

The Impact of Intellectual Capital on achieving Competitive Advantages within commercial banks in Jordan

> أثر رأس المال الفكري في تحقيق الميز التنافسية في البنوك التجارية الاردنية

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Authorization

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Dedication

This thesis is dedicated to my precious parents, and my friends who helped me in every way needed, for their endless support throughout my life to reach this stage.

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Abdul-Kareem Ahmad Arabiyat

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The Impact of Intellectual Capital on achieving Competitive Advantages within commercial banks in Jordan

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Abstract

The study aimed to investigating the impact of Intellectual Capital on competitive Advantage at Jordanian Commercial Banks.

This study used descriptive as well as cause/effect. Data collected from Jordanian Commercial Banks (13 banks). The questionnaire was distributed to 300 out of 366 managers and supervisors, only 290 questionnaires were obtained, and just 281 were suitable for further analysis. After confirming normality, validity, and reliability of the tool, correlation between variables was conducted, and then hypothesis was tested by using multiple regressions.

The results show that banks are highly implementing IC and competitive advantages variables, and there are strong relationships between IC and competitive advantages variables. The results of simple linear regressions show that there is a significant impact of IC on competitive advantage at Jordanian Commercial Banks. The results also show that human capital, relational capital and structural capital have positive significant impact on competitive advantage at Jordanian Commercial Banks.

Finally, the study recommends further testing of hypothesis on same industry in other countries, especially Arab countries and other industries to test the validity of results.

Key Words: Intellectual Capital (IC), Competitive Advantages (CA), Human Capital (HC), Relational Capital (RC), Structural Capital (SC). إعداد عبدالكريم احمد عبدالكريم عربيات إشراف: الدكتور عبدالباسط حسونة الملخص

أثر رأس المال الفكري في تحقيق الميز التنافسية للبنوك التجارية الاردنية

هدفت هذه الدارسة إلى قياس أثر رأس المال الفكري في الميزة التنافسية للبنوك التجارية الأردنية.

تعتبر هذه الدراسة وصفية سببية. تم جمع البيانات من مدراء البنوك التجارية الأردنية وعددهم 13 بنك عن طريق الاستبيان الذي تم تطويره خصيصا لهذه الدراسة خلال شهر شباط 2018. ووزعت الاستبانات على 300 مدير من اصل 366. تم استرداد 290 استبانة فقط، وكان 281 منها مناسبة للتحليل. وبعد التأكد من طبيعة وصحة وموثوقية الأداة، ربط بين المتغيرات، ثم أختيرت الفرضية باستخدام الانحدارات المتعددة.

وأظهرت النتائج أن البنوك التجارية الأردنية تنفذ بشكل كبير متغيارت رأس المال الفكري والميزة التنافسية، وهناك علاقات قوية بين متغيرات كلا رأس المال الفكري والميزة التنافسية. تظهر نتائج الانحدارت المتعددة أن هناك تأثيار كبيار لرأس المال الفكري في الميزة التنافسية للبنوك التجارية الأردنية. وتظهر النتائج أيضا أن رأس المال البشري والهيكلي والعلاقاتي لها تأثير إيجابي في الميزة التنافسية للبنوك التجارية في الاردن. وأخيرا، توصي الدارسة بإجارء مزيد من اختبار الفرضية على نفس الصناعة في بلدان أخرى، وخاصة الدول العربية وغيرها من الصناعات لاختبار صحة النتائج.

الكلمات المفتاحية: رأس المال الفكري، الميزة التنافسية، رأس المال البشري، رأس المال الهيكلي، رأس المال الهيكلي، رأس المال العلاقاتي.

Chapter one: Introduction

Background:

The world has seen in business organizations in most countries a transformation towards focusing on Intangible assets or so-called Intellectual Capital in its dimensions. The subject of Intellectual Capital is one of the most important modern management topics of the contemporary management literature. The literature appeared on multiple subjects; which changed the traditional vision of the concept of Intellectual Capital, therefore, sought to interpret the concept of Intellectual Capital as importance matter in my study.

The first appearance for Intellectual Capital in the academic literature was in 1969; when Galbraith defined Intellectual Capital as the difference between books' value and firms' market. Galbraith has shown the Intellectual Capital like a crucial part of firms' value creation process and assets simultaneously. Stewart (1998) and Teece (2000) stated that a set of intangibles such as: knowledge, intellectual property, innovativeness, information, expertise, and the team's abilities have been added to the definition of Intellectual Capital.

The discussion over the Intangible Assets as a company' value's creating component has been arising over the past two decades. Nowadays, a highly competitive, ever-changing markets, the importance of financial and physical factors have declined, whereas investments in knowledge and other intangibles have been raised. Cegarra Navarro and Sanchez-Polo (2010) argued that the executives in both private and public sectors are generating competitive advantages by centralizing their focus on Intangibles. Martin-de-Castro (2011) argued that the Intellectual Capital has been defined as a factor of production, replacing the tangible assets such as land job, and production's facilities. Chen, et. al. (2012) stated that the reason why the intellectual capital is considered a relatable values due to the fact that intangible assets are more important than tangible assets. Masoud, et. al. (2014) said that Intellectual Capital is a collection of assets that are assigned to a corporation. And it is considered among its features and lead to organizations' considerable competitive improvement through adding value to the key stakeholders of organization.

Dumay and Cauganesan (2013) added for the work of intellectual capital and concluded that measurement and classification of intellectual capital is essential for any companies. They introduced a various measurement models of intellectual capital. And

they discussed the importance and valuable of different dimensions of intellectual capital in creating decisions. Furthermore, they revealed that certainty in measurement is not acceptable, therefore, it is important because it assists in developing new managerial objectives and elements.

Stahle and Bounfour (2008) argued that even though the impact of intellectual capital have been known; the intellectual capital is still in its early parts in the terms of recognizing the impact on strategy and management in the knowledge-based economy. Ercegovic and Talaja (2013) argued that the competitive advantages have been widely discussed in the strategy management literature; but there is still no agreement on a single definition of competitive advantage and company performance.

It seems that the Intellectual Capital is crucial for the organization's success. Implementing all Intellectual Capital dimensions (Human, Structural and Relational) can create competitive advantages (cost, quality, time/speed, and innovation). Therefore, this study is devoted to investigate the impact of Intellectual Capital on competitive advantages.

Problem statement:

Sharabati et. al. (2013) argued that Managing and measuring Intellectual Capital is a worldwide problem; in fact it is not limited to industry, organization or country. Vashishtha et. al. (2012) argued that: Management of Intellectual Capital cannot be possible without measuring it. Manzari et. al. (2012) specified: Every organization should select its appropriate Intellectual definition and its indicators to measure it. Finally Sharabati et. al. (2010) argued: The concept of Intellectual Capital is not well known to most managers in Jordan. Through my meetings with several managers who are working in banking industry, the researcher was informed that each company is searching how to better service the customers and trying to create competitive advantages in cost, quality, time/speed and innovation. Many studies recommended that intellectual capital could affect competitive advantages such as Sharabati.et.al, (2013) stated that a positive significant effect of Intellectual Capital on Jordanian Telecommunication Companies' business performance. Al- Khalil, (2013) stated that all intellectual capital dimensions have a statistically significant and positive relationship with technical innovation dimensions. Therefore, the purpose of this study is to investigate the impact of Intellectual Capital on Competitive Advantage. Through my meetings with many managers who they are working in the banking industry; the researcher was informed and noticed that each bank is searching of how to provide a better services to the customers and to try how to create a competitive advantage in the cost, quality, time or innovation.

Study Hypothesis:

Based on problem statement the study questions will be answered by testing the following hypotheses:

H₀₁ intellectual capital has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \leq 0.05$).

H01.1 (human capital) has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \le 0.05$).

H01.2 (structural capital) has no impact on competitive advantage in Jordanian commercial banks ($\alpha \leq 0.05$).

H_{01.3} (relational capital) has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \le 0.05$).

Problem Question:

The study aims to answer the following research main question: Do intellectual capital practices affect competitive advantages of banking industry?

Based on IC components the following five sub-questions are derived:

1. Do intellectual capital elements (Human, Structural and Relational) affect competitive priorities at Jordanian commercial Banks?

2. To which extent does the sample relay on Intellectual Capital and its components in comparison with physical capital to create competitive advantage?

3. Does human capital affect competitive advantage for the sample?

4. Does structural capital affect competitive advantage for the sample?

5. Does relational capital affect competitive advantage for the sample?

Study purpose and Objectives:

The purpose of this study is to investigate the impact of Intellectual Capital on achieving competitive advantage on Jordanian commercial banks. Moreover, the main objective of this study is to determine the impact of Intellectual Capital on Competitive Advantage and to provider recommendations to Jordanian commercial Banks and other industries, as well as, to decision makers who concerns about Intellectual Capital and competitive Advantage. In additional, to researchers and academicians who may use it as reference.

Study Significance and Importance:

The importance of this proposal is to recognize the impact of Intellectual Capital on competitive advantage at Jordanian commercial banks and that helps banking sector decision making by setting proper plans and strategies based on enhancing their intellectual capital in order to reach a competitive advantage and this will leads banks to better understanding the intellectual capital dimensions, in a way to improve or maintain their competitive Advantage. Recognizing the impact of intellectual capital on competitive Advantage especially in Jordanian Banks, this study is going to set many helpful suggestions that help decision makers in banking sector.

The study significance rises from the following considerations:

- This study could make other researchers search in this important field, through the study literature review and previous studies.
- This study is contributing to add more value in this field, and from this point this study reveals its importance in this rapid changes era that is hard to control.
- Show the role of intellectual capital in enhancing competitive Advantage.

Study Model:

The research will study the impact of Intellectual Capital dimensions as independent variable on Competitive Advantage as dependent variable.

Study model:

Independent Variables Dependent Variables Intellectual Capital: H01 Human Capital H01.1 Structural Capital H01.2 Relational Capital H01.3

Study sources: the model is developed based on the following previous studies: (Sharabati, 2013.et.al; Shehzad, et. al. 2014; Chaghooshi, et. al. 2015; Sari, 2015; Long, et. al. 2015)

Procedural Definitions of Terms:

IC is the value of an organization or companies' business training, employee knowledge, skills or any proprietary information that may provide the organization with a competitive advantage.

Intellectual Capital: All useful knowledge that related to the organization's processes, patents, technologies, employees' skills, and information about customers, stakeholders, and suppliers.

Human Capital: it's all the knowledge that employees take with them when they leave the firm. It includes the experiences, skills, knowledge and abilities of people.

Structural Capital: it's all the knowledge that stays with the firm at the end of the working day. It's consist of, procedures, cultures, systems, organizational routines,

databases, etc. Some of them may be legally protected and become Intellectual Property Rights, legally owned by the firm under separate title.

Relational Capital: is every resources that linked to the relationships of the firm like suppliers, customers or R&D partners. It included that part of Structural and Human Capital dealing with the company's relations with stakeholders (suppliers, customers, creditors, investors, etc.), plus the perceptions that they hold about the company.

Competitive Advantage: is the character that allows an organization for being better than other competitors. A competitive priorities may include access to natural resources, such as low-cost power source, geographic location, highly skilled labor, access to new technology and high entry barriers.

Cost: provide the same service at lower cost.

Quality: meeting customer requirements.

Time: the duration that any service need to be delivered

Innovation: the new idea to do the service that added value to the customer

Study Limitations and Delimitations:

Human limitations: The study measured Jordanian Banks managers' intellectual capital.

Place limitations: The study included managers of Jordanian Banks as representative of Jordan.

Time limitations: This study looks at the current status at the specified time points without considering previous use.

Delimitations:

The study used one industry, which limits its generalizability to other industries. The study was conducted in Jordan and therefore the generalizability of this study to other countries of the same industry or other industries may be questioned. In addition, absence of similar industry studies in Jordan

Chapter Two

Theoretical and Conceptual Framework and Previous Studies

Introduction:

This chapter includes Theoretical and Conceptual Framework, previews studies and what make this study different from previous studies.

Theoretical and Conceptual Framework:

Definitions of Study Variables:

The definition of Intellectual Capital is wide and deep. One of the closest definitions is that Intellectual Capital is a concept that determine all intangible resources that connected together. Competitive Advantage is all the capabilities that the company owned. These competitive Advantage should be improved and developed continuously.

Independent Variable (Intellectual Capital) definition:

Jafari (2013) advised to give attention and focus on intellectual capital in firms and to determine the importance of this dimensions on the overall performance of the corporate, as it has positive impact on the process of value creation in organizations. It also provides a competitive environment in the order to determine the salary levels of employees. According to Ramanauskaite (2012) he clarified not only the linkage between all intangible resources but also the important connections with other tangible resources in value creation: "intellectual capital comprises resource purchased, created, or maintained by an organization, which possess no material form; these resources, together with material and financial assets of the enterprise, help to create added value".

Ahangar, (2011) stated that building corporate through having an unparalleled human resources with better use to enlarge the uniqueness area in any corporate as one of the most basics is intellectual capital. Unique human resources that have organizational capabilities, has a good abilities to adapt the surrounding changing circumstances and this is consider as an advantage of Intellectual capital But not the financial capital.

Marr, (2008) discussed that investing in Intellectual capital nowadays considered the most important in creating value and profitability and competitive advantages.

Intellectual Capital in the business environment means the assets that will be used to in order to produce the cash flows in the future, the assets is usually known as a financial assets and non-financial assets. However, the assets be found in the balance sheet of any organization. Hence, the Intellectual Capital (IC) has been defined as a combination of activates and intangible resources that enable organizations to convert the resources and inputs within an organizational processes that is capable to create a stakeholder value. Meanwhile others defined it as a mix of the humanistic and relational interaction that generates an activities within an organization Todericiu and Serban, (2015). Therefore, organizations needs to attain and retain the understanding of intellectual capital within their organizations, because organizations needs continually assess the knowledge within its organization.

In these regards, Konti and abrilo, (2009) argued that the importance of measuring the level of IC is the severity of the possible consequences that may appear if the organizations did not measure the IC, possible consequences such as skills miss matching, low productivity, shortage, talent fleeing to competitors, all these are just an examples of the possible consequences of not evaluating intellectual capital. Thus, intellectual capital may be considered as a Key Performance Indicator KPI for the organizational trends. Trends such as, increasing of turnover rate of skilled people, merging ethical risks Konti and abrilo, (2009). Nevertheless, the importance for monitoring IC can be extracted as follows Marr et al (2003), helping organization in its strategy formulation, support in strategy evaluation and execution, confirm the diversification towards expansion, provide indicators for management and compensation, and enhance the external shareholders communication panels.

The intellectual capital concept is considered to be a contemporary concept. The importance of the IC gained this amount of Economic progress importance, since the potential influence of intangible assets is increased in comparison to the fixed and financial assets. Moreover, several number of studies Sydler et al., (2014) supported that IC represents a dominant role in achieving organizational goals. In this accordance, organizational processes are being developed in a way to be dedicated towards developing a significant amount of shares of intangible assets.

On the other hand, Latas, (2016) referred that the IC composes several components (e.g. Technology, Customers and Relations, Experience, and Knowledge). Meanwhile, all these components collectively could significantly participate in generating competitive

advantage for organizations. Furthermore, the intellectual capital cannot be defined in isolation of the other organizational characteristics and factors .

On the same direction, Stewart (2001) expressed his opinion saying that knowledge and intelligence have become the intellectual capital, placing the intellectual capital in the current economic reality. Based on this point of view, the intellectual capital includes with all of its intangible assets that represents a combination of advantages may result in future benefits. All these definitions and concepts provides a useful foundation for IC principles understanding.

Additionally, FitzPatrick et al., (2013) indicated that IC is the key factors in generating value and innovation within organizations. Additionally, intellectual capital is the key value propositions point that empowers the organizations towards understand the competition environment and enhance their performance accordingly. Other than that, Vargo and Lusch, (2016) proved that intellectual capital is an important contributor value creation and opportunity growth Liu, (2017). Therefore, the intellectual capital have been seen as a key strategic resources that contribute in providing organizations with the needed competitive advantage.

In general most of the organizations develops their own definition and understanding of the intellectual capital, such as "Skandia Insurance Company" defined the IC as the owning the needed amount of customer relationship, technical skills, technologies, practical experience, and professional skills which collectively will participate in achieving the organizational competitive advantage Sofie, (1999). On the same direction, it have been noted Amrizah & Rashidah (2013); that the owning intellectual capital capacity is considered to be as one of the most significant factors strategic assets or factors in evaluating and the organizational performance, especially in those developing countries. Much earlier, Bontis et al. (2000), referred in their study that intellectual capital have a significant effect on the organizational strategy direction and its performance regardless the differences in the work environment and the industry. Hence, the intellectual capital concept is have been defined in such a different ways based on different point of views. However, the intellectual capital maintain few several characteristics and components such as the Human Capital, Structural Capital, and the relational Capital.

Independent Variable (Intellectual Capital) components:

Human Capital: According to Kong (2010) he classified human capital as one of the most resources that organizations rely on and it respond to environmental changes innovatively. According to Tarus (2015) he said that Human capital consists of the habits, values, and attitudes of the people in the firm, besides to the leadership that motivates people to show their potential in the firm.

Human capital is a combination of attitude, people, education, and experience, and genetic inheritance, attitude. Moreover, human capital have been seen as the most valuable assets in any organization. On the same direction, it is also noticed to be the most ignored part within organizations Khan at al., (2010). However, human capital can be defend as the sum of employee's experience, skills, knowledge to be shared within organizations aiming to generate an added value Baron, (2011).

Other researchers Chi et al., (2016); O'Sullivan and Schulte, (2007) considered the human capital as the core dimension of intellectual capital. Also confirmed on the importance of it as the organizations most important asset. Furthermore, human capital is the source of organizations strategy innovation capacity, renewal, creativity, and a competitive advantage Bontis et al., (2007). Depending on the employee's talents and skills Tsakalerou, (2015); Sydler et al., (2014) human capital will be more able to provide uniqueness to the organizations, which later on will participate in adding value to the goods and resulting in creating competitive advantage. Accordingly, the human capital can be defined as the acquired knowledge, skills, and experience of the employees which will enable the employees and the organizations to operate in such an economic valuable ways Call et al., (2015); In these regards, the human capital provides the standard competency value to the organization in a way that employees become more able to solve issues, resulting in creating new challenge and knowledge aiming to enhance and organizational performance and unitizing opportunities Kostopoulos et al., (2015).

Other researchers Greve et al., (2010); Kang & Snell, (2009) expressed that human capital is an individual based phenomenon. Thus, organizations do not have to own or

develop their human capital capacity, organizations can but rather lease or barrow the acquired skills, knowledge, and abilities of the individual employee through the knowledge sharing and employment agreement. Since employment contracts or agreements are based on the employees will, the employees may leave organizations at any time they want, taking with them their sum of individual human capital Somaya at al., (2008). To wrap up, the quantity and quality of human capital within any organization depends on the employee's mobility within organization, hiring practices, involuntary turnover.

Much more furtherly, human capital have to be continually assessed, synthesized, and utilized in order to produce economic value for individuals or organizations Daud & Yusoff, (2010). Another point to consider is that the human capital depends on the industry type of the organizations, hence it varies between organizations and another based on the industry type Choi, (2016) Moreover, the human capital may be a certain industry type, human capital may be easily communicated or exchanged and categorized under explicit, or difficult to communicate or exchange and categorized tacit Subramaniam & Youndt, (2004). Hence, organizations certain tacit human capital or depth knowledge, skills, and experience can be difficult to be shared and exchange within organizations, especially when the employees are scared of replacement and cost cutting.

Structural Capital: According to Rodrigues (2013) he reported that structural capital is used to keep the human capital of organizations. According to Abdulai (2012) he said that structural capital contains all the organizational capabilities that are used to meet both challenges internal and external.

Structural capital can be defined as the sum of models, concepts, patents, computers and system created by employees over the time and owned by organizations Akpinar & Akdemir, (1999). Additionally, the structural capital can be acquired or extracted from somewhere else. However, organizations includes a combination of internal structure and people. In other words, once an organizations develops or implements a new technologies or enhance a process flow, or at least establish an initiative or implement a project the structural capital will enhanced and improved. Therefore, structural capital can express the organizations ability to integrate or reflects the customers demand on their internal structure. Nevertheless, recent studies Amrizah & Nawal, (2013) indicated that the organizational structure along with the skilled, talented, and qualified

employees together and collectively can significantly affect the organizational performance.

However, the structural capital is considered to be as the remaining thing after employees leave in the organizations Bontis et al., (2015). On the other side, the structural capital comprises different components such as the copyrights, database, trademarks, organizational capabilities, processes, culture etc. Denicolai et al., (2015). Additionally, the structural capital is considered to be as a supportive tool to the human capital Tsakalerou, (2015), which represents vital factor enhancing it to reach the full potential. Even though, the human capital and structural capital are in dependent, but both of them are working collectively to create the organizational intellectual capital Cabrita and Bontis, (2008).

When examining the related IC literature, an obvious pattern emerged. As the literature were organized, classified and, evaluated. The concept of structural capital have been emerging with evident association with the human capital. However, structural capital can be defined as the institutionalization of organization's current knowledge and experience that have been developed based on the established structures, processes, and routines Kang and Snell, (2009). Hence, it can be concluded that purpose of structural capital is to coordinate and organize a group of employees and factors in an organization through providing the context which may appropriate tools, technologies, and procedures Subramaniam and Youndt, (2005). Also, the use of the structural capital can be utilized in preserving knowledge based on past successful implementation aiming to repeat the usage within the organization Kostopoulos et al., (2015).

For Better explanation the structural capital mainly focuses on several distinct domains of organizational, these domains includes: architectural, cultural, and knowledge domains. However, all of them aims into the achieving the formalization process of organizational structures and processes, which will contribute in decision making. For instance all the employees from the different managerial levels are affected by the components of the organizational structure and the reflected policies and procedures. This includes established hierarchy or reporting structure and human resource policy and procedures guiding labor management practices such as job descriptions and assignments, hiring, staffing, and disciplinary action Call et al., (2015); Kostopoulos et al., (2015).

Relational Capital: According to Mondal (2012) he defined relational capital as the knowledge that is included in the relationships with any stakeholder that affects the organization's life.

Relational Capital is a multidimensional concept that is has and still receives popularity in the literature. Also, the Relational capital have been much debated in terms of operationalization, definitions, Function, and measurement Styhre, (2008). Moreover, the literature highlighted that the Relational capital have several perspectives. Meanwhile, Pastoriza & Ariño, (2013) expressed that the Relational capital have three common perspectives the functional, network, and the multidimensional perspective. Hence, the understanding of the conceptual definition of Relational capital in the literature may vary based on the level of analysis. Relational capital is a concept emerging in the literature which accounts for the influential relationship-based aspect of leadership and may be defined as "the groups, networks, norms, and trust that people have available to them for productive purposes" Grootaert et al., (2004).

Relational capital represents the sum of the norms, habits, and relationships that shapes the quality society's social, economic interactions and development Grootaert & Bastelaer, (2001). In the same regards Hassan (2014) referred that Relational capital bodies a significant role in overcoming many organizational constrains (e.g. lack of financial or human capital). On the other side, Relational capital can be seen as the integrator who integrate the internal parties with the external ones. Also, Relational capital represents the set of associations between people, and the associated norms, which later on will affect the community.

Anyhow, Scafarto et al., (2016) revealed that the Relational capital is the most difficult intellectual capital aspects to enhance and develop, since at some extent it is considered to be originated from the external environment, which means that the internal environment have got to respond to the external environment. However, the Relational capital can enhances the human, and structural capital interaction with the stakeholders

Meles et al., (2016); Bontis et al., (2015). (E.g. reputation, commercial power, market image, and brand loyalty). Nevertheless, Relational capital is knowledge embedded in the identification, development and maintenance of external relationships Joshi et al., (2013). Furthermore, this Relational capital allows organizations to access resources and knowledge embedded within such as the tacit Meles et al., (2016). The Relational capital enables organizations to develop databases with information of external environment (i.e. stakeholders) in order to predict and develop organizational strategies Saeed et al., (2016). Additionally, having a better understanding and knowledge of the external environment would significantly enhance the organizations in developing services / products aiming to satisfy the external parties, which later on will be reflected in better relationship with them Meles et al., (2016). Nevertheless, it can be concluded that Relational capital is the result of the human, structural capital integration. For instance, the increase in Relational capital is a consequence of enhancement of human and structural capital and. in turn, the maturity of Relational capital leads to a growth of financial capital.

Grootaert et al. (2004) referred that the Relational capital as a networking resource network can enhance and facilitate the actions among network members. This point of view defined Relational capital as the networks, groups, and trust that people have for productive purposes. Also, in this point of view, Relational capital is not viewed as a function or network, but as a phenomenon Hofmeyer, (2013).

Eventually, it could be noticed that among the intellectual capital dimensions, the Relational capital had the most inconsistent definition across the literature. Thus, the provided definitions evolved and complete conceptual definition that allows Relational capital to be applied in a wide range of settings and from the Grootaert & Van Bastelaer, (2002).

Dependent Variable (Competitive Advantage):

Competitive Advantages Definitions:

According to Barney (2002) said that the term competitive advantages is used to describe that corporate's capacity to achieve its targets. There is four ways to measure the corporate's competitiveness. These measurements are stakeholder approach, firm's

survival, adjusted accounting measures, and simple accounting measures. Feurer and Chaharbaghi (1994) measure competitiveness quantitatively by ability, profit to raise capital and cash flow in terms of liquidity status. Soliman (1998) adds, delivery and cost, quality dependability, flexibility and innovation as factors formulating such a competitive position." De Wit and Meyer (1999), Buffam (2000), and Christensen (2001) indicate that a firm has a sustainable competitive advantages when it has the means to edge out rivals when competing for the favor of consumers. Krajewski, et. al. (2013) told that competitive advantages mean the crucial operational elements that a process should have to earn customers satisfaction

Barney (2002) shows that a corporate experiences a Competitive equivalence when the company's action creates economic value applied in several other firms engaging in a similar action. An important goal of a business enterprise is to optimize shareholders returns. However, optimizing short-term profitability does not necessarily ensure optimal shareholders returns since shareholder value represents the net present value of expected future earnings. One of the techniques that reflect the shareholders return is the concept of the Balanced Scored Card as an indicator for the firm's competitive advantages.

The business literature has recently focused on the competitive advantages that would serve as strategic capabilities for organizations, in which this capability could participate in creating, developing, and maintaining the desired sustainable competitive advantage. However, the competitive advantageare defined as the aspects that an organization's system must own in order to enhance the market demand in the marketplace that organizations are looking to compete in Krajewski and Ritzman, (1993). In the same direction Phusavat and Kanchana, (2007) identified the main criteria's which represents the organizational competitive advantage (i.e. Time, Cost, Quality, Innovation).

Starting by the time, the time is considered as a delivery based related issue. The time dimension approaches the measurement of how quickly a product/ service is being effectively and efficiently delivered to customers. On the other side the time measures the time to market for the new products/ services. Meanwhile, the second dimension is the cost, in which it represents and measures the organization's capability to effectively and efficiently manage the production associated costs, including the value added, inventory, and overhead related costs. Furthermore the quality perspective is approached as well, this perspective aims to measure defect ratings, the operational and organizational

performance, needless to say about the product performance. In addition to other related issues such as the certification, environment, and reliability. Eventually, the innovation have been approached, in which the innovation represents organizations capability innovate solutions or resources in response to changes in the external environment, which is at the beginning starts by the customers and then the competitors. Additionally, several perspectives are covered in this term as well such as the products variety, redesign and adjustments, and volume changes Hayes and Wheelwright, (1984).

However, the competitive advantage are used to represent the advantage of the key competitive capabilities of a certain organization. The competitive advantage refers to the organizations ability to reach competitiveness in the marketplace, through generating and sustaining desired competitive advantage. Competitive advantage have been presented in the literature through several dimensions (e.g. time, cost, quality, innovation, delivery, service etc.). Furthermore, other researchers presented innovation Tan et al., (2007), services Da Silveira, (2005), environment Tseng et al., (2014) and marketing Tseng et al., (2006).

Cost: Porter (1980) said that when the organization do the same service that competitor provides at a lower price because of their ways to perform activities. Goetsch and Davis (2016) told that cost is about how much money you spent to introduce a service and including any expenses or materials required for introducing that service.

Porter (1980) argued that the cost is considered to be one of the leading competitive advantages that organizations would consider during the planning and development of their competitive advantage. Nevertheless according to the porter the father of the business strategies, the competitive advantage can be developed or achieved through following adopting one or more of the generic competitive strategies.

Starting by the cost leadership strategy, the options of this strategy are limited somehow, in one hand this strategy proposes the relative low cost to competitors, to the related standardized products/ services, on the other hand this strategy proposes to adapt and follow the economies of scale. Nevertheless the cost leadership strategy requires an intensive monitoring of several different perspectives such as the tight control of costs,

controlling the labor costs, control the frequent and detailed reports, needless to say the responsibility directing such a structured organization. On the other side other strategies have been proposed in order to achieve the competitive advantage, such as the differentiation strategy, for example this strategy heavily depends on the product uniqueness, marketing, research, flexibility etc... Eventually, the focus strategy is proposing to emphasize on a narrow strategic target such as a group of buyers, product line, or even a geographic market.

However, Hill (1994) indicated that the low cost leadership strategy have the advantage over the other strategies, especially when profit margins are low. Furthermore, the logical linkage between the cost leadership and competitive advantage is the fact that cost leadership strategy or competitive advantage can be divided into two categories. The first one is lower cost than rivals, in which the organization is going to generate the lowest price in the market it is competing in, prices lower than all the other competitors, regardless to the competitor's strategy.

On the other side the cost leadership strategy can be categorized or considered as the organizations ability to differentiate and command a premium price that exceeds the extra cost of doing so Porter, (1991).

Eventually, porter (1980) expressed the cost through describing when the organization do the same service that competitor provides at a lower price because of their ways to perform activities. Goetsch and Davis (2016) told that cost is about how much money you spent to introduce a service and including any expenses or materials required for introducing that service.

Quality: According to Akpulonu (2017) quality means meeting client expectations. To get the best products or services and company image. As well as to improve services or products durability and reliability. Goetsch and Stanly (2016) said

that quality means when company meets or exceeds the customer needs. Awwad, at. al. (2010) told that quality means reliability and performance.

The quality have been seen as a competitive weapon in the marketplaces. In other words, being quality oriented may be the cause of owning a competitive advantage, in which through producing products/ services that meets or exceeds the customer expectations Lee and Zhou, (2000). However, the quality concept have been defined in several ways and from different perspectives Kazan et al., (2006). For instance Juran, (1974) defined quality as the fitness for use. Moreover, Juran's defined the quality from the customer's perspective through expressing the customer who is the best judge what product/ services is the best in satisfying his/her needs and wants. Similarly, Reeves and Bednar, (1994) defined the quality as excellence, conformance to specifications, value, in addition to meet or exceed customers' expectations.

Also, the term "fitness for use" was included in Reeves and Bednar, (1994) definition to quality. Therefore, it can be concluded that the quality is the central point or revolves about the customer's perspective. However, Garvin, (1987) discussed the dimensions of the quality. He linked the eight different dimensions to the term quality (e.g. conformance, serviceability, perceived value, features, performance, reliability, durability, and aesthetics). However, it can be noticed that all these dimensions are related or taken from the customer perspective. Thus, the customer I considered to be the main concern of quality.

Nevertheless, the quality is being viewed as main source of competitive advantage through understanding the customers' needs and satisfying it. Moreover, the term quality can be seen as a reflection of the organizational competitive strategy. To do so, the quality has to pass through several process and procedures that is related to all organizational levels from the operational level to a strategic level. Hence, the quality can be understood as a strategic goal within organizations.

For instance in manufacturing organizations, the quality strategy heavily depends on the conformance to manufacturing specifications. In these regards, Porter, (1980) argued that organizations that compete based on quality can also implement the differentiation strategy, in addition to position their product/ service on several specifications, resulting enhancing the ability to charge a premium price for better options. Henceforth, the quality helps organizations in enhance their competitiveness and leads to customer loyalty through meeting customers' expectations. Such understanding may leads organization to use quality as a competitive weapon in the market place, through adopting competitive quality strategy a major role in creating, sustaining, and maintaining the competitive advantage.

Time: The duration that any service need to be delivered. It's about how the company deliver according to a promised schedule. Goetsch and Davis (2016) stated that time/speed refers to the duration needed to deliver the service to client, and number of clients served during fixed periods.

Time refers to the organizational capability to compete via interested customers, through satisfying the customers need and want effectively and efficiently at the right time and with needed quality and quantity as well. In these regards, Kumar and Kumar, (2004) confirmed that time can give an indicator of the operations that reflects the products, in which they are meeting the customers' needs of quality, reliability from the curtained product/ service. Also Kumar and Kumar, (2004) confirmed that delivering the right quantity, to the right place, in the right place according to the time constrains is considered to be as achieving a part of the organization's competitive advantage.

The time perspective refers to the duration that any service need to be delivered. It's about how the company deliver according to a promised schedule. Goetsch and Davis (2016) stated that time/speed refers to the duration needed to deliver the service to client, and number of clients served during fixed periods.

Accordingly, vein Li (2000), argued that timing capability reflects a number of an organizations key aspects. Starting by organization's operations and how fast the organization is able to produce a certain product/ service, in addition to delivering it to the customers, needless to say about time to market. Also, the time represents the organizations reliably of a product/ service and the reliability brought to the market place. Eventually, the time to improve/ develop a product/ service. All these factors collectively represents the organizations capability of operating under a timely manner.

Innovation: Sari (2015) stated that innovation is developing new service or way or idea that adds value for customers. Goetsch and Stanly (2016) said that "Innovation is about quality and cost continually improvement of company products and services". Peng, et. al. (2008) told that innovation is the introducing or developing technologies or processes or new services.

Innovation is considered to be as an important part of the competitive advantage. Moreover, Mandelbaum, (1978) defined innovation as the organizations ability to effectively and efficiently respond to the changing circumstances. In these regards, Nakane and Hall, (1991) defined innovation as the response to changes in the volume of production, or changes in the product mix, developing new products/ services, new technologies release, or even unexpected customizations (i.e. provide each customer with what they want).

Similarly Upton, (1994) defined innovation the organizational ability to adapt or react with the lowest possible resulted costs, effort, and time. Accordingly, Correa, (1992) states a definition to the innovation through expressing that innovation can be defined in three main areas, the first one is the ability that provides organizations with the needed potential. Subsequently the second comes which is the response in which response that means the adaptation or the reaction to the changes. Eventually, last area of interests the effectiveness in which suggesting an association between innovation and the overall performance of the organizational system.

Thus, it could be concluded that the definitions have focused on coping with changes efficiently and effectively. In other words efficiency and effectiveness are the basic criteria for measuring performance where organizational goals should be met at a lower cost and higher utilization of resources. However, the definition similarities of innovation indicates that the innovation main job is to mastering and controlling the consequences of any change and overcoming the uncertainties in the internal or external environments.

Furthermore, innovation is considered to be as solution to overcome pressures from customers, competitors, and regulators. Thus, the understanding of innovation and the implementation of it within organizations. Also, innovation can approach several perspectives or processes such as introducing new products/ services and production processes as a competitive advantage (understood as minimizing the repercussions of production activity in the various components of the environment Tseng et al., (2013). The inclusion of this factor can be explained due to the environment concerns is increasing. Eventually, the competitive advantage have become strategic variables because firms are simultaneous causes of on the organizations long term successfulness Chiou et al., (2011).

The Relationship between Intellectual Capital and Competitive Advantage

Organizations may own several resources that affect their competitiveness. These resources can be tangible/ intangible having a direct/ indirect effect on organizational competitive advantage Omerzel and Gulev, (2011). In these regards, the IC is considered to be as a knowledge based intangible assets for organizations Grimaldi et al., (2012); Choong, (2008). However, the knowledge asset can be considered to be static, such as available stocks "knowledge" Sveiby, (1997) or even dynamic "the flow" Ross et al., (2005). Moreover, Nahapiet and Goshal, (1998) stated that IC can be created through a transference mix of intellectual resources that may be explicit or tacit knowledge within organizations.

However, the knowledge is considered to be as the most important resource in organizations due to the fundamental role that the knowledge has in generating the competitive advantage Ruzzier et al., (2007); Wong, (2005). In these regards, Quinn, (1992) earlier confirmed the dominant role that the knowledge has in the IC, in which the knowledge and the intellectual capital of the organizations is considered to be more important than the organizational assets.

Therefore, the role of the organizations strategic management is not only about allocating the intellectual capital within organizations, but also to innovate new methodologies to transform the intangible assets within the organizations Teece, (2007). Hence, it can be concluded that organizations with IC capabilities are more likely to be more able to innovative competitive capabilities that serves and enable the organizations in a certain marketplace Grimaldi et al., (2012).

Nevertheless, in the presence of globalization and the continuous technological development, organizations are facing such a competitive and intense environment to work in Hitt et al., (1998). Consequently, the surviving organizations must work uniquely and differentiate themselves in order to guarantee the growth or at least the survival in the market. Therefore, it would be noticed that the final product/ service is not the reason of generating a competitive advantage to help organizations survive in the market, it rather comes through the resources that have been used in order to generate those final products/ services.

Thus, the competitive advantage will be generated unless the organizations are utilizing their resources effectively and efficiently to deliver an added value the customers or the market, all these things would not happen by chance, it rather came up through the appropriate utilization of the of the IC within organizations Hunt & Moran, (1995). Also, these threats represents a motive for organizations to seek or develop an added values and market strategies in order to achieve a sustainable competitive advantage which is going to help the organizations in surviving within the competitive markets Porter, (1980).

It is argued a certain organization is able to replace its tangible assets and resources, but organizations are unlikely to do that with intangible assets. Even though, tangible asset is not considered to be a sources competitive advantages, may be due to the possibility of imitation and substituted Hall, (1992). To wrap up, intangible asset such as product reputation, organizational culture is not easy to substitute and to provide a competitive advantage for the organizations as well Pearson et al., (2015); Grimaldi et al., (2012). In other words the sustainable competitive advantage requires unique and rare resources that is characterized of its immutability, and hard or unable to get transferred.

In these regards, numerous forms were provided to explain the essential requirement for competitive advantage in organizations. Some frameworks suggested that organizations should be valuable, rare, and imitable so organizations will make sure that their competitive advantage cannot be copied by competitors Henkel et al., (2014). Additionally, competitive advantage could be achieved based on the organizational characteristics and its resources (Rare, Inimitability, Valuable, and non-substitutable). Moreover, the Knowledge-based view focused and described the needed type of

knowledge is needed for organizations in order to gain and achieve competitive advantage. Also, this knowledge is and categorized for two categories the first one is the knowledge processes and the second one is the knowledge nature Grant, (1996). Furthermore, it could be concluded that the sustainable competitive advantage could only be achieved through the effective integration between the needed knowledge and the external opportunity of environment in addition to the internal capabilities Grimaldi et al., (2012).

Nevertheless, IC role providing the needed capabilities and resources that is needed to generate a sustainable competitive advantage for organizations. On the other side, without owning an IC for organizations, the organizations will not be able to generate a competitive advantage or at least compete in a competing environment. Thus, without competitive advantage, organizations will be having less options to stay in the market place Pearson et al., (2015).

On the same direction, previous studies, even though that there have been many studies that approached the relationship between Intellectual Capital and competitive advantage, but a huge amount of studies have been focusing on the impact of the intellectual capital on several business factors, such as the operational and organizational performance Seleim & Bontis, (2013); Sharabati et al., (2010); Hsu & Wang, (2012).

Therefore, this research have been developed based on the assumption the organizations competitive advantage is getting affected by the factors of the intellectual capital (human capital, structural capital and relational capital) Kamukama, (2013).

Previous Studies:

1. Sultan, (2007) study titled: "The Competitive Advantage Of Small and Medium Sized Enterprises: The Case of Jordan's Natural Stone Industry" The main purpose of the research was to discuss the dimensions of competitive advantage of the Small and Medium Sized Enterprises working in processing of the natural stone field in Jordan and determine the dimensions that need improvements in order to improve the level of competitiveness of these Small and Medium Sized Enterprises. Additionally, the study was discussed the impact of the information and communications technology on the competitiveness of these small and medium sized enterprises. Based on the strengths, weaknesses, opportunities and threats (SWOT) analysis, six conclusions are developed in order to improve the competitive advantage of the small and medium sized enterprises working in the natural stone field in Jordan.

2. Sharabati.et.al, (2013) study titled: "The Impact of Intellectual Capital on Jordanian Telecommunication Companies' Business Performance" purpose was to investigate the influence of Intellectual Capital on Jordanian Telecommunication Companies' Business Performance. The study surveyed the managers at Jordanian Telecommunication Companies'. Practical data were used in the empirical analysis collected from 84 managers out of about 500 managers, by means of a questionnaire. The results showed a positive significant effect of Intellectual Capital on Jordanian Telecommunication Companies' business performance. The results also indicated that relational capital is positively and significantly affect Jordanian Telecommunication Companies business performance, while structural capital and human capital do not significantly affect Jordanian Telecommunication Companies.

3. Al- Khalil, (2013) study titled: "**The Effect of Intellectual Capital on Technical Innovation in Banks Operating in Jordan**" The main purpose of this study was to investigate the effect of Intellectual Capital (Human, Structural, and Relational Capitals) on Technical Innovation (Product/ Service Innovation, and Process Innovation) in banks operating in Jordan. This study used a questionnaire based survey which measured the study's variables. This study targeted all banks operating in Jordan. Twenty banks out of Twenty-Six participated, and 171 out of 200 questionnaires were returned, and 163 were valid for analysis, with a response rate of 81.5%. Multiple regression analysis was used to investigate this relationship. The main findings of this study showed
that all intellectual capital dimensions have a statistically significant and positive relationship with technical innovation dimensions. More specifically, structural capital has the strongest effect and human capital has the least effect on technical innovation (product and process innovation).

4. Khan (2014) study titled: "The Effects of Intellectual Capital on Performance in Australian Small and Medium Enterprises (SMEs)" There are limited studies in the literature that investigate the relationship between intellectual capital and Small and Medium Enterprises Performance, and test the mediating effects of organizational innovation. This study examined 2,154 Small and Medium Enterprises of various industries from 2009-2011 by using Business Longitudinal Database (BLD) from the Australian Bureau of Statistics (ABS). The research findings show that human, structural, and relational capital has a positive and significant effect on Small and Medium Enterprises performance when mediated by organizational innovation. The implication of our findings is that managers should simultaneously develop their human capital through training, improve their networking and collaboration, and raise their investment in information technology in order to improve SME performance through innovation.

5. Shehzad, et. al. (2014) study titled: **"The Impact of Intellectual Capital on the Performance of Universities"** aimed to investigate the relationship between intellectual capital on the performance and efficient working of universities in Pakistan the sample targeted 800 student from public and private universities the study used Reliability analysis and Pearsons correlation. The results showed that all the three components show a significant relationship with performance but among the three components, the relation of human capital is more prominent.

6. Mekete, (2015) study titled: "The Effects of Intellectual Capital on Innovations in the Ethiopian Commercial Banks: The Mediating Role of Knowledge Management" the purpose was to investigate the direct and indirect effects of intellectual capital on product, process, and organizational innovations. This study adopts a deduction approach and a quantitative method as the research methodology a questionnaire was distributed to 274 managers of which 229 were collected with a response rate of 84%. The study used exploratory and confirmatory factor analyses

7. Isanzu (2015) study titled: **"The Impact of Intellectual Capital on Financial Performance of Banks in Tanzania"** aimed to investigate the intellectual capital of banks operating in Tanzania for the period of four years from 2010 to 2013. The model was Value Added Intellectual Capital model (VAICTM). The results revealed that Intellectual capital has a positive relationship with financial performance of banks operating in Tanzania.

8. Obeidat, et.al. (2016) study titled: "The Effect of Intellectual Capital on Organizational Performance: The Mediating Role of Knowledge Sharing" The purpose of this study was to study the relationship between intellectual capital, knowledge sharing, and organizational performance. A theoretical model was proposed and empirical testing was completed using a sample of 356 employees working at manufacturing companies in Jordan. The study concludes that intellectual capital is an essential enabler to knowledge sharing in Jordanian manufacturing companies. Additionally, the results demonstrated the important effect of intellectual capital on organizational performance. Moreover, the current study contributed to the existing literature by highlighting the key role of knowledge sharing in both enhancing organizational performance and positively mediating the relationship between intellectual capital and organizational performance.

9. Razak, et. al. (2016) study titled: **"Intellectual Capital Disclosures Practices and Intellectual Capital Performance in Saudi Arabia Financial Institution"** aimed to reports the result of an empirical examination of Saudi Banking sector annual reporting of Intellectual Capital in terms of content and to measure intellectual capital performance of Saudi Banking sector the sample was 12 commercial banks. The study model was efficiency coefficient called VAIC. The findings was that the banks have relatively higher human capital efficiency than structural and capital efficiency.

10. Dumay (2016) study titled: "A critical reflection on the future of intellectual capital: from reporting to disclosure" The purpose of this paper is to offer a personal critical reflection on the future of intellectual capital the results was that the authors need to abandon reporting and instead concentrate on how an organization discloses what "was previously secret or unknown", so that all stakeholders understand how an organization

takes into consideration ethical, social and environmental impacts in keeping with an ecosystems approach to intellectual capital

11. Omerzal and Jurdana (2016) study titled: "The influence of intellectual capital on innovativeness and growth in tourism SMEs: empirical evidence from Slovenia and Croatia" aimed to examine the influence individual intellectual capital components have on the innovativeness and consequent growth of a company the study methods was a classification and measurement method of intellectual capital. The study sample was 359 in the tourism area.

12. Khorasanian (2016) study titled: "the impact of the intellectual capital on financial performance of state banks in Iran" aimed to investigate the impact of the intellectual capital on financial performance of state banks in Iran. The sample was 8 state banks in Iran. The results show that efficiency in the use of intellectual capital positively affects the financial performance of Iranian's state banks. So, it seems that the development of effective the Intellectual Capital is necessary to adapt to a constantly changing environment.

13. Singh and Rao (2016) study titled: "Examining the Effects of Intellectual Capital on Dynamic Capabilities in Emerging Economy Context: Knowledge Management Processes as a Mediator" aimed to investigate the effects of intellectual capital on dynamic capabilities and the mediating role of knowledge management processes. The sample was 679 responses from banking industry in India. The findings was that intellectual capital with its three dimensions has significant effect on dynamic capabilities.

14. Pongpearchan (2016) study titled: "the influence of intellectual capital on firm performance of computer business in Thailand" aimed to investigate the effect of intellectual capital on firm performance of computer business in Thailand. The sample was 925 computer business and was tested by ordinary least squared regression. The result was that organizational capital has an effect on value creation and innovative capability.

15. Luostarinen (2016) study titled: "The Impact of Intellectual Capital Assets and Knowledge Management Practices on Organizational Performance" aimed to understand the interaction of intellectual capital assets and knowledge management practices and their impact on organizational performance. The result was that intellectual capital assets and knowledge management practices have the potential to create value both together and separately. 16. Gunawn and Sanjaya (2016) study titled: "The Influence of Intellectual Capital to The Company Value: The Financial Performance as Intervening Variable" aimed to determine whether the Intellectual Capital will influence the financial performance and company value. The sample was 72 companies. The model that used was the result of value added intellectual coefficient. The results was that intellectual capital has no impact to the financial performance.

17. Melendez, (2017) study titled: "The Impact of Intellectual Capital on Firm's Performance" The purpose was to investigate the components of intellectual capital and their relation with firm performance among presenting the most employed models of intellectual capital, and examining three already existing studies. This paper includes discussions regarding the previously presented empirical studies and a conclusion and limitations of this thesis.

18. Iqbal and Zaib (2017) study titled: "Corporate Governance, Intellectual Capital and Financial Performance of Banks listed in Pakistan Stock Exchange" aimed to examine the effect of Corporate Governance and Intellectual Capital on financial performance in banks listed in Pakistan stock exchange. The sample was dived into two groups Commercial banks and Microfinance & investment banks. The study used a Generalized Least Squared (GLS) model. The results appeared that Corporate Governance has significant impact on intellectual capital in both groups of banks

19. Bodagh and Soleymani (2017) study titled: The Impact OF Intellectual Capital, Organizational Innovation and Social Responsibility on Competitive Advantage (Study of the moderating role of gender and age of insurance companies senior managers) aimed to assessing the effect of intellectual capital, organizational innovation and social responsibility on competitive advantage regarding moderating role of age and gender among top managers of insurance companies. The sample was 160. The method was descriptive correlation. The result of the hypothesis of research denotes positive and meaningful effect on intellectual capital, organizational innovation and social responsibility on the competitive advantage of insurance companies.

20. Chu, et. al. (2017) study titled: **"An Empirical Study of the Impact of Intellectual Capital on Indian IT Industry"** aimed to investigate the relationship, between the intellectual capital components, with the traditional measures of performance of the company. The model used analysis of correlation and linear multiple regression. The results was that the human capital and physical capital both had the major impact on the profitability and productivity of the firms over the period of study.

What Make this Study Different from Previous Studies?

This study considered as one of a little studies that investigated the impact of intellectual capital on Competitive Advantage at Jordanian commercial Banks in Jordan. This study is going to be an expansion in the impact of intellectual capital on competitive Advantage field for all practitioners and researchers. Most of previous researches works were conducted to investigate intellectual capital on many industries and most of them focus on the physical product industries. Relatively few of these studies addressed the impact of intellectual capital on competitive Advantage on services industry. This study is going to specifically explain how the intellectual capital effect on competitive advantage at Jordanian commercial banks. All of previous studies have been executed in different countries. This study will be executed in Jordan.

Chapter Three: Study Methodology:

Study Design:

This study is a descriptive study. It is purpose to investigate the impact of Intellectual Capital on competitive advantage at Jordanian commercial banks. The study started with review of literatures and interview of experts to improve the current measurement model. Then the items which will include in questionnaire will be confirmed based on a panel of judges. Finally the survey will be conducted and the data collected will be verified and coded against SPSS. The variables correlation will be tested -after testing data normality, validity and reliability- and multiples regressions will be conducted to test the effect.

Study Population, Sample and unit of analysis:

Study population and sample: There are 13 commercial banks in Jordan. All of the banks were targeted; therefore, there is no need for sampling. All managers and supervisors at top and middle management are working at Jordanian commercial banks (about 366 managers and supervisors) were targeted for data collection, which negates the need for sampling. The unit of analysis is the managers and supervisors (top and middle management) who are working in these banks.

Data Collection Methods (Tools):

The data that will be used for fulfilling the purposes of the study can be divided into two groups: secondary and primary data. Secondary data: books, journals and previous studies in well-known magazines, articles, thesis and websites. Primary data: the researcher will develop a questionnaire that reflects the study objectives.

The Questionnaire:

Previous studies will be the based for the development of initial items to measure various constructs. The questionnaire was tested and developed based on the hypotheses and the study's model. Then validity of the questionnaire was checked through interviewing experts in banking industry and a panel of judges.

Questionnaire Variables:

The questionnaire will include three parts as follows:

Demographic Dimensions: Bank, Age, gender, experience and education.

Independent Variables (IC): Through literature review, there are three important independent variables: human capital, structural capital and relational capital. Each sub-variable was tested via ten questions. Therefore, the total items were 30.

Dependent Variable (Competitive Advantages): Dependent variable of the study which includes: cost, quality, time and innovation. Each variable was measured by 5 items. Therefore, the total items were 20.

All variable items will be measured by five Likert-scale as follows as following: (Strongly Agree - Agree - Neutral - Disagree - Strongly disagree).

Data Analysis Methods:

All the commercial banks in Jordan were targeted and the questioners were distributed to all managers who are working in the banks and were available at the time of implementing this study. A three hundred questionnaires were distributed to 300 managers and supervisors out of 366. 66 managers were out of reach. Only 290 questionnaires were obtained, and only 281 questionnaires were suitable for analysis, while nine questionnaires were eliminated because of uncompleted or anomalies data. After that, the data were coded against SPSS 20 for further analysis.

Validity Test: Two methods were used to confirm content and face validity: For content validity, multiple sources of data (literature, expert interviews and panel of judges) were used to develop and refine the model and measures. Then, panel of judge were carried out for all items included in the questionnaire to confirm face validity.

Measurement Scale

The presented measurement scale and equation have been used in order to determine the level of importance of each variable, dimension, and question item or element based on the mean value:

Calculate the difference between the highest value and the value of a value (5-1 = 4)Calculate the length of the category (4/5 = 0.8)

The categories are as follows:

- Very low if the arithmetic averages ranged between (1-1.80).
- Low level if the arithmetic averages range from (1.81 to 2.60).
- Moderate level if the calculation averages ranged between (2.61-3.40).
- High level if the arithmetic mean ranges between (3.41-4.20).
- Very high if the arithmetic averages range between (4.21-5.00).

Validity and Reliability of Scales

Validity

Validity is concerned with the accuracy of the research instrument, in addition to determine and confirm whether the instrument is measuring what it is intended to measure or not (Sekaran and Bougie, 2013).

Face Validity:

The questionnaire was distributed to a number of professors in the field to assess its appropriateness in terms of the phrasing of questions, the complexity of language, response scale and redundancy of questions. The procedures were used to ensure that the questionnaire was well designed and the items measured the relevant dimensions. Inappropriate items or questions were revised accordingly. The final form of the questionnaire was translated into Arabic and judged by many academic bilinguals to check the appropriateness of its language. See Appendix (1)

Construct validity: Exploratory Factor analysis

Exploratory Factor Analysis (EFA) was conducted in order to examine the loading of the of the main research variables. At the beginning the Kaiser Meyer Olkin (KMO) Index and Bartlett's Test of Sphericity have been conducted in order to assure that the sample size was sufficient to fulfill the requirement for the EFA, additionally the KMO and Bartlett's indicates the level of variables dependability. See Table (1):

Table (1): Kaiser Meyer Olkin ''KMO'' Index and Bartlett's Test ofSphericity of research main variables

Variables	КМО	Bartlett's test
		of sphericity
Intellectual	758	P < 0.001
Capital	.738	$1 \ge 0.001$
Competitive	810	P < 0.001
Advantage	.019	1 20.001

By reviewing Table (1), the results reveal that the data was sufficient for conducting the EFA and serves the research objectives. Henceforth, tables (2, 3, 4) below show the results of EFA for the Intellectual Capital and the competitive advantage constructs respectively.

Table (2): Factor Analysis for Intellectual Capital and Competitive Advantage (overall scale)

Dimonsion	Intellectual	Competitive		
Dimension	Capital	Advantage		
Factor	Factor 1	Factor 1		
loading	Tactor 1			
D1	.845	.861		
D2	.850	.893		
D3	.830	.869		
D4		.910		

Factor Loadings ≥ 0.400 eigenvalue proportion ≥ 1.000

Dimonsion	Human	Structural	Relational	
Dimension	Capital	Capital	Capital	
Factor	Factor 1	Factor 1	Factor 1	
loading				
Q1	.787	.462	.800	
Q2	.778	.486	.698	
Q3	.825	.741	.752	
Q4	.792	.645	.402	
Q5	.823	.722	.821	
Q6	.722	.857	.442	
Q7	.819	.839	.875	
Q8	.552	.607	.849	
Q9	.642	.586	.802	
Q10	.640	.562	.590	

Table (3): Factor Analysis for Intellectual Capital Dimensions

Factor Loadings ≥ 0.400 eigenvalue proportion ≥ 1.000

T = 1 + 1 = (A) = T = -A =	A 1	M		D'
I Shie (4) Hactor	A naivele tor		Advantage	Limencione
\mathbf{I} abit (\mathbf{T}) , \mathbf{I} actor	Analysis 101	Compensive	Auvantage	Dimensions
	•	1		

Dimension	Cost	Quality	Time	Innovation
Factor	Factor 1	Factor 1	Factor 1	Factor 1
loading				
Q1	.815	.748	.895	.554
Q2	.852	.870	.723	.710
Q3	.516	.806	.472	.724
Q4	.811	.864	.806	.743
Q5	.729	.775	.875	.849

Factor Loadings ≥ 0.400 eigenvalue proportion ≥ 1.000

Based on the results from tables (2, 3, 4) this research can conclude that the dimensions and items, is well constructed and valid. In other words, the results indicate that factor analysis is appropriate for analyzing the data in both instances. Also, eigen values for the resulting factors in the case of both constructs were greater than one, and all items had loadings greater than 0.4 (Hair et al., 1998).

Reliability of Scales

To determine the internal consistency reliability of the elements, "Cronbach's alpha "was used. (George and Mallery, 2003) provided the following categories for reliability: "(\geq .9) Excellent, (\geq .8) Good, (\geq .7) Acceptable, (\geq .6) Questionable, (\geq .5) Poor, and (< .5) Unacceptable". The larger value of Cronbach's alpha coefficient reflects a higher degree of internal consistency. See tables (5, 6, 7):

Table (5): Cronbach's Alpha for Intellectual Capital andCompetitive Advantage (overall scale)

Variable	Intellectual	Competitive
variable	Capital	Advantage
Alpha	.901	.903
No of	3	4
Dimensions	-	

Cronbach's Alpha ≥ 0.600

Dimonsion	Human	Structural	Relational	
Dimension Capital		Capital	Capital	
Alpha	.903	.850	.896	
No of items	10	10	10	

 Table (6): Cronbach's Alpha for Intellectual Capital Dimensions

Cronbach's Alpha ≥ 0.600

Table (7): Cronbach's Alpha for Competitive Advantage Dimensions

Dimension	Cost	Quality	Time	Innovation
Alpha	.798	.871	.768	.761
No of items	5	5	5	5

Cronbach's Alpha ≥ 0.600

Based on the given results in tables (5, 6, 7) the internal consistency values reflect that the research instrument has high internal consistency and high reliability to serve the research goals.

Internal validity:

Correlation matrix were used to determine the level of internal validity of the research variables and dimension. To ensure that items are measuring the same variable. Hence the research constructs have to be correlated with each other. The values, which are closer to 1, means that items, are highly positively correlated with each other. The values, which are closer to -1, means that items, are highly negatively correlated with each other. See table (8):

	НС	SC	RC	Cost	QU	TIME
SC	.796**					
RC	.766**	.770**				
Cost	.745**	.752**	.546**			
QU	.963**	.753**	.754**	.734**		
TIME	.781**	.778**	.614**	.611**	.686**	
INOVATION	.771**	.960**	.742**	.702**	.730**	.775**

Table (8): Correlation Matrix for the Research Dimensions

Table (8) reveals the nature of the relationship between the research dimensions. Hence, it would be noted that the relationships between Intellectual Capital and Competitive advantage dimensions are strong to very strong, where R value varies between the ranges of (0.546 to 0.965). Hence, it could be concluded that the research instrument has high level of internal validity.

Chapter Four: Data Analysis Result

Introduction

This chapter aims at presenting the results of the data collected and analysed for the present purpose of the present research. First, the characteristics of the sample including response rate and demographic characteristics of participating respondents. Second, the descriptive statistics of the main variables of the research is then discussed in detail. Next, the assumptions of regression analysis will be checked. Finally, the findings of testing the research's hypotheses will be addressed.

Characteristics of the Sample

Demographic Characteristics of Participating Respondents:

The main characteristics of the respondents participated in the research are expressed by demographic data filled in the survey instrument in the first section, these characteristics included respondent's Gender, Age, Division, Educational Level, and Experience in addition to the participating banks in Jordan. Tables (9, 10) presents the characteristics of respondents.

Respondent's Characteristics	Frequency	Percentage
Gender		
Male	210	74.7
Female	71	25.3
Total	281	100%
Age		
Less than 25	4	1.4
Bet. 25-35	52	18.5

Table (9): characteristics of respondents

Bet. 36-45	136	48.4
Above 45	89	31.7
Total	281	100%
Educational Level		
High School	0	0
Diploma	10	3.6
Bachelor	104	37.0
Graduate Studies	167	59.4
Total	281	100%
Division		
Sales	57	20.3
Human Resource	15	5.3
Accounting	142	50.5
Customer Service	46	16.4
Others	21	7.5
Total	281	100%
Experience		
Less than 5	4	1.4
Bet. 5-10	37	13.2
Bet. 10-15	131	46.6
Above 15	109	38.8
Total	281	100%

No.	banks	Frequency	Percent
1.	Capital Bank	18	6.4
2.	Arab Banking Corporation	11	3.9
3.	Bank al Etihad	23	8.2
4.	Jordan commercial bank	24	8.5
5.	Arab Jordan Investment Bank	22	7.8
6.	Invest bank	10	3.6
7.	Societe Generale Bank Jordan	17	6.0
8.	Housing Bank For Trade and Finance	35	12.5
9.	Jordan Kuwait Bank	25	8.9
10	Arab bank	28	10.0
11.	Bank of Jordan	18	6.4
12.	Jordan Ahli bank	22	7.8
13.	Cairo Amman bank	28	10.0
	Total	281	100.0

Table (10): Banks Frequency and Percentage.

Descriptive Statistics

Descriptive statistics is a way to get a feel for the data by showing how the respondents have reacted to the items in the questionnaire (Sekaran & Bougie, 2013) this allow us to determine the main trends in the research and identify if any errors or biases occurred, thus to get feel of the data considers the first step before undertaking any further detailed data analysis, the most obvious way to achieve this is by obtaining the central tendency measures expressed by the mean and the dispersion measures (variability) expressed by standard deviation for each variable of Intellectual Capital and Competitive Advantage. Table (11) presents the descriptive statistics for the variables.

 Table (11): Descriptive statistics for the Research Variables and

 Dimensions

Type of	Variable	Mean	Std.	Rank	Level	T-Value	Sig.
Variable			Deviation				
	Intellectual Capital	3.6925	.54244	-	High	114.110	.000
Independent	Human Capital	3.7786	.60613	1	High	95.284	.000
Variables	Structural Capital	3.5651	.51671	3	High	103.298	.000
	Relational Capital	3.7338	.65068	2	High	96.191	.000
	Competitive	3.6336	.56431	-	High	107.939	.000
	Advantage						
Dependent	Time	3.2584	.66870	4	Moderate	81.682	.000
Variable	Cost	3.7929	.71551	2	High	88.861	.000
	Quality	3.8157	.54383	1	High	117.614	.000
	Innovation	3.6676	.62551	3	High	98.288	.000

Tabulated T= 1.960

As the descriptive statistics of means and standard deviations revealed, all of the research variables of Intellectual Capital which includes (Human Capital, Structural Capital, and the Relational Capital) in addition to the Competitive Advantage that includes (Time, Cost, Quality, and Innovation). Through reviewing table (11) it can be extracted that the research has a high relative importance which discerns the positive attitudes of

the respondents toward the extent to which these variables are applied and practiced in the Jordanian Commercial Banks.

For more illustration, the researcher will broaden the statistics to cover all of the items under each construct to show the level of implementation for more in-depth analysis of each dimension of the Dependent Variable Intellectual Capital which includes (Human Capital, Structural Capital, and Relational Capital) subsequently the dependent Competitive Advantage will be addressed as will, the dependent variable includes (Time, Cost, Quality, and Innovation). See tables (12, 13, 14, 15, 16, 17, and 18)

Independent Variable: Intellectual Capital

Human Capital: table (12) shows the mean and standard deviation for Human Capital items:

No	Items of Human	Moon	Std.	Donk	Lovol	т	SIC
110.	Capital	Iviean	deviation	Nalik	Levei	1	516
	bank's managers	3.74	.728	5			
1	competence equal to the				High	86.007	.000
	ideal level						
	bank's managers	3.77	.735	4			
2	continuously learn from				High	85.987	.000
	others						
	bank's managers have	3.81	.899	3			
3	continuous training				High	71.122	.000
	programs						
	bank's managers are	3.52	.986	9			
4	experts in their				High	59.844	.000
	respective area						
	Bank's managers	3.66	.988	7			
5	consistently perform at				High	62.084	.000
	their best						

Table (12): Mean and standard deviation for Human Capital items

6	Bank's managers experience and expertise affect the bank's productivity	4.20	.767	1	High	91.744	.000
7	Bank's managers experience and expertise affect the bank's profitability	3.72	.969	6	High	64.348	.000
8	Bank's managers are creative	3.59	1.003	8	High	60.064	.000
9	Bank's managers bring new ideas	3.44	1.084	10	High	53.195	.000
10	Bank's managers are highly motivated	3.83	.713	2	High	89.907	.000

From (12), shows the Mean, Standard Deviation, and T Values for the Human Capital Items. Furthermore, it could be noticed that the highest mean value is for the item number six (4.20) indicating a high level of importance. While the lowest mean value is for the item number nine with a mean (3.44) which is considered to be high as well.

Structural Capital: table (13) shows the mean and standard deviation for Structural Capital items:

No.	Items of Structural Capital	Mean	Std. deviation	Rank	Level	Т	SIG
1	The bank's culture are supportive	3.99	.598	2	High	112.008	.000
2	The bank has succession training programs	3.52	.907		High	65.006	.000

Table (13): Mean and standard deviation for Structural Capital items

	The bank's	3.26	1.000	8	Moderate	54.641	.000
2	recruitment						
5	programs are						
	comprehensive						
	The bank has a	3.94	.729	3	High	90.492	.000
4	well-developed						
	reward system						
	The bank is	4.13	.787	1	High	87.938	.000
5	considered a						
	research leader						
	The bank	3.50	.922	5	High	63.572	.000
6	continuously						
0	develops work						
	processes						
	The bank	3.48	.934	6	High	62.422	.000
7	procedures support						
	innovation						
	The bank monitors	2.82	1.009	10	Moderate	46.881	.000
o	performance of the						
0	Intellectual						
	Property Rights						
	The bank sets clear	3.09	.913	9	Moderate	56.756	.000
	strategies for						
9	Intellectual						
	Property Rights						
	management						
	The bank utilize	3.84	.956	4	High	70.679	.000
10	the Intellectual						
10	Property Rights to						
	maximum level						

Subsequently, through reviewing table (13) that shows the Mean, Standard Deviation, and T Values for the Structural Capital Items. Furthermore, it could be noticed that the highest mean value is for the item number Five (4.13) indicating a high level of importance. While the lowest mean value is for the item number eight with a mean (2.82) which is considered to be moderate.

Relational Capital: table (14) shows the mean and standard deviation for Relational Capital items:

No.	Items of Relational Capital	Mean	Std. deviation	Rank	Level	Т	SIG
1	The bank is working in joint project with other banks	3.39	.908	8	Moderate	62.599	.000
2	The bank has many alliances	3.70	.766	6	High	81.024	.000
3	The bank is able to add value through its partner	3.25	1.028	10	Moderate	52.909	.000
4	The bank has diverse distribution channels	4.12	.516	2	High	133.913	.000
5	The bank has reduced the time of resolving a customer's problem	3.39	1.077	9	Moderate	52.774	.000

Table (14): Mean and standard deviation for Relational Capital items

	The bank feel	4.14	.618	1	High	112.208	.000
	confident that their						
6	customers will						
	stay with them						
	The bank gets	3.91	.986	4	High	66.585	.000
7	feedback from						
	customers						
	The bank's data	4.02	1.026	3	High	65.626	.000
8	about customers						
	are up to date						
	The bank has	3.89	1.043	5	High	62.482	.000
0	updated						
9	information						
	system in use						
	The bank has	3.53	.902	7	High	65.507	.000
10	relatively						
10	complete data						
	about customers						

Eventually and not lastly, table (14) that shows the Mean, Standard Deviation, and T Values for the Relational Capital Items. Furthermore, it could be noticed that the highest mean value is for the item number Six (4.14) indicating a high level of importance. While the lowest mean value is for the item number three with a mean (3.25) which is considered to be moderate.

Dependent Variable: Competitive Advantage

Cost: table (15) shows the mean and standard deviation for Cost items:

No.	Items of Cost	Mean	Std.	Rank	Level	Т	SIG
			deviation				
	The bank has an	3.59	.845	2	High	71.129	.000
1	efficient operating						
	system						
	The bank reducing	2.93	.892	4	Moderate	55.066	.000
2	servicing cycle						
	time						
	The bank's	2.65	.907	5	Moderate	48.958	.000
2	servicing costs are						
5	lower than its						
	competitors'						
	The bank has	3.39	1.087	3	Moderate	52.293	.000
4	achieved lower						
4	service cost by						
	automation						
	The bank has	3.74	.728	1	High	86.007	.000
5	achieved a cost-						
	leadership position						

 Table (15): Mean and standard deviation for Cost items

Starting by the first dimension of the dependent variable, table (15) that shows the Mean, Standard Deviation, and T Values for the Cost Items. Furthermore, it could be noticed that the highest mean value is for the item number Five (3.75) indicating a high level of importance. While the lowest mean value is for the item number three with a mean (2.65) which is considered to be moderate.

Quality: table (16) shows the mean and standard deviation for Quality items:

No.	Items of Quality	Mean	Std. deviation	Rank	Level	Т	SIG
1	The bank product's	3.77	.735	3	High	85.987	.000
1	quality are important						
	The bank's quality	3.81	.899	2	High	71.122	.000
2	service is superior to the						
	competition						
	The bank quality	3.52	.986	5	High	59.844	.000
3	performance over the						
5	past four years has been						
	high						
	The bank received	3.66	.988	4	High	62.084	.000
4	customer's complements						
	less than last year						
	The bank customers	4.20	.767	1	High	91.744	.000
5	have been well-satisfied						
5	with the quality of						
	services						

Table (16): Mean and standard deviation for Quality items

Consequently, table (16) that shows the Mean, Standard Deviation, and T Values for the Quality Items. Furthermore, it could be noticed that the highest mean value is for the item number Five (4.20) indicating a high level of importance. While the lowest mean value is for the item number Three with a mean (3.52) which is considered to be High as well.

Time: table (17) shows the mean and standard deviation for Time items:

No.	Items of Time	Mean	Std. deviation	Rank	Level	Т	SIG
	The bank consider the	3.96	.680	3	High	85.987	.000
1	speed of service deliver						
	as a priority						
	The bank's service	3.90	.777	4	High	71.122	.000
2	schedule is acceptable to						
	complete on time						
	The bank complete its	3.44	1.084	5	High	59.844	.000
3	services schedule as						
	planned						
	The bank survey show	4.02	.657	1	High	62.084	.000
1	that the customers are						
4	satisfy about service						
	delivery time						
	The bank give their	3.99	.598	2	High	91.744	.000
5	employees continuous						
5	training how to serve						
	customers faster						

Table (17): Mean and standard deviation for Time items

On the same direction, table (17) that shows the Mean, Standard Deviation, and T Values for the Time Items. Furthermore, it could be noticed that the highest mean value is for the item number Four (4.02) indicating a high level of importance. While the lowest mean value is for the item number Three with a mean (3.44) which is considered to be High as well.

Innovation: table (18) shows the mean and standard deviation for Innovation items:

No	Items of	Mean	Iean Std_deviation		Level	т	SIG
110.	Innovation	wittan	Studeviation	Nalik	Level	-	510
	The bank	3.52	.907	3	High	65.006	.000
	introduces						
	service						
1	innovations into						
	the market more						
	than						
	competitors						
	The bank	3.26	1.000	5	Moderate	54.641	.000
	percentage total						
2	sales from						
Ζ	service						
	innovations is						
	up substantially						
	The bank is	3.94	.729	2	High	90.492	.000
	constantly						
3	thinking of the						
5	next generation						
	of banking						
	technology						
	The bank stays	4.13	.787	1	High	87.938	.000
	on the leading						
Δ	edge of new						
-	technology in						
	banking						
	industry						
	The bank has	3.50	.922	4	High	63.572	.000
5	introduced new						
5	information						
	technologies						

 Table (18): Mean and standard deviation for Innovation items

Lastly, table (18) that shows the Mean, Standard Deviation, and T Values for the Quality Items. Furthermore, it could be noticed that the highest mean value is for the item number Four (4.13) indicating a high level of importance. While the lowest mean value is for the item number two with a mean (3.26) which is considered to be Moderate.

Inferential Statistics: Testing Hypotheses

Checking the Assumptions of Regression Analysis (Multicollinearity)

encountering a statistical phenomenon regarding multiple regression models in which two or more independent variables are highly correlated is called "Multicollinearity", this phenomenon become a problem if the purpose of the research is to estimate the individual regression coefficients and the relative importance for each.

There are many statistical tools can be used to detect Multicollinearity, in this research the researcher will check the variance inflation factor "VIF", "VIF" is related measures indicate the degree to which one independent variable is explained by the other independent variable, "VIF" is a measure of how much the variance of the estimated regression coefficients is inflated because of the Collinearity. The greater the "VIF" than (10) then there is a serious problem (Bowerman and O'Connell, 1990), Therefore, the rule of thumb, Multicollinearity becomes a cause for concern, when "VIF" is larger than 10 (Hair et al., 1998). See table (19):

Intellectual Capital	VIF	Tolerance	Durbin- Watson
Human Capital	3.472	.288	
Structural Capital	3.439	.291	1 761
Relational Capital	2.985	.335	1.701
Gender	1.023	.978	

 Table (19): Variance Inflation Factor

Variance Inflation Factor "VIF" ≤ 10 Durbin Watson value = (0 - 4.00)

It is noticed from the table (19) that the "VIF" values for each of the independent variables is less than (10), the results of the Collinearity statistics of "VIF" denote that there is no Multicollinearity within the data, which in turn strengthen the model of the research by avoiding the problem of having interchangeable " β " values between independent variables, and reducing the bias resulting from type II error

Checking the assumption of normality

After confirming validity reliability of the research instrument and the collected data. The normality and linearity tests have been conducted in order to assure that the needed assumptions for the multiple and multiple hierarchal regressions have been achieved. See figures (1, 2):

Figure (1): Test normality

Figure (2): Test of Linearity



The histogram in figure (1) shows that the data were normality distributed, since the residuals do not affect the normal distribution. Also, figure (2) shows that the relationship between independent and dependent variables is linear.

Hypotheses Testing

This part is concerned with the testing of the null hypothesis "denoted by H0" which is assumed to be true but tested for possible rejection. To answer the questions related to the research problem regarding the nature of the relationship between

Intellectual Capital and Competitive Advantage within Jordanian Commercial Banks. Additionally, to detect which Intellectual Capital dimensions has the most influential effect on Competitive Advantage, this research will use simple linear, multiple linear, multiple hierarchical regression analysis to test the research main and sub-hypothesis.

The First Main Hypothesis of the research and the sub-hypotheses related to H0.1 hypothesis:

H.0.1 intellectual capital has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \le 0.05$).

H0.1.1 intellectual capital (human capital) has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \le 0.05$).

H0.1.2 intellectual capital (structural capital) has no impact on competitive advantage in Jordanian commercial banks ($\alpha \leq 0.05$).

H0.1.3 intellectual capital (relational capital) has no impact on competitive advantage in Jordanian commercial banks at ($\alpha \le 0.05$).

Table (21): Simple Linear Regression of Intellectual Capital on Competitive Advantage

Variables	Beta	Sig
(Constant)	.047	.575
Intellectual Capital	.934	.000
R	.934 ^a	
R²	.872	
Adjusted R ²	.871	
F	1898.669	.000 ^b

Variables	Beta	Sig
(Constant)	.249	.000
Human Capital	.585	.000
Structural Capital	.525	.000
Relational Capital	.098	.000
R	.974 ^a	
R²	.949	
Adj. R ²	.949	
F	1720.162	.000 ^b

Advantage

From the table (21), the Simple Linear Regression correlation coefficients (R = .934) indicating that there is a strong positive correlation between Intellectual Capital and Competitive Advantage. This means that the independent variables and dependent variable change in the same direction. The (R) value is a gauge of how well the model predicts the observed data.

The value of (R^2 = .872) indicates that Intellectual Capital can explain (87.2 %) of the variation and change in Competitive Advantage.

The (Adjusted R^2) pertained to the generalizability of the model. It allows generalising the results taken from the respondents to the whole population. It is noticed that the value of (Adjusted R^2) is very close to the value of (R^2), in this case, it is equal to ($R^2 = .872$), If the (Adjusted R^2) is excluded from (R^2), (.872 - .871), the value will be (0.001). This amount of reduction means that if the whole population participates in the

research and the model has been fitted then, there will be (1.00%) less variance in the outcome.

Referring back to the analysis of variation which allows us to statistically test the main null hypothesis, from the table above, it can be concluded that the (F) value for the collected data is (1898.669) which is significant at the level of ($\alpha < 0.05$) (sig. =.000), this result tells us that there is less than a (0.05%) chance that an (F) ratio of this value would happen by chance solely. Therefore, we conclude that there is a statistically significant effect of Intellectual Capital on Competitive Advantage. Thus, this research rejects the first null hypothesis and accept the alternative hypothesis.

Table (22) shows the Multiple regression coefficients, these results will support in detecting the most influential Intellectual Capital (Human Capital, Structural Capital, and Relational Capital) affecting the Competitive Advantage. In this regards another part of multiple regression analysis will be revealed in table (22), it is about testing the effect of each predictor (variable) included in the model if other predictors are held constant on the dependent variable. Standardised (Beta) coefficients (β) and (α) significance levels were used to test the effect.

Table (22) shows the standardised coefficients (β) values for each Intellectual Capital for the three sub dimensions (Human Capital, Structural Capital, and Relational Capital). The β coefficients were statistically significant and relatively high (.585, .525, and .098) respectively for Human Capital, Structural Capital, and the Relational Capital and due to their significant level of (0.000) which is less than (0.05). Henceforth, it can be concluded that the all of the Human Capital, Structural Capital, and the Relational Capital have a statistical significant impact on the Competitive Advantage. Therefore, this research rejects all the null Hypothesis H.0.1.1, H.0.1.2, and H.0.1.3 and accepts the alternate hypothesis.

Table (23): Hierarchal Multiple Regression of Intellectual Capital onCompetitive Advantage due to Demographic Variables

Variables	Beta	Sig												
(Constant)	.047	.575	.054	.534	.074	.456	.041	.704	.151	.236	.183	.168	.186	.176

IC	.934	.000	.934	.000	.933	.000	.933	.000	.937	.000	.937	.000	.937	.000
Bank			007	.762	007	.744	009	.675	007	.733	007	.740	007	.742
Gender					009	.676	011	.627	013	.551	014	.511	014	.509
Age							.016	.461	.017	.429	.016	.473	.016	.473
EDU									035	.104	036	.097	036	.100
Division											019	.389	019	.389
EXP													002	.923
R	.9.	34 ^a	.934 ^b		.934°		.934 ^d		.935 ^e		.935 ^f		.935 ^g	
R²	.872		.8	72	.872		.872		.873		.874		.874	
Adj. R²	.871		.8	71	.871		.870		.871		.871		.871	
F	1898.669		946	.291	629.048		471.145		379.715		316.261		270.102	
Sig.	.00	00 ^b	.00)0°	.00)0 ^d	.000 ^e		$.000^{f}$.000 ^g		$.000^{h}$	

In terms of the strongest effect of Intellectual Capital dimensions on Competitive Advantage, the level of effect of these variables depends on the (β) value, the higher (β) value the higher effect on the dependent variable. Accordingly, it can be concluded that the Human Capital (β = .585) has the strongest impact over the competitive advantage, followed by the Structural Capital (β = .525). On the other side the Relational Capital (β = .098) was found to have the least level of effect over the competitive advantages Table (23) shows the results of the Hierarchal Multiple Regression correlation coefficients. The results suggest that there is positive relationship between Intellectual Capital and Competitive Advantage in the presence of the demographic variables (Bank, Age, Gender, Education, Division, and Experience) the R value = .934^a. 934^b. .934^c. .935^e. .935^f. .935^g</sup>. Respectively. On the same direction, the value of R² provided a similar evidence (R2 = .872, .872, .872, .873, .874, and .874) indicating that Intellectual Capital can explain (87.2 % - 87.4) of the variation and change in Competitive Advantage.

Referring back to the analysis of variation, from the table above, it can be concluded that the (F) value for the collected data have significantly decreased in the

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presence of the demographic variables (Age, Gender, Education, Division, and Experience) is F = 1898.669, 946.291, 629.048, 471.145, 379.715, 316.261, and 270.102 which are significant at the level of ($\alpha < 0.05$) (sig. =.000), this result tells us that there is less than a (0.05%) chance that an (F) ratio of this value would happen by chance solely. Furthermore, the β values of the effect size of the Intellectual Capital on the Competitive Advantage maintained its significant effect (β = .934 - .937) at ($\alpha \le 0.05$). Meanwhile, none of the demographic variables have a significant effect on the competitive advantage or even affected the significance level of the Intellectual Capital effect on competitive advantage. Henceforth, it could be concluded that the Demographic factors does not have a role in the relationship between Intellectual Capital and Competitive advantage. Thus, this research rejects the second null hypothesis (H.0.2:) and its sub hypotheses (H.0.2.1, H.0.2.2, H.0.2.3, H.0.2.4, and H.0.2.5)

Table (24): Results of testing the Main and Sub-hypotheses of the research

Null Hypotheses	Result				
H.0.1 intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks at ($\alpha \leq 0.05$).	Reject				
H0.1.1 intellectual capital (human capital) has no impact on	Paiaat				
competitive advantage in Jordanian commercial banks at ($\alpha \leq 0.05$).	Reject				
H0.1.2 intellectual capital (structural capital) has no impact on	Paiaat				
competitive advantage in Jordanian commercial banks ($\alpha \leq 0.05$).	Reject				
H0.1.3 intellectual capital (relational capital) has no impact on	Deject				
competitive advantage in Jordanian commercial banks at ($\alpha \leq 0.05$).	Reject				
H.0.2: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to demographic information at	Accept				
(α≤0.05).					
H.0.2.1: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Bank at ($\alpha \leq 0.05$).					
H.0.2.2: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Gender at ($\alpha \leq 0.05$).					
H.0.2.3: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Age at ($\alpha \leq 0.05$).					
H.0.2.4: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Education at ($\alpha \leq 0.05$).					
H.0.2.5: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Division at ($\alpha \leq 0.05$).					
H.0.2.6: intellectual capital has no impact on competitive advantage in					
Jordanian commercial banks due to Experience at ($\alpha \leq 0.05$).					

Chapter Five: Results Discussions, Conclusions, and Recommendations

Results Discussions:

Results of this study show that there is an agreement on high implementation of Intellectual Capital in Jordanian Commercial Banks in Jordan and there is an agreement on high implementation of each Intellectual Capital sub-variables. This indicates that the managers working at Jordanian Commercial Banks are aware of the importance of the implantation of the Intellectual Capital variables. Results also show that the Human Capital has the highest implementation, followed by Structural, then Relational, respectively. Inaddition, results shows that there is an agreement on high implementation of the competitive advantages dimensions and there is an agreement on high implementation of each competitive advantages variable among the Jordanian Commercial Banks in Jordan. This indicates that the managers working at Jordanian Commercial Banks are aware of the importance of the implantation of the competitive advantages dimensions. The results also indicate that the relationships among Intellectual Capital sub variables are strong to very strong; the relationships between competitive advantages dimensions are strong to very strong. Moreover, the relationships between each Intellectual Capital sub-variables and competitive advantages are strong to very strong, which means that the correlation between the intellectual capital and total competitive advantages is very strong. This result is supported by the following previous studies: Al- Khalil, (2013), shehzad (2014), Khan (2014), Obeidat, et.al. (2016). The simple linear regressions analysis shows that the intellectual capital affects the competitive advantages. In addition, the multiple regression analysis that all of intellectual capital dimensions have significant positive effect on competitive advantages on Jordanian Commercial Banks in Jordan. Meanwhile, the highest impact was for the human capital, followed by the structural capital, and eventually the relational capital. However, In addition, the results show that the human capital has the highest effect, followed by structural, then relational.

Yaseen .et.al. (2016) found that the relational capital and the structural capital have positive impact on competitive advantage. Shehzad, et. al. (2014) found that all the three

components show a significant relationship with performance but among the three components, the relation of human capital is more prominent so this study agreed with our study. Razak, et. al. (2016) the findings was that the banks have relatively higher human capital efficiency than structural and relational efficiency. Chu, et. al. (2017) The results was that the human capital and physical capital both had the major impact on the profitability and productivity of the firms over the period of study.

Conclusions:

The result shows that there is a significant implementation of Intellectual Capital among Jordanian Commercial Banks in Jordan. This indicates that the managers and supervisors working at Jordanian Commercial Banks in Jordan are aware of the importance of the implantation of Intellectual Capital variables. The results also show that the relationships among Intellectual Capital sub-variables are strong to very strong; the relationships between competitive advantages dimensions are strong to very strong. Moreover, the relationships between each Intellectual Capital sub-variables with competitive advantages together are strong to very strong which means that the relationship between the Intellectual Capital and total competitive advantages dimensions is very strong.

Finally, the multiple regressions analysis shows that the Intellectual Capital subvariable together affect the competitive advantages.

Therefore, all of the sub-variable of Intellectual Capital affects the competitive advantages. The Human Capital has the highest effect, followed by Structural, then relational.
Recommendations:

Based on the current study results, the study presents the following recommendations for Jordanian Commercial Banks in Jordan:

1. The study shows that the Human Capital is the important factor of intellectual capital while it is the last one in the degree of implementation list in Jordanian Commercial Banks. Therefore, the banks are advised to give human capital more attention according to the value of its implementation

2. The current study recommends the banks to continue using intellectual capital as a tool and technique to gain and maintain competitive advantages.

3. The study recommends the banks to implement human capital, structural and relational together.

For Academics and future research, the study recommends the following:

4. The study is directed to Banking industry. Further studies are needed to investigate whether the study findings can be generalized to other industries.

5. The study recommends adding strategic planning or more to Intellectual Capital variables in further studies.

6. Finally, this study was conducted on Jordan banks, which makes generalizing its findings to other countries questionable. Therefore, similar studies in different countries are recommended to be carried out especially in Arabs countries.

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Appendices:

Appendix 1: Thesis Questionnaire

Questionnaire of the impact of intellectual capital practices on competitive advantages at Jordanian commercial banks.

Dear Sir

My Best Regards:

The researcher is conducting a study titled "The impact of intellectual capital on Competitive Advantages at Jordanian Commercial Banks".

Therefore, the researcher is asking you to complete the attached questionnaire (50 questions) in order to be able to achieve the study objectives.

Note: All information and opinions you provide will be treated confidently, and will not be disclosed to any person or party except for the academic purposes.

We appreciate your participation in this research. If you have any question or comment, please call (0790821892).

Thank you for your fruitful cooperation.

Researcher: Abdul-kareem Ahmad Arabiyat Supervisor: Dr. Abdel-Baset Ibraheem Hasouneh Dear Participant:

The purpose of this master thesis is to study "**The Impact of Intellectual Capital on Competitive Advantage at Jordanian commercial Banks**.

This research contains 50 questions, which may take 15 minutes to answer it; therefore, we will be thankful to you for devoting your valuable time to answer it.

Again, we appreciate your participation in this research. Please, if you have any question or comment, please call (0790821892).

Thank you for your fruitful cooperation.

Researcher: Abdul-kareem Ahmad Arabiyat Supervisor: Dr. Abdul-Baset Ibrahim Hassouneh

Questionnaire

Part one: Demographic information

Bank Name:

Gender:	□Male	□Fema	le	
Age (years):	\Box less than 25	□ 25 – 35	□36 - 45	□above 45
Education:	□High School	□Diploma	□Bachelor	□Master or higher
Division:	les □HR □.	Accounting	□Customers se	ervice DOthers
Experience:	□Less than 5	□ 5 – 10	□ 10 – 15	□Above 15

Part two: The following 50 question tap into your perception about the intellectual capital variables and competitive advantages variables.

[1 = strongly not agree, 2 = not agree, 3 = neutral, 4 = agree, 5 = strongly agree] based on how you feel about the statement.

Intellectual Capital

Human Capital:

1	hank's managers competence equal to the ideal level	1	2	2	1	5
1.	bank's managers competence equal to the ideal level	1	Z	3	4	3
2.	bank's managers continuously learn from others	1	2	3	4	5
3.	bank's managers have continuous training programs	1	2	3	4	5
4.	bank's managers are experts in their respective area	1	2	3	4	5
5.	Bank's managers consistently perform at their best	1	2	3	4	5
6.	Bank's managers experience and expertise affect the bank's productivity	1	2	3	4	5
7.	Bank's managers experience and expertise affect the bank's profitability	1	2	3	4	5
8.	Bank's managers are creative	1	2	3	4	5
9.	Bank's managers bring new ideas	1	2	3	4	5
10.	Bank's managers are highly motivated	1	2	3	4	5

Structural capital:

11.	The bank's culture are supportive	1	2	3	4	5
12.	The bank has succession training programs	1	2	3	4	5
13.	The bank's recruitment programs are comprehensive	1	2	3	4	5
14.	The bank has a well-developed reward system	1	2	3	4	5
15.	The bank is considered a research leader	1	2	3	4	5
16.	The bank continuously develops work processes	1	2	3	4	5
17.	The bank procedures support innovation	1	2	3	4	5
18.	The bank monitors performance of the Intellectual Property Rights	1	2	3	4	5
19.	The bank sets clear strategies for Intellectual Property Rights management	1	2	3	4	5
20.	The bank utilize the Intellectual Property Rights to maximum level	1	2	3	4	5

Relational Capital:

21.	The bank is working in joint project with other banks	1	2	3	4	5
22.	The bank has many alliances	1	2	3	4	5
23.	The bank is able to add value through its partner	1	2	3	4	5
24.	The bank has diverse distribution channels	1	2	3	4	5
25.	The bank has reduced the time of resolving a customer's problem	1	2	3	4	5
26.	The bank feel confident that their customers will stay with them	1	2	3	4	5
27.	The bank gets feedback from customers	1	2	3	4	5
28.	The bank's data about customers are up to date	1	2	3	4	5
29.	The bank has updated information system in use	1	2	3	4	5
30.	The bank has relatively complete data about customers	1	2	3	4	5

Competitive Advantages

(Cost					
31.	The bank has an efficient operating system	1	2	3	4	5
32.	The bank reducing servicing cycle time	1	2	3	4	5
33.	The bank's servicing costs are lower than its competitors'	1	2	3	4	5
34.	The bank has achieved lower service cost by automation	1	2	3	4	5
35.	The bank has achieved a cost-leadership position	1	2	3	4	5

Quality

36.	The bank product's quality are important	1	2	3	4	5
37.	The bank's quality service is superior to the competition	1	2	3	4	5
38.	The bank quality performance over the past four years has been high	1	2	3	4	5
39.	The bank received customer's complements less than last year	1	2	3	4	5
40.	The bank customers have been well-satisfied with the quality of services	1	2	3	4	5

Time/Speed

41.	The bank consider the speed of service deliver as a priority	1	2	3	4	5
42.	42. The bank's service schedule is acceptable to complete on time		2	3	4	5
43.	The bank complete its services schedule as planned	1	2	3	4	5
44.	The bank survey show that the customers are satisfy about service delivery time	1	2	3	4	5
45.	The bank give their employees continuous training how to serve customers	1	2	3	1	5
	faster	1	2	5	+	5

Innovation

46.	The bank introduces service innovations into the market more than competitors	1	2	3	4	5
47.	The bank percentage total sales from service innovations is up substantially	1	2	3	4	5
48.	The bank is constantly thinking of the next generation of banking technology	1	2	3	4	5
49.	The bank stays on the leading edge of new technology in banking industry	1	2	3	4	5
50.	The bank has introduced new information technologies	1	2	3	4	5

الجزء الاول: المعلومات الديمو غرافية

اسم البنك:

الجزء الثاني: الاستبيان

هنالك 50 سؤال متعلقة متعلقة بر أس المال الفكري و علاقته بالميزة التنافسية حيث

(1 ترمز الى غير موافق بقوة, 2 ترمز الى غير موافق, 3 ترمز الى محايد, 4 ترمز الى محايد, 4 ترمز الى محايد, 4 ترمز الى موافق بشدة)

رأس امال الفكري

رأس المال البشري

54321	يعتبر البنك ان العاملين لديه جزء هام وثمين	1
54321	يحرص البنك على تعيين العاملين الأكفاء	2
54321	يهتم البنك باكتشاف وتشجيع العاملين المتميزين	3
54321	يتوفر لدى العاملين في المهارات اللازمة لاداء مهامهم	4
54321	يشجع البنك اساليب العمل الجماعي	5
54321	ينفذ البنك دورات تدريبية مستمرة للمدراء	6
54321	ان المدراء لديهم الحافز المطلوب لاداء اعمالهم	7
54321	ان تعليم وتعلم المدراء يؤثلر على انتاجية البنك	8
54321	ان المؤهلات لدى المدر اء تصل للمستوى المطلوب لاداء مهامهم	9
54321	ان المدراء عادة يبتكرون افكار جديدة	10

رأس المال الهيكلي

54321	ان ثقافة وظروف عمل البنك مريحة	11
54321	ان البنك لديه برامج تدريب ناجحة	12
54321	ان البنك لديه برامج توظيف شاملة	13

54321	ان البنك لديه نظام حوافز وجوائزمتطور	14
54321	ان البنك يعتبر رائد في البحث العلمي	15
54321	ان البنك يطور العمليات بشكل مستمر	16
54321	ان الانظمة والاجرائات في البنك تدعم الابداع	17
54321	ان البنك ير اقب اداء ملفات حقوق الملكية	18
54321	ان البنك يضع استر اتيجيات واجر ائات واضحة لادارة حقوق الملكية	19
54321	ان البنك يستخدم ويستفيد من حقوق الملكية الفكرية الي اقصى حد ممكن	20

رأس المال العلاقاتي

54321	ان البنك يعمل حاليا على مشاريع مشتركة مع العديد من البنوك	21
54321	ان البنك لديه الكثير من التحالفات المتنوعة	22
54321	ان البنك قادر على التعلم واضافة له من خلال التحالفات	23
54321	ان البنك لديه قنوات توزيع متنوعة	24
54321	ان البنك قد خفض بشكل كبير الوقت اللازم لحل مشكلة العملاء	25
54321	ان البنك بمدر ائه لديهم الثقة بان العملاء سيستمرون بالتعامل مع البنك	26
54321	ان البنك يسعى لارضاء رغبات وحاجات العملاء	27
54321	ان البنك يعمل على تجديد بيانات العملاء بشكل مستمر	28

54321	ان البنك لديه نظام معلومات مفيد ومحدث	29
54321	ان البنك لديه معلوات وافية حول عملائه	30

الميزة التنافسية

الكلفة

54321	ان البنك لديه نظان تشغيلي ذو كفاءة عالية	31
54321	ان البنك خفض الوقت اللازم لأداء الخدمة	32
54321	ان البنك لديه تكلفة خدمات بنكية اقل من منافسيه	33
54321	ان البنك حقق انخفاض في كلفة الخدمات المقدمة من خلال نظام	34
	التشغيل الألي	
54321	ان البنك قد حقق المركز القيادي في التكلفة	35

الجودة

5 4 3 2 1	ان جودة مخرجات البنك عامل مهم	36
	ا بو بو سر مربو بر مر مربو بو بو	
54321	ان جودة الخدمات البنكية المقدمة متفوقة على المنافسين	37
54321	ان جودة الإداء البنكي قد ارتفعت خلال السنوات الإربعة	38
0.021	ال جود ، 2 - ، ج ، جسي _ ، ر حول ، سدر، _ ، 2 ر بده	•••
	7. 1 1	
	الماصية	
54321	ان البنك قد تلقى شكاوي من العملاء بنسبة اقل من	39
	السنوات السابقة	
	-	

54321	ان البنك قد حقق رضى عملائه على جودة الخدمات	40
	المقدمة	

الوقت

54321	ان السرعة في تقديم الخدمات للعملاء من اولويات عمل البنك	41
54321	ان خدمات البنك يجب ان تقدم في الوقت المحدد	42
5 4 3 2 1	ان البنك يقدم خدماته ضمن مخطط سير عملها	43
54321	ان الدراسة البنكية اظهرت رضا العملاء على الخدمات المقدمة	44
54321	ان البنك يقد لموظفيه برامج تدريبية مستمرة عن كيفية تقديم الخدمة باسرع وقت	45

الابداع

54321	ان البنك يقدم خدمات مبتكرة في السوق اكثر من منافسيه	46
54321	ان نسبة مبيعات البنك من الخدمات المبتكرة مرتفعة بصورة ملحوظة	47
54321	ان البنك مستمر بالتفكير بالجيل القادم للتكنولوجيا البنكية	48
54321	ان البنك في صدارة تقديم التكنولوجيا الحديثة المتعلقة بعمل البنوك	49
54321	ان البنك قد معلومات تكنولجيا حديثة ضمن قطاع البنوك	50

No.	Name	University
1	Dr.abdul-azeez sharabati	Middle East University
2	Dr.Samer Dahiyat	The University of Jordan
3	Dr.Husam Freihat	Applied Science University
4	Dr.Bader Obiedat	The University of Jordan
5	Dr.Abdul-Salam Arabiyat	Al-Balqa Applied University
6	Dr.Basel Abo Foudeh	Middle East University
7	Dr.Ahmad Harasis	Middle East University

\Appendix 2: Panel of Referees Committee:

Appendix 3: Original Data Analysis Report

Reliability:

Human Capital

Cronbach's	
Alpha	N of Items
.903	10

Structural Capital

Cronbach's	
Alpha	N of Items
.814	10

Relational Capital

Cronbach's	
Alpha	N of Items
.896	10

cost	
Cronbach's	
Alpha	N of Items
.798	5

quality		
Cronbach's		
Alpha	N of Items	
.871	5	

Cronbach's	
Alpha	N of Items
.657	5

Innovation

Cronbach's	
Alpha	N of Items
.761	5

Intellectual Capital

Cronbach's	
Alpha	N of Items
.911	3

Competitive advantage

Cronbach's Alpha N of Items .903 4

Demographics:

	Bank						
					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
Valid	Capital Bank	18	6.4	6.4	6.4		
vand	Arab Banking Corporation	11	3.9	3.9	10.3		
	Bank al Etihad	23	8.2	8.2	18.5		
	Jordan commercial bank	24	8.5	8.5	27.0		

Arab Jordan Investment Bank	22	7.8	7.8	34.9
Invest bank	10	3.6	3.6	38.4
Societe Generale Bank Jordan	17	6.0	6.0	44.5
Housing Bank For Trade and Finance	35	12.5	12.5	56.9
Jordan Kuwait Bank	25	8.9	8.9	65.8
Arab bank	28	10.0	10.0	75.8
Bank of Jordan	18	6.4	6.4	82.2
Jordan Ahli bank	22	7.8	7.8	90.0
Cairo Amman bank	28	10.0	10.0	100.0
Total	281	100.0	100.0	

Gender							
Valid					Cumulative		
		Frequency	Percent	Percent	Percent		
	Male	210	74.7	74.7	74.7		
valid	Female	71	25.3	25.3	100.0		
	Total	281	100.0	100.0			

	Age						
				Valid	Cumulative		
		Frequency	Percent	Percent	Percent		
	Less than 25	4	1.4	1.4	1.4		
valid	25 - 35	52	18.5	18.5	19.9		
	36 - 45	136	48.4	48.4	68.3		
	more than 45	89	31.7	31.7	100.0		
	Total	281	100.0	100.0			

		EDU					
				Valid	Cumulative		
		Frequency	Percent	Percent	Percent		
	Diploma	10	3.6	3.6	3.6		
valid	BSc	104	37.0	37.0	40.6		
	Graduate	167	59.4	59.4	100.0		
	Studies						
	Total	281	100.0	100.0			

	Division						
					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
	Sales	57	20.3	20.3	20.3		
valid	HR	15	5.3	5.3	25.6		
	Accounting	142	50.5	50.5	76.2		
	Customer Service	46	16.4	16.4	92.5		
	Other	21	7.5	7.5	100.0		
	Total	281	100.0	100.0			

EXP
LAI

					Cumulative
		Frequency	Percent	Valid Percent	Percent
	Less than 5 years	4	1.4	1.4	1.4
valid	5 - 10 years	37	13.2	13.2	14.6
	10 - 15	131	46.6	46.6	61.2
	more than 15	109	38.8	38.8	100.0
	Total	281	100.0	100.0	

Descriptive Analysis:

Means, Standard deviation and t-value

One-Sample Statistics						
			Std.	Std. Error		
	Ν	Mean	Deviation	Mean		
HC1	281	3.74	.728	.043		
HC2	281	3.77	.735	.044		
HC3	281	3.81	.899	.054		
HC4	281	3.52	.986	.059		
HC5	281	3.66	.988	.059		
HC6	281	4.20	.767	.046		
HC7	281	3.72	.969	.058		
HC8	281	3.59	1.003	.060		
HC9	281	3.44	1.084	.065		
HC10	281	3.83	.713	.043		
SC1	281	3.99	.598	.036		
SC2	281	3.52	.907	.054		
SC3	281	3.26	1.000	.060		
SC4	281	3.94	.729	.043		
SC5	281	4.13	.787	.047		
SC6	281	3.50	.922	.055		
SC7	281	3.48	.934	.056		
SC8	281	2.82	1.009	.060		
SC9	281	3.09	.913	.054		
SC10	281	4.00	.949	.057		
RC1	281	3.39	.908	.054		
RC2	281	3.70	.766	.046		
RC3	281	3.25	1.028	.061		
RC4	281	4.12	.516	.031		
RC5	281	3.39	1.077	.064		
RC6	281	4.14	.618	.037		
RC7	281	3.91	.986	.059		
RC8	281	4.02	1.026	.061		
RC9	281	3.89	1.043	.062		
RC10	281	3.53	.902	.054		
Cost1	281	3.59	.845	.050		
Cost2	281	2.93	.892	.053		
Cost3	281	2.65	.907	.054		
Cost4	281	3.39	1.087	.065		
Cost5	281	3.74	.728	.043		

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Qu1	281	3.77	.735	.044
Qu2	281	3.81	.899	.054
Qu3	281	3.52	.986	.059
Qu4	281	3.66	.988	.059
Qu5	281	4.20	.767	.046
Ti1	281	3.72	.969	.058
Ti2	281	3.90	.777	.046
Ti3	281	3.44	1.084	.065
Ti4	281	4.02	.657	.039
Ti5	281	3.99	.598	.036
Inn1	281	3.52	.907	.054
Inn2	281	3.26	1.000	.060
Inn3	281	3.94	.729	.043
Inn4	281	4.13	.787	.047
Inn5	281	3.50	.922	.055
HC	281	3.7281	.65587	.03913
SC	281	3.5562	.57710	.03443
RC	281	3.7338	.65068	.03882
Cost	281	3.2584	.66870	.03989
QU	281	3.7929	.71551	.04268
TIME	281	3.8157	.54383	.03244
INNOVATI	281	3.6676	.62551	.03732
ON				
INT	281	3.6925	.54244	.03236
CA	281	3.6336	.56431	.03366

One-Sample Test Test Value

$1 \in \mathbb{N}$ value – U	Test	Val	lue	=	0
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				Mean	95% Confidence Interval or the Difference	
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
HC1	86.007	280	.000	3.737	3.65	3.82
HC2	85.987	280	.000	3.772	3.69	3.86
HC3	71.122	280	.000	3.815	3.71	3.92
HC4	59.844	280	.000	3.520	3.40	3.64

HC5	62.084	280	.000	3.658	3.54	3.77
HC6	91.744	280	.000	4.199	4.11	4.29
HC7	64.348	280	.000	3.719	3.61	3.83
HC8	60.064	280	.000	3.594	3.48	3.71
HC9	53.195	280	.000	3.441	3.31	3.57
HC10	89.907	280	.000	3.826	3.74	3.91
SC1	112.008	280	.000	3.993	3.92	4.06
SC2	65.006	280	.000	3.516	3.41	3.62
SC3	54.641	280	.000	3.260	3.14	3.38
SC4	90.492	280	.000	3.936	3.85	4.02
SC5	87.938	280	.000	4.128	4.04	4.22
SC6	63.572	280	.000	3.498	3.39	3.61
SC7	62.422	280	.000	3.477	3.37	3.59
SC8	46.881	280	.000	2.822	2.70	2.94
SC9	56.756	280	.000	3.093	2.99	3.20
SC10	70.679	280	.000	4.000	3.89	4.11
RC1	62.599	280	.000	3.391	3.28	3.50
RC2	81.024	280	.000	3.705	3.61	3.79
RC3	52.909	280	.000	3.246	3.12	3.37
RC4	133.913	280	.000	4.125	4.06	4.19
RC5	52.774	280	.000	3.391	3.26	3.52
RC6	112.208	280	.000	4.135	4.06	4.21
RC7	66.585	280	.000	3.915	3.80	4.03
RC8	65.626	280	.000	4.018	3.90	4.14
RC9	62.482	280	.000	3.886	3.76	4.01
RC10	65.507	280	.000	3.527	3.42	3.63
Cost1	71.129	280	.000	3.587	3.49	3.69
Cost2	55.066	280	.000	2.929	2.82	3.03
Cost3	48.958	280	.000	2.648	2.54	2.75
Cost4	52.293	280	.000	3.391	3.26	3.52
Cost5	86.007	280	.000	3.737	3.65	3.82
Qu1	85.987	280	.000	3.772	3.69	3.86
Qu2	71.122	280	.000	3.815	3.71	3.92
Qu3	59.844	280	.000	3.520	3.40	3.64
Qu4	62.084	280	.000	3.658	3.54	3.77
Qu5	91.744	280	.000	4.199	4.11	4.29
Ti1	64.348	280	.000	3.719	3.61	3.83
Ti2	84.105	280	.000	3.900	3.81	3.99

Ti3	53.195	280	.000	3.441	3.31	3.57
Ti4	102.709	280	.000	4.025	3.95	4.10
Ti5	112.008	280	.000	3.993	3.92	4.06
Inn1	65.006	280	.000	3.516	3.41	3.62
Inn2	54.641	280	.000	3.260	3.14	3.38
Inn3	90.492	280	.000	3.936	3.85	4.02
Inn4	87.938	280	.000	4.128	4.04	4.22
Inn5	63.572	280	.000	3.498	3.39	3.61
HC	95.284	280	.000	3.72811	3.6511	3.8051
SC	103.298	280	.000	3.55623	3.4885	3.6240
RC	96.191	280	.000	3.73381	3.6574	3.8102
Cost	81.682	280	.000	3.25836	3.1798	3.3369
QU	88.861	280	.000	3.79288	3.7089	3.8769
TIME	117.614	280	.000	3.81566	3.7518	3.8795
INNOVATI	98.288	280	.000	3.66762	3.5942	3.7411
ON						
INT	114.110	280	.000	3.69253	3.6288	3.7562
CA	107.939	280	.000	3.63363	3.5674	3.6999

					Change Statistics				
			Adjusted R	Std. Error of	R Square				Sig. F
Model	R	R Square	Square	the Estimate	Change	F Change	df1	df2	Change
1	.934 ^a	.872	.871	.20235	.872	1898.669	1	279	.000
2	.934 ^b	.872	.871	.20268	.000	.092	1	278	.762
3	.934 ^c	.872	.871	.20298	.000	.175	1	277	.676
4	.934 ^d	.872	.870	.20315	.000	.544	1	276	.461
5	.935 ^e	.873	.871	.20254	.001	2.660	1	275	.104
6	.935 ^f	.874	.871	.20263	.000	.746	1	274	.389
7	.935 ^g	.874	.871	.20300	.000	.009	1	273	.923

Model Summary^h

a. Predictors: (Constant), INT

b. Predictors: (Constant), INT, Bank

c. Predictors: (Constant), INT, Bank, Gender

d. Predictors: (Constant), INT, Bank, Gender, Age

e. Predictors: (Constant), INT, Bank, Gender, Age, EDU

f. Predictors: (Constant), INT, Bank, Gender, Age, EDU, Division

g. Predictors: (Constant), INT, Bank, Gender, Age, EDU, Division, EXP

h. Dependent Variable: CA

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	77.741	1	77.741	1898.669	.000 ^b
	Residual	11.424	279	.041		
	Total	89.165	280			
2	Regression	77.745	2	38.872	946.291	.000 ^c
	Residual	11.420	278	.041		
	Total	89.165	280			
3	Regression	77.752	3	25.917	629.048	.000 ^d
	Residual	11.413	277	.041		
	Total	89.165	280			
4	Regression	77.774	4	19.444	471.145	.000 ^e
	Residual	11.390	276	.041		
	Total	89.165	280			
5	Regression	77.884	5	15.577	379.715	.000 ^f
	Residual	11.281	275	.041		

ANOVA^a

	Total	89.165	280			
6	Regression	77.914	6	12.986	316.261	.000 ^g
	Residual	11.250	274	.041		
	Total	89.165	280			
7	Regression	77.915	7	11.131	270.102	.000 ^h
	Residual	11.250	273	.041		
	Total	89.165	280			

a. Dependent Variable: CA

b. Predictors: (Constant), INT

c. Predictors: (Constant), INT, Bank

d. Predictors: (Constant), INT, Bank, Gender

e. Predictors: (Constant), INT, Bank, Gender, Age

f. Predictors: (Constant), INT, Bank, Gender, Age, EDU

g. Predictors: (Constant), INT, Bank, Gender, Age, EDU, Division

h. Predictors: (Constant), INT, Bank, Gender, Age, EDU, Division, EXP

			Coefficients	a S		
Unstandardized				Standardized		
		Coeffi	cients	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.047	.083		.562	.575
	INT	.971	.022	.934	43.574	.000
2	(Constant)	.054	.087		.622	.534
	INT	.971	.022	.934	43.503	.000
	Bank	001	.003	007	303	.762
3	(Constant)	.074	.099		.746	.456
	INT	.970	.023	.933	43.051	.000
	Bank	001	.003	007	327	.744
	Gender	012	.028	009	419	.676
4	(Constant)	.041	.108		.381	.704
	INT	.970	.023	.933	43.006	.000
	Bank	001	.003	009	420	.675
	Gender	014	.028	011	486	.627
	Age	.012	.017	.016	.738	.461
5	(Constant)	.151	.127		1.188	.236
	INT	.974	.023	.937	43.045	.000
	Bank	001	.003	007	341	.733
	Gender	017	.028	013	597	.551
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	Age	.013	.017	.017	.792	.429
	EDU	035	.022	035	-1.631	.104
6	(Constant)	.183	.132		1.382	.168
	INT	.975	.023	.937	43.026	.000
	Bank	001	.003	007	333	.740
	Gender	019	.028	014	659	.511
	Age	.012	.017	.016	.719	.473
	EDU	036	.022	036	-1.665	.097
	Division	009	.011	019	864	.389
7	(Constant)	.186	.137		1.357	.176
	INT	.975	.023	.937	42.939	.000
	Bank	001	.003	007	329	.742
	Gender	019	.028	014	661	.509
	Age	.012	.017	.016	.719	.473
	EDU	036	.022	036	-1.650	.100
	Division	009	.011	019	863	.389
	EXP	002	.017	002	096	.923

a. Dependent Variable: CA

	Model Summary					
			Adjusted R	Std. Error of		
Model	R	R Square	Square	the Estimate		
1	.934 ^a	.872	.871	.20235		

a. Predictors: (Constant), INT

ANOVA^a

		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	77.741	1	77.741	1898.669	.000 ^b
	Residual	11.424	279	.041		
	Total	89.165	280			

a. Dependent Variable: CA

b. Predictors: (Constant), INT

Coefficients ^a						
		Unstand	Unstandardized			
		Coeffi	Coefficients			
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.047	.083		.562	.575
	INT	.971	.022	.934	43.574	.000

a. Dependent Variable: CA

		Model S	ummary	
	Std. Error of			
Model	R	R Square	Square	the Estimate
1	.974 ^a	.949	.949	.12806
		~		

a. Predictors: (Constant), RC, HC, SC

ANOVA ^a	
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		Sum of		Mean		
Model		Squares	df	Square	F	Sig.
1	Regression	84.622	3	28.207	1720.162	.000 ^b
	Residual	4.542	277	.016		
	Total	89.165	280			

a. Dependent Variable: CA

b. Predictors: (Constant), RC, HC, SC

Coefficients ^a						
		Unstand	lardized	Standardized		
		Coeffi	cients	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.249	.050		5.035	.000
	HC	.503	.021	.585	23.991	.000
	SC	.513	.024	.525	21.324	.000
	RC	085	.020	098	-4.229	.000

a. Dependent Variable: CA

Component

Matrix^a

Component 1

	1
Cost1	.815
Cost2	.852
Cost3	.516
Cost4	.811
Cost5	.729

Extraction Method:

Principal

Component

Analysis.

a. 1 components

extracted.