The Role of Intellectual Capital on Financial Decision Making in Private Universities in Erbil City – Iraq

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ABSTRACT

The purpose of the study is to examine the role of intellectual capital on financial decision making in private universities in Erbil. To achieve this purpose, the sample of the study collected from participating 115 managers at six private universities located in Erbil city in Iraq. The dependent variable of the study is financial decision making. Independent variables are human capital, structural capital, and customer capital which are dimensions of intellectual capital according to Stewart model. In the methodology part of the study, the importance of working by focusing on some of the questions, posing the relationship between the independent and dependent variables, and the effectiveness have been determined. Accordingly, a conceptual model design of the study and then produce two main hypotheses to test. This has been subjected to numerous statistical tests. The study results; the most notable one is the existence of the highest rank of importance of human capital among intellectual capital components, while the customer and structural capitals come second and third, respectively. In addition, this result shows that the human, structural, and customer capitals affect financial decision making in Erbil private universities.

Keywords: Customer capital; Financial decision making; Human capital; Intellectual capital; Structural capital

INTRODUCTION

The share of intellectual capital is able to produce a significant role in creating more value and overweight native production due to creating information and knowledge resulted in making capital in the knowledge economy. In the study, at the equal of innovations, universities financial decision-making be able to pretentious by the intellectual asset (Pourmozafari et al., 2014. p. 188). Some sorts and values that enable them to see the challenges of a worldwide market characterize our universities' requirement. Globalization of the political economist and the attendant decreases in government financing, liaisons with business, marketing of educational and business services have been changing the nature of academic labor (Córcoles and Ponce, 2013. p. 107). However, the knowledge economy has support to categorize new value drivers that are intangible by nature. Therefore, investment appeal lies in the impact of both tangible and intangible internal reasons as well as external reasons.

The literature review broadly discusses making a portfolio utilizing intellectual capital. Consideration of organizational intellectual capital, although deciding about universities capital investment, necessarily means that we are making financing decision an integral share of the investment decision. This combination of financial decision has several significant implications. As approaching revealing discussion we will look that the combination is not optional rather is significant to make universities investment decision reflecting the true type of risk and return characteristics of each university. This is also the primary point where this study is going to bring out one of the significant differences between the conventional approaches to investment evaluation and the new ones (Jehan, 2001. p. 47).

This study utilizes Stewart’s model which means the managers who have a high level of knowledge, skills, competence, and capabilities which will be able to effectively manage and control the existing intellectual capital in financial decision making to deliver excellent performance in private universities.

Purpose of the Study

In accordance with the importance of this study, the core purpose of this study is to investigate the role of intellectual capital on financial decision making, which involves the following specific purposes:
1. Clarifying the concepts of intellectual capital in private universities
2. Identifying methods and different techniques that can be used to make financial decision to impact return on investment
3. Identifying the basic requirements for the improvement of intellectual capital and maximizing the profits in private universities
4. Detection levels of awareness of intellectual capital to make the future financial decision
5. Definition of the nature of the relationship between intellectual capital and financial decision making.

Importance of the Study
In general, there is a shortage of literature in investigating the role of intellectual capital on financial decision making in private universities. There is also a lack of research and articles on financial decision making in private universities in Erbil. Thus, this study contributes to the literature regarding the intellectual capital and financial decision making in general, and in the perspective of Iraq. Accordingly, it assists all those results that may be revealed by the study of all relevant interest groups, namely:

1. The statement of the concept of intellectual capital and how to manage the development of financial decision making in private universities, somebody intangible resource that increases the efficiency of the universities and value
2. The key objective of the intellectual capital in the strategic decision on funding universities that application assets and principles of the ruling establishment
3. Help private universities administration to understand the correlation between intellectual capital components and manage effectively to make the financial decision.

Hypothesis of the Study
This study attempts to find out the following hypothesis based on the above objectives:

H$_1$: There is a positive relationship between intellectual capital and financial decision making in Erbil city private universities.

H$_1$ a: There is a positive relationship between human capital and financial decision making.

H$_1$ b: There is a positive relationship between structural capital and financial decision making.

H$_1$ c: There is a positive relationship between customer capital and financial decision making.

H$_2$: There is a statistically significant impact of intellectual capital on financial decision making in Erbil city private universities.

INTELLECTUAL CAPITAL

Concept of Intellectual Capital
The intellectual capital concept has altered not only for the way organizations are developing inside and in relation to their workers but also in the way organizations promotion and compete. Gradually in the knowledge economy, intellectual capital qualified dynamics shape business development strategies (Al-Ali, 2003. p. 16). Prerogatives of intellectual capital is an arrangement of human and structural capitals. It is elected human capital as personified in the information of current teams; however, structural capital is personified in customer relations, production manner competences implemented ended time, internal database, and additional institutionalized knowledge structures (Edvinsson, 2002. p. 75).

Intellectual capital is the amount of information, skill, understanding, relations, processes, innovations, and detections (Daft, 2010. p. 312). It is recognized that there are intangible resources that an energetic component of the wealth in an organization and that those resources necessity recognized and prepared for the advantage of the organization. This is factual whether that organization is for-profit originality (Chatzkel, 2002. p. 7).

Definitions of Intellectual Capital
There are several definitions of intellectual capital, which have been and are motionless being obtainable and discussed in the countless literature, mainly in the journal of intellectual capital. Webster dictionary defined “capital” as everything, which worker to grow one’s power of effect (Ismail, 2005. p. 17).

Stewart described intellectual capital as “intellectual knowledge, material, data, intellectual property, and an experience that is able to an apartment to employ to make capital. Intellectual capital can originate in three places: In human, in structure, and in customer or customer capitals” (Stewart, 1997. p. 1).

Skandia described intellectual capital as an intangible value that is able to remain named as intellectual capital, embraced together human and structural capitals. Human capital embodies the talents, knowledge, and competence of the individual member to offer solutions to the customers. Structural capital contains about everything that residual when the teams go home: Manuals, customer files, trademarks, software, databases, organizational structures and further words, and organizational capacity. Customer capital, i.e., the relations consist of the customers, is an important part of the structural capital. Structural capital possesses, which is not the occasion for human capital (Mouritsen and Larsen, 2001. p. 400).

Dimensions of Intellectual Capital
According to Stewart’s model, this study investigates the intellectual capital’s dimension effect on financial decision models using Stewart’s model.
As mentioned before, Stewart’s model of intellectual capital has three dimensions, which are human, structural, and customer capitals. This part informs detailed about these dimensions.

**Human capital**

Human capital is defined as the share of innovativeness, knowledge, skill, and capability of the organization’s individual to meet the task. In addition, it includes the organizational culture, values, and philosophy (Bontis, 2000. p. 5).

The human resources offer to the entity its know-how and its capacities embraced the combined experiences, abilities, and general knowledge of the workers. The organization with many simplifications can lose that capital. It is suitable, therefore, to the administration to adopt effective policies in the sense of preserving that valuable patrimony (Martinez, 2012. p. 3).

Human capital is tangible implied data inserted into the minds of personalities, which consist of worker competence, know-how, innovativeness, education, work-related knowledge, experiences, and changeability (Ismail, 2005. p. 9).

The major sub-components on the organizational human capital are its workforce talent sets, breadth of capability, and depth of expertise. Human resources can be idealized as the activating and thinking part of intellectual capital resources. Human capital embraces the competencies and skills of workers, their knowledge in definite fields that are imperative to the achievement of the organization, and their attitudes and aptitudes. Worker motivation, faithfulness, and flexibility will often be noteworthy reasons too, because organization “expertise and experience pool” develop with the passage of time (Marr, 2008. p. 5).

**Structural capital**

Structural capital described as the information stopovers inside the organization. It embraces organization habits, procedures, organizations, cultures, and databases. The examples are structural flexed, document service, the presence of a knowledge center, overall usage of information technical, and administrative education capability. Some might be lawfully protected, developed the intellectual rights of belongings and lawfully owned by the organization under various titles. Though, the international federation of accountants suggests a slightly distinct taxonomy (Ting and Lean, 2009. p. 590).

Structural capital covers knowledge assets, for instance, copyrights, patents, trademarks, procedures, models, approaches, documents, data artifacts, computer networks, software, and organizational systems. A data store is a structural capital, so it is the decision making support software that aids everyone to use the data (Stewart, 1997. p. 2).

Structural capital described as an infrastructure that incorporates the shapes and sustains human capital. It is the organizational capacity that includes the physical system utilized to transmit and store the intellectual material (Edvinsson and Malone, 2000. p. 26). In which relation structural capital is defined, though, focuses on relations with “suppliers, customers, alliance partner, shareholders, and other shareholders” in their view relation capital corresponds to inter-organizational relation (Agndal and Nilsson, 2006. p. 93).

**Customer capital**

Stewart (1997) recommends that the customer’s key material is the information on markets’ channels and relationships with customers. Customer capital indicates the probable capacity of an enterprise due to its outside imperceptible reasons that have been advanced new definition of the new idea of customer capital to relation capital that embraced knowledge in all the relations that the enterprise creates with customers, offers, rivals, commercial connotation or the government (Pourmozafari et al., 2014. p. 190).

Customer capital mentions to the enterprise network or relations of connections and their gratification with and loyalty to the organization. Understanding better customer poverty in a product and service is what creates somebody business managers as opposite to a follower. Customer loyalty and supplier, the longevity of relations, target marketing, and gratification are all (Akpinar and Akdemir, 2000. p. 336).

Customer capital means the administration possessions embrace as customer loyalty, marketing channel, and organization reputation (Ding and Li, 2010. p. 213). Customer capital mentions the relation among a certain enterprise and the individuals it deals with, embrace as customer retention rate, customer loyalty, and customer satisfaction (Wu and Sivalogathasan, 2013:140).

**Financial Decision Making**

Financial decision is embraced with the judgments of organizations linked to investment, financing, and dividend. The organization invests intangible assets such as plant, machinery, structures, and intangible assets such as goodwill and patents. This embraces the investment decision. These assets are not free; one must pay for them, so an organization needs to tap numerous sources of funds comprising promoter’s contribution. This creates a financing decision. The investment in possessions generates revenues and cash flows for a particular period of time. The
administrators of the organization able to either retain cash with the organization for the further investment or hand out to the owners of the organization to the shareholders (Vishwanath, 2007. p. 23).

The whole task of financial decision making can be wrecked down into the investment, or capital budgeting, decision, and the financing decision. In other words, the organization should make decisions about: How to invest and what possessions to invest, and how to raise the essential cash. The purpose is to increase the value of the shareholders’ stakes in the enterprise (Brealey et al., 2001. p. 25). Finance refers to designing the future and an organization cannot figure its future without information that might be obviously communicated to those who have to apply the management’s decision. Thus, one aspect of financial analysis and decision making is to make the aims plausible (Vance, 2003. p. 233).

Types of Financial Decision Making
The strong financial decision is the base of the organization, while the three dimensions of the financial decision are consistent with each other.

Investment decision
Managers create investment decision in terms of the types of investment decision comprising stable asset or capital budgeting. The term capital means long-term possessions utilized in production, while a budget is planed that elaborates organization outflows and inflows. Financial management the weighted total cost of capital is utilized chiefly to make investment decisions and these decision centers in organization predictable future returns versus the cost of the new or marginal capital that will be utilized to finance those organizations (Ehrhardt and Brigham, 2011. p. 340).

Grossman, 2002. p. 281, investors presume to create useful investors decision to invest in the organization that utilizes among debt, which boosts organization value (Eldomiaty et al., 2005. p. 174).

The perceived importance of the financial statement is to offer knowledge about the performance, financial position and variation in the financial situation of the organization that is beneficial to a wide series of consumers in the creation rational investment decision. Therefore, those financial statement approaches concerning info disclosure pattern, reporting standards, auditing, regulatory control, transparency, corporate governance, elasticity, and financial scandals have an impact on investor decision making in every enterprise (Blessing and Onoja, 2015. p. 13).

Financing decision
Financing might be indicated the technic and science of managing the currency. It embraced financial instruments and financial service. Financing, moreover, was mentioned as the providing of money at the time when it is required. The financing function is the obtaining of financing and their impact utilizes in trade concerns (Paramasivan and Subramanian, 2009. p. 1).

Financial managers also cogitate interest amount levels and forecasts, when making financing decision. An organization can earn ration much of good capital budgeting and operative decision from the moral financing decision. The next main decision of the organization is the financing decision. At this time, the financial manager is anxious with the right-hand side of the creative sheet. The organization has a relatively large total of debt, whereas others are almost debt free. The type of financing working to create variance (Van Horne and Wachowicz, 2008. p. 204). The results offer some of the first clear evidence that tax procedure does significantly impact the financing decision. The disaggregated and simultaneous investment, operating and financing decision of an organization are difficult to model theoretically, and nearly no investment or operational information available at the level of explaining necessary to empirically analysis impacts of different usage policies on financial policy.

Dividend decision
Dividend decision is the third main financial decision should agree to what percentage of current earnings to pay out as dividends rather than remembering and reinvest; this is named the dividend policy decision (Ehrhardt and Brigham, 2011. p. 11). Dividend decision is also the main part of the financial manager. The business concerns the dividend decision’s rule because it determines the total profit that distributed between shareholders and total of profit to be cured as retained earnings for financing its long-term development. Therefore, the dividend decision shows the very significant part in the financial management (Paramasivan and Subramanian, 2009. p. 100). In addition, a dividend decision which the board of bosses or top administration usually prepares. Their intervening thought in choosing dividend is the dividend long-range influence on the organization’s stock price (Grossman, 2002. p. 285).

The Relationship between Intellectual Capital and Financial Decision Making
The effect of the study, in terms of intellectual capital importance on the financial decision making of private universities, intellectual capital is an organization-registered knowledge, value, functions as the arrangement of experience, knowledge, information, and skills that influence the future success of financial decision making (Kaya et al., 2010. p. 153). Intellectual capital has become a significant basis of university worth and wealth, particularly with the broadening idea of the intellectual
capital, and its growing role in financial decision making (Jihene, 2013, p. 81).

Along with intellectual capital, economic value added (EVA) is a measure that can assist investment with their financial decision making. It examines the effect of the components of intellectual capital on the performance and financial decision of university. Accordingly, the results indicated a significant effect of components of intellectual capital on the performance and financial risk of the organization (Salehi et al., 2014, p. 263).

The same argument examined the constituents of intellectual capital (human, structural, and customer capitals) and its effect in the financial decision of the service sector of the university and they concluded that customer capital has a positive influence on education sector while human capital has a positive influence on education sector performance. It states the knowledge creation, core competency, and innovation making value below bodily, and financial possessions (Mumia, 2014, p. 5).

### Previous Studies

Zarezadeh and Raz (2016) survey of the intellectual capital impact on speeding the presentation of the enterprise financial reports and those components of the intellectual capital exert a greater effect on the acceleration of the enterprises annual financial reports. The participants in the study include the enterprises accepted in Tehran’s securities exchange market. Thus, the financial information belonging to 120 companies were evaluated during the years from 2010 to 2014. The study results indicate that, generally, it cannot be decisively claimed that the intellectual capital has a positive and significant influence on the acceleration of the financial reporting submitting.

According to Ramirez et al. (2013), the main purpose of the paper was to get an opinion on the importance of university stakeholders to intellectual capital reporting. For this purpose, they created a questionnaire and sent it to all members of the Spanish public university’s social council. The results of empirical studies indicated that the current annual accounts issued by universities covered little information needs of different stakeholders. These results made it possible to recommend expanding the limit of the university’s annual accounting to the information on intellectual capital required from different stakeholders. According to their opinion, the traditional accounting system considers that value creation is not sufficient for higher education institutions, which depend on intellectual capital type resources. Finally, this empirical research clarifies which components (human, structure, and relationship) of intellectual capital are most relevant to the publication. The results showed that the information most valued by the different stakeholder group was relevant to the relevant capital, followed by human beings, and finally structural capital.

Murthy and Mouritsen (2011) examine the role of intellectual capital in financial capital by using a case study. Therefore, the study was examined at the Bank of New South Wales. The study depended on the sample of collected data from many resources such as financial reports, shareholder influence reports, internal strategy reports, and semi-structured interviews. Semi-structured interviews, the study draws on were reached with 14 heads of directors and with 40 staffs from various levels in the organization. The finding of the case study suggests significant statistical support on the relations among items of intellectual capital and correlate positive relations with financial capital.

Liu and Wong (2011) examine a study on the relationship between intellectual capitals and financing decision that grow real alternatives model to understand two different roles played by intellectual capital in the business of financing decision. Utilizing patent-based, researcher and improvement founded variables as proxies for intellectual capital. The sample embraced by non-financial Polish enterprise registered on the Warsaw Stock Exchange from two markets, the systematic market of the Warsaw Stock Exchange and the new join market, for earlier and smaller enterprises. The study also found a positive relation among intellectual capital and financing decision in the organization’s advantage is statistically and economically significant.

### METHODOLOGY

The purpose of this section is to demonstrate methodological processes apply in the study to examine the role of intellectual capital on financial decision making in private universities in Erbil. Furthermore, to address the study questions arise and the hypotheses plans. The study approach employs the quantitative method. The quantitative method is revealed appropriate, as the purpose of this study is to examine the role of intellectual capital on financial decision making, from a statistical view regarding the manager’s view of private universities in Erbil.

### Study Design

In require to examine the intellectual capital, the role in financial decision-making of managers at private universities in Erbil, the study establishes correlations and effects study design as it pursues to describe and establish the associations among the key study variables, namely, intellectual capital and financial decision making. This design utilizes to collect data and analysis of the relationship between study variables.
The design is more applicable as it allows respondents to give their relevant information on the issue of interest to study, through survey questionnaire-scale, which is designed for data collection.

Study Population and Sample
As it is presented in Table 1, the population for this study involves six private universities in Erbil. Hence, the private universities are selected as the population of the study, while sample are managers composed of university president, vice president, dean, assistant dean of the college, the head of the departments in the private universities in Erbil city-Iraq, as they are possible to better recollect on intellectual capital and financial decision making, as they have known this practice more currently.

In addition, the private universities are the exact target population size, this study seeks to explore the managers’ attitudes and opinions on their intellectual capital practice, so they can provide the data and information need to support the study purpose and answer its questions. Accordingly, these two reasons substantiate the selection of the population of the study.

Hence, the data are successfully collected from all six universities in Erbil. The purpose of sample procedures, by displaying an assortment of procedures, to tight bottom the study population to classify an appropriate sample where the related data are available and for it to be as appropriate or direct as possible to accept the study purpose. Therefore, the data are taken; particularly, those serving in the higher educational sector over 1 year, also those private universities have selections that deal with both higher educational requirements and students.

Consequently, 119 managers participate through answers to the questionnaire form self-administer and distribution in the private university departments in particular, to the managers who willingly accept the invitation to contribute; accordingly, the answer rate is 96.6%. However, four responses out the paper questionnaire are invalid and are excluded from the sample. Therefore, the total valid responses are 115 which establish the sample of the study.

Reliability and Validity
It is considered essential that the instrument used for collecting data can provide valid and reliable data that can generate accurate and dependable findings after analyzing. Hence, the questionnaire reliability and validity are checked to assure the quality of the generated data. It means that the scale of an instrument is stable and constant. The scores should be nearly the same when researchers administer the instrument multiple times to the same participants (Plano et al., 2015). One of the most usable reliability techniques in the research is Cronbach’s Alpha test for inside consistency.

As shown in Table 2, the Cronbach’s Alpha score for the intellectual capital components is 0.867, 0.848 and 0.824, respectively, then investment and financing decision-making are 0.771 and 0.758, respectively, which specifies a great level of inside consistency in the whole altogether of items of the questionnaire. Consequently, the questionnaire utilizes to collect theorize high reliability. It refers to the marks from an instrument are precise indicators of the variable being measured and enable the researcher to draw good explanations (Plano et al., 2015).

The validity of the questionnaire check meanwhile a variety of ways. First of altogether worth mentioning that near altogether of the items in the questionnaire is altered from similar studies that are already validity check, however, since some of the items are altered or reorganize the researcher check the validity of the questionnaire through creation it checks and estimates. Internal validity is else linked to the credibility of the study but differs in that it is additionally concentrated on the researcher’s noticing and if the dependent variables vary because of the independent variable and not since of some other variable (Gay, 1992). The procedures also must be constant to make valid results anywhere the study (Saunders et al., 2009).

Factor Analysis of the Variables
The results of factor analysis for various constructs are given in Table 3 factor analysis generated five factors based on the minimum Eigenvalue one. The sum of squared loadings coefficient based on extracted five factors, including human capital, structural capital, customer capital, investment decisions making, and financing decisions making; the results revealed that all the component coefficient bigger than the level of significance 0.05.

As revealed in Table 4 The appropriates of the factor analysis was tested by two important factors, i.e., Kaiser-Meyer-Olkin (KMO) and Bartlett’s test of sphericity. The KMO overall measure of sampling adequacy was 0.852 within which is the recommended level and statistically significant at $P < 0.05$. The Bartlett’s test of sphericity was 1487.033 degree of freedom 300 and statistically significant.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>University name</th>
<th>Participated managers</th>
<th>Valid answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>International University of Erbil</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Cihan University – Erbil</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Bayan University</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>Ishik University</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Lebanese French University – Erbil</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge University</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>sample</td>
<td></td>
<td>115</td>
</tr>
</tbody>
</table>
at $P < 0.05$, which is the indication of good correlation among questions in the questionnaire.

From Table 5, we note the first six items, which have a great significance in the interpretation of the phenomenon that explains 36.1%, 9.5%, 5.6%, 4.9%, 4.4%, and 4.3%, respectively, from the overall contrast and contains a set of items that affect the phenomenon.

### Data Analysis

The independent variable, which is intellectual capital, is measured through its components are human, structural and customer capitals, and financial decision making as the dependent variable is measured in terms of the investment and financing decision. The descriptive statistician utilizes quantitatively to describe the significant features of the variant utilizing mean, standard deviations (SD), and $t$-tests. The correlation analysis is utilized to identify the relationships among independent and dependent variables utilizing Spearman correlation analysis. The correlation analysis illustrates only the degree of relationship between variables and does not permit the researcher to make underlying inferences regarding the relationship between variables.

Therefore, multiple linear regression analysis is to utilize to test the hypothesis and explain the relation among intellectual capital variables, financial decision measures by monitoring the influence of some select variables. SPSS V-24 software is utilized for analysis, and the finds view present by utilizing tables.

### Analysis and Finding

The analyses and finding the descriptive statistics for demographic data collect from the respondents from private universities in Erbil. The demographic information contains frequency distributions and descriptive statistics. The second part presents the statistical results of the data analysis through regression analyses and testing correlation.

### Descriptive Statistics

Demographic data in the study are collected and analyzed to offer a solid representation of the sample in this study. The following demographic info collects: Gender, age, academic degree, scientific title, and overall job experience from private universities’ managers locating in Erbil. To explore the sample and to obtain more information about it and its alignment, the study applies descriptive analysis to achieve this purpose.

As indicted in Table 6, the percentage of gender participate in the survey is male 80.9% and female 19.1%. Moreover, the frequency of the participant’s ages, 61.7% are aged between 30 and 40 years old, while 21.7% are age 41 and 50 years old; besides, 9.6% are aged between 51 and
60 years old; however, 7% of the total sample is age 61 and more. As concise in Table 6, the frequency of the participants according to their academic degree, it displays that of the total respondents 69.6% are master degree; while 30.4% of the respondents are Ph.D holders.

As specified in Table 6, most of the private universities’ managers who contribute in the survey assistant lecturer at a rate of 58.3% and the least of them are lecturer and at a rate of 25.2%, while 13.9% are assistant professor and 2.6% of the respondents are a professor. Finally, from Table 6, the respondent’s overall job experience in the education sector, it is present that of the total respondents 49.6% are <10 years, and 31.3% are between 10 and 20 years while the lowest 19.1% of the total respondents 21 and more years worked in the education sector.

Descriptive Statistics of the Study
This part analysis the first main hypothesis “there is a rank significance of the study variables and their components, reliant on the nature of dependency in private universities in Erbil city” these verify on participants answer, are asked to rate the significance of the intellectual capital financial decision making components on five-point Likert scale. Therefore, descriptive statistics are utilized to calculate mean and SD scores of each component of the variable to find if there is any rank of significance.

Descriptive statistics of intellectual capital components
From Table 7, the mean and SD scores for human capital are 3.54 and 0.7735, respectively. Thus, 70.8% of the overall respondents identify that human capital is important, although 28.2% state that this component is not important.

The result shows that X2 and X1 riches this component “University managers are experts in their academic jobs.” And “University has a highly competent management team and Management Committee Meeting.” Where M=3.70 and 3.67, respectively, and SD=0.929 and 0.866, respectively. Besides, the smallest frequent compare to others is X5, “the university administration provides a conducive working environment for managers to share ideas and practice creativity” M=3.37, and SD=0.986.

*Rate of agreement = \( \frac{\text{Mean} \times 100}{5 \text{ (Five - point Likert Scale)}} \)

As it is presented in Table 8, the mean and SD score for structural capital are 3.417 and 0.7629, respectively, while 68.3% of the total responses state that structural capital is important, however, 31.7% disagree. The outcome appearances that X, riches this component “Information and knowledge in my university are embedded in our structure, system, and procedure.” M=3.54, SD=0.881, then the lowest frequency is X9, “we utilize extensive and the advance integrates management system in our academic process to provide improved services for their students” M=3.27, SD=1.054.

It performs from Table 9, the mean and SD score for customer capital are 3.485 and 0.7951, respectively, while 69.7% of the total answers state that customer capital important, besides 30.3% of the sample did not agree. Subsequently, the results show that X15, “University collaboration with international Universities to enhance the University competitive level and performance.” and X14, “University brand name is well-known in education services” riches this component.

Descriptive statistics of financial decision making
From Table 10, the mean and SD score for investment decision as a component of financial decision making are 3.660 and 0.5936, respectively, while 73.2% of the total responses state that investment decision is important. The results show that Y2, Y3, and Y5 riches this component. Consequently, the lowest is Y1, “higher educational business sustainability has a high priority in the investment decision making procedure.”

As it is shown in the same table the mean and SD score financing decision making are 3.5617 and 0.617,
respectively, although 71.2% of the total responses identify that financing decision important; 28.8% of the sample did not agree. The result also reveals that Y riches this component “the adopt a higher education strategy can impact organization’s strategic investments and therefore financial performance.” Moreover, the above tables present a descriptive analysis. The answers on human, structural and customer capitals. Hence, it means that altogether the components of intellectual capital will effect on financial decision making of the private universities in Erbil.
Correlation Analysis of the Variables

The correlation matrix explains that the intellectual capital and its components as human, structural, and customer capitals are positively correlated with financial decision making. As revealed in Table 11 that the intellectual capital as independent variable and its components human, structural and customer capitals, through $r = 0.456, 0.345, 0.406,$ and $0.466$, respectively, have a positive relationship with financial decision making on $P = 0.000, 0.000, 0.000,$ and $0.000$, respectively, which indicated 0.05.

Moreover, the table views that customer capital accomplishes the highest positive correlation with financial decision making. Another hand, human capital has the weakest correlation with financial decision making. Consequently, the hypotheses $H_1, H_{1.a}, H_{1.b},$ and $H_{1.c}$ accepted.

Regression Analysis of the Variables

As revealed in Table 12, this study test a multiple linear regression analysis to examine the effect of the intellectual capital includes human, structural, and customer capitals in financial decision making. The subjects of the study are three components of intellectual capital and they represent
1.000 and 1.000 for human capital, 0.836 and 1.196 for structural capital, and finally 0.745 and 1.343 for customer capital. It means that VIF <5 and tolerance value >0.1, so multicollinearity does not exist.

### Results of Hypothesis

As revealed in Table 15, the results of investigated model the role of intellectual capital on financial decision making in private universities in Erbil – Iraq and its planned hypotheses that all the hypotheses are established.

### Table 14: Regression analysis

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>Significant</th>
<th>Multicollinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.624</td>
<td>0.217</td>
<td>12.075</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Intellectual capital</td>
<td>0.388</td>
<td>0.062</td>
<td>0.508</td>
<td>6.269</td>
<td>1.000 1.000</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.279</td>
<td>0.060</td>
<td>0.401</td>
<td>4.650</td>
<td>1.000 1.000</td>
</tr>
<tr>
<td>Structural capital</td>
<td>0.307</td>
<td>0.060</td>
<td>0.436</td>
<td>5.148</td>
<td>0.836 1.196</td>
</tr>
<tr>
<td>Customer capital</td>
<td>0.366</td>
<td>0.054</td>
<td>0.542</td>
<td>6.847</td>
<td>0.745 1.343</td>
</tr>
</tbody>
</table>

*Dependent variable: Financial decision making. SE: Standard error, VIF: Variance inflation factor

### Table 15: Results of hypothesis

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>P Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong> There is a positive relationship between intellectual capital and financial decision making R=0.456** and significant (P&lt;0.05)</td>
<td>Accept</td>
<td></td>
</tr>
<tr>
<td><strong>H1.a</strong> There is a positive relationship between human capital and financial decision making R=0.345** and significant (P&lt;0.05)</td>
<td>Accept</td>
<td></td>
</tr>
<tr>
<td><strong>H1.b</strong> There is a positive relationship between structural capital and financial decision making R=0.406** and significant (P&lt;0.05)</td>
<td>Accept</td>
<td></td>
</tr>
<tr>
<td><strong>H1.c</strong> There is a positive relationship between customer capital and financial decision making R=0.466** and significant (P&lt;0.05)</td>
<td>Accept</td>
<td></td>
</tr>
<tr>
<td><strong>H2</strong> There is a statistically significant impact of intellectual capital on the financial decision making R²=25.8% model accept. F-test (39.296; P&lt;0.05) of significance Impacts analysis (0.506) t-test=6.269; P&lt;0.05</td>
<td>Accept</td>
<td></td>
</tr>
</tbody>
</table>

As the results presented in Table 14 simplifies that statically there are a significant impacts intellectual capital and its components as human, structural, and customer capitals on financial decision making, as clear over an amount of 0.508, 0.401, 0.436, and 0.542, respectively.

Besides, the t 6.269; P < 0.05 for intellectual capital as an independent variable, it means significant and support the results, so, the t 4.650, 5.148, and 6.847, respectively, for components, and P < 0.05 for all components they are significant statically. Then, the hypotheses H₂ can be proven.

Further, Table 14 shows the multicollinearity figures. If variance inflation factor (VIF) value <5 and tolerance value are above 0.1, it means there is no multicollinearity between independent variables.

As Table 14 displays the tolerance values and VIF values for each variable were 1.000 and 1.000 for intellectual capital, 1.000 and 1.000 for human capital, 0.836 and 1.196 for structural capital, and finally 0.745 and 1.343 for customer capital. It means that VIF <5 and tolerance value >0.1, so multicollinearity does not exist.

### Results of Hypothesis

As revealed in Table 15, the results of investigated model the role of intellectual capital on financial decision making in private universities in Erbil – Iraq and its planned hypotheses that all the hypotheses are established.

### CONCLUSIONS AND RECOMMENDATIONS

The results showed that there is a positive significant relationship between independent variables and dependent variables.

Furthermore, the intellectual capital components which are customer capital 0.542 and structural capital 0.436 have the strongest effect on financial decision making, while human capital 0.401 has the weakest effect on financial decision making.

Therefore, the conclusions indicate that indeed, intellectual capital and its components play an active role in decision making toward the financial accomplishment of the private universities in Erbil. This means that financial decision, improve, and strengthen.

As the findings and conclusions mentioned above show that it has effectively managed and leveraged the intellectual
capital in private universities in Erbil. This will enhance the performance of higher education and in respect of university financial; the decision-making would be more effective. In light of these conclusions, the study makes the following recommendations.

The growth of the importance of intellectual capital has also shown itself in a more concrete manner. The normal inspection and the private universities in Erbil recommend a supplement to the annual report, which should disclose the universities intellectual capital.

For private universities in Erbil, it is required to retain high levels of intellectual capital and its components, besides employing and increase investing to achieve higher education and business success, with the necessity of stimulating structural and customer capitals for their importance in the advantage of financial decision making.

Therefore, since intellectual capital does stimulus financial decision making of private universities in Erbil, they want to emphasize another restriction that they raise their education's performance than intellectual capital. Such restrictions include the size of the universities. Private universities must pay exceptional attention to grow their financial decision that can afford their academic with sufficient evidence, which put them on the track with any new academic materials or scientific events.

It is necessary to ensure that the private universities have the necessary independence of human capital to invest a positive relationship between human capital and manager's financial decision making. There must be raise monitoring of intellectual capital to avert projection sufferers of disregard financial decision making, which might have serious effects.

This study recommends that the private universities in Erbil should develop training programs for their managers as well as for university administrative staff. It is the aim of these programs to improve and advance their intellectual capital apply in the light of the strong effect of the variable and its components on manager's financial decision making.

Finally, future studies can implement similar tests in further recent years to investigate if the relationship is additional significant than in the span time inspect in this study. Another suggestion for future study is to use a larger sample or could utilize a various data collection instruments than those collected in this study.

REFERENCES


### Questionnaire Form

Dear sir/Madam. Esteem expert.....

This questionnaire form is a part of the study entity “The role of intellectual capital on financial decision making in private universities in Erbil city-Iraq” It is part of requests for the degree of masters in the jurisdiction of the administrative sciences.

I ask you kindly see and opinion statement label (✓) the appropriate answer from your point of view, as the complete answer all phrases resolution and accuracy of the answer surely will be reflected on the accuracy of the results that will come to her it, knowing that your answers will be confidential and I will work for the purposes of scientific research exclusively.

Thanks in advance

**First: General Information**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tr>
<td>1-Gender:</td>
<td>Male ☐</td>
<td>Female ☐</td>
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<td></td>
</tr>
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<td>2-Age:</td>
<td>30–40 years ☐</td>
<td>41–50 years ☐</td>
<td>51–60 years ☐</td>
<td>61 and More ☐</td>
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<td>3-Academic Degree:</td>
<td>Master ☐</td>
<td>PhD ☐</td>
<td></td>
<td></td>
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<tr>
<td>4-Scientific title:</td>
<td>Asst. Lecturer ☐</td>
<td>Lecturer ☐</td>
<td>Asst. Professor ☐</td>
<td>Professor ☐</td>
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<tr>
<td>5-Working in the Education sector:</td>
<td>&lt;10 years ☐</td>
<td>10–20 ☐</td>
<td>21 and more ☐</td>
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</tbody>
</table>

**Supervisor**  
Assist. Prof. Dr. Ş. Gül Reis

**Co–Supervisor**  
Dr. Luqman M. Saeed

**Researcher**  
Kamal Mohammed Abdullah
Second: The scale of intellectual capital

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statements</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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<tbody>
<tr>
<td></td>
<td><strong>A. Human capital</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>University has a highly competent management team and management committee meeting</td>
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<tr>
<td>2</td>
<td>University managers are experts in their academic jobs</td>
<td></td>
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<td>3</td>
<td>University managers are brilliant, innovative and creative</td>
<td></td>
<td></td>
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<td>4</td>
<td>University has the capabilities to operate the information system required for them to perform their jobs</td>
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<tr>
<td>5</td>
<td>The university administration provides a conducive working environment for managers to share ideas and practice creativity</td>
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<tr>
<td></td>
<td><strong>B. Structural capital</strong></td>
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<tr>
<td>6</td>
<td>Policies, procedures, and work instructions in my university are contained in manuals and databases</td>
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<td>7</td>
<td>Knowledge and information in my university are embedded in our structure, system, and procedure</td>
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<tr>
<td>8</td>
<td>University has accessibility to information system required for them to perform their jobs</td>
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<tr>
<td>9</td>
<td>We use extensive and advanced integrated management system in our academic operation to provide better services for their students</td>
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<tr>
<td>10</td>
<td>Process improvement and innovation of its services and systems are done actively to improve my university performance as well as to reduce cost</td>
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<td></td>
<td><strong>C. Customer capital</strong></td>
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<tr>
<td>11</td>
<td>Our vendors have performed extremely well in supporting the university to achieve our academic targets</td>
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<tr>
<td>12</td>
<td>University uses student feedbacks effectively to provide quality services to their students</td>
<td></td>
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<tr>
<td>13</td>
<td>University uses feedback and recommendations to improve academic and education services for students</td>
<td></td>
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<tr>
<td>14</td>
<td>University brand name is well-known in education services</td>
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<tr>
<td>15</td>
<td>University collaboration with international universities to enhance university competitive level and performance</td>
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</tbody>
</table>

Third: The scale of financial decision making

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statements</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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<tr>
<td></td>
<td><strong>A. Investment decision</strong></td>
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<tr>
<td>16</td>
<td>Higher educational business sustainability has a high priority in the investment decision-making process</td>
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<tr>
<td>17</td>
<td>University decision-makers must evaluate the potential private educational risks that can affect business objectives and planning process</td>
<td></td>
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<tr>
<td>18</td>
<td>The educational business sustainability practices are crucial for business future success</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>One of the main objectives of the university should focus on reducing the costs</td>
<td></td>
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<tr>
<td>20</td>
<td>Government regulations should be view as an opportunity that assists the university to facilitate its investment decision</td>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>B. Financing decision</strong></td>
<td></td>
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<tr>
<td>21</td>
<td>University must report its educational performance to the community in either financial annual report or through other published sources, or on their website</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>A lack of standard decision-making framework especially private university is one of the barriers to incorporate sustainability into financial strategy</td>
<td></td>
<td></td>
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<tr>
<td>23</td>
<td>The institutional social responsibility can create additional economic costs for the university</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td>The adopted higher educational strategy can influence organization strategic investments and consequently financial performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>When making a financial decision, there is awareness of educational sustainable business practices</td>
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<td></td>
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</tr>
</tbody>
</table>