T.C. UNIVERSTIY OF GAZIANTEP GRADUATE SCHOOL OF SOCIAL SCIENCES DEPARTMENT OF BUSINESS ADMINISTRATION

# THE ROLE OF INTELLECTUAL CAPITAL ON FINANCIAL DECISION MAKING IN PRIVATE UNIVERSITIES IN ERBIL - IRAQ

MASTER'S THESIS

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### DEPARTMENT OF BUSINESS ADMINSTATION

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### UNIVERSITY OF GAZIANTEP GRADUATE SCHOOL OF SOCIAL SCIENCES DEPARTMENT OF BUSINESS ADMISTRATION

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

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1

#### **DEDICATION**

This thesis is devoted to my family who has encourage me through the entire process.

To my lovely wife, Tara you carried the burden of this dissertation during two years while managing to make us a dream family with happy kids.

To my darling kids, Talar and Alwand nothing in the entire world makes me happier than the smile on your faces. I wish you a life fill with a passion for learning, a desire to acquire knowledge, happiness and success.

Signature

Kamal Mohammed ABDULLAH

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#### ÖZET

### ERBİL'DEKİ ÖZEL UNİVERSİTELERDE ENTELEKTÜEL SERMAYENİN FİNANSAL KARAR VERME ÜZERİNDEKİ ROLÜ-IRAK

ABDULLAH, Kamal Mohammed Yüksek Lisans Tezi, İşletme ABD Tez Danışmanı: Yrd. Doç. Dr. Ş. Gül REÍS Ağustos 2017, 63 sayfa

Bu çalışmanın amacı entelektüel sermayenin Erbil'deki özel üniversitelerde finansal karar verme süreçleri üzerindeki rolünün araştırılmasıdır. Bu amaçla Irak'ın Erbil şehrinde faaliyet gösteren 6 özel üniversiteden toplam 115 yönetici araştırmaya katılmıştır. Çalışmanın bağımlı değişkeni finansal karar vermedir. Bağımsız değişkeni Stewart modeline göre entelektüel sermayenin boyutları olan insan sermayesi, yapısal sermaye ve müşteri sermayesidir. Araştırmanın metodoloji kısmında, bağımsız ve bağımlı değişkenler arasındaki ilişki ve etkinin türünü ortaya koyan bazı sorulara odaklanmak suretiyle çalışmanın önemi belirlenmiştir. Buna göre, çalışma için tasarlanmış kavramsal bir model ve daha sonrasında bu modelin test edilmesi için iki ana hipotez üretilmiştir. Bu hipotezler bazı istatistiksel testlere tabi tutulmuştur. Çalışmanın sonuçlarına göre entelektüel sermaye bileşenleri arasında en önemli unsurun insan sermayesi olduğu görülmüştür. Bunu sırasıyla müşteri ve yapısal sermaye takip etmiştir. Bunun yanı sıra bu sonuçlar, insan sermayesinin, yapısal sermayenin ve müşteri sermayesinin Erbil'deki özel üniversitelerde finansal karar verme süreçleri üzerinde etkili olduğunu göstermektedir.

Anahtar sözcükler: Entelektüel Sermaye, İnsan Sermayesi, Yapısal Sermaye, Müşteri Sermayesi, Finansal Karar Verme.

#### ABSTRACT

# The Role of Intellectual Capital on Financial Decision Making in Private Universities in Erbil city - Iraq

ABDULLAH, Kamal Mohammed M. A. Thesis, Department of Business Administration Supervisor: Assist. Prof. Dr. Ş. Gül REÍS August 2017, 63 pages

The purpose of the study is to examine the role of intellectual capital on financial decision making in private universities in Erbil. In order to achieve this purpose, the sample of the study collected from participating 115 managers at 6 private universities locating in Erbil city in Iraq. The dependent variable of 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:** Intellectual Capital, Human Capital, Structural Capital, Customer Capital, Financial Decision Making.

# CONTENTS

													]	P	2	ų	g	e	ļ	N	J	0	)
•	•																•	•	•		.i		
	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	• •	• •		i	i	

ÖZETi
ABSTRACTii
CONTENTS
LIST OF TABLESvi
LIST OF FIGURES
SECTION ONE
INTRODUCTION
1.1. PURPOSE OF THE STUDY
1.2. IMPORTANCE OF THE STUDY
1.3. STUDY CONCEPTUAL MODEL
1.4. HYPOTHESIS OF THE STUDY
1.5. LIMITATION OF THE STUDY
SECTION TWO
LITERATURE REVIEW
2.1. INTELLECTUAL CAPITAL
2.1.1. Concept of Intellectual Capital
2.1.2. Definitions of Intellectual Capital
2.1.3. Intellectual Capital Objectives and Benefit
2.1.4. Models of Intellectual Capital
2.1.4.1. Stewart's Model
2.1.4.2. Brooking Model
2.1.4.3. Skandia's Model

2.1.4.4. Sveiby's Model	. 11
2.1.5. Dimensions of Intellectual Capital	. 12
2.1.5.1. Human Capital	. 12
2.1.5.2. Structural Capital	. 13
2.1.5.3. Customer Capital	. 14
2.2. FINANCIAL DECISION MAKING	. 15
2.2.1. Types of Financial Decision Making	18
2.2.1.1. Investment Decision	18
2.2.1.2. Financing Decision	. 19
2.2.1.3. Dividend Decision	. 20
2.3. INVESTMENT AND FINANCING DECISION IN UNIVERSITIES	. 22
2.3.1. Investment Decision in Universities	
2.3.2. Financing Decision in Universities	. 23
2.4.THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL A	
FINANCIAL DECISION MAKING.	25
2.5. PREVIOUS STUDIES	27
SECTION THREE	35
METHODOLOGY	. 35
3.1. STUDY DESIGN	. 35
3.2. STUDY SAMPLE	. 36
3.3. DATA COLLECTION INSTRUMENT	. 37
3.4. SCALE	. 37
3.5. RELIABILITY AND VALIDITY	. 38
3.6. FACTOR ANALYSIS OF THE VARIABLES	. 39
3.7. DATA ANALYSIS	. 40
3.8. ANALYSIS AND FINDING	.41
3.8.1. DESCRIPTIVE STATISTICS	.41

3.8.2.DESCRIPTIVE STATISTICS OF THE STUDY	42
3.8.2.1. Descriptive Statistics of Intellectual Capital Components	42
3.8.2.2. Descriptive Statistics of Financial Decision Making	44
3.8.3. Correlation Analysis of the Variables	45
3.8.4. Regression Analysis of the Variables	46
3.8.5. Results of Hypothesis	48
CONCLUSIONS AND RECOMMENDATIONS	49
REFERENCES	52
APPENDIXES	61

#### LIST OF TABLES

Table 2.1	. Sveibys Model of Intellectual Capital	12
Table 3.1	. The Study Sample	. 36
Table 3.2	. The Questionnaire Structure	37
Table 3.3	Reliability Statistics	38
Table 3.4	- Factor Analysis Coefficient and Statistical Indicators	.39
	KMO and Bartlett's Test	
Table 3.6	Total Variance Explained	.40
Table 3.7	Frequency Table for Demographic Data	41
Table 3.8	Result of Descriptive Analysis of Human Capital	.43
Table 3.9	Result of Descriptive Analysis of Structural Capital	.43
Table 3.1	0. Result of Descriptive Analysis of the Customer Capital	44
Table 3.1	1. Result of Descriptive Analysis of the Financial Decision Making	.45
Table 3.12	2. Spearman Correlation Analysis between Intellectual Capital Componer and Financial Decision Making	
Table 3.1	3. Model Summary	.46
Table 3.1	<b>4.</b> F-test of Significance Analysis	.47
Table 3.1	5. Regression Analysis	.47
Table 3.1	6. Results of Hypothesis	.48

## LIST OF FIGURES

Figure 1.1: The Conceptual Model of the Study	3
Figure 2.1. Stewart's Model of the Intellectual Capital	9
Figure 2.2. Brooking's Model of the Intellectual Capital	10
Figure 2.3. Skandia's Model of the Intellectual Capital	11

# SECTION ONE 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., 2014:188). Short of suitable intellectual capital, corporal asset is productive objectives that can produce excellent and, normal return. Classifying and management the right intellectual capital will progressively be the main difference among succession, middling and deteriorating originalities (Marr, 2008:4). At present, the knowledge-based business environment in Erbil city is developing. This necessitates a new model and terminology that involves intangible asset. The model adopt in this study is significant and may receive increase attention. The Intellectual capital has become a significant basis of organization value and wealth in an era of globalization. The recent works discover this new feature of voluntary information and it is well known that the information consist of intellectual capital that is considered as quality signals from investors (Jihene, 2013:82). 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, 2013:107). 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 of 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 the 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 primarily 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, 2001:47).

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 an excellent performance in private universities.

The questionnaire of the intellectual capital in case of the thesis by Mazlan Bin Ismail (2005:259) and financial decision making in case of the thesis by Mohammad Al Mutairi (2011: 348).

In order to achieve the purpose of the outline, this study is divided into three sections. In section one, the introduction of the study, which gives information about the background, purpose and the importance of the study. As well as, the conceptual model, the hypothesis of the study and finally the limitations of the study. Section two provides the relevant literature review of the study topic as it addresses the intellectual capital, financial decision making. Section three describes the methodology adopted in this study, for example, study design, description of the study sample, data collection instrument, scale, data analysis and analysis and finding. The final part of this study will be discussions and recommendations.

#### **1.1. 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 the private universities.

2- Identifying methods and different techniques that can be used to make financial decision in impact return on investment.

3- Identifying the basic requirements for the improvement of intellectual capital and maximizing the profits in the private universities.

4- Detection levels of awareness of intellectual capital to make the future financial decision.

5- Definition of the nature of the relation between intellectual capital and financial decision making.

#### **1.2. 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 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- Strengthen the competitive ability of universities by investing aspects such financial activities increase the profitability of the universities.

4- Help private universities administration to understand the correlation between intellectual capital components and manage effectively to make the financial decision.5- Assist in the development program, plans for the development of intellectual capital,

and explain the significance of financial decision making.

6- View the universities a chance on the pictures of intellectual capital to identify the positives and negatives influence on financial decision.

#### **1.3. STUDY CONCEPTUAL MODEL**

This study has developed a conceptual model and has examined the role of intellectual capital on financial decision making that provide a concept of the key concepts in relation to the subject of this study and relations between them. The independent variables are collected by independing on the views of (Liu & Wong 2011, Nazari 2010, Bontis et.al 2000 and Graaf 2013) whereas the dependent variables are collected liked by depending on the views of (Shahid et al. 2016, Carr & Steele 2010 and Clark 2010).

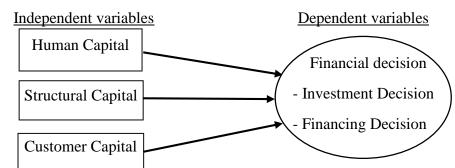


Figure 1.1: The Conceptual Model of the Study

#### **1.4. HYPOTHESIS OF THE STUDY**

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

H<sub>1</sub>: 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<sub>2</sub>: There is a statistically significant impact of intellectual capital on the financial decision making in Erbil city private universities.

#### **1.5. THE LIMITATIONS OF STUDY**

The limits of the study are as follows. The first is the spatial limitation. This study declaration applies to a sample of private universities in Erbil-Iraq to find out the relation and explore the role of head of intellectual capital in financial decision making.

The second is time limitations. It represents the duration of the study apply to the private universities in questions, which start via a preliminary visit to identify the study interviews and questions the managers to discuss their opinions and suggestions regarding this study and its objectives, besides distributing the questionnaire form and returning them back, the purely temporal boundaries stretch from 01/10/2016 to 15/4/2017.

#### SECTION TWO

#### LITERATURE REVIEW

#### **2.1. INTELLECTUAL CAPITAL**

#### **2.1.1.** 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 in the way organizations promotion and compete. Gradually in the knowledge economy, intellectual capital qualified dynamics shape business development strategies (Al-Ali, 2003:16). Prerogatives 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, 2002:75).

Intellectual capital is the amount of the information, skill, understanding, relations, processes, innovations, and detections (Daft, 2010:312). It is recognizable 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 a for-profit originality (Chatzkel, 2002:7).

#### **2.1.2. 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 definition 'capital' as everything, which worker to grow one's power of effect (Bin Ismail, 2005:17).

Intellectual capital has a small place in embracing a context. Stewart described intellectual capital as "intellectual knowledge, material, data, intellectual property, an experience that be able to an apartment to employ in order to make capital. Intellectual capital can originate in three places: in human, in structure and in customer or customer capitals" (Stewart, 1997:1)

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, 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, 2001:400).

The intellectual capital is the practical experience, knowledge, organizational technics, relations and specialized skills that offer a competitive advantage in the market (Chatzkel, 2002:6). Intellectual capital have moreover been defined as the difference among organization market value and the cost of exchanging its asset. We usually cannot set a price tag on, such as organization knowledge and an organizational learning capacity those things. Market value equivalents book value and over the intellectual capital, with book value usually only the angle of the iceberg of wealth (Akpinar and Akdemir, 2000:333). Compose with corporal and financial capital, intellectual capital is one of the three significant resources for enterprises. Intellectual capital embraces all non-tangible resources that attributed to an enterprise, and contributes to the delivery of the enterprise value proposition. The intangible resource can be split into three components: human, structural and customer capitals (Marr, 2008:5). Consequently, intellectual capital might be clear about the relation with partners, customers, innovation pains, the groundwork of the enterprise, the knowledge and talent of the participants of the organization (Edvinsson and Malone, 1999:18).

Sveiby (1989) defined intellectual capital as an expertise capital, which embraced of individual capital and structural capital. Individual capital means the individual and societal skills, talent, professional competence, schooling and other skills of the works. The structural capital is the enterprises competence, which embraced enterprises history, skills, computer programs documented handbook and toolboxes (Sveiby, 1989:66). Intellectual capital is the amount of organizing ideas, technics, inventions, computer programs, general knowledge, designs, information, processes, skills, creativity, and publications. Intellectual capital might be supposed to simply as the knowledge that alters into profits (Harrison and Sullivan, 2006:1). Intellectual capital has mainly been agreed with knowledge resources as a fixed entity and fewer so with the active process of generation and keeps of intellectual capital (Roos and Roos, 1997:1). They re-titled the types of intellectual capital as internal capital (internal instead of structure), external capital (external instead of structure) and human capital (as an alternative of the member competence), (Petty and Guthrie, 2000:155).

Intellectual capital is described the quantity of all knowledge of an enterprise as a capable of power in the procedure of directing business to gain competitive advantage, embraced knowledge accumulates over time and resides in enterprise individuals, systems, structures, databases and processes (Wu and Sivalogathasan, 2013:140).

Intellectual capital is the staff of knowledge asset that is credited to an enterprise and more important contributes to better-quality, competitive location of the organization by adding value to define main shareholders (Schiuma and Marr, 2001:5).

#### 2.1.3. Intellectual Capital Objectives and Benefit

The objectives of this study are to provide a general idea for intellectual capital and several of its objectives and benefits. The business knowledge based on liquid and necessity respond to the recession and flow of necessary knowledge all through the organization. It is the belief of the authors that more of the intellectual capital belongs to individual heads, and one of the objectives of knowledge capture is to reach out and embolden individuals to part (Leo, 2009:3).

Intellectual capital is an additionally essential part of running an effective business, but definitely it is a challenging proposition. Intellectual capital is an issue, which is not absolutely selected. There is no only a fixed definition of intellectual capital. Different commentators provide diverse interpretations of this concept. Furthermore, a lot of explanations of intellectual capital are quite specific and formed by the human organization for usage within a definite industry (Jurczak, 2008:37).

The nature of intellectual capital is abstract and hard to measure in an exact form. Intellectual capital indicators are usually ambiguous and defined by subjective opinions more than objective ones. It permits comprehending the performance of intellectual capital and its components. The existing approach can be an appropriate tool for the organization to find out their fundamental competitive advantage and plan future instructions for business enhancement. Managers can handle and boost current intellectual capital in line with the distinct performance level of every dimension of intellectual capital (Relich, 2014:208).

The basic objectives of intellectual capital by managing their intangible asset and have indicated brand's progress, stakeholder relations, culture and reputation of an organization as the best imperative resources of maintainable businesses benefit. In this economy, the capability to produce and utilize the value of intangible possessions creates the basic competence for organizations (Pourkiani et al.,2014:514).

The announcer mentioned that a further benefit of this action research is the cooperative effort from every member of the team. The team had not worked in this respect before this inquiry. At some points, they mean to carry on their cooperative working relations to boost the learning of their exceptional necessities (Basile, 2009). The ratios and indicators of intellectual capital are prepared in the Skandia Navigator according to four extents of emphasis: human, customer, process focuses and renewal and developing focus (Skandia, 1995:99).

The objective of the business simulation is to change the mind of each participant near to an additional satisfactory disposition regarding intellectual capital initiatives. Presuming that the simulation works successfully, a modification towards more optimistic accept of these initiatives must be recognized. In additional words, post-simulation participants must be more constructively disposed to the intellectual capital (Bontis and Girardi, 2000:548).

#### 2.1.4. Models of Intellectual Capital

After reviewing thoroughly the studies of intellectual capital, it is discovered that there is a range of models created by researchers on intellectual capital and these models differ from each other. Now, in this section three of these models will be discussed:

#### 2.1.4.1. Stewart's Model

Stewart's model refers to a public offering of a separate intellectual capital embraced of three main components (Stewart, 1997:2):

1- Human capital includes knowledge, experience, skills, creativity, innovation, and morale (Relation Human) necessary to find practical solutions to clients and customers.

2- Structural capital includes: copyrights, patents, trademarks, measure of quality control and basic information systems.

3- Customer capital includes customer satisfaction, customer loyalty, customer keeping, customer empowerment, customer participation and cooperates with him.

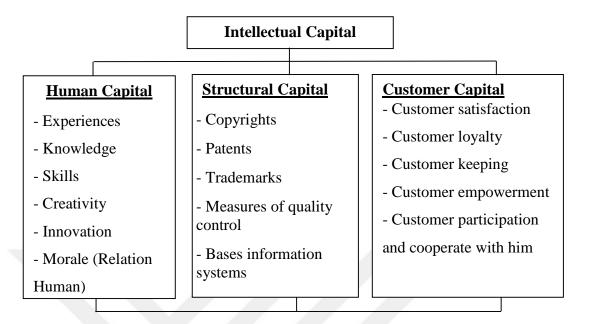


Figure 2.1: Stewart's Model of the Intellectual Capital

Source: Stewart, T. (1997). Intellectual Capital: The New Wealth of Organizations. New York: Currency/Doubleday.

#### 2.1.4.2. Brooking Model

The slightly different classification model has been suggested by (Brooking, 1999: 22) according to her intellectual capital is composed of the following assets:

1- Marketable asset: these are intangible assets and they include positioning, brands, company name, customer base, collaborations, distribution channel, franchise agreements, licensing agreements, backlog and favorable contracts.

2- Infrastructure asset: infrastructure assets which include corporate culture, management philosophy, administration and business processes, compliance to standards such as methodologies, financial relations, information technology systems which enable the organization to communicate and function with its customers.

3- Intellectual property assets: intellectual property assets consist of copyright, design rights, patents, trademarks and trade secrets.

4- Human centered asset: embrace the collective expertise, creativity, problem-solving capability, entrepreneurial, leadership and managerial skills embodied by the

employees in the enterprise. The key is knowledge of aspects of the business of embracing market info and administration expertise.

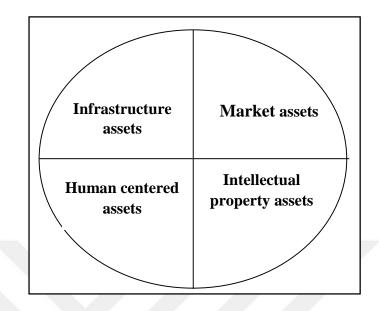


Figure 2.2: Brooking's Model of the Intellectual Capital

Source: Brooking, A. (1999). On the Importance of Managing Intangible Assets as Part of Corporate Strategy. Electronic Journal of Knowledge Management Volume 8 Issue 2, pp.221.

#### 2.1.4.3. Skandia's Model

Skandia's model on intellectual capital includes a number of entities facets, which indicated as (Skandia, 1995:5):

1- Human capital: it includes the capability and competence of the workers. When an organization trains its workers, it raises its human capital and can be increased by educating staff.

2- Structural capital: it embraces of the results of intellectual activities in knowledge, databases and documents.

3- Customer capital: it contains the value of the organization's relations with its clients.

4- Organization capital: it consist of data asset in the areas of procedure and innovations.

5- Process capital: it involves the organization's value creating procedures, for example, its organization structure, systems, administration practices and process, infrastructure of computer systems and others.

6- Innovation capital: It consists of clear knowledge and ambiguous intellectual assets, for instance, a positive culture.

7- Intellectual property: it involves taking data and document, for example, patents, educational programs, innovations, designs, technology, operational practices, organizational knowledge bases, specifications of products and services.

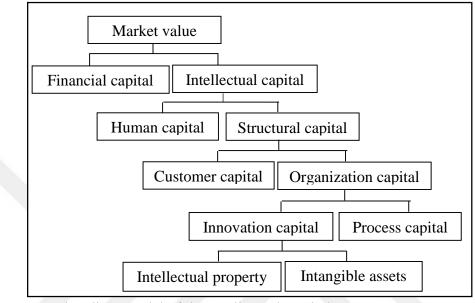


Figure 2.3: Skandia's Model of the Intellectual Capital

Source: Skandia. (1995). *Supplement To Skandia'S 1995 Annual Report*. Sweden: Financial Times.

#### 2.1.4.4. Sveiby's Model

Sveiby's intellectual capital contains three invincible assets (Sveiby, 1997:2): 1- Internal structures (organizational capital): it includes concepts, models, computer and management systems. These are owned by the organization and are made by organizational workers.

2- External structures (customer/relational capital): it refers to relations with trademarks, customers, organizations, brand names, suppliers and reputations. Some of these assets are considered as the legal property of the organization.

3- Employee competence (human capital): human competence cannot be possessed by the organization. It actually includes the ability to face a variety of situations to create tangible and intangible possessions.

#### Table 2.1: Sveiby's Model of Intellectual Capital

	Intangible Assets				
Internal structure	External structure	Employee competences			

Source: Sveiby, K. E. (1997). The New Organizational Wealth: Managing & Measuring Knowledge - Based Assets. San Francisco: Berrett - Koehler.

#### 2.1.5. Dimensions of Intellectual Capital

According to Stewart's model, this study investigates the intellectual capital's dimension effect on financial decision models by using Stewart's model.

As mentioned before Stewart's model of intellectual capital: have three dimensions, which are human, structural and customer capitals. This part informs detailed about these dimensions.

#### 2.1.5.1. 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, 2000:5).

Human capital embodies knowledge, talents, and capability of the individual to offer solutions to the clients (Mouritsen and Larsen, 2001:400). Human capital defines as the skill, talents, knowledge, intuition and attitudes of the staff. Intellectual capital can be developed through increasing the capability all of the workers (Akpinar and Akdemir,2000:334).

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, 2012:3).

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 (Bin Ismail, 2005:9).

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, 2008:5). Concentrate on the Business Management Teams' alignment of human resources with the requirements of every organization (Al-Ali, 2003:176). Human capital is specified the collective competences of the attitude, worker's competence and intellectual agility. This asset includes experience, talents and knowledge of the workers (Yodmongkon and Chakpitak, 2009:519).

The human capital is the force late the human intellect where all human thoughts and innovations first happen (Evaggelia, 2010:12). First contains all the knowledge, talents and capabilities of the workers, and the organization's culture or values. As people can leave the organization, taking with them their individual stocks of knowledge, whenever they want, this type of temporary capital cannot own by the organization (Alcaniz et al.,2010:16).

#### 2.1.5.2. 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, 2009:590).

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, 1997:2). Structural capital the software, hardware, trademarks, patents, databases, organization structure and everything else of organization capacity that assists those worker's creativity. Also, structural capital offers customer capital, the relations

advanced with common customers. In contrary, with human capital, structural capital might be possessed and thereby traded (Bontis, 2000:5).

Structural capital more separated into client capital and organization capital (Albers and Dimitrijevic, 2007:2). This comprises a variety of concepts, models, computer and organizational system. They are made by the workers thus commonly 'owned' by the enterprise, and adhere to it. Occasionally, they attained from other sources. Judgments to cultivate or investor in such assets can be prepared with some grade of confidence, because the work is completed in-house or accepted from external. In addition, internal networks, informal organizations and the 'spirit' or the 'culture', belong to inside structure. Both the internal structure and the individuals establish our all-in-all sound the organization (Akpinar and Akdemir, 2000:335). Structural capital is the repetitive knowledge, comprising the knowledge stored in databases, procedures, publications and organizational culture, which makes a value for an organization, structural capital the knowledge inserted an organization's progressions, customs, and practices. Structural capital embraces non-human storehouses of information in an organization and supports its human capital (Edvinsson and Malone, 2000:26).

Structural capital described as an infrastructure that incorporates the shapes and sustains human capital. It is organizational capacity that includes the physical system utilized to transmit and store the intellectual material (Edvinsson and Malone, 2000:26). 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, 2006:93).

#### 2.1.5.3. Customer Capital

Stewart (1997) recommends that the customer's key material is the information on markets' channels and relation with customers. Customer capital indicates the probable capacity of an enterprise due to its outside imperceptible reasons that has 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., 2014:190).

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, 2000:336).

Relationships with customers and other main stakeholders, regulatory organization, attributes, organizational routines, explicit codified knowledge (databases, routines, infrastructure, procedures, and culture), renewal and growth (investment in organizational learning, researcher and developer,) (Koçoglu et al., 2009:191). Customer capital means the administration possessions embrace as customer loyalty, marketing channel and organization reputation (Ding and Li, 2010:213). Customer capital to represent the value entrenched in the relation of the organization with customers (Malhotra, 2000:3). Customer capital mentions to 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). Consists of all of the market channels, customer and supplier relations, but instead they are able to a wealth of information from their network of suppliers and clients to more efficiently achieve the objectives (Chatzkel, 2002:11). It is the capacity of an enterprise to interrelate positively with business community members to inspire the probable for wealth creation by enhancing human and structural capitals. Customer capital comprises the information entrenched in all the relations an enterprise improves, whether it is with competitors, customers, suppliers, trade relations and government forms (Nazari, 2010:2).

#### 2.2. FINANCIAL DECISION MAKING

Different experts have defined the term financial decision making as below:

According to Paramasivan and Subramanian (2009): Financial management is assisting to take a sound of the financial decision in the corporate concern. The financing decision will affect the whole business operation of the concern. Since there is direct relations to various section purposes embrace as produce personnel and marketing.

In the words of Van Horne (1971): Develop an understanding of financial theory in an organized manner so that the reader may evaluate the enterprises investment, financing and dividend decisions.

In Paramasivan and Subramanian (2009): Howard and Upton has defined financial decision making as: "an application of overall administrative principles to the area of financial decision making". Likewise, Weston and Brigham has defind it as "a part of financial decision making, consistent individual motivations and organization objectives".

In the words of Dr. Jae K. Shim (2000): Financial decision is normally key on info generated from the accounting system. Financial management stockholders, potential investment and creditors are concerned with how well the enterprise is doing. The three reports generated by the accounting systems and embraced in the organization annual report are: the income statement, balance sheet and statement of cash flows. However, the form of this financial statement may vary between different trades or other economic units.

Financial decision is embraced with the judgments of organizations linked to investment, financing and dividend. The organization invests in tangible assets like plant, machinery, structures, intangible assets like 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 the 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, 2007:23).

Investment decision, micro and macro environmental reasons are strictly allied with the functions of a financial manager. Financial management also utilizes the economic equalities as if cash value reduction reason, economic demand quantity and so on. Financial economics is one of the emerging areas, which offers huge chances to finance. Financial decision is one of the integral and significant shares of financial management in any type of business extent. A sound of financial decision ought to indicate the board coverage of the financial mix Capital Structure, total sum of capital and the cost of capital. The capital structure is one of the noteworthy things for the management (Paramasivan and Subramanian, 2009:83). Financial management is therefore extremely imperative to the economic health of the business organization, to the nation and the world because of its prominence, financial management ought to thoroughly understand. The principal aim of financial management is to create best utilize of the organization intrinsic value and then make sure that the present stock price is equal to that value, information on the standard market is imperative for everyone participated in managing a trade (Ehrhardt and Brigham, 2011:30).

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., 2001:25). 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, 2003:233).

Financial decision making is the procedure of decision making in an offer to enrich the shareholder's wealth. Financial management comes into play the main role in cash administration, the acquisition of financing, in all aspects of increasing and assigning financial capital, and achieve into account the trade-off between return and risk. Financial managers are in requirement of accounting and financial info to perform their accountabilities (Shim, 2008:1). It is an essential and central part of financial management as short-term survival is a precondition for long-term success. One aspect of working capital management contains the trade-off between interest and risk (Khan and Jain, 2008).

Managers in all levels ought to make challenging financial decision constantly. Analytical tools or technical are significant in decision making, analysis, planning and control. Thus, several managers carry out the aspects of financial management and it is significant that managers can put on analytical techniques to their particular financial complications or decisions (Grossman, 2002:281). Financial management environment is characterized by a high-interest rate volatility, which reexplains in terms of risks and undiscriminating harms the value and cost-effectiveness of any organization. Interest rate risk of the balance sheet is replicated by alterations in the market value of an asset, as the present value of an asset is chosen by selling cash flows using interest rate or weighted average cost of capital (Yegon et al., 2014:162).

Financial decision is mainly characterized on info caused by the accounting system, financial management, potential investments, stockholders and creditors

emphasize on how well the organization is doing. The three reports produce by the accounting systems and comprise in the organization's annual report are the income statement, balance sheet and statement of cash flows. However, the organization of these financial declarations might alter between various businesses or other economic units (Delta, 2014:25).

An effective financial management will constantly influence the progress of the small and medium organizations. However, efficient financial management is possible to support small and medium organizations to empower their business efficiency and, in conclusion, these difficulties can incompletely be restarted (Abanis, 2013:30). Financial managers business safeties are priced in the free market as this could well has some influences on their financing decision, for example at what price to issue new shares (McLaney, 2009:185).

#### 2.2.1. 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.

Van Horne (1971) describes financial decision making, which are investment, financing and dividend decisions making. This part informs detailed about the three dimensions:

#### **2.2.1.1. 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 are 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, 2011:340).

Financial analysis is concerned with designing the future, and one of the strategic factors used to make decisions about the future is interest rates. Interest rates are the chief factors in determining the cost of capital; interest rates also offer benchmarks against which to make investment decisions (Vance, 2003:51).

The finance managers ought to cautiously determine the best investment modifications, indicate the suitable and the unchanging return from the actual investment (Paramasivan and Subramanian, 2009:8). Our psychological biases and heuristics have real financial influences.

The investment decision is the share significant points of the organization main decision, it comes to value making. It starts to determine of the total between of possessions required to be detained by organizations (Van Horne and Wachowicz, 2008:2). Investment decision in context indicates together long and short term reorganizations of organization funds. Short term investment decision embraces the level of the current asset (accounts receivable, inventories and cash), whereas long term investment decision embraces fixed asset (Grossman, 2002:281). Investors presume to create useful investors decision to invest in the organization that utilizes among debt, which boosts organization value (Eldomiaty et al., 2005:174).

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, 2015:13).

The knowledge regards as the basis for investment decision or the basis of knowledge by which the judgments of investing persons will be better constantly upto-date and relevant knowledge remains practice required for successful investment select and adaptation (Smith, 1971).

#### 2.2.1.2. 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, 2009:1).

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, 2008:204). It is prepared to clear throughout the development of the organization that the rank of function score of the proposals is to be offered key significance in financing decision (Hall and Hershey, 1992:1046). Organization's financing decision includes slightly decision made by bosses that have any financial application on procedures of the business. Financing decision related to the mix of financing obtained from capital market, in terms of the relative holding of debt and equity (Al Mutairi, 2011:2). If the cost of capital reduced via judicious mix of debt and equity funding, the financing decision can maximize the value of the organization. Also probable to permit the organization to have added complicated capital structures, which embraced various debts, preferred stock and warranty contracts. In doing this state-preference theory utilized to statement, the significant question of an organization is the best financing decision (Copeland and Weston, 1988:127).

There might be financing decision that the organization can create at the time that alters the nature of the claims represented by the bonds outstanding frame and so changes wealth from bondholders to stockholders or verse (Fama, 1978:275). The results offer some of the first clear evidence that tax procedure does significantly impact 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. The dynamic structure of the organization is optimizing problem also postures difficulties for an analysis of financing decision (MacKie-Mason, 1990:5).

The financing decision has perhaps stimulated the best debate in financing and strategic managements. Obtainable what is careful to be the dominant theory of financing organization? Their Proposition I holds that the value of an organization is independent of its capital structure. Whereas, proposition II states that the necessary amount of return on equity increases in a linear method with a financial advantage. The related cost of capital is a weighted sum of the costs of debt and equity, which does not alter with rises in utilizing of advantage (Slater and Zwirlein,1996:254).

#### 2.2.1.3. 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, 2011:11). Certainly, dividend decision is the preparation period for the planning procedure; there is uncertainty about future investment chances and operational cash flows (Brigham and Daves, 2007:604). 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, 2009:100).

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, 2002:285). The dividend rule necessity can be clarified by the managers of the economic who are in the administration and the investment side of the dividend decision (Rahman, 2015:144). Financial manager requirement decides whether the organization must distribute all profit and a portion, and retain them and the balance. Similar the debt strategy, the dividend rule necessity is selective in terms of its influence on shareholders' value (Javid, 2014:59).

Dividend decision is considered as type of the financial decision since they influence the sum of earnings that organization distributes to shareholders and the total earnings retained for reinvestment (Abu Manneh, 2014:12). The dividend decision related to the form in which revenues are generated by the organization is accepted to equity holders or shareholders. The optimal investment decision is the one that maximizes the current value of stockholder's wealth by utilizing capital budgeting processes (Al-Mutairi, 2011:2). The additional sophistic argument on the relation between the value of the organization and dividend payout while the dividend decision cannot alter the current value of cash payments to stockholders, it can influence the temporal design of payouts (Copeland and Weston, 1988:553).

The portfolio administration activities of an organization are the type of pure financial decision. From this outcome, it can infer that there is no requirement to control either the deposit making or the security purchasing activities of the organization for obtaining a stable overall stability with respect to real activity and prices (Fama, 1980:51). Several theories have been developed regarding the above payments of dividends. It is claimed that dividend decision is irrelevant in perfect capital markets. Advocate of great dividend payout arguing that investment place additional value on dividend distributions than expected capital gains since they are fewer risks. In disparity, progress a tax-based argument for a small dividend payout. Then the capital advances realized from stock position are taxed only when the stock is vended, there is a tax benefit to be paid small or no dividend to stockholders and deferring capital gains taxes to the time when the stock is vended. There are further considerations when setting dividend rule. Certain collections embraced retired persons, trusts and endowment funds prefer dividend over capital gains. It is recommended that dividends comprise info and can be utilized as reliable signals of organization future forecasts. The organization which increases its dividend payment is gesturing the market of higher prospects while dividend reductions signal lesser future estimated cash flows (Slater and Zwirlein, 1996:256).

Dividend decision is not suitable for the private university because of this type excluded from the questionnaire and not void.

### 2.3. INVESTMENT AND FINANCING DECISION IN UNIVERSITIES 2.3.1. Investment Decision in Universities

The university board should accept the budget set up by the universities, as well as should make a plan for investment decision. Outside members repeatedly bring a very unorthodox view to council deliberations. Bankers and industrialists, for example, think in terms of cost efficacy and quantifiable returns for investor and tend to implement this perception to the academic materials to put before them (Mayntz, 2002:25). Define the universal invest as expenditure to make gains in the future. Universities have to invest to improve and stay in the advantage of market.

Nowadays, investment decision issue is discussed and dealt by worldwide organizations like the World Bank, European Commission and the European Bank for reconstruction and improvement. They are the ones who express some exact procedures to achieve investment decision (Virlics, 2013:169). They established by the substitutes to obtain feedback from the public university on the plans and to discuss the organization's issues that arise between the managerial and investment functions.

Also, make and apply a procedure to monitor and evaluate the plan's investment structure and the Fund Opportunities, created in such episodic evaluations and consultation with suitable parties, and create changes to either the asset classes or fund opportunities. The fund seeks to offer long-term growth and income done by a single balanced collection of equity and fixed income safeties, the collection maintains a similar asset allocation (Bclark, 2013:11). Our emphasis on the decision of the investment and support managers of the university as a whole, they might lack of the information required to create investment decision. The constant of the own collection in this regression will be an overestimate of the average impact of colleagues' adoptions in the university (Duflo and Saez, 2002:122). Return on investment is the main emphasis within higher education communities with various entities defining return on investment in both complementary and different ways.

The middle of education and the staff, for example, issued a report that explored the economic value of different college means, additional cementing on the use of university income gains mains on academic majors as the main metric to understand higher education's return on investment. Similarly, the conducted survey also looked at the insights of the economic viability of attending college (Gasman, 2016:1). Hedge account managers have persuaded organizations to invest billions of dollars from public pension strategies and university endowments. An entire manufacturing of financial consultants, many with vested benefits in promoting the development of the hedge account manufacturing, have sold hedge account investments with the twin promises of higher revenues and downside protection. In the conversation for higher management and performance fees, hedge capitals objective consistent, positive revenues not tied to the whims of the market. By seeking to generate revenues with a low association to other possessions, hedge account managers claim that these "alternate" investment can assist diversify investors' portfolios (Gilbert, 2016).

#### **2.3.2.** Financing Decision in Universities

The study offers a vision of how universities allocate capitals to academic subjects (Angluin and Scapens, 2000:1). A financial management in higher education institutions embrace the management process and related activities, organizational structure, assignment of accountabilities, interrelations of financial management decision and other fields of the institution, and the usage and coordination of financial strategies within the institution (Hyatt, 1986:32).

The focus on the arrangement in universities financing from the state are fixed and funded followed student numbers, with the focus on the tactical administration when national financing is declining and universities are in need additional correct market. Development procedures might effort well when university have a near future, but are less applicable when the environment is stormy (Shattock, 2000:93).

The university will mention other financing chances (e.g., joint ventures, real estate development, etc.) when suitable and beneficial to the university. Chances and financing sources assessed within the context of the Debt Policy.

To make sure about the appropriate mix of funding sources is utilized; the university occasionally reviews this debt strategy. This policy is constantly used by manager as a tool to assess the university's organizational and capital financing structure, the fitting use of the advantage and inner lending instruments (Boone, 2010).

After categorizing the sources of income and the breakdown of expenditures for universities, carefulness is direct to procedures for allocating funds for educational purposes, research, central services, premises, furniture and equipment, and central administration (Shattock and Gwynneth, 1983).

Universities in receipt of financing through an institutional strategy as part of the excellence agreement might embrace the further improvement of presently funded measures in their proposals as long as they face the financial necessities of the fineness strategy.

Tactical objectives framed in the proposal for a university allowance within the clusters of excellence financing line ought to be coordinated with those in the proposal for the universities of excellence funding line (Grau et al., 2016:3).

Financing pool can be opened by groups within the university communal to perform innovative initiatives and new approaches to current problems in education, learning and management. Generally, a self-governing board of advisers describes appropriate standards and criteria for financing decision and makes them public in the scientific community.

An impartial evaluation of these financing presentations is a critical undertaking. It is essential to be carried out in a fully transparent method in demand for subsequent decision to be credible within the university communal (Marquis, 2010:4).

# 2.4. 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., 2010:153).

Consequently, the effect of intellectual capital procedures on the future university is a useful way to recognize the weaknesses and to provide the necessary approaches for managers to make financial decision more effective (Momeni and Esmaeili, 2015:379). 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, 2013:81).

Along with intellectual capital, economic value added a measure that can assist investment with their financial decision making, examined the effect of the components of intellectual capital on venture of financial decision of university decision.

Accordingly, the results indicated a significant effect of components of intellectual capital on the performance and financial risk of organization (Salehi et al., 2014:263). According to Chen et al., (2002), inspected the relation among organizations intellectual capitals and financial decision value ratios, used university listed sample. Also, the collective influence of organization's intellectual ability is used. Moreover, they analyze whether intellectual capital capital contributes to organization's financial decision and can be utilized as a leading indicator for future financial decision (Chen et al., 2002:159).

Therefore, the importance of the real choice model of the structural capital to understand two distinct roles by intellectual capital in universities financial decision making. First, intellectual capital bounds universities debt capability since of its small insolvency value. Second, intellectual capital improves universities debt capability through its positive influence on the earnings dynamics (Liu and Wong, 2011:1861).

The same argument examined the constituents of intellectual capital (Human, structural and customer capitals) and its effect in 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 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, 2014:5).

Despite the fact that the most data management and intellectual capital study developed during the last years refers to a private university, there is an increasing attention in universities and research centers. This modern concern is due to the fact that universities' key objectives are the creation and diffusion of information, and the most important financial decisions are in research and human resources (Owais, 2014:59).

Three combinations of intellectual capital are in an important relation with financial decision is in the highest correlation. Firstly, human capital, customer capital has a second high associated with financial decision making. It is suspected that the greatest significant basics to arise financial decision in knowledge create a university in the units of the Human and customer capitals. Besides, there is an important relation among intellectual capital and efficiency based on the value of the intellectual capital model (Moradi et al., 2013:121).

In the study properties of intellectual capital elements, an important amount of research on intellectual capital has been interested in measuring the extent to which it exists in universities account of their resources. By analyzing annual reports of the universities in Erbil city, the study has inspected intellectual capital reporting patterns of organization. Study of disclosure of intellectual capital and human capital are the greatest general, structural capital accounted the least report is customer capital. Such examine illustrates that human capital is offering more focus in financial decision than the further two intellectual capital component. Universities statements on intellectual capital frequently creative all ingredients in the financial decision so that their intellectual capital statement reflects broadly on the universities knowledge possessions (Murthy and Mouritsen, 2011:625).

#### **2.5. PREVIOUS STUDIES**

Dženopoljac and Janoševic (2016) conduct a study on intellectual capitals generates value in Serbian information and communication technology sectors. More precisely, they examine the degree to which intellectual capital and its main components affect the financial performance of determining information communication technology enterprise compared to effects on physical and financial capital. The methodology of analysis included 13,989, Serbian information and communication technology companies from 2009 to 2013. Value-added intellectual coefficient was used to measure the level of intellectual capital contribution to value creation. Results indicate that, by utilizing enterprise size and advantage as control variables, only capital-employed efficiency has significant influence on financial performance.

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 influences on the acceleration of the financial reporting submitting.

Shahid et al. (2016) investigate a study on the financial decision's risk acceptance of managers affected by demographic and behavioral characteristics on financial decision making. This study reached to consider various reasons, particularly connected to personality and influence risk agreement of the managers. In this particular study, the influence of various demographic reasons including; age, marital status, gender, education level along with some behavioral factors i.e. excessive optimism, overconfidence and emotional information is determined which influenced the financial decision making procedure. The sample of this study was collected through 250 questionnaires which answered by different professionals holding managerial positions in their respective organizations. Also, a convenient base sampling technique is employed as firms from Lahore and Islamabad are considered. Along with literary evidence, the questionnaire is used as a key data gathering tool for

empirical assessment of the model. The results in a model are accepted as a whole and all the variables including both; behavioral variables, for instance, excessive optimism, overconfidence and emotional intelligence, and demographic variables include age, gender, marital status and education, are found significant.

Zavertiaeva (2016) examines the objective of this paper is to present a tool to categorize enterprise as potentially profitable founded on an intellectual capital analysis. The methodology distinguishes two crucial ascriptions for picking shares; intellectual capital and capitalization of intellectual capital-based development potential. Using these two ascriptions, the author creates a portfolio from a sample of European companies and annually rebalances it. In order to test its attractiveness, the author compares the portfolio with benchmarks and random portfolios during the period from 2006 to 2013 using a Sharpe coefficient. Results the comparison of the made portfolio with the benchmarks demonstrates of the significance of intellectual capital for market investors and the validity of the proposed tool. The Sharpe ratio of the portfolios. Also, the significance of intellectual capital in choosing appropriate investment aim rises in crisis.

Gogan et al. (2016) examine the field of organizational performance in financial reporting, which is an indicator of investor decision-making, must always be aware of the importance of accounting for decision making in the economic sector. However, in the knowledge era when intellectual capital accounts for the majority of product value, traditional annual financial statements report only a portion of the value of intangible assets (concessions, licenses, patents, trademarks, etc.). In fact, intellectual capital is an important activity for the organization in order to gain an efficient and sustainable competitive advantage in the market. The purpose of this research is to investigate the relationship between intellectual capital and organization performance in four companies that are water drinking circulation between 2010 and 2014. According to the research purpose, four hypotheses were determined and all of them were proved accurately. The results obtained from the study showed that there were important relationships between intellectual capital and organizational performance.

Shahnazi and Azadi (2015) conduct a research on impact of working capital and financial decision-making management on profitability of listed enterprises in Tehran's securities exchange. In this direction, all listed companies in bourse during time period 2009-2013, were investigated that after systematic deletion of some corporations, regarding contracted defaults, numbers of 141 companies were takes as a sample. Research results show that there is an important relation between decision making about corporate finance and working capital composition. In addition, also combination of working capital and decision making in corporate finance, each independently has an influence on corporate profitability, but a combinational reaction of working capital and corporate debt ratio do not have a significant relation to corporate profitability.

Tseng et. al (2015) Found relationship between intellectual capital on financial capital, enterprise value and value creation in different business cycles for the conduct of strategic management that will maintain stable values and further increase the value. The methodology of this research cites intellectual capitals as "other information" to combine intellectual capitals and the Ohlson model. Information provided by various capitals is validated by multiple regression analysis. Multi-group analysis is performed to test whether the coefficient is moderated by business cycles. Results indicate the significant information about intellectual capitals and financial capital, and the eventuality perspective of business cycles. The value relevance of intellectual capitals is moderated by business cycles. Prosperity has more explanatory abilities and recession intellectual capitals yield more incremental information.

Deep and Narvall (2013) investigate a study dealt with the analysis of the relation between the intellectual capital and the Indian textile enterprises financial performance period of 10 years ranging from 2002 to 2012, and by making utilize of the residual aggregate of the squares regression model, for the study, corporate annual reports, particularly the profit and loss accounts and balance sheets of the selected enterprise for the relevant years have been used from CMIE prowess database. The result was that the textile companies' intellectual capital value-added is in a positive relationship with the companies' outputs

Mwakujonga and Bwan (2013) study about the practice of preparing and using financial Information in financial decisions, they said that many small business owners in Tanzania ignore the important role to prepare and use financial information for decision making. A survey design was adopted in which a service industry (tourism, marketing, advertisement, transportation and health, insurance) of small and medium enterprises were randomly selected and total of 140 companies sample were created. In the study, They used both primary and secondary information. They gathered primary information through questionnaire survey. They applied statistics and descriptive analysis to explain the investigation phenomenon. As a result of the survey, small and medium companies showed that financial information internally was rarely prepared and used. The information was intentionally created to meet the requirements of financial institutions, business registries and income authorities. Most small and medium companies prepare financial information using external financial experts. They do not have sufficient internal resources.

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 of 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, relationship) of intellectual capital are most relevant to 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.

Graaf (2013) examines a study to explore how managers are mobilizing intellectual capital items when approaching their investors and analysts. The study applies a performativity approach to intellectual capital, in which framing theory is mobilized to understand the duality of financial indicators. The empirical material was collected through a case study approach, focusing on the interim reporting practices of a Swedish online gaming company. The study investigated a total of 16 earnings announcement and their accompanying conference calls in the period of 2008-2011. In addition, five interviews with top managers and financial analysts were performed. Findings suggest that intellectual capital is highly dependent on financial indicators and can therefore not be treated as the opposite of financial capital. Instead of complementing financial capital, intellectual capital is the symptomatic quality of financial indicators, i.e. a way to make sense, contextualize and reconnect a disentangled representation with empirical phenomena.

Deylami and Ramezani (2012) conduct a survey on the impact of the intellectual capital on the quality of the financial information quality of the enterprises accepted in Tehran's securities exchange market. In the study, the data connected to the intellectual capital and the quality of the financial information were collected from 94 firms during the years from 2001 to 2010, and the extracted data were analyzed by taking advantage of the structural equation method. The results found therein indicated that between the intellectual capital components the structural capital views the highest association and human resources and the physical capitals come next in the hierarchy of their values and impacts.

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 a 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 relations between intellectual capitals and financing decision that grow real alternatives model to understand two different roles played by intellectual capital in 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 organization's advantage is statistically and economically significant.

Nazari (2010) conducts a study which aims to explore and recognize the relationship between components of intellectual capital and a company's financial success. This research offers a unique contribution by linking two disparate fields in the intellectual capital literature; components of intellectual capital and a firm's financial success. The data for the study has been obtained from archival sources. Used a secondary archival database, research Insight, in order to collect data on variables of interest. The sample includes 775 companies and the year of observations is from 1996 to 2006. Based on the research objectives, they have used six variables; three variables to measure intellectual capital and three variables to measure financial performance. Initial data analyses were conducted through SPSS. The hypothesized model was then tested using structural equation modeling. Maximum likelihood estimation from LISREL 8.4 was used to determine the model estimates. The results showed that intellectual capital is positively and significantly associated with firm's financial performance.

Clark (2010) described human nature, environment, behavior, explanation of the scope and geographical scale of financial decision making. The article discusses two related themes. Firstly, traditional behavioral theory argues that the reliable evaluation of the interaction between cognition and context (or sometimes called "environment") has lacks and addresses the fundamental question of human nature. The second one focuses on the importance of customary behavior and conscious decision making and takes into account decisions under risk and uncertainty. The researcher's argument is intended to be critical and constructive by exploring emerging behavioral school arguments relating to Kahneman and Tversky, which are currently scavenging social science. Most importantly, economic geography is alleged to take more seriously the nature and scope of behavior recognizing its attributes, including the relevant social and cultural desires. These ideas are demonstrated by a series of recent studies dealing with financial decisions and personal attitudes towards the risks in personal and occupational pension schemes. The importance of this project lies in the urgent needs to understand the diversity of male and female behavior in communities living without being reduced to another version of environmental

determinism. In the last section, suggestions are given to understand the global financial crisis.

Carr and Steele (2010) state that stereotype threat affects financial decision making. The research provides the first evidence that decision making may be affected by stereotypes and concerns about the devaluation of individual identity. In many studies gender differences in decision making are documented and these differences are often due to innate and stable factors such as biological and hormonal differences. In the three studies it was found that the threat of stereotype influences decision making and leads to gender difference between loss and risk avoidance, in a study, a woman exposed to stereotypic threats in academic and business situations, i.e. the threat of seeing against the negative stereotypes. Without the threat of stereotypes, there was no loss of hatred behavior due to gender differences. In studies 2a and 2b, they found the same pattern of evasive behaviors observed for loss avoidance behaviors. Furthermore, in Study 2b, ego depletion mediated the threat of stereotypes towards women's decision-making. These results suggest that individual decision making may affect stereotype concerns.

Fazlagic (2005) is study aims to analyze some fundamental issues related to the measurement of university intellectual capital. The main motivation of the paper is the European Humboldt equation, and university has a low innovation rate, poor human relations with the industry resource management policy. For this reason, universities need innovative management methods. The paper is not just a theoretical reflection, but it is also a collected practical opinion during the project "Poznań Economics University Intellectual Capital Report 2005" by Poznan, author of Poznan economics university in Poland. By some practical observations hints are included to provide hands-on practical knowledge for applicants, in the study a similar exercise at the remarkable university will be done. The author's opinion does not necessarily reflect the opinion of Poznan University. Also, economy is some of the remarks mentioned in this document; this study has no close relationship with Western European universities.

Bontis et.al (2000) aimed to investigate the three elements of intellectual capital, human capital, structural capital and customer capital, and their interrelationship in the two industrial sectors of Malaysia. The survey was conducted by using psychometrically verified questionnaires originally conducted in Canada. The

main conclusions of the particular study were as follows. Human capital is important regardless of industry, human capital has a great influence on how to construct a business in non-service industry compared with service industry, and customer capital has a major impact on structural capital regardless of industry. Finally, the development of structural capital is positively related to performance regardless of industry. The final designated model of the survey shows a robust explanation of the variance of business performance in the context of Malaysia and will be useful for future research in alternative situations.

Slater and Zwirlein (1996) stated that the pattern of financial decision-making could have a significant impact on shareholder's value creation. Financial strategy is the result of corporate investment, financing and dividend decisions. The purpose of the survey is to show how companies coordinate these decisions and how the resulting financial strategy relates to performance and other key sales characteristics. To accomplish this, they gathered the S and P Industry 400 company on each of the two scales of the three financial strategy decisions. Many strategic and descriptive variables were also used to aid cluster identification and interpretation. Financial strategy and performance characteristics are being discussed on seven strategies that they are able to discover and provide.

# SECTION THREE 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. Also, to address the study questions arise and the hypotheses plans. Therefore, the section, discusses study design, the description of the study sample, data collection instrument, scale, reliability and validity, and data analysis.

The study approach employs 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. In addition, a quantitative method is commonly applied in the study when working with statistical data. Hence, quantitative study commonly contains numbers and statistical measures that help clarify, describe, explore and illustrate the relations among variables. Furthermore, the quantitative study is able to see as a study method that across statistical and quantify the results that are found in the fact tries to measure aims to pro duct general info. The questionnaire scale of the intellectual capital adopted from PhD thesis by Mazlan Bin Ismail 2005 and financial decision making scale from PhD thesis by Mohammad Al Mutairi 2011.

### **3.1. 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 relation 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.

#### **3.2. STUDY SAMPLE**

As it's presented in Table 3.1 the sample for this study involves 6 private universities in Erbil. Hence, the private universities are selected as the population of the study is 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 knowledgeable this practice more currently.

S	University Name	Participated Managers	Valid Answers			
1	International University of Erbil	15	15			
2	Cihan University- Erbil	24	23			
3	Bayan University	15	14			
4	Ishik University	26	25			
5	Lebanese French University – Erbil	20	20			
6	Knowledge University	19	18			
	Total Sample					

 Table 3.1: The Study Sample

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 is successfully collected from all 6 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 relation data is 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 one 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 percent. 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.

#### **3.3. DATA COLLECTION INSTRUMENT**

As shown in Table 3.2 a self-design questionnaire, establish in the literature improved by the study and utilized a measure of the key variables in the study and to collect data from the sample. The study chose the survey questionnaire as an instrument for collecting data because of its relevance for the study approach and design and for the potential profits, it offers. A large total of data it offers in a relatively non-costing and quick way made it a practical and convenient method for this study. Furthermore, when the questionnaire survey is conducted on a regular and aim manner, more confidence additional in general the results.

Major Variables	Sub-Variables	No of	Scale
	Components	Statements	Symbol
First: Demographical variables (General information)	Gender, Age, Academic Degree, Scientific title, and Overall Job Experience.	5	
Second: Intellectual capital	Human capital	5	X1-X5
	Structural capital	5	X6-X10
	Customer capital	5	X11-X15
Third: Financial decision	Investment decision	5	Y1-Y5
	Financing decision	5	Y6-Y10

Table 3.2: The Questionnaire Structure

As reveal in the above Table, the questionnaire is distributed into three sections, respectively. The first section of the questionnaire contains six demographic questions and other two sections contain questions on intellectual capital that could measure the variables defined in the questions and hypotheses of the study. The description of each one of the sections is present in the Table 3.2 that also illustrate the questionnaire structure, also see the appendix 1.

### 3.4. SCALE

The survey questionnaire has three sections. Firstly, the demographic variables general information. Secondly, intellectual capital which has 15 items that is modified from the factor questionnaire (Bin Ismail, 2005). Thirdly, financial decision making has 10 items that are factored questionnaire (Mohammad Al Mutairi, 2011). All intellectual capital items are measured by using a 5 point Likert scale ranging from "Strongly Disagree "1 to "Strongly Agree" 5. These items are divisional of the 3 factors of intellectual capital.

While the scale of financial decision making is adopted for the study (Mohammad Al Mutairi, 2011). The items are measured by utilizing a point Likert scale ranging from "Strongly Disagree"1 to "Strongly Agree" 5. In order to verify the reliability and validity of the questionnaire, Cronbach Alpha tests are conducted as shown in following.

### **3.5. RELIABILITY AND VALIDITY**

It is considerably essential that the instrument use 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 generate data. It means that 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.

Table 3.3: Reliability Statistics

Variables	Cronbach's	N of	Ν	%
	Alpha	Items		
Human Capital	0.867	5	115	100.0
Structural Capital	0.848	5	115	100.0
Customer Capital	0.824	5	115	100.0
Investment Decision	0.771	5	115	100.0
Financing Decision	0.758	5	115	100.0

As shown in the above Table 3.3 the Cronbach's Alpha score for the intellectual capital components are 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 measure 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 is already validity check, however, since some of the items are altered or reorganize the researcher check the validity of the questionnaire through creation it check and estimate. Internal validity is else linked to the credibility of the study, but differs in that it is additionally concentrate 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).

# **3.6. FACTOR ANALYSIS OF THE VARIABLES**

The results of factor analysis for various constructs are given in Table 3.4 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.

Constructs	Components	Factor loadings Coefficient
	X1	.766
	X2	.640
Human Capital	X3	.674
	X4	.713
	X5	.709
	X6	.625
	X7	.719
Structural Capital	X8	.690
	X9	.774
	X10	.694
	X11	.674
	X12	.706
Customer Capital	X13	.775
	X14	.676
	X15	.642
	X16	.638
Investment Desision	X17	.334
Investment Decision	X18	.452
making	X19	.206
	X20	.413
	X21	.514
Financing Decision	X22	.245
making	X23	.222
_	X24	.382
	X25	.470

Table 3.4: Factor analysis Coefficient and Statistical Indicators

As revealed in Table 3.5 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 at p < 0.05 which is the indication of good correlation among questions in the questionnaire.

Table 3.5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of	.852	
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	1487.033
	Df	300
	Sig.	.000

From the Table 3.6 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 affecting the phenomenon.

Component	Initial Eigenvalues							
Component	Total	% of Variance	Cumulative %					
1	9.025	36.101	36.101					
2	2.388	9.552	45.653					
3	1.420	5.681	51.333					
4	1.236	4.942	56.276					
5	1.102	4.408	60.684					
6	1.076	4.304	64.988					
25	.116	.466	100.000					

Table 3.6: Total Variance Explained

Extraction Method: Principal Component Analysis

### **3.7. 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 are 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, and t-tests.

The correlation analysis is utilized to identify the relation among independent and dependent variables utilizing Spearman correlation analysis. The correlation analysis illustrates only the degree of relation between variables and does not permit the researcher to make underlying inferences regarding the relation 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.

### **3.8. 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.

# **3.8.1. DESCRIPTIVE STATISTICS**

Demographic data in the study is collected and analysis 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. In order to explore the sample and to obtain more information about it and its alignment, the study applies descriptive analysis to achieve this purpose:

		Frequency	Percent
Valid	Male	93	80.9
Gender	Female	22	19.1
	Total	115	100.0
Valid	30-40 years	71	61.7
Age Groups	41-50 years	25	21.7
	51-60 years	11	9.6
	61 years and more	8	7.0
	Total	115	100.0
Valid	PhD	35	30.4
Academic Degree	Master	80	69.6
	Total	115	100.0
Valid	Professor	3	2.6
Scientific Title	Assist. Professor	16	13.9
	Lecturer	29	25.2
	Assist. Lecturer	67	58.3
	Total	115	100.0
Valid	21 years and	22	19.1
Overall Job Experience	More		
	10 - 20 years	36	31.3
	Less than 10 years	57	49.6
	Total	115	100.0

Table 3.7: Frequency Table for Demographic Data

As indicated in the Table 3.7 the percentage of gender participate in the survey are male 80.9% and female 19.1%. And the frequency of the participant's ages,

61.7% are aged between 30-40 years old, while 21.7% are age 41-50 years old; besides 9.6% are age between 51-60 years old; however, 7% of the total sample is age 61 and more. As concise in the above Table, the frequency of the participants according to their academic degree, it is display that of the total respondents: 69.6 % are Master Degree; while 30.4 % of the respondents are Ph.D. holders.

As specified in the Table 3.7 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 Professor. Finally, From above Table, the respondents Overall Job Experience in the education sector, it is present that of the total respondents: 49.6% are Less than 10 years, and 31.3% are between 10-20 years. While the lowest 19.1% of the total respondents 21 and more years worked in the education sector.

### **3.8.2. 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 standard deviation scores of each component of the variable to find if there is any rank of significance.

#### **3.8.2.1.** Descriptive Statistics of Intellectual Capital Components

From the Table 3.8 the mean and standard deviation 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  $X_2$  and  $X_1$  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  $X_5$  "The university administration provides a conducive working environment for managers to share ideas and practice creativity." M= 3.37, and SD= 0.986.

No. of items	Explanation of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Rate of Agree
		1	2	3	4	5			
X1	University has a highly competent management team and Management Committee Meeting.	1	12	26	61	15	3.67	.866	73.4
X2	University managers are experts in their academic jobs	2	11	27	55	20	3.70	.929	74
X3	University managers are brilliant, innovative and creative.	2	19	36	37	21	3.49	1.029	69.8
X4	University has the capabilities to operate the information system required for them to perform their jobs.	2	17	35	45	16	3.49	.968	69.8
X5	The university administration provides a conducive working environment for managers to share ideas and practice creativity.	2	23	33	44	13	3.37	.986	67.4
	Overall Component	•	<u> </u>	<u></u>	<u>.</u>	•	3.54	.7735	70.8%

Table 3.8: Result of Descriptive Analysis of Human Capital

n=115

#### Mean\*100

\* Rate of agreement =

5 (Five- point Likert Scale)

As it is presented in the Table 3.9 the mean and standard deviation 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  $X_7$  riches this components "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  $X_9$  "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.

No. of items	Explanation of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Rate of Agree
		1	2	3	4	5		-	
X6	Policies, procedures and work instructions in my university are contained in manuals and databases.	2	20	31	48	14	3.45	.976	73.4
X7	Knowledge and information in my university are embedded in our structure, system and procedure.	3	9	38	53	12	3.54	.881	74
X8	University has accessibility to information system required for them to perform their jobs.	6	14	33	50	12	3.42	1.009	69.8
X9	We use extensive and advanced integrated management system in our academic operation to provide better services for their students.	6	22	34	41	12	3.27	1.054	69.8
X10	Process improvement and innovation of its services and systems are done actively to improve my university performance as well as to reduce cost.	3	16	35	53	8	3.41	.907	67.4
	Overall Component							.7629	68.3%

 Table 3.9: Result of Descriptive Analysis of Structural Capital

It performs from the Table 3.10 the mean and standard deviation score for costumer 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  $X_{15}$  "University collaboration with international Universities to enhance the University competitive level and performance." and  $X_{14}$  "University brand name is well- known in education services." riches this component. Table 3.10: Result of Descriptive Analysis of the Customer Capital

No. of items	Explanation of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Rate of Agree
		1	2	3	4	5		n	·
X11	Our vendors have performed extremely well in supporting university to achieve our academic targets.	7	15	34	48	11	3.36	1.028	73.4
X12	University uses student feedbacks effectively to provide quality services to their students.	4	18	38	38	17	3.40	1.033	74
X13	University uses feedback and recommendations to improve academic and education services for students.	5	17	32	46	15	3.43	1.035	69.8
X14	University brand name is well- known in education services.	4	13	28	52	18	3.58	1.000	69.8
X15	University collaboration with international Universities to enhance University competitive level and performance.	5	12	28	42	28	3.66	1.091	67.4
	Overall Component						3.485	.7951	69.7%

#### n=115

### 3.8.2.2. Descriptive Statistics of Financial Decision Making

From the Table 3.11 the mean and standard deviation 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 are important. The results show that  $Y_2$ ,  $Y_3$  and  $Y_5$  riches this component. Consequently, the lowest is  $Y_1$  "Higher educational business sustainability have a high priority in the investment decision making procedure."

As it is shown in the same Table the mean and standard deviation score financing decision making are 3.5617, and 0.617 respectively, although 71.2% of the total responses identify that financing decision important, however, 28.8% of the sample did not agree. The result also reveals that Y<sub>9</sub> riches this component "The adopt a higher education strategy can impact organization's strategic investments and therefore financial performance." Moreover, the above Tables present the 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.

No. of items	Explanation of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Rate of Agree
		1	2	3	4	5		n	
X16	Higher educational business sustainability has a high priority in the investment decision-making process.	4	12	36	48	15	3.50	.968	70.0
X17	University decision makers must evaluate the potential private educational risks that can affect business objectives and planning process.	3	4	32	48	15	3.78	.906	75.6
X18	The educational business sustainability practices are crucial for business future success.	2	6	30	58	19	3.75	.857	75.0
X19	One of the main objectives of the university it should focus on reducing the costs.	2	20	33	36	24	3.52	1.063	70.4
X20	Government regulations should be view as an opportunity that assists the university to facilitate its investment decision.	2	8	29	54	22	3.75	.907	75
	Investment decision	-	_	_	-	-	3.660	.5936	73.2 %
X21	University must report its educational performance to the community in either financial annual report or via other published sources, or on their website.	6	14	30	46	19	3.50	1.071	70
X22	A lack of standard decision-making framework especially private university is one of the barriers to incorporate sustainability into financial strategy.	4	13	34	47	17	3.52	.994	70.4
X23	The institutional social responsibility can create additional economic costs for the university.	5	15	26	52	17	3.53	1.037	70.6
X24	The adopted higher educational strategy can influence organization strategic investments and consequently financial performance.	1	8	31	62	13	3.68	.801	73.6
X25	When making financial Decision, there is awareness of educational sustainable business practices.	3	6	37	60	9	3.57	.817	71.4
	Financing decision						3.561	.617	71.2 %

Table 3.11: Result of Descriptive Analysis of the Financial Decision Making

n=115

## **3.8.3.** 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 the Table 3.12 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 relation with

financial decision making on the p-values of 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.

 Table 3.12: Spearman Correlation Analysis between Intellectual Capital Components

 and Financial Decision Making

Variables	Human	Structural	Structural Customer Intel	
	Capital	Capital	Capital	Capital
Financial decision	.345**	.406**	.466**	.456**
making				
Sig. (2-tailed)	.000	.000	.000	.000
N	115	115	115	115

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

### **3.8.4.Regression Analysis of the Variables**

As revealed in the Table 3.13 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 0.258 of the financial decision making as characterize by the R Square. Accordingly, this specifies that human, structural and customer capitals analyses for 25.8 % of the financial decision making of private universities in Erbil, as present in the Table below.

Table 3.13: Model Summary

Model	R	R Square	Adjusted R square	Std. Error of the estimate				
1	.508ª	.258	.251	.46546				
a. Predictors: (Constant), intellectual capital								

As specified in the Table 3.14, the **F-test** 39.296 and **DF** 1,108, significance p < 0.05. Hence, the model has it is statistical significance in forecasting how human, structural and customer capitals effects in financial decision making of private universities in Erbil. Therefore, the whole model is significant.

Model		Sum of	Df	Mean	F	Sig.			
		squares		square					
1	Regression	8.514	1	8.514	39.296	.000 <sup>b</sup>			
	Residual	24.482	113	.217					
	Total	32.995	114						
a. Dependent Variable: Financial Decision Making									
b. Prec	lictors: (Consta	nt), Intellectual (	Capital						

Table 3.14: F-test of Significance Analysis

As the results presented in Table 3.15 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 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  $H_2$  can be proven.

Model		Unstandardized coefficients		Standardized coefficients	Т	Sig.	Multicollinearity		
		B Std. Beta Error				Tolerance	VIF		
1	(Constant)	2.624	.217		12.075	.000			
	Intellectual Capital	.388	.062	.508	6.269	.000	1.000	1.000	
	Human capital	.279	.060	.401	4.650	.000	1.000	1.000	
	Structural capital	.307	.060	.436	5.148	.000	0.836	1.196	
	Customer capital	.366	.054	.542	6.847	.000	0.745	1.343	

Table 3.15: Regression Analysis

Coofficients a

a. Dependent Variable: Financial Decision Making

Further, Table 3.15 shows the multicollinearity Figures. If VIF value less than 5 and tolerance value is above 0.1, it means there is no multicollinearity between independent variables.

As above Table 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.

# 3.8.5. Results of Hypothesis

As revealed in the Table 3.16 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 3.16: Results of Hypothesis

	Hypotheses		Result
$H_1$	There is a positive relationship	R=0.456**	Accept
	between intellectual capital and	And Sig (p < 0.05)	
	financial decision making.		
$H_{l.a}$	There is a positive relationship	R=0.345**	Accept
	between human capital and financial	And Sig (p < 0.05)	
	decision making.		
$H_{l.}b$	There is a positive relationship	R= 0.406**	Accept
	between structural capital and	And Sig (p < 0.05)	
	financial decision making.		
$H_{l.}c$	There is a positive relationship	R= 0.466**	Accept
	between customer capital and	And Sig (p < 0.05)	
	financial decision making.		
$H_2$	There is a statistically significant	R Square= 25.8% model	Accept
	impact of intellectual capital on the	accept. F-test (39.296;	
	financial decision making.	p<0.05) of significance.	
		Impacts analysis (0.506)	
		t-test = (6.269; p < 0.05)	

### **CONCLUSIONS AND RECOMMENDATIONS**

This study investigated the role of intellectual capital on financial decision making of the private universities in Erbil. To address this goal, the study examines the relationships between intellectual capital and financial decision by taking indication from select private universities in Erbil. Hence, the study tested the impact of intellectual capital in financial decision making by using investment decision and the financing decision based financial decision making measures.

The results showed that there is a positively significant relation between independent variables and dependent variables.

Also, 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 have the weakest effect on financial decision making.

The importance of the results of this study in private universities is to employ of mental abilities which is based on a sample of managers in universities whereas other studies depend on the sample of collect data from many resources such as financial reports, shareholder influence reports, internal strategy reports and semistructure interviews.

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.

The content of this study is to find out the investors' relations between intellectual capital and financial decision making in private universities in Erbil. Therefore, this study has implications for managers, investors, regulators and stockholders authorities consider these results as a financial decision making. Managers must make suitable utilizing of available finances for the long-term growth and subsistence. As the findings and conclusions mentioned above show that it has effectively managed and leverage 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 the 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 an 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 in order to invest a positive relation 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.

Moreover, it is essential that managers of the participants in financial decision making; the requirement to maintain a great level of intellectual capital and its components, and to attract greatly qualifier academics, talent and skill workers with the universities. A private university in Erbil finds adequate data on academics inventers and where to discovery suitable methods to measure and where the intellectual capital is based. Moreover, to continue to maintain the managers of the great skill and the accumulate development and experience of strategies and future programs. This is done to activate the role of human capital, of academics, in order to make them more effective.

Besides, working to increase financial decision making for intellectual creativity and contribute to translating into reality reflect positively on the education sector in the private universities in Erbil.

The results of this study pairs to the existing form of study literature which have too failed to find statistical significance in the relation among intellectual capital and manager's financial decision making of private universities. The results, although, found only on two different financial decision variables; thus it is suggested that the future study must use a larger number of factors to test for significance in the relation between public and private universities in Iraq.

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

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### APPENDIXES

#### Appendix (1) Questionnaire form

### T.C UNIVERSTIY OF GAZIANTEP GRADUATE SCHOOL OF SOCIAL SCIENCES BUSINESS ADMINISTRATION

# **Questionnaire form**

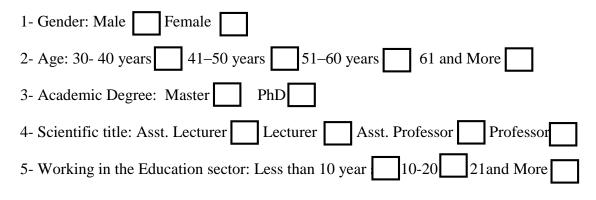
Dear sir/ Madam. Esteem expert .....

This questionnaire form is a part of the study entitly " **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 ( $\sqrt{}$ ) the appropriate answer from your point of view, as the complete answer all phrases resolution and accuracy of the answer surely will be reflect 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**



Supervisor	Co - Supervisor	Researcher
Assist. Prof. Dr. Ş. Gül Reis	Dr. Luqman M. Saeed	Kamal Mohammed Abdullah
-		Master Student

S	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	A. Human Capital					
1	University has a highly competent management team and Management Committee Meeting.					
2	University managers are experts in their academic jobs					
3	University managers are brilliant, innovative and creative.					
4	University has the capabilities to operate the information system required for them to perform their jobs.					
5	The university administration provides a conducive working environment for managers to					
	share ideas and practice creativity.					
	B. Structural Capital			1	r	
6	Policies, procedures and work instructions in my university are contained in manuals and databases.					
7	Knowledge and information in my university are embedded in our structure, system and procedure.					
8	University has accessibility to information system required for them to perform their jobs.					
9	We use extensive and advanced integrated management system in our academic operation to provide better services for their students.					
10	Process improvement and innovation of its services and systems are done actively to improve my university performance as well as to reduce cost.					
	C. Customer Capital		<u> </u>	<u> </u>	<u> </u>	
11	Our vendors have performed extremely well in supporting university to achieve our academic targets.					
12	University uses student feedbacks effectively to provide quality services to their students.					
13	University uses feedback and recommendations to improve academic and education services for students.					
14	University brand name is well- known in education services.					
15	University collaboration with international Universities to enhance University competitive level and performance.					

Second: The Scale of Intellectual Capital

 Inversion of the bill o

Third:	The	Scale	of	financial	decision	making
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s	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	A. Investment Decision					
16	Higher educational business sustainability has a high priority in the investment decision-making process.					
17	University decision makers must evaluate the potential private educational risks that can affect business objectives and planning process.					
18	The educational business sustainability practices are crucial for business future success.					
19	One of the main objectives of the university it should focus on reducing the costs.					
20	Government regulations should be view as an opportunity that assists the university to facilitate its investment decision.					
	B. Financing Decision					
21	University must report its educational performance to the community in either financial annual report or via other published sources, or on their website.					
22	A lack of standard decision-making framework especially private university is one of the barriers to incorporate sustainability into financial strategy.					
23	The institutional social responsibility can create additional economic costs for the university.					
24	The adopted higher educational strategy can influence organization strategic investments and consequently financial performance.					
25	When making financial Decision, there is awareness of educational sustainable business practices.					

**Reference**: Mohammad Al Mutairi (2011). Corporate finance decision, governance, environmental concerns and performance in emerging markets. The case study of Kuwait, pp.348-349.