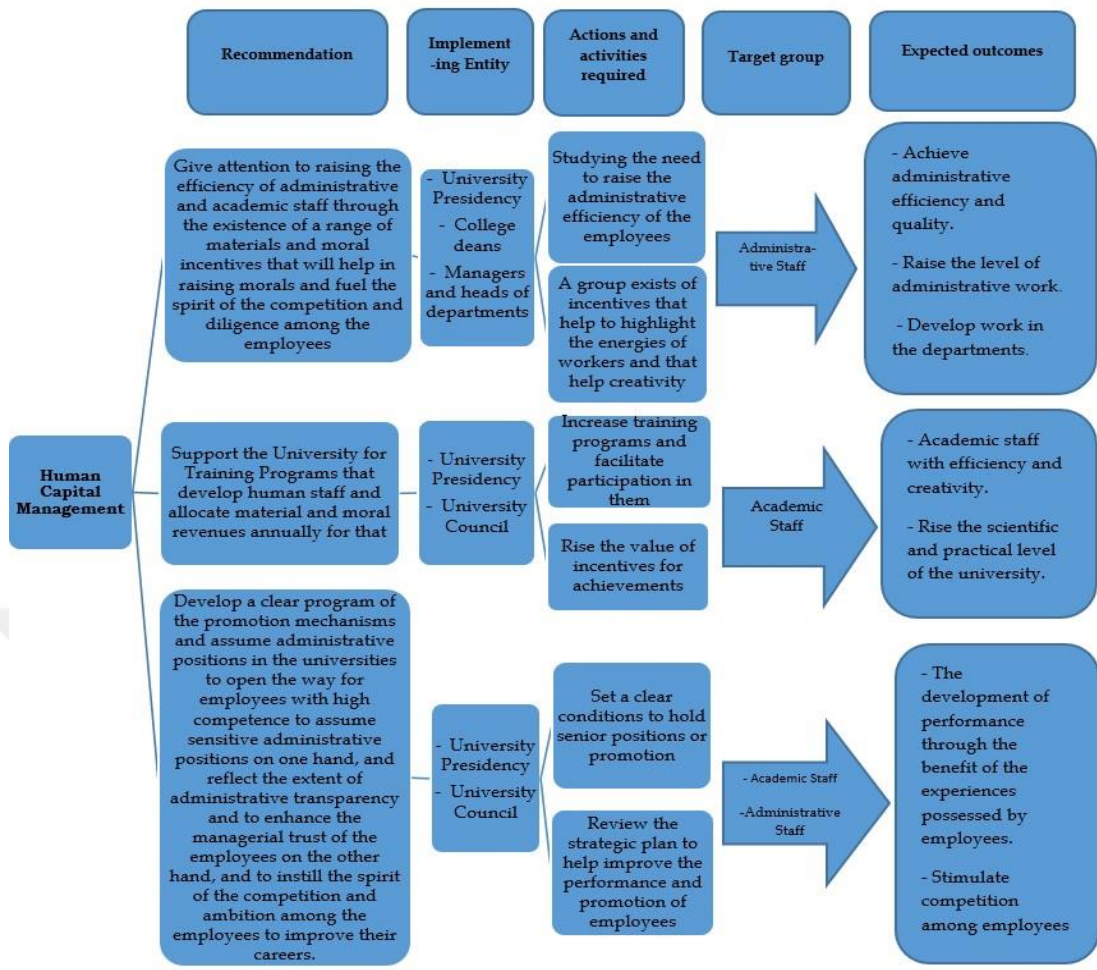


Figure 6.1: Human Capital Management

Figure (6.2) Shown the proposed plan to implement the researcher's recommendations about the structural capital management:

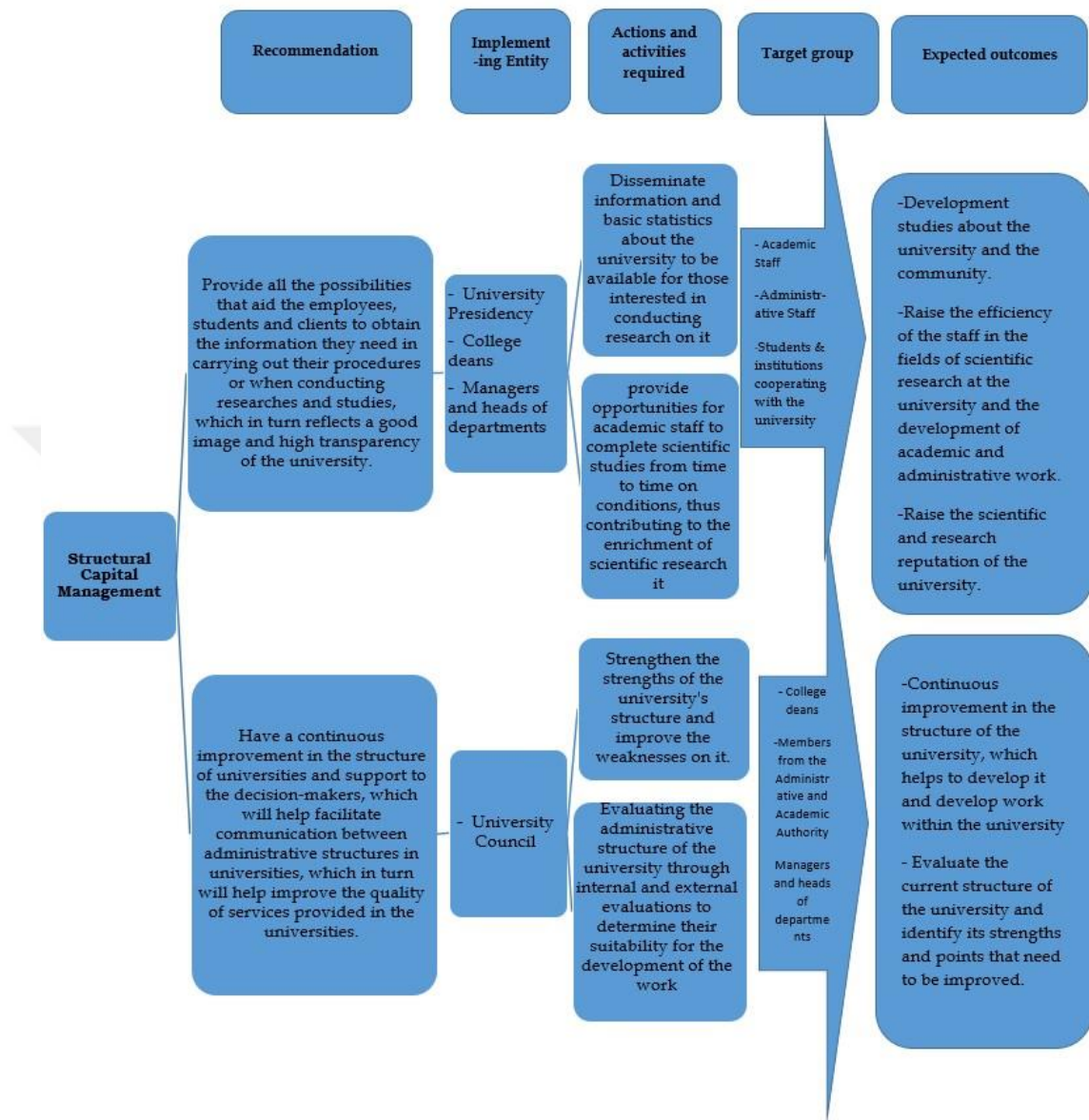


Figure 6.2: Structural Capital Management

Figure (6.3) Shown the proposed plan to implement the researcher's recommendations about the structural capital management:

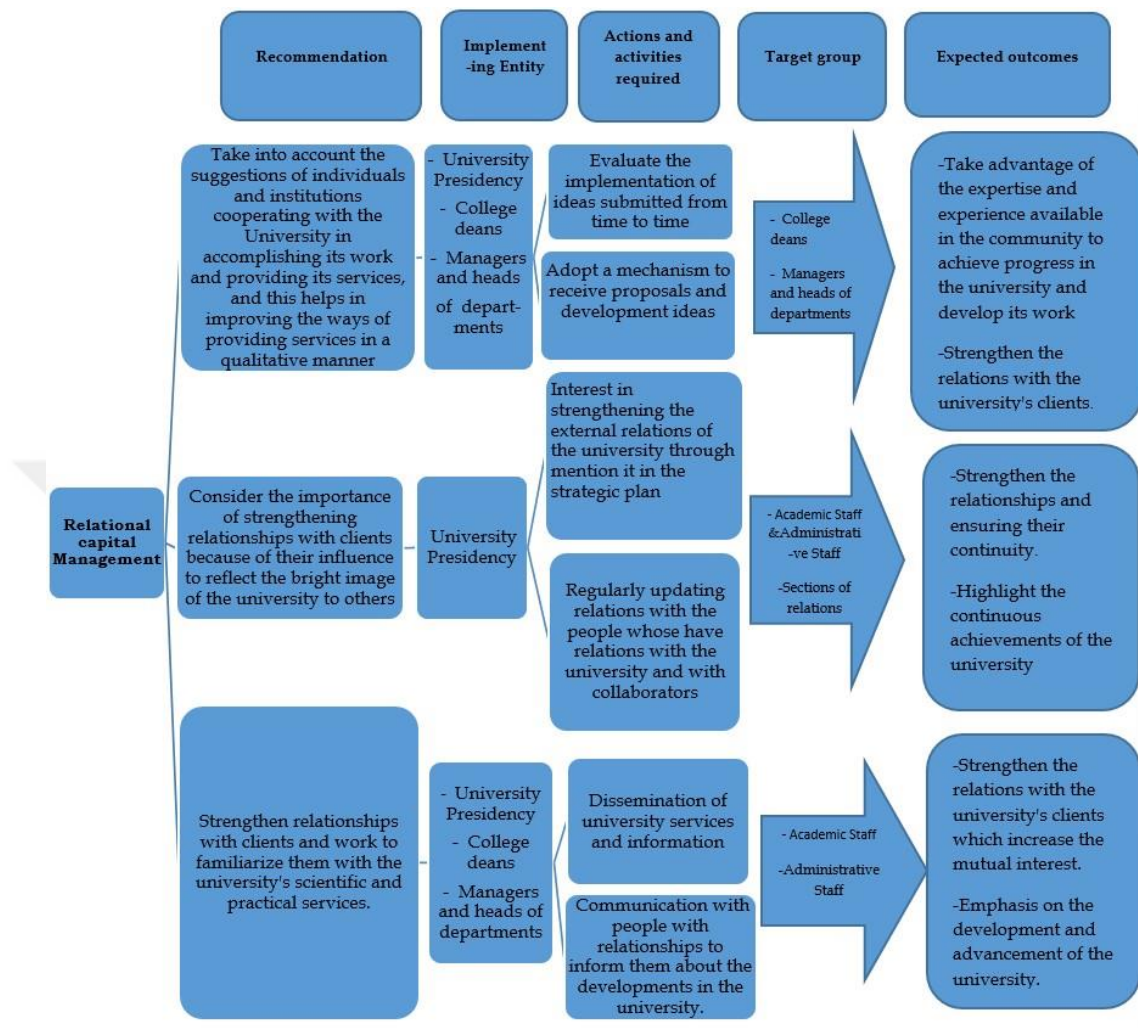


Figure 6.3: Relational Capital Management

REFERENCES

- Abu Dhabi Statistical Center (2015). "Discover Abu Dhabi through statistics," Abu Dhabi Statistical Center.
- Al-Anzi, Saad Ali, and Saleh, Ahmed Ali (2009). "Department of Intellectual Capital in Business Organizations." Dar Al-Yazuri Publishing and Distribution, Jordan, pp. 165-157
- Al-Salami, Ali (2001). "Strategic Human Resources Management," Ghareeb Publishing House, Cairo, Egypt.
- Almbaidin, Tareq Hammad (2013). "The Role of Intellectual Capital in Improving the Performance of Business Organizations in Jordan," *Interdisciplinary Journal of contemporary research in business*, 5(8).
- Alnachef, Tarek Hasan, et al. (2017). "Impact of Intellectual Capital Elements on Competitive Advantage in Syrian Pharmaceutical Companies," *European International Journal of Science and Technology*, 6(7).
- Appuhami, Ranjith (2007). "The Impact of Intellectual Capital on Investors' Capital Gains on Shares: An Empirical Investigation of Thai Banking, Finance & Insurance Sector," *International Management Review*, 3(2): 14-25.
- April, Kurt and Izadi, Farzad Ahmadi Izadi (2004). "Knowledge Management Praxi," Juta and Company Ltd.
- Alserhan, Hayel Falah (2017). "The Role of Intellectual Capital in Achieving a Competitive Advantage: A Field Study on Jordanian Private Universities in the Northern Region," *Global Journal of Management and Business Research*, 17(5):11-25.

- Beatty, Richard W., (1996). "Competitive human resource advantage through the strategic management of performance," *Human Resource Planning*, 12(3):179-194.
- Becker, Gary Stanley (1964). "Human capital: a theoretical and empirical analysis, with special reference to education," National Bureau of Economic Research; distributed by Columbia University Press.
- Bushnav, Ammar (2002). "Competitive advantage in the economic institution: its sources, growth, and development, " pp. 48-49, MA Thesis, University of Algiers
- Bontis, N. (2001). "Assessing Knowledge Assets: A Review of the Models Used to Measure Intellectual Capital," *International Journal of Management Reviews*, 3(1):41-60.
- Bontis, Nick, and Fitz-enz, Jac (2002). "Intellectual capital ROI: a causal map of human capital antecedents and consequents," *Journal of Intellectual Capital*, 3(3):223-247; available at <https://doi.org/10.1108/14691930210435589>
- Brătianu C, (2009). "The intellectual capital of universities. *Annals of the University of Ljubljana*," 30 June-1 July, Ljubljana.
- Cabezas, R. (2014). "Opportunities and Diversification - Expansion of Business by Analyzing the Structural Capital of Engineering Service Firms." *Siplom.de*.
- Chahal, Hardeep and Purnima Bakshi (2016). "Measurement of Intellectual Capital in the Indian Banking Sector," *Vikalpa*, 41(1):61-73.
- Choo, Chun W. and Nick Bontis (2000). "The strategic management of intellectual capital and organizational knowledge," New York: Oxford University Press.
- Coleman, James S. (1988). "Social capital in the creation of human capital." *American Journal of Sociology*, 94: 95-120.
- Davis, A, (1995). "Measuring & Predicting Creativity: Issues and Strategy, Paper Presented to Symposium on the Role of School and Family in Developing Creativity," Qatar University.
- David, Fred R. (2009). "Strategic Management: Concepts and Cases," Pearson International Edition, 12th ed.

- Dzinkowski, R. (2000). "The Measurement & Management of Intellectual Capital: An Introduction." *Management Accounting Magazine for Chartered Management Accounting*, (78)2:32.
- Duderstadt, James J. (2000). "New Roles for the 21st-century universities" *Journal article Issues in science and technology*. (6)2:37-44.
- Duderstadt, J. (2002). "The future of higher education in the knowledge-driven, global economy of the 21st century." Paper presented at the 175th-anniversary symposium of the University of Toronto; available at <http://unesdoc.unesco.org/images/0013/001321/132114e.pdf>
- Edvinsson L. and Malone M. S. (2001). "Intellectual capital." PWN Scientific Publisher, Warsaw.
- El Maghraby, Abdelhamid (1999). "Strategic Management: Confrontation Challenges of the 21st Century," First Edition, Nile Arab Group, Cairo, Egypt.
- Fazlagić, Jan, and Erkol, Arif (2017). "Images of Intellectual Capital," Cambridge Scholars, Cambridge.
- Florin, J. and Schultze, W., (August 2000). "Social capital and fundability of high potential new ventures," Presented at the Academy of Management Meetings, Toronto.
- Ghalebi, Tahir, and Idris, Wael (2009). "Strategic Management: An Integrated Methodological Perspective," 2nd edition, Wael Publishing House, Jordan.
- Guthrie, James, and Petty, Richard (2000). "Intellectual capital: Australian annual reporting practices," *Journal of Intellectual Capital*, (1)3:241-251
- Guthrie, J. (2001). "The management, measurement and the reporting of intellectual capital," *Journal of Intellectual Capital*, (2):24-41.
- Grant, Robert M. (1991), "The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation," *California Management Review*, 33(3): 114-135.
- Greco, M. Grimaldi, M. Scarabotti, L. and Schiraldi, M. (2013), "The Sources of Competitive Advantage in University Spin-Offs: a Case Study", *Journals of Technology Management & Innovation*, 8(3): 139-151.

- Hamel, Gary, and Heene, Aimé (1994). "Competence-Based Competition." The Strategic management series. Wiley, Chichester; New York.
- Hassan, Rawia (2005). "Strategic Approach to Planning and Development of Human Resources," Alexandria, University House.
- Heizer, Jay, and Render, Barry (2008). "Operations Management," 8th ed., PrenticeHall, Inc., New Jersey.
- Hilali, Sherbini (2011). "Management, Measurement, and Development of Intellectual Capital as part of Knowledge Management in Higher Education Institutions," Journal of Specific Education Research, Mansoura University, Egypt, No. 22.
- Hill, C. W. & Jones, G. R., (1989). "Strategic management of an integrated approach," 4th ed., New York: Houghton Mifflin Co.
- Hill, C. W. & Jones, G. R., (2010). "Strategic Management Theory: An Integrated Approach," 9th ed, South-Western Cengage Learning.
- Huysman, M. H., and Wit, D. H (2002). "Knowledge Sharing in Practice." Springer Science & Business Media.
- Inter, Christopher D., and Larcker, David F. (2003). "Coming up short on nonfinancial measurement." Harvard Business Review, 81(11):88-95. Available at www.hbr.org.
- Jadalrab, Sayed M. (2006). "Managing Intellectual and Knowledge Resources in Modern Business Organizations." Cairo, Al-Ashry Press.
- Johansson. Ulf, Mårtensson, Maria and Skoog, Matti (2001). "Measuring to understand Intangible performance drivers ", European Accounting Review, (10)3: 407-437
- Kamukama, Nixon, Ahiauzu, Augustine and Ntayi Joseph M (2011) "Competitive advantage: mediator of intellectual capital and performance", Journal of Intellectual Capital, 12(1):152-164.
- Köper, Johannes, and Zaremba, Hans J. (2000). "Quality Management and Qualification Needs." Springer Science & Business Media.

- Kotler, P., (2000). "Marketing Management: Analysis, Planning, Implementation, and Control." Millennium Edition, Prentice-Hall, Inc.
- Lambin, Jean-Jacques (1998). "Marketing Stratégies," Paris.
- Laroche H., Nioche J.P. (1998). "Repenser la stratégie," Vuibert, Paris.
- Laudon. K (2004). "Management information system." international Edition in Eighth Edition, Pearson Prentice Hall.
- Leontiades, J. C (2001). "Managing the Global Enterprise," Harlow, England, Prentice Hall.
- Luthans, F. et al. (2004). "Positive psychological capital: Beyond human and social capital." *Business Horizons*, (47)1:45–50.
- Luthy, David h., (1998). "Intellectual Capital and its Measurement." Proceedings of Asian Pacific Interdisciplinary Research in Accounting Conference (APIRA), Osaka. Arbeits-paper Nr. 25.
- Lynch, R. (2000). "Corporate Strategy." 2ed Edition, Prentice Hall, Inc.
- Macmillan, H. and Tampoe, M., (2000). "Strategic management, process, content, and implementation," Oxford Publication press.
- Malhotra, Yogesh (2003). "Measuring Knowledge Assets of a Nation Knowledge System for development", Invited Research Paper Sponsored by the United Nations Department of Economic and Social Affairs. Keynote Presentation at the Ad Hoc Group of Experts Meeting at the United Nations Headquarters, New York City, USA.
- Marr, Bernard et al. (2003). "Why do firms measure their intellectual capital?." *Journal of Intellectual Capital*, (4):441-464.
- Mitchell H. (2010). "A Model for managing intellectual capital to generate wealth," Doctoral Dissertation. Retrieved from [Http://www.massey.ac.nz](http://www.massey.ac.nz)
- Nabil, Morsi Khalil (1996). "Competitive Advantage in Business," University House for Publishing, Alexandria 76:77.
- Najm, Aboud (2016). "The Intangibles Management: Management Immeasurable." Al-Yāzūrī.

- Nedjema Abbas (2016). "The Role of Intellectual Capital in Achieving Organizational Innovation Study of the case of Ain Touta Cement Company, Algeria." *European Journal of Business and Innovation Research*, (4):30-57.
- Ordóñez de Pablos, P. and Edvinsson, L. (Eds) (2015). "Intellectual Capital in Organizations. Non-Financial Reports and Accounts," Routledge, New York.
- Ousama, A. et al (2014). "Intellectual Capital and Islamic Banks Performance in the GCC," 6th European Conference on Intellectual Capital, ECIC.
- Osinski, M. et al (2017). "Methods of evaluation of intangible assets and intellectual capital," *Journal of Intellectual Capital*, (18)3:470-485.
- Patrick H. Sullivan, (1998). *Profiting from Intellectual Capital* "Extracting value from innovation," p23, John Wiley and Sons Inc.
- Peteraf M, A. (1993). "The Cornerstones of Competitive Advantage: A ResourceBased View," *Strategic Management Journal*, 14:179-191.
- Peteraf M. A. and Barney J. B.,) 2003(. "Unraveling the Resource-Based Tangle, Managerial and Decision Economics,"24(4):309-323; Available at http://www.minds.org.br/arquivos/Unraveling_Resource_based%20tange.pdf
- Pfeffer, J. and Sutton, R. I. (1999). "Knowing what to do is not enough: turning knowledge into action." *California Management Review*, (42)1:83–108.
- Phillips, P. and Phillips, J., (2002). "Measuring Intellectual Capital: Twelve Case Studies from the Real World of Training." American Society for Training and Development, USA.
- Pitts, R. & Lei, D., (1996). "Strategic management: building and sustaining competitive advantage," USA: West Publication.
- Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*, New York, The Free Press.
- Porter, M. (1993). "Competitive Advantage of Nations", USA, Harvard Business Review, Inter-edition

- Prusak, L. & Cohen, F. (2001). "How to Invest in Intellectual Capital." *Harvard Business Review*, 79(6):86-93,147.
- Roos, J., Roos, G., Edvinsson, L. and Dragonetti, N.C. (2001), *Capital Intelectual: El valor intangible de la empresa*, Paidó's, Barcelona.
- R. Kaplan & Norton (1996). "Using the balanced scorecard as a strategic management system." *Harvard Business Review*, 74(1):75-85.
- Rowley, Daniel James and Herbert Sherman (2004). "From Strategy to Change: Implementing the Plan in Higher Education," John Wiley and Sons.
- Sharabatia, Abdel-Aziz Ahmad et al. (2013). "The Impact of Intellectual Capital on Jordanian Telecommunication Companies' Business," *American Academic & Scholarly Research Journal* 5(3): 210-221.
- Sanjoy, Bose and Thomas, Keith (2007). "Applying the balanced scorecard for better performance of intellectual capital," *Journal of Intellectual Capital*, (8)4:653665.
- Schultz, Theodore (1961). "Investment in Human Capital." *American Economic Review*, (51)1:1-17.
- Suarez, A. and Moreira, R. S (2006). "The Role of Usability in the Competitiveness of Higher Education Institutions," *An International Conference: Applied Computing*, San Sebastian, Spain, pp 25-28.
- Suciu, Christina (2006). "Intellectual capital as a source of the competitive advantage," presented to the international conference on Business Excellence; Brasova University; Romania.
- Sullivan, P. (1998). "Profiting from Intellectual Capital: Extracting Value from Innovation," Canada, Willey.
- Sullivan, P. (2001). "Value-driven Intellectual capital: How to convert intangible corporate Assets into market value." Willey, New York.
- Stewart, T.A, (February 19, 1996). "The coins in the knowledge bank," *Fortune*.
- Stewart, T.A., (1999). "Intellectual Capital: The new wealth of organization," *Doubleday-Currency*, New York.

- Stewart, T. A. (2007). "The Wealth of Knowledge." Crown Publishing Group.
- Stewart, T. A. (2010). "Intellectual Capital: The new wealth of organization," Crown Publishing Group.
- Todericiu, Ramona and Serban, Anca (2015): "Intellectual Capital and its Relationship with Universities," *Procedia Economics and Finance*, 27:713-717.
- Ulrich, D. (1998). "Delivering results: A new mandate for human resource professionals." Boston: Harvard Business School Press.
- UNESCO, (2003). "Communiqué of the ministerial roundtable on 'Towards Knowledge Societies'." Paris: UNESCO.
- Van Deventer, M. J. (2002). Introducing intellectual capital management in an information support services environment (Unpublished Ph.D. thesis). University of Pretoria, South Africa. Retrieved from <http://upetd.up.ac.za/thesis/available/etd-08012003-162454/>
- Viedma, J. M., and Cabrita, M. R. (2012). "Entrepreneurial excellence in the knowledge economy. Intellectual capital benchmarking systems." Palgrave Macmillan, London.
- Wall, A., Kirk, R. and Martin, G. (Oct 20, 2003). "Intellectual Capital: Measuring the Immeasurable?"p.15, *Elsevier*.
- Wasim, U Rehman et al. (2011). "Intellectual Capital Performance and Its Impact on Corporate Performance: An Empirical Evidence from Modaraba Sector of Pakistan." *Australian Journal of Business and Management Research*, (1)5:8-16.
- Williams, S. Mitchell (2002). "Are Intellectual capital performance and intellectual capital disclosure practices Related?" Evidence From Publicly Listed Companies From The FTSE 100, Calgary: University Of Calgary.

ANNEXES

ANNEX-A: QUESTIONNAIRE

This questionnaire form is a part of a master's thesis named "The Role of the Intellectual Capital in Achieving Competitive Advantage in Private Universities: The

The case for Turkey and UAE", an empirical study between opinions of a sample of the Dean, Assistant Dean, head of the department in Turkey and UAE private universities.

This research objectives to identify the availability of intellectual capital and realize the extent of interest in private universities about that subject. Moreover, it attempts to examine its role in the development of creativity in these universities, aiming to add value and achieve competitive advantage through that, and that by trying to interpret the correlation between various dimensions of intellectual capital and the competitive advantage of private universities in Turkey and United Arab Emirates and from identify the level of availability of intellectual capital requirements of the universities under study.

Your participation in the answer contained questionnaire questions can show the real image of the study with a clear impact on the academic value of the research and its reliability.

Thank you for your valuable time, with our thanks and gratitude

Researcher
Nima N.S Alfarra

Supervisor
Dr. Instructor. Ekin Ayşe Özşuca

FIRST PART

Note: Please add the mark (√) in the appropriate field, and that is consistent with your answer

1. Gender: Male Female
2. Age: 20-30 years 30-40 years
 40-50 years 50 years and more
3. Academic achievement: PhD Master
 Higher Diploma Bachelor
4. The total number of years of service:
- Less than 1 year 1-5 years
 5-10 years 10-15 years
 15 years and more
5. Number of years of service in the Current position:
- Less than 1 year 1-5 years
 5-10 years 10-15 years
 15 years and more

SECOND PART

Intellectual capital: the estimated non-tangible intellectual and held by a group of individuals working in the organization and that contribute to finding appropriate solutions to the problems of the organization and the pursuit of innovation and sustainable competitive advantage for the organization.

Intellectual capital consists of three parts: human capital (skills and expertise), structural capital (intellectual property, software, and documents) and relationship capital (relation with customer and suppliers).

Please point the extent of your agreement with each paragraph of the paragraph below:

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

	Human Capital	1	2	3	4	5
1	The university sets a clear policy to attract outstanding personnel.					
2	The university is keen to maintain teachers with diverse knowledge.					
3	The teachers at the university characterized by possessing high levels of knowledge.					
4	The university puts the right person in the right place according to his specialization, experience, and ability.					
5	The University offers training programs and development of human cadres which reflects on their performance.					
6	The University rewards the creators of academic and administrative work according to the specific and clear program.					
7	The university offers various attractive incentives to attract the expertise and competencies from outside and inside the country.					
8	Taken into account the suggestions and opinions of teachers in the development of the university.					

	Structural Capital	1	2	3	4	5
1	The administrative structure of the university contributes to ease of communication between all administrative levels of the university.					
2	The University's structure helps employees provide outstanding services to students and the local community.					
3	The University has a well-publicized administrative structure that helps to deliver its services distinctly from others.					
4	The University considers that the administrative structure it possesses is one of the most important pillars of competition and excellence achieved by its competitors from universities.					
5	The University provides all the means that allow employees to access the University's regulations and information and services that she presents.					
6	The University documents its programs and experiences for subsequent use.					
7	The University discovers and strengthens the flow of knowledge and organizational capabilities.					
8	Organizational relations between the university faculties and their scientific departments are characterized by cooperation, integration, and exchange of experiences.					

	Relation Capital	1	2	3	4	5
1	The University has a clear policy to develop its relationship and reputation with clients who deal with the University.					
2	The University has extensive scientific and research relations with research and consulting centers, which enhance the university's reputation and its ability to innovate.					
3	The university is interested in developing relations with universities and other scientific bodies.					
4	The University cares about the opinions of its customers and takes their observations seriously.					
5	The University has support and assistance programs for its students to help them continue their studies and serve the community.					

Competitive advantage: the ability of the organization to possess a set of characteristics and elements through which it can achieve progress and excellence on other organizations working in the same field of industry and to achieve the objectives of the organization. The Competitive Advantage depends on four dimensions as high efficiency, high quality, high innovation, and high customer responsiveness

	Quality	1	2	3	4	5
1	There's belief by senior management to focus on quality as a strategic requirement.					
2	The University follows clear rules and policies in selecting a distinguished human cadre to contribute to the provision of high-quality services.					
3	The university is interested in providing quality academic programs that are not available in other universities.					
4	The University's commitment to clear rules and policies in the selection of its outstanding employees gives it an advantage in providing services in a new and sophisticated manner in the delivery of services.					
5	The University has an integrated system for quality assurance compared to other universities.					

	Creativity	1	2	3	4	5
1	The University encourages its teachers to take initiatives to improve educational services in a way that distinguishes them from other universities.					
2	The University is characterized by the rapid response in adopting modern technology in its educational and administrative processes.					
3	The University creativity cares to expand the horizons of development and Renewal to achieve competitive advantage.					
4	The university is achieving a competitive advantage through the innovative use of modern methods in the implementation of training programs, such as brainstorming method.					

	Efficiency	1	2	3	4	5
1	The university seeks to maintain the competent teachers, which avoids increasing costs resulting from recruitment and selection.					
2	The university is characterized by lower cost of services compared to the other universities costs.					
3	The university is keen to build a management information system and make it marked a point compared to universities that do not have the information system.					
4	The university seeks to develop and innovate methods of preparing and qualifying teachers at the university that lead to lower costs.					

	Responsiveness	1	2	3	4	5
1	The university is characterized by a rapid response to the changes that occur around it compared to its competitors.					
2	The university teachers have the ability to do more than one task at the same time.					
3	The university has the ability to Responsiveness rapidly and adapts to provide a variety of services to its customers to meet their needs and desires on time.					
4	The University is keen to precede its competitors by providing fast service to customers.					

CURRICULUM VITAE

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MS	International trade and finance, Cankaya University (Turkey)	2018
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FOREIGN LANGUAGES

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HOBBIES

Reading, Discovering new things, Travelling