Does intellectual capital matter for the competitive advantage of Audit firm in Libya

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Abstract:

In light of a highly competitive environment in the auditing market, there is an increasing demand by auditing firms and offices, in search of mechanisms that achieve a competitive advantage that cannot be transferred and imitated through its intellectual capital, ensuring a position worthy of it in the auditing market. That is why the current study aimed to Determining the impact of intellectual capital with its dimensions (human capital, structural capital, and relational capital) on the competitive advantage of audit firms in Libya. In order to achieve these goals, a questionnaire was designed and distributed to the 464 auditors working in audit firms in Libya, and the use of structural equation modeling using the AMOS version (26). The results showed that there was a statistically significant effect on all dimensions of intellectual capital (human capital, structural capital, and relational capital) with the competitive advantage of audit firms in Libya.

Keywords Audit firms; Intellectual capital; competitive advantage; Libya

1. Introduction

Owing to the economic expansion, progress, and development in the business world, the auditing profession has assumed a pivotal role in the economic sphere. It offers essential and valuable information to various stakeholders, particularly decision-makers. The primary aim of auditing is to instill trust in the accuracy and impartiality of the data within financial statements. This is achieved by providing an assessment of the truthfulness and equity of these records, as this information serves as a guiding signal for investment decisions, aiding in understanding projected returns and associated risks (Al-Moataz, 2007).

The auditing profession has experienced substantial growth in recent times, with audit techniques evolving from conventional methods to more modern approaches endorsed by professional associations, notably in the United States and Europe. The shift can be attributed to the expanding scale of projects, encompassing both work scope and activities. It also arises from the rise of publicly traded companies, which require a distinction between ownership and management. Additionally, the growing number of commercial enterprises and non-governmental organizations operating under regulatory frameworks and agreements mandating audited financial disclosures by licensed auditing firms has contributed to this change (Abdullah, 2019).

In a highly competitive auditing market characterized by surging demand for auditing firms and offices, coupled with the expansion of their operations, there is a concerted effort to seek mechanisms aligned with continuous development and change. The goal is to secure an unrivaled and non-replicable competitive advantage that ensures a well-deserved position in the auditing sector.

The functions and roles of audit offices in Libya have undergone significant transformation in the past decade, particularly following the adoption of a novel concept that emphasizes a closer connection between accounting and auditing services and the specific business risks faced by clients. This shift enables these offices to offer a range of services, ideas, and consultations geared towards enhancing overall performance. The acceptance of this modern concept by prospective clients has opened up opportunities for them to provide a diverse array of services beyond the traditional scope of accounting and auditing (Al-Tayeb, 2019, 21). Consequently, the significance of attaining a competitive advantage became apparent as they began to focus on intellectual capital, recognizing it as a valuable asset and a source of competitive edge (Masouda & Al-Tayeb, 2021, p. 420). Intellectual capital is a tangible investment in knowledge and information, upon which audit offices rely as inputs, and it subsequently yields outputs. In the interaction between the organization and intellectual capital, a series of processes occur, ultimately leading to the achievement of a sustainable competitive advantage (Louizeh, 2016).

With the intensification of competition in the field of business and the increase in the state of environmental uncertainty, we can no longer work according to the concepts of the traditional organization, so the concept of the learning organization was introduced, which represents an organization that has the ability to learn continuously to adapt itself to developments and emergency conditions. The learning organization provides the appropriate climate for what is known as learning. Organizational, which in turn leads to changing the mental models that exist within the organization's members, as the organization seeks through it to acquire new

knowledge that aspires to improve its organizational capacity, develop itself, and raise the efficiency of its members (Houhou, 2016).

The study (Hussein, 2022) confirms that organizations do not differ from each other in terms of possessing material and human resources, but they differ in terms of possessing sustainable competitive advantages represented by intellectual capital, and thus they may overlook the importance of developing intellectual capital and investing it well as a factor. The main influential factor in achieving the organization's efficiency and competitiveness, and the importance of managing and developing intellectual capital as part of the knowledge management approach, which is concerned with generating knowledge and managing it properly.

Some researchers add that the organization's intellectual capital may be sufficient to generate a competitive advantage in the work environment, as intellectual capital is the organization's first choice in order to achieve survival and growth. No organization can survive if it does not have qualified and trained intellectual capital (Ahmed, & Delhomme, 2019, 152). This research focused on the impact of intellectual capital on the competitive advantage of audit firms in Libya, thus, this study relied on resource based view theory to explain the relationship between intellectual capital and competitive advantage. Therefore, the importance of this study lies in the fact that it provides an evaluation of resource based view theory by testing this theory in a new environment in terms of time and place, as the Libyan environment is a new environment that lacks Studies in this field, in addition to the fact that this theory has been applied in different countries, can therefore compare the results from the current study, and this may enrich the theory. It is hoped that the results of this study will have practical importance in drawing the attention of officials and decision makers to the importance of developing intellectual capital in organizations and seeking to invest it as an effective element in increasing competitiveness among audit firms.

Drawing the attention of specialists in the audit sector to the shortcomings of current policies in audit firms in Libya in building the intellectual capital of these audit firms.

2. LITERATURE REVIEW

2.1 Competitive Advantage

2.1.1 Definition

Obtaining a competitive advantage is considered one of the most important goals of modern organizations, which has increased interest in competitive advantage in terms of clearly defining its concept and types, highlighting the importance of having it, and clearly defining its goals.

I have given a set of definitions for competitive advantage, including the following:

Competitive advantage is defined as: the unique, long-term position that an organization develops by performing its activities in a distinctive and effective manner and exploiting its internal strengths towards providing valuable benefits to its customers that its competitors cannot provide (Ben Aishawi, 2006, p. 296).

It is also defined as: the process in which one entity struggles to excel over another, which could be a person, an organization, or a country, and the goal is to win. In order for the organization to be competitive, it must provide several factors such as the ability, desire to win, loyalty, commitment, and specific resources (Pole (2012, p. 80).

Anik, et al., (2010) defines competitive advantage as the ability of sectors to meet the needs of customers with regard to services and products and provide them with high quality, with the aim of satisfying them, as well as meeting the needs of employees in the company, and providing a return on investment to achieve growth and development, and reach goals and objectives. desired.

While Baroto, et al. (2012) Competitive advantage is a set of factors that have a direct and indirect relationship to the stability of the company in the market, which includes active participation in economic fields, which affects the stability and development of profits, through the optimal use of available resources. Competitive advantage is also known as the superior policy that a company follows to compete in the market and achieve the best results it seeks, by following specific strategies that will achieve competitive advantage (Korankye, 2013).

Namusonge and Naliaka (2015) believe that competitive advantage expresses the most appropriate tool that aims to discover new, innovative and innovative ways to produce and provide goods and services in a more effective manner than those offered by competitors in the market, as it is able to embody these methods and methods on the ground, and create A creative process that surpasses its counterparts.

2.1.2 Types of competitive advantage: -

There are two main types of competitive advantage: lower cost advantage and differentiation advantage:

- 1- The lowest cost advantage: It is represented in the ability of the organization to design, produce and market a specific product efficiently at a price close to or less than the prices of competitors, and the cost decreases as a result of employing low-wage labor or applying modern technology with high productivity.
- 2- Distinction advantage: It is represented in the ability of the organization to provide a unique product to buyers, whether in terms of form or in terms of providing excellent after-sales services.

This distinction allows the organization to sell at a high price in exchange for these services that make it distinct, and enables it to achieve high profitability, especially if the cost of production is lower compared to competitors.

If the organization is able to provide a product at the lowest cost, it is difficult to completely separate the two advantages because even and possible, there must be a minimum level of quality that makes this product acceptable until the advantage of low cost vanishes (Saqer, 2001, p. 92).

2.2 Intellectual capital

2.2.1 Definition

Intellectual capital is defined as minds that have unique skills that make them able to look from several aspects and think in several directions, with the aim of arriving at a new method of work that helps in achieving more opportunities (Abdel-Wahab et al., 2004, 231).

Intellectual capital is represented by an elite group of employees in the organization who possess a set of cognitive capabilities and intellectual and organizational talents exclusive of others, which enables them to generate new ideas and advanced methods that ensure the organization converts intellectual value into economic value, and thus represents a sustainable competitive advantage for the organization (Ali, 2014, 272).

And there are those who define intellectual capital as the value of the human resources available to the organization, which is calculated according to the amount spent on them in terms of training, education, social and cultural care, and the opportunities provided for self-learning, on the time of the organization (Salma, 2002, 48-49), and focuses this Introducing how intellectual capital is measured and its value determined through training opportunities available for the development of intellectual capital in organizations.

2.2.2 Dimensions of Intellectual capital

There were many components of intellectual capital, according to the multiplicity of opinions of researchers, but by monitoring their opinions it became clear that the components of intellectual capital, which took the highest proportions of their opinions (Al-Hamdani, & Ali, 2010, pp. 127-128) are:

- 1- Human capital: which represents the innate capabilities acquired by every working individual, which lead to an increase in added value economically in all fields of business. It also represents the stock of knowledge, skills, and capabilities that result from natural talent, or subsequent investment in education. Training and experience. Human capital is of great importance because it is the source of creativity and strategic renewal, and it contributes to improving the skills of individuals and re-engineering processes. Its essence is the absolute intelligence of individuals.
- 2- Structural capital: it is the second component of intellectual capital, and it serves as the supporting structure for human capital, as it is the infrastructure that supports individuals in their pursuit of intellectual performance, and it represents all stores of non-human knowledge in the organization such as databases, practices, experience, and knowledge base how), and culture, as it includes systems, procedures, structures, and strategies, according to which the production system is achieved, the delivery of the product on time, and compatibility and compatibility with environmental variables. The organization can trade it, work to enhance and maintain it, and raise its value through efficient use of it, as its most prominent components are copyrights, intellectual rights, patents, information systems, and organizational structure.
- 3- Customer capital (relational-external): It refers to the value embedded in the organization's relations with its customers, their satisfaction, and loyalty, through the ability of the organization's members to relate to others, represented by their ability to enter communication networks and relationships, while finding quick answers and responses with Customers, and the creation of cooperation inside and outside the organization, so managers do not need to work in a self-sufficient organization, but they can enter into the wealth of knowledge from their network of customers, so they take continuous feedback from them on organizational practices, and propose new ideas and perspectives to explore and present new attractive to customers, which attracts New customers, this reveals the extent of the development of the organization's competitive position.

2.3 Previous studies

In the study by Abdul Salam Al-Saghir and his team (2020), the focus was on intellectual capital and its role in achieving competitive advantage, particularly in the National Cement Company in Libya. Their research revealed that there's a statistically significant relationship between intellectual capital (including human, customer, and structural capital) and competitive advantage. Recommendations from the study include promoting teamwork and adopting modern technology.

Al-Yousef's study (2022) examined structural capital dimensions and competitive advantage dimensions at Umm Al-Qura University. The findings indicated a medium degree of availability for both structural capital and competitive advantage dimensions. Importantly, a strong direct correlation was observed between structural capital and competitive advantage, underscoring their interdependence.

In Abdel-Rahman and El-Sayed Emam's research (2022), the impact of green intellectual capital on sustainable competitive advantage in Egyptian tourism companies was assessed. The study found a strong and

direct correlation between green intellectual capital and sustainable competitive advantage across various dimensions, such as efficiency, quality, creativity, and customer responsiveness.

Bouzidi and Blaghith's study (2022) explored the role of intellectual capital in achieving a competitive advantage in Algerian higher education institutions, focusing on the Avlo University Center. The research highlighted the significant influence of intellectual capital (including human, structural, and relational capital) on the competitive advantage of the university under investigation, emphasizing the strategic value of intellectual capital in knowledge institutions.

Wahhabi and Sharafawi's study (2022) aimed to underscore the contribution of intellectual capital to achieving competitive advantage and institutional development. They found that intellectual capital in its dimensions of human, relational, and structural capital plays a crucial role in enhancing performance and gaining a competitive advantage in terms of quality, efficiency, and creativity. The study emphasized the importance of intellectual capital as a strategic resource for organizations.

3. METHODOLOGY

3.1 Sample of Study

In the current study, the study population includes all active members of the Association of Certified Public Accountants and Auditors in Libya, whose number is (464) (Report of the Association of Certified Public Accountants and Auditors, 2021), while the active members of the Association of Certified Public Accountants and Auditors in the three main cities of Tripoli, Misurata and Benghazi are numbered (397). In view of the concentration of the study population in three limited geographical regions (Tripoli, Misurata and Benghazi), this study relies on the comprehensive enumeration method by targeting all members of the study community in the three main cities of Tripoli, Misurata and Benghazi.

3.2 Research Instrument

In order to achieve the objectives of the study, the questionnaire will be used as a main tool in collecting data. The questionnaire is considered one of the research tools that are commonly used in collecting data, and it consists of a group of interconnected vocabulary words to address a specific topic and obtain facts and information related to the topic of the study that is being filled out by examined.

The questionnaire focuses on exploring opinions and attitudes through the questions it contains, and it is known that the questionnaire is mainly used in poll studies and surveys, as a basic tool for collecting the required information and data, as it gives sufficient space for the sample members to think without psychological pressure, as is the case in an interview (Amer, 2014, p. 71).

4. RESULTS

4.1 The Descriptive of the Respondents

Table 1 showed the demographic characteristics of the respondents. Out of 351 respondents, 94.8% of the respondents are male. Regarding the age classification, the majority, 66.4%, are in the age group between 31-50 years. The results also indicate that 50.7% of the respondents hold Bachelor's degree. Finally, the majority of the respondent's, 80.4%, having working experience Between 6 to 15 years.

Table 1. Descriptive Statistics of the of the Respondents

Characteristics	Category	Frequency	Percent
Gender:	Male	333	94.8
	Female	18	5.2
Age:	< 30	60	17.1
	Between 31 to 40 years old	11 0	31.3
	Between 41 to 50 years old	123	35.1
	Between 46 to 50 years old	58	16.5
	> 50	60	17.1
Qualification:	Diploma	7	2
	Bachelor's degree	178	50.7
	Master's degree	109	31.1
	PhD	57	16.2
Work Experience:	< 5	23	6.5
	Between 6 to 10 years	84	24
	Between 11 to 15 years	198	56.4
	> 16	46	13.1

4.2 Structural Model

In order to identify the significance of the effect of the independent variables represented in the elements of intellectual capital (human capital, structural capital, and relational capital) on the dependent variable (competitive advantage), this study relied on structural equation modelling, in which the path analysis method was used, which means studying and analyzing effect between variables.

The results of the path analysis values showed that the direct effect of human capital, structural capital and relational capital on competitive advantage was positive and significant, as shown in Table No. (2). Regarding the first hypothesis, which states: "There is a statistically significant effect of human capital on competitive advantage in audit firms in Libya." The result of the analysis showed that human capital has a positive and significant impact on competitive advantage, as the value of (t) statistics (T-Statistics) or what is called (C.R.), the Critical Ratio between human capital and competitive advantage (17.184), which is an acceptable value because it is higher than the critical value (1.96) recommended by (Byrne, 2016), and the P-value, which is the statistical significance value (0.000), which is less than the approved significance level (0.05), and the path coefficient value reached (0.605), and these values They all confirm the presence of a statistically significant effect of human capital on the competitive advantage in audit firms in Libya, and thus support the acceptance of the hypothesis that states that there is a statistically significant effect of human capital on the competitive advantage in audit firms in Libya. Regarding the second hypothesis, which states: "There is a statistically significant effect of structural capital on the competitive advantage in audit firms in Libya." The result of the analysis showed that structural capital has a positive and significant impact on competitive advantage, as the critical value between structural capital and competitive advantage reached (4.337), which is an acceptable value as it is higher than the critical value (1.96) recommended by (Byrne, 2016), and the P-value value, which is the value of statistical significance (0.000), which is less than the approved level of significance (0.05), and the value of the path coefficient reached (0.157), and all of these values confirm the presence of a statistically significant effect of structural capital on the competitive advantage in audit firms in Libya. Thus, it supports the acceptance of the hypothesis which states that there is a statistically significant effect of structural capital on the competitive advantage in audit firms in Libya.

Table 2 Standardized Regression Estimation

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Path	USD	t-value (CR)	P-Value
Human capital→ competitive advantage	.605	17.184	0,000
Structural capital → competitive advantage	.157	4.337	0,000
Relational capital→ competitive advantage	.453	10.801	0,000

4.3 Regression Analysis

A linear regression analysis was also conducted using the SPSS in order to confirm the result of the previous analysis. Where the multiple linear regression aims to clarify the nature and degree of the relationship between the variables in order to find the function of the relationship between the independent variables and the dependent variable for the purpose of explaining the change that may occur in the dependent variable according to the change in the values of the independent variables, given that there is a relationship between the independent variables (human capital, structural capital, and relational capital) and the dependent variable (competitive advantage), and the results are as shown below. Table 3 presents the regression results for the variables. The regression model is as follows:

CAD = β o + β 1HC + β 2SC + β 2RC + ϵ

Table 3. Result of OLS Regression Analysis

Variables	Coeff	t-statistics	Sig.
HC	0.255	4.887	0.000***
SC	0.125	2.327	0.021**
RC	0.608	14.518	0.000***
R²	0.817		
Adj. <i>R</i> ²	0.816		
F-value	517.667**		

Table (3) above shows that for OLS regression analysis, adjusted R² was 0.817, which means that 81.7% of the competitive advantage of audit firms in Libya is explained by intellectual capital (human capital, structural capital, and relational capital). In addition, it is clear from Table (3), and by observing the values of the (t) test, that the independent variables related to (human capital and relational capital) have an impact on competitive advantage, as the calculated value of (t) reached (4.887 and 14.518), which is a significant value at (0.01). While the results indicated that the independent variable related to structural capital has an impact on competitive advantage, as the calculated t value reached (2.327), which is significant at (0.05).

CONCLUSION

The study attempted to examine the impact of intellectual capital (human capital, structural capital, and relational capital) on the on competitive advantage of audit firms in Libya. The findings regarding the human capital shows significant effect of human capital on the competitive advantage in of audit firms in Libya. This result can be explained by the human capital of audit firms in light of the competitive situation and the information age. It is the real capital of enterprises as it plays the main role in both innovation and renewal, change and creativity, and is therefore capable of transforming knowledge into value, and then into competitive advantage. This result is consistent with the results of previous studies, as the results of the study of Ben Hamoud and Bukhamkham agreed. (2022), which concluded that there is a statistical relationship between human capital and competitive advantage, as he indicated that human capital is the source of intellectual assets and the most important intangible resources on which institutions are based in light of the knowledge economy. The results of this study also agree with the results of the study of Ahmed, Youssef, Al-Amin Delhoum (2019), Anshasi et al. (2023), the study of Ramez (2023), Al-Sagheer et al. (2020), and Ayedh and Abu Hadi (2019). Previous studies indicated that the human element, represented by human resources, is one of the most important factors responsible for the institutions.

Moreover, the results showed the human structural has significant effect on the competitive advantage This result can be interpreted to mean that structural capital related to all organizational and administrative dimensions of companies, including organizational structure, work systems and methods, technology, and equipment, plays a role in achieving competitive advantage, as it constitutes a basic pillar for achieving new competitive advantages, such as reducing the time required to implement work. Thus, structural capital is considered one of the cognitive assets that remains in the company's circle when human capital is not taken into account, and the company must take care of it in order to achieve competitive advantage. Structural capital, in particular, has become a motivating factor for companies seeking excellence and competition (Wahabi & Sharfawi, 2022).

Finally, the study confirms that there is a statistically significant effect of relational capital on competitive advantage in audit firms in Libya. This result can be explained by the fact that it is natural, considering that relational capital is one of the elements that helps companies build strong relationships with external parties. Therefore, building distinguished relationships with these parties will increase the level of satisfaction and loyalty of these parties, which gives the company added value as a result of its distinguished relationship.

This study provides a picture of competitive advantage of audit firms in Libya and offers recommendations to audit firms who are willing to enhance the competitive advantage of their own firms by paying attention to intellectual capital (human capital, structural capital, and relational capital).

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