NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
INNOVATION AND KNOWLEDGE MANAGEMENT
MASTER'S PROGRAMME (MSC)

MASTER'S THESIS

THE EFFECTS OF INTELLECTUAL CAPITAL COMPONENTS ON ORGANISATIONAL STRUCTURE: A CASE OF SULAIMANIYAH MUNICIPALITY

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ABSTRACT

Intellectual capital, more than ever, is getting increasingly important, especially in this information era when organisations are witnessing a very changing environment. Intellectual Capital characterised as one of the most significant organisational assets. Because in the nowadays world organisational abilities are based on Intellectual Capitals. Therefore it is necessary to provide and improve intellectual capital in current organisations especially in the service sector such as Municipality. This research deals with the intellectual capital and organisational structure. The objective of this study is to reveal **the effect of Intellectual Capital components on organisational structure in the administration of Sulaimaniyah Municipality**. The observation of the survey based on the questionnaire which will be the most appropriate instrument to obtain data. 450 questionnaires distributed, and 389 staff responded in the Municipality of Sulaimaniyah. Statistical software (SPSS) V.23, used for analysing the data.

Based on the literature review and research model, the independent variable is Organisational structure: dimensions of the Organisational structure include Centralization, Formalisation and Specialisation. Depended variable is Intellectual Capital, and also components of Intellectual capital include Human Capital, Structure capital, and Customer capital. The results of the study revealed that: There is evidence that independent variable organisational structure has a statistically significant positive relationship with dependent variable intellectual capital. Results also show a significant effect of independent variable organisational structure on dependent variable Intellectual capital in the Municipality of Sulaimaniyah.

Keywords: Intellectual capital, Human capital, Structure capital, Customer capital, Organisational structure, centralization, Formalization, Specialization, Municipality of Sulaimaniyah.

ÖZ

Özellikle örgütlerin çok değişen bir çevreye tanık olduğu bu bilgi çağında entelektüel sermaye, her zamankinden daha fazla önem kazanmaktadır. Bu araştırma entelektüel sermaye ve örgütsel yapı ile ilgilidir. Günümüzde örgütlerin temel örgütsel nitelikleri ve yetenekleri Entelektüel Sermaye üzerine kurulmuştur. Bu sebepten Entelektüel Sermaye en önemli organizasyon varlıklarından biri olarak nitelendirilmektedir. Bu bilgiye dayanarak, özellikle Belediye gibi hizmet sektöründe yer alan organizasyonların entelektüel sermaye sağlamaları ve mevcut olanı geliştirmeleri gerekmektedir.

Bu araştırma, entelektüel sermaye ve örgüt yapısını baz alarak yapılmıştır. Çalışmanın amacı, Süleymaniye Belediyesi yönetimindeki Entelektüel Sermaye bileşenlerinin örgütsel yapı üzerindeki etkisini ortaya koymaktır. Verilerin toplanmasında en güvenilir yol olan en uygun ankete dayalı gözlem tercih edilmiştir. Çalışma süresince 450 anket dağıtılmış ve Süleymaniye Belediyesinde görev yapan 389 personel anketleri yanıtlamıştır. Verilerin analiz edilmesi için (SPSS) V.23. programı kullanılmıştır.

Literatür taraması ve araştırma modeli temel alınarak Örgütsel yapı; Örgütsel yapıyı oluşturan faktörler olarak bilinen Merkezileştirme, Formalizasyon ve Uzmanlık bağımsız değişken olarak belirtilmiştir. Diğer yandan ise Entelektüel Sermaya ve Entelektüel Sermaye'nin bileşenleri olan Beşeri Sermaye, Yapı sermayesi ve Müşteri sermayesi bağımlı değişken olarak belirtilmiştir. Çalışmanın sonuçlarına bakıldığı zaman Bağımsız değişken olan organizasyonel yapı ile bağımlı değişken olan entelektüel sermaye nin arasında istatistiksel açıdan anlamlı bir pozitif ilişki görülmüştür. Sonuçlar aynı zamanda bağımsız değişkenin Süleymaniye Belediyesindeki bağımlı değişken olan entelektüel sermaye üzerinde önemli bir etkiye sahip olduğunu göstermektedir.

Anahtar Kelimeler: Fikri sermaye, İnsan sermayesi, Yapı sermayesi, Müşteri sermayesi, Örgütsel yapı, Merkezileşme, Formalizasyon, Uzmanlık, Süleymaniye Belediyesi

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LIST OF ABBREVIATIONS

IC:	Intellectual Capital
OS:	Organisational structure
HC:	Human capital
SC:	Structure capital
CC:	Customer capital
N:	Number
Q:	Question

INTRODUCTION

Before discussing the reasons why Intellectual Capital is still not easy to manage, it would be helpful to know that the development of Intellectual Capital, and contributions from some of the leading thinkers interested in the Intellectual Capital as a source of competitive advantage. Intellectual Capital of running a business has a history of various disciplines, and Intellectual Capital has become a hot topic since the 1990s. It is different components were influential in making Intellectual Capital and knowledge stronger.

The Municipality, by the nature of its work, is one of the most prestigious organisations for developing any city, which is suited to make use of this topic. The Municipality of Sulaimaniyah has the infrastructure of knowledge with the presence of human and technical elements, sources of information, systems and development of high points which harnessed at the same time to improve the procedures that help to better service to the country.

The elements of Intellectual Capital are considered indicators to measure the evolution of management thought in Organisations. This variable contributes to detecting and identify individuals who possess creative abilities, it converted into useful work for the benefit of Organisations, in which they work, and then work on the development of these individuals, also maintains them consistently, and try attracting other members. The traditional understanding of organizational structure fails to capture the essence of organisational development in the face of new challenges. Therefore, was not able to improve Intellectual Capital in organisations. To improve Intellectual Capital in the Organisation, we need a knowledge-based structure. (Gopalakrishnan & Santoro, 2004) An efficient os shall facilitate the working relationships between the different elements of the organisation and can improve the efficiency of work within the organisational units. The Organisation shall maintain order and control established to allow the monitoring of the processes. An organisation must support the command to deal with a mix of commands and a change of conditions while the work performed. Organisations structure should allow the application of individual skills to allow high flexibility and apply creativity. When an Organisation expands, the chain of authority will grow, and the control will extend. When an organisation comes of age, flexibility will decrease, and creativity will wear out.

CHAPTER ONE

LITERATURE OF INTELLECTUAL CAPITAL

1.1. Historical development of Intellectual Capital

From the viewpoint of some authors and researchers, the form of IC mentioned by some of them, as a general way (Schultz, 1961) believed that IC as a "human potential that can be used to exploit the total economic resources".

Other efforts with the IC concepts were due to Mchlap studies in 1962 AD, but historically the innovation of the IC concept was attributed by Galbrays in 1969. He believed that IC is something in the minds and also includes intellectual action. (Talaromi & Nezhad, 2014).

The term IC from a sausage maker. He is Ralph Stayer, the CEO of a Wisconsin company called Johnsonville Foods. The first time in 1990, it became seen as a true representative of the Organisation's ability to compete and achieve success.

After it was natural sources represent real wealth for companies, before that date and has evolved to use this concept for such mental capacity owned by corporations, which cannot be easily imitated by the competition Organisations. (Stewart , 1999, 5). The person who did so much to expose the hidden values of IC is (Leif Edvinsson) of Skandia Foundation for financial services and insurance, aged 48 years, and who has a master's degree from the University of California MBM in Bricelyn, He has a banking background. Where (Jan Carendi) the foundation's director, Appoint Edvinsson in the year 1991, to be the first director of the world's knowledge capital.

Edvinsson measured assets that do not appear in the budget through the conversion of the hidden values into concrete values can be placed, and during a brief conversation based on three principles guide his thinking, namely:

1. The intellectual value of assets exceeds the value of tangible assets several times.
2. IC is the raw material from which the financial results generated.
3. IC consists of HC, SC and CC, HC is the source of creativity and innovation. (Stewart, 1994: 4).

1.2. Concept of Intellectual Capital

Definition of IC from the viewpoint of some authors and researchers accredited, according to time stages, (Spender, 1996, 46) represents some of the workers have

the ability to dismantle the structure of the black box for the primary productive components and reinstall smoothly. Distinctive capabilities enjoyed by a limited number of employees of the Organisation. So they can make contributions, intellectual enable the Organisation to increase productivity and achieve high levels of performance compared to other similar Organisations.(Youndt, Mark , Scott, James, and David, 1996, 839) .

According to Bontis (1996, 42) "Market value is equal to book value and IC". IC he has also defined as the difference between the market value of a company and the fee of changing its assets, and things that usually cannot put a price on, like an experience, knowledge, and ability of organisation. Also In (1999, 1), He defines IC as knowledge "stocks, which settles in the minds of workers", as well as the stock of knowledge which found in products, systems and structures.

According to Brooking. A. (1997, 364), IC is “discrimination between the books of a company and the value, which is determined to pay for that value”. IC is total hidden assets of the organisation not fully captured on the balance sheet, what is in the organisational member's heads, and what is left of the group when they leave (Roos, Roos, 1997, 414). Bassi (1997, 25-30) defined IC is "the knowledge that is of value to an organisation". This definition suggests that knowledge management creates IC. According to Bell (1997, 15) IC includes models, strategies, approaches, and unique mental methodologies, organisations use to create, compete, understand, solve problems and replicate. One of the definitions of Skandia Insurance Company is "possession of knowledge, applied experience, customer relationships, technology and professional skills that contribute to the organisation's competitive advantage". The Institute of Economics in Washington, DC, in his recent study of human IC, concluded that The economic value of the productivity of the nation depends more on employee skills and knowledge and business problem fitness work out what it does on the market value of commercial production organisations. Most experts agree In the new millennium, IC is the leading resource and the driver of our information economy.

According to Miller (1999, 42). IC encompasses much more than copyrights, patents, and other intellectual property. IC is the sum of the company knowledge, relationships, innovations, experience, processes, discoveries, market, and influence of the community. IC is a unique capability enjoyed by a limited number of employees in the organisation, which enables them to make contributions,

intellectual allow the Organisation to increase productivity and achieve high levels of performance compared to the corresponding Organisations. (Guthrie, & Petty, 2000, 6). "a unique set of tangible and intangible resources of the Organisation is called IC". (Gupta , 2001, 297)

According to Berman (2002, 567), IC that Knowledge can be turned into a profit, and include an element: HC and intellectual assets. Kelly Anthony, (2004, 12) believe that IC consists of workers and intellectuals who are bright stars that are difficult to find an alternative to them. An Integration of HC and structural capital, strategies to get a multiplier effect on the future capabilities of the contributions of the individual worker as well as the organisation.(Bounfour, Edvinsson, 2005, 40) .

When the Intellectual material is formalised and used effectively, you can create wealth by producing higher value an asset called IC. (Nazari, Herremans, 2007, 597). In other words, Kok, (2007, 182) described IC is a real capital, which is owned by the company. IC market the actual value of companies relies on the best use of IC and the main source of this wealth is a human resource and defines IC as "knowledge possessed by a person It owned authorised to take advantage of them".

In the millennium people will do less physical work, and more people will do the job of the brain, this is the IC that does not appear in the balance organisation but has more value to Organisations than physical assets. Economic wealth based on knowledge and information that the production process. While the first economies dependent on land use, natural resources, equipment and capital for value creation, our information economy will depend on the application of knowledge. Knowledge is a primary source for people, countries, and companies. Knowledge management and IC to create new sources of competitive advantage. Fortune and values businesses can increase or decrease depending on how well you create, capture and exploit their knowledge. some authors and researchers focused on the general human capabilities besides qualitative and quantitative.

After this presentation, can look to the IC as a group of employees have the mental capabilities (knowledge, skill, experience, values), can be employed and invested in increasing the intellectual contributions. To improve the performance of the Organisation's operations, and the space of development and creativity, to achieve effective relationships with all parties collaborating with them, and makes a market value of teams from their carrying large. Some of the decompositions are in the

definition of the concept of "IC", which considers nonmaterial wealth, determining its scope and components, management and communication of it.

Stewart (1997, 24) defined such as all things, recognised by people in a company and help you earn wealth.

Walsh & Ungson (1991, 58) data value of a company.

Rivette (2000, 168) intellectual riches such as data, information, intellectual property and experience that can be used to obtain wealth.

Klein (1998, 39) the recorded data of a company and the knowledge, skill, and experience of employees in it as sensory and not invisible properties. Interpret the brainpower differently on its scope.

However, Marr (2005, 11) explains as the intellectual material, formalised, property and activated to produce the most valuable property.

1.3. Components of Intellectual Capital

According to Bartesh (2005), many useful frameworks have offered to categorise kind of IC and additionally create a set of metrics to manage IC. However, we derive three basic dimensions of IC primarily based on the have a look at of different researchers. These aspects encompass Human Capital, Structural Capital and Customer capital. Many researchers like Sveiby (1997), Saint-Onge (1996), and Bontis (1998) suggest that IC consists of three components. "Human Capital, Structural Capital (Organisational Capital), Relational (Customer) Capital". Finally, in recent years different option have been recommending for the kinds that make up IC. A three-dimensional arrangement has achieved some degree of consensus and includes HC, structural capital, and relational (customer)capital. We now examine each of these dimensions, including those viewpoints that the entrepreneurship literature has considered relevant to the success of organisations. (Stewart 1998; Sullivan 1999; Brennan and Connell 2000; Petty and Guthrie 2000; Roos et al. 2001; Bontis 2002; Boedker et al. 2005; Marr and Roos 2005).

The most authorities agree that IC consists of three sub-components are Human Capital, Structure Capital, Customer Capital, but the most common trend among scholars based on the classification Thomas Stewart the author of the book: Intellectual Capital, The New Wealth of Organisations.

Table 1.1 The literature review of Intellectual Capital components

Authors Researchers and Institute	Year	Categories
Stewart	1994	Human capital Structure capital Customer capital
Brookings Institute Classification	1996	Market assets Humanity assets Individual property assets Infrastructure assets
Edvinsson	1997	Human capital Structure capital Customer capital Organisational capital Operation capital Creativity capital
Sveiby	1997	Efficiency of workers (education, experience) Internal structure (legal form, administrative Systems, the culture of the organisation, software) External structure (brand Relations with customers, relations with suppliers)
Guthrie & Petty	2000	Internal structure(Structural) External structure(Relations) Efficiency of workers(Human Capital)
McElroy	2002	Human capital Structure capital Relational capital

Source: prepared by the researcher

1.3.1. Human capital

According to Bontis (1996, 43) HC is the "organisation's collective ability to extract the best solutions from the knowledge of its worker. It is important because it is a source of innovation and strategic renewal, whether it is from brainstorming in a research lab, throwing out old files, improving personal skills or promote new operations leads".

According to Stewart (1997, 95), HC has been built and utilises only if the employees of an organisation could direct their experience, ability, time and skills mostly to innovation and creativity. Also Stewart (1997, 94) considers HC as the

source of organisational culture and innovation. Edvinsson and Malone (1997, 34) defined HC is the result of the experiences, skills and capabilities of executives and employees. Sherrill (1998, 38) identified HC "as the knowledge, skills, experience, intuition and attitudes of the workforce. IC can be a promotion by increasing the capacity of employees, they providing solutions to customers".

According to Sveiby (1998, 20), personal competence is necessary for organisations. This character capacity to act in numerous situations. "It involves skill, education, experience, values and social skills. Characters are the only real agents in Organisation; all assets and structures, whether tangible physical products or intangible relations, are the consequence of human action and depend finally on people for their continued existence". Brenner Pamela (1999, 33) described that individuals create knowledge, new ideas, and new produce, and they build relationships that make processes indeed work. Unluckily, when people leave, they take along their knowledge that including the internal, external, formal, and informal relation. Development of this HC can be possible through study the ideas of employees and listen to their opinions to develop the organisation. It is feasible to enlist the element of HC, which is also regarded as the team's capability of an action, in the sense of benefiting from the acquired knowledge of the characters in its body, like Know-How, Training, Professional Adequacy, Studies Aimed at Data Production, Studies Aimed at Forming Capability. (Guthrie , 2001, 35) . HC involves various human resource components like attitude, Competencies, background and abilities, and information. (Guemero, 2003, Roos and Jacobsen, 1999). They describe the tacit knowledge set in the minds of employees, and it is important to organisations as a source of innovation and strategic renewal (Bontis, 1998, Bontis 2002). HC refers to the knowledge level of people, such as their profession, skill, experience and innovation(Lee, 2010 and Isaac et al., 2010). This capital is the most valuable one in any organisation. Isaac et al., (2010). Discussed Human IC is related to knowledge, skill, capabilities, efficiency and creativity, and it helps organisations to create knowledge capital. It has a meaningful relationship with the organisational IC. Managers of IC should try to help employees to present their knowledge.

Through a review of the previous definitions of HC, the researcher estimates say that HC is the sum of the experiences, skills and capabilities, knowledge, intuition and

attitudes, the know-how, education, values, collective ability to extract the best resolutions for executives and employees.

1.3.2. Structural capital (organisational capital)

Structural capital or corporate capital, involving systems, networks, policies, culture, distribution channels and other "organisational potentials" expanded to meet market needs, and intellectual property(Onge, 1996, Bontis, 1998).

According to Grasenick and Low, (2004) structural Capital refers to the learning and knowledge enacted in day-to-day activities. The pool of knowledge that remains in an organisation at the end of the day after individuals within the group have left represents the fundamental core of structural capital. Structural capital becomes the supportive infrastructure Capital for HC. It includes all of the physical resources for knowledge storing in organisations such as databases, process manuals, strategies. Structural Capital includes routines, publications and copyrights which create value for organisations, thus adding to the structures material value. (Bontis, Chua and Richardson, 2000). Structural capital as what remains after the staff goes home at night. In fact, structural capital involves organisation resources such as thought assets, initiative, process and cultural asset. (Ross et al. 1999). It also includes developing like rights for registering products and training activities (Chen et al. 2004) Structural capital refers to systems, structures, and the current approaches to business in an organisation. From their perspective. The SC can be clearly categorised into organisational culture, learning, operational process and information system.

According to Lee (2010), structural capital includes a set of assets, belonging to the organisation, which make the structure create new things. Among these assets are the viewpoint of the company, managing philosophy, organisational culture, strategies, processes, working systems and relational technology. Organisational IC presents technologies and other mechanisms which help the employees to make money. Relational capital systems, leading data and procedures belong to this category. The control systems related to organisational capital can be used to manage the relationship between learning and cooperation. Such systems help the employees to achieve the needed knowledge (Isaac et al., 2010). Martín and López (2008, 28) argued that SC deals with organisational system and structure. Organisations provide favourable conditions to utilising human resources through the significant structural

capital, helping human resources to acquire their potentials, And increase innovation and creativity. Some of the measures of structural capital include organisational culture, operational processes, OS, Organisational learning and information systems. Also, Sveiby (1998) mentioned that It is a broad range of patents, concepts, models and computer and administrative systems. Employees create These and therefore are usually owned by the organisation, and they adhere to it. Sometimes they can be acquired from other places. Then according to Bontis (1996), Structural capital is the organisation's organisational capabilities to meet market requirements. It includes the Organisation's routines and structures that support employees' quests for optimum intellectual performance and, therefore, overall business performance. Employees may have a high level of intellect, but if the organisation has small systems and procedures, overall IC will not reach its full potential.

Buren (1999) argued that structural capital involves innovation capital and process capital, the capability of an organisation to innovate and to create new products and service, processes, methods, procedure, systems, and tools.

According to Knight (1999, 25) Structural capital involves of organisation's strategies, systems, internal networks, databases, and files, as well as its legal rights to the technology, processes, inventions, copyrights, trademarks, trade secrets, patent, and brands. Structural capital increase when organisations invest in technology and develop processes and other internal ambition.

Andriessen (2004, 103) defined Structural Capital is the sum of systematical studies, aimed at providing knowledge and ability, which stated as the HC, institutional and creating a united organisational memory. Klein (2009, 61) believe that every organisation has its different structural capital. All of the solid components and properties of an action unite the structural capital and hardware, software, database, OS, patents, and trademarks from the structural capital.

The structural capital of organisation includes four elements:-

Systems: the way of an organisation's processes (information, communication, decision-making) and outputs (products/services and capital) proceed.

Structure: the arrangement of responsibilities and accountabilities that define the position of and relationship between members of an organisation.

Strategy - the goals of the organisation and the ways it seeks to achieve them.

Culture - the sum of individual opinions, shared mindsets, values, and norms within the Organisation. (Saint-Onge, 1996, 13)

Through a review of the above definitions for structural capital, the researcher recapitulate the dimensions of structural capital includes the systems, networks, Information Systems, Databases, Procedures, Policies, Administrative operations and OS.

1.3.3. Customer Capital (Relational Capital)

Customer Capital is the value of the relationship of organisations with clients, suppliers and the rest of the society, for consideration, and the loyalty of all mentioned with the enterprise (Chwalowski, 1997, 89).

In addition to that, any organisation has relations with customers has a CC. Among all intellectual properties, CC has the most outstanding value. Mouritsen et al. (2001, 361) describe this capital as "the title value of an organisation, with continuing relationships with it with the client and Organisations". The CC is regarded as one of the distinct approaches to enhancing and measuring IC because the benefits which have gained from the customer is so easy to be measured. The most relevant points relating to CC are that marketing channels relationship with clients and organisations. CC showed as Organisation's abilities because of external factors. This expression has presented, but the new description has developed that a CC consists of the existing style and intellectuals in all kinds of relation that an organisation has with customer's rivals, providers, and experience committee. CC is a bridge for determining and changing IC into the market advantage that consists of loyalty, the stability that is convenient for customer relation. (Jahanian, Salehi, 2013, 121). Relational (customer) capital, which involves the organisation's connections has it with people outside, like loyalty, market share, the level of back orders, and related issues. (Saint-Onge , 1996, Bontis , 1998)

According to Stewart (1997) CC regard to the relation between organisation and the people it deals with, such as customer satisfaction, customer loyalty, and customer retention rate. Edvinsson and Malone (1997) mentioned that CC refers to “customer satisfaction, constancy, price sensitivity, and the financial condition of long-term customers”. In another meaning External capital is also named relational capital and CC. It is the organisation or the network of associates and their satisfaction and loyalty to the Organisations. It involves knowledge of the market channels, the relationship with customers and suppliers, the organisation of the industry and a solid understanding of the impacts of government public policies. Managers often do not

recognise that they can leverage a wealth of knowledge from their customers and suppliers. (Knight, 1999, 24).

According to Lee (2010, 4943), CC is the total asset which causes the organisations to relate to the environment. This capital includes the relationships with the clients, suppliers, partners, competitors, societies and institutions. Adam and Urquhart, (2009, 1-21) defined. Relational capital is an aspect of social capital, which identifies the network's main points when identity, trust and liability exist in the system. Also (Isaac et al., 2010, 375) argued that Intellectual-relational capital is an aspect which sometimes refers to social capital and its relationship with the investors. The organisation should preserve its relationship with investors and develop the opportunities and long-term correlations to reach the suitable financial results of IC managing systems. It is, therefore, expected that they could protect the improvements of relational-intellectual developments.

Through a review of the above definitions for CC, the researcher summarises CC:

CC is connections with people outside in the Organisation, their loyalty, moreover, the market share, customer satisfaction, customer retention rate, constancy, price sensitivity, also the financial condition of long-term clients, relationships with the supplier, industry associations and the investors.

1.4. Intellectual capital characteristics

Through A review of many of the literature the characteristics of IC as following:

1.4.1. Regulatory:

According to Barell, (1991, 220) Organisational characteristics regard to the strategic level, we find that IC is spread on all levels and to varying degrees. Robbins, (1990, 110) argued that regarding the OS that fits the IC is certainly the OS of the organic flex, while the official used is very low and tends to decentralise the administration clearly.

1.4.2. Professional:

Pfeffer & Sutton, (1999, 83) believed that attention was focused on the formal education and training Enrichment and not necessarily academic certificate, it characterised by high IC and diverse skill and long experience.

1.4.3. Behavioural and Personality:

Davis, (1995, 1) discussed that IC tends to risk a large extent. It tends to deal with topics that are probable, that the IC inclined to the initiative provide ideas and constructive proposals and can resolve decisions without hesitation, it has a high intelligence level sharp and perseverance at work high and self-confidence.

1.4.4. Creativity:

According to Daft, (2001, 357) Contained in the administrative vessels many unique creative concepts that they have to adopt a new idea or the behaviour of the organisation or its market for the industry or the general environment . Then Rastogi, (2000, 39-48) described that Sources of creativity vary whether this source internally or externally and mentions that the sources of technological innovation concentrated in research laboratories, professional journals, patent abstracts, government sources, members of the market and customers as well as consultants and employees.

Through A review of many literature on the subject of IC characteristics the researcher believes that the points as following:

1. It is intangible Capital.
2. There is the difficulty of accurately measured.
3. Increased by the use.
4. You can benefit from it in the various stages and processes at the same time.
5. Embodied in the people who have to prepare for him.
6. It has a significant impact on the organisation.
7. Characterised by providing ideas and constructive proposals, and decisiveness in taking decisions without hesitation.
8. Distinguished high level of intelligence, intuition and the ability to draw attention. It is an openness to the experience of others.
9. Characterised by persistently high, high self-confidence and independence in thought and action.

1.5. Importance of Intellectual Capital

Highlights the importance of IC being itself represents a competitive advantage for the organisation, especially as Organisations compete today by knowledge, information, and skills they have, so the interest in it is a case of inevitability

imposed by the nature of contemporary scientific and technological challenge. (Ghen, et al., 2004, 5).

1. IC is arms of the Organisations in today's world because intellectual assets represent the hidden force that ensures the survival of the Organisations (Koenig, 2000, 1). In 1954 the list of wealthy companies' 500, companies had disappeared or is no longer significant to the degree to commemorate the fortieth anniversary (Stewart, 1997, 2). To replace these huge companies dilapidated small businesses that based on knowledge assets, more than dependence on other property. The simplest example of this (NIKE) Shoes Company.
2. IC in the organisation reflects the competitive advantage. (Vij, 1998, 3).
3. Represents the IC as a buried treasure, it needs of looking for him, extraction for existence and practice. The one extraction methods are the dissemination of knowledge (Webster, 2002, 2). Brooking warns of the consequences of non-dissemination of knowledge, by saying: "The Knowledge as assets in the organisation often the overlooked, therefore does not publish, not because of failure manager tide of thinking about their business, but the reason that they do not remit the knowledge to the capital in their companies.
4. IC is the wealth generating source organisations, individuals and their development.
5. The IC capable of producing wealth fantasy of being able to patent, and this confirmed by the Research IC Management Conference (ICM), which held in New York in June 2000. The most important thing said at the conference that the (IBM) company receive more than a billion dollars a year to patients). (Koenig, 2000, 1).
6. Increasing technological developments, especially information and communications technology, which entered in all activities and fields and industries, were imposed on institutions that deal with it and increase its investment in IC.
7. It helps of the creation of new knowledge. (Leontiades. 2001, 175).
8. It helps to increase the efficiency of asset utilisation, achieve higher productivity and better service for customers. (Bontis, & Fitz-Enz, 2002, 7).

1.6. Managing intellectual capital

According to Stewart (1999, 127), Managing IC include steps that focus on IC management as a strategic option, the following basic steps:

The first step: focusing on the knowledge of the role of knowledge as a driving force, and reliable to give their contribution to the surplus value, the greater the importance of knowledge, whenever management has made significant of the organisation return.

The second Step: focus on matching revenue obtained by producing with intellectual assets, and try to find IC advantages.

The Third Step: concentrate on developing a strategy to invest in intellectual assets and exploit, and develop plans that lead to optimal use of IC and investment to increase its value.

The fourth step: focusing the move to increase the IC productivity, knowledge workers, and the search for new measuring methods for IC productivity measure. Without losing sight of the fact that the intellectual assets cannot manage in the same physical asset management mode, as knowledge workers, they are the most ability to increase IC for other employee productivity.

Drucker (1999, 60) Specify how managing IC as follows:

1- Until output of IC reaches to the highest level, they should start by changing their views on the issue of the participation of others to their knowledge, and urged them to share knowledge and information with all available possibilities.

2- Change the views of their organisations a way that makes the most valuable intellectual assets owned by the Organisation of property, abandon the traditional OSs.

Quinn, et al. (1998, 87-100) model to manage IC consists of:

1 - Strive for the promotion of investment in intellectual assets, which helps in logical solutions to the problems facing the organisation by transforming the Organisation into intellectual assets;

2 - Gain knowledge in computer systems and software to enhance the capabilities of the Organisation in professional problems;

3 - Share information and knowledge sharing between individuals working in the organisation and result in increased intellectual assets;

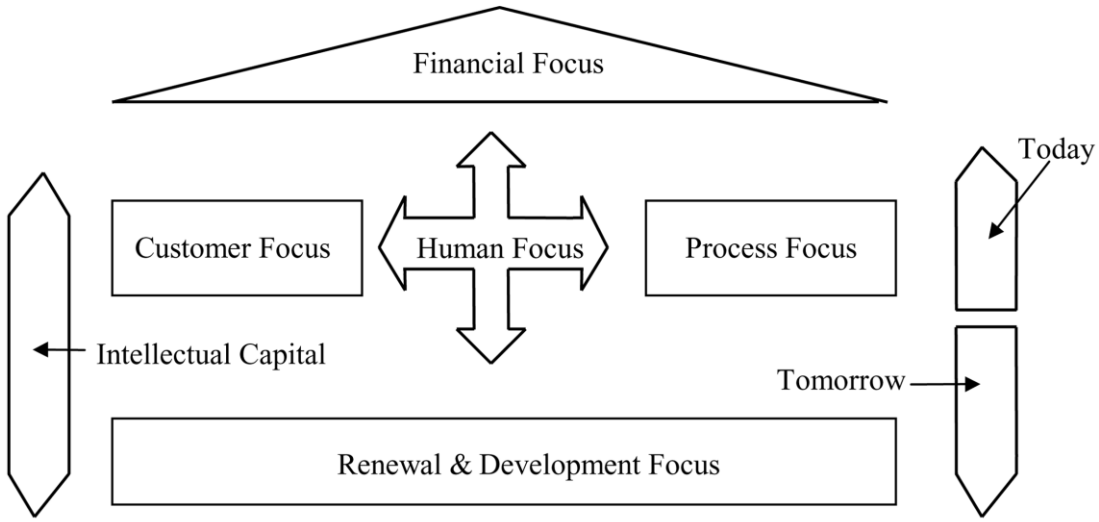
4 - A shift from the traditional hierarchical SCto structures allows managing IC;

5 - Use of networks, called spider tissue for taking advantage of the IC to the maximum extent possible, when complicated problems in the organisation begin the system of collecting (specialists professionals) to address a particular problem and resolved upon completion of the task.

Edvinsson, (1997, 320-373) Skandia Navigator framework:

One of the most cited frameworks for managing IC is Skandia (Edvinsson, 1997). This organisation has followed different strategic routes to arrive at substantially the same destination the successful management of intellectual assets to maximise their value adding the potential for the Organisation.

Figure 1.1 Skandia Navigator framework



Source: Edvinsson and Malone (1997)

This model has been very successful at creating an awareness of the need to deploy, protect and renew intellectual assets. Skandia, a large Swedish financial services company, developed a framework called Skandia Navigator (Figure 1.1), appearing for the first time as a supplement to the company's 1994 annual report. It based on the structure of the concepts presented by Sveiby (1997) in the ideal balance. Skandia has taken several steps further by incorporating a presentation form

introduced by Kaplan and Norton (the Balanced Scorecard) and applied it to several areas.

The Skandia Navigator framework is an important connecting tool for strategic intent. Skandia Navigator provides a means to predict better future performance, which in turn leads to better management decisions. The five building blocks of Skandia's browser are the customer, process, human, financial, and renewal/development. The central focus is on people. Critical success factors are identified and then quantified so that changes in time are measured.

CHAPTER TWO

ORGANISATIONAL STRUCTURE

2.1. The Concept of Organisational Structure

Ever since large organisations rose to become a prevailing appear in our economy and society, scholars have attempted to conceptualise the "optimal structure." Seminal 20th-century studies tried to identify the different types of structures. Organisations were using by function, by geography, by product, etc. and to establish the set of contingencies to which those structures responded like the size of the Organisation, the nature of their primary tasks, the technology available, the characteristics of their environment, etc.

In the 21st century, however, the numerous of contingencies organisations face making such a proposition impossible to protect global competition, disruptive technologies, shorter product life cycles, and more current and knowledgeable customers are just some of the factors organisations deal with today. Add to this the fact that critical processes such as innovation are happening across organisational boundaries, with organisations collecting input from multiple contributors through global communications networks.(Hatum, Silvestri, Vassolo, & Pettigrew, 2012, 316 and Chandler, 1990).

According to Skivington, & Daft, (1991, 56) Organisation structure "indicates an enduring configuration of tasks and activities." Bloisi et al. (2007, 710) defined the OS as a grouping of people and tasks into different units to enhance coordination of communication, decisions, and actions. Realising the close relation between the processes taking place in an organisation makes it is easier to understand the complex task that leads to efficient Organisation.

According to Galbraith, (1977, 5) the term OS regards to the formal configuration between employees, groups, and the allocation of tasks, authority, and responsibilities within the organisation. Kanthi, (2007, 895) defined OS is an approach to the competence of work, the enthusiasm of employees and coordination among the top management and subordinates for the flow of plans and goals in the organisation to sketch the plans. Mullins, (1999, 301) argued that OS as an exemplary of tasks responsibilities, relations and communication channels.

Thompson (1965), OS is the organisation's internal pattern of relations, authority, and communication. Goldhaber, (1984, 44) describe the OS as the network of contact and roles existing throughout the organisation. Hatch (1997, 161) argued that OS refers to the relation among the parts of an organised whole.

According to Rogers & Rogers (1976, 79), Structure is the pattern which defines the relationships among organisational members, and this relationship may express regarding power, status and other characteristics. The structure can understand concerning its various dimensions. Organisational structure is the planning and model of communications and interactions among the organisational' parts and departments (Cyert & James , 1992 , 128).

Through a review of the above definitions of OS, the researcher can recapitulate OS as relationships, roles, authority, coordination, tasks and communication within the organisation for the flow of plans and goals.

2.2. Components of Organisational Structure

Structural dimension describes how the Organisation built from the inside. The elements of that characterise the essential functions of the Organisation consist of four principal features: formalisation, specialisation, centralization and configuration. (Daft 2001, 14). OS has multiple dimensions, Researchers have used specialisation, functional differentiation, professionalism, formalisation, centralization, managerial attitude towards change, knowledge resources, management tenure, slack resources, external communication, internal communication, And vertical differentiation, in his research on the relationships between organisational determinants and innovation. (Damanpour, 1991, 555). Germain (1996, 117) focuses on specialization, integration and decentralization. Germain et al. (1994, 411) focus on integration, specialisation, performance control, and decentralisation in their research on the impact of time selling on OS. Paswan et al. (1998, 125) use centralization, formalisation, and participation in explaining linkages among relational, environmental uncertainty, and bureaucratization. Koufteros and Vonderembse (1998, 2863-2878) employ Centralization, Complexity and Formalisation. Lysonski et al. (1995, 7-18) concentrate their focus on the degree of centralization of decision-making, formalisation of rules and procedures, and structural differentiation in their investigation of environmental uncertainty and OS from a product management

perspective. Zheng, et al. (2010, 763-771) mentioned that the most important components of the OS include formalisation, centralization, and control.

Through a review of the above for components of organisational structural, the study can recapitulate the dimensions of organisational structural include:
Formalisation, specialisation, centralization, decentralisation, integration, participation, departmentalization functional differentiation, professionalism, configuration, size and control.
For this initiative the researcher choice (formalisation, specialisation and centralization)

2.2.1. Centralization

Centralization is when the power rests at a single point in the organisation. It has one advantage that it keeps power in one place and ensures tight coordination and direct supervision. (Mintzberg, 1979)
According to Fry and Slocum, (1984, 221) Centralization refers to the degree to which the right to make decisions and evaluate activities concentrated. A high level of centralisation is the most simple way to coordinate organisation decision making, but it places enormous cognitive demands on those managers who hold authority.
Daft (2001, 17) argued that Centralization one of OS dimension. This aspect mostly related with the locus of authority, how the decisions affecting the organisation are made and by whom. Authority can understand as legal actions taken by the legal person the legitimacy of the individual determined by the structure.
Centralization is the degree to which decision-making authority is concentrated at higher levels in an organisation. In centralised companies, many important decisions are made at higher levels of the hierarchy, whereas in decentralised companies, decisions are made, and problems are solved at lower levels by employees who are closer to the problem in question. Centralised organisations assign decision-making responsibility to higher-level managers; they place greater demands on the judgment capabilities of CEOs and other high-level managers. Many companies find that the centralization of operations leads to inefficiencies in decision making. (Pasternack & Nelson, 2005).

Centralization and decentralisation are two different types of authority and decision-making power. In centralised organisations, the core of decision-making is

concentrated in the top management, while in decentralised organisations similar decisions are shared among lower level employees.

The centralization or decentralisation of an Organisation is a subjective matter for management since both types present some high and also some weak points. In centralization, for instance, the implementation of organisation policies is an easier process than in decentralisation. Also is easier to gain management control and coordination. Moreover, centralization prevents subunits become too independent because of the authority is given to them (Mullins 1999. 316-317). However, the most pragmatic reason of centralization is the cost reduction from the formal training programs. The managers would have attained and cost reduction from the information and performance systems that would have been applied in order top level management to be informed about the effects of their subordinate's decisions (Dutch 2009, 407). Nevertheless, centralization is considered as the main reason for creating a more mechanistic structure resulting to a long scalar chain (Mullins 1999, 316-317). The delegation of authority, on the other hand, encourages the professional development of employees; help them to gain skills and competence in their work by giving them the possibility to handle stressful situations and make decisions that affect the organisation. Additionally, decentralisation provides managers with a particular range of autonomy which results in increasing managers' creativity and ingenuity leading consequently to organisational development. (Dutch 2009, 407). Scientific research has shown that decentralisation is possible to occur to great organisations because they have a longer chain of command and the largest number of employees (Daft 2001, 129). Additionally, the private sector is more decentralised oriented, because of the regularity of procedures and uniformity of treatment greater (Mullins 1999, 317).

According to Chen & Huang, (2007, 104-118) Centralization also creates a non-participatory environment that reduces communication, commitment, and involvement with tasks among participants.

Through a review of the above Centralization refers to make decisions that affect the organisation and by whom, the delegation of authority, implementation of Organisation policies, easier way to gain management control.

2.2.2. Specialization

According to Daft (2001, 18), specialisation is the division of labour and duties among organisational members. The endorsement of specialisation as a dimension by organisation means that specific tasks performed by specific persons. In this dimension are included only the functions that are carried out by the power. Perhaps the earliest attempt to design jobs was presented by Frederick Taylor in his book Principles of Scientific Management (1914). Scientific management proposed a number of ideas that have been influential in job design. One idea was job specialisation, which entails breaking down tasks into their simplest components and assigning them to employees so that each person would perform few missions in a repetitive manner. While this technique may be very efficient regarding automation and standardisation, from a motivational perspective, these jobs will be boring and repetitive and therefore associated with adverse outcomes such as absenteeism (Campion & Thayer, 1987). Job specialisation is also an ineffective way of organising jobs in rapidly changing environments where employees close to the problem should modify their approach based on the demands of the situation (Wilson, 1999).

The extent to which employees are specialised is a critical consideration in establishing the span of control at all levels of management. It is acceptable that a manager at the lowest organisational level can supervise more employees because the work at the lower level is more specialised and less complicated than at higher levels of management. Administration can combine highly specific and similar function in nearly large departments because employees may not need close supervision (Dutch, 2009, 407). Henry Ford explained that work could be completed more efficiently if employee area let specialising. Today we use the term job specialisations or division of operation, to illustrate the level to which actions in the organisation subdivided into separate functions. The nature of work specialisation is the job being done by one individual it is broken down into some the track with each step being accomplished by a separate person.

In essence, individuals specialise in doing a section of an action rather to the complete action. Managers also saw another efficiency that could gain through work specialisation. Employee skills of doing a task well increase by repetition. Less time is spent to change tasks, to remove the unnecessary action from a previous step of the

work process and to prepare for another. Training for specialisation is useful from the viewpoint of the organisation. It is less costly and easier to train employees to perform particular and repetitive tasks. (Citeman Web page [19.4.2016]).

According to Henri (1916) by specializing in a limited set of activities, workers become more efficient and increase their output.

Adam Smith first identified the division of labour and concluded that it contributed to increased employee productivity. Early in the twentieth century, Henry Ford applied this concept in an assembly line, where every Ford employee was assigned a particular, repetitive task. Today we use the term work specialisation to describe the degree to which tasks in an organisation are subdivided into separate jobs. The essence of work specialisation is that an entire job is not done by one individual but instead is broken down into steps, and each step is completed by a different person. Individual employees specialise in doing part of an activity rather than the entire activity. When work specialisation was implemented in the early twentieth century, employee productivity rose initially, but when used to the extreme, human diseconomies from work specialisation boredom, fatigue, stress, poor quality, increased absenteeism, and higher turnover more than offset the economic advantages. Most managers today see work specialisation as an important organising mechanism but not as a source of ever-increasing productivity. McDonald's uses high work specialisation to make and sell its products efficiently, and employees have precisely defined roles and standardised work processes. (pearsoncanada Web page [19.4.2016]).

Through a review of the above, Specialisation is the division of work. Also, duties among the organisation, employees and specific tasks are performed by a particular employee. The work is more specialised less complicated, for this reason, the employees may not need close supervision.

2.2.3. Formalization

Formalisation as a dimension of OS exists to dictate the extent to which is rules, procedures, instructions, and documents are written (Pugh, Hickson, Hinings, Turner 1968, 65-105). These documents could be policy manuals or job description, and usually, behaviours and activities included in them (Daft, 2001, 15). Based on findings large organisations are considered as highly formalised comparing to small

size Organisations. The reason that explains this phenomenon is the size of the Organisation itself since large Organisation relies up largely on paperwork, rules and regulations to achieve control and coordination. While a small organisation can gain control only by personal supervision of management (Daft, 2001, 128). A low level of formalisation is related to an organic structure, and a high degree of formalisation is similar to a mechanistic structure (Burns and Stalker, 1961). The innovation literature assumes that a high level of formalisation has a negative relation with innovation. (Damanpour, 1991), while flexible work rules would facilitate innovation (Burns and Stalker, 1961; Thompson, 1965; Aiken and Hage, 1971). However, Damanpour (1991) shows, through the analysis of the innovation literature, that formalisation is barely significant negatively with innovation initiation and non significant with its implementation. The degree of formalisation specifies the extent to which an organisation uses rules and procedures to prescribe behaviour (Hage & Aiken, 1969). Therefore, formalisation has "significant consequences for organisational members because it specifies how, where, and by whom tasks are performed". Formalisation has the benefit of controlling uncertainty role, but it also defines members' decision-making discretion.

The organisations formalise of their workers to reduce variability, ultimately to predict and control it. They formalise it by using mechanisms called standardisation of the work process.The organisations that rely on formalisation to achieve coordination are referred to as bureaucracies (Mintzberg, 1979).

Formalisation is the extent to which an organisation’s policies, procedures, job descriptions, and rules are written and explicitly articulated. Formalised structures are those in which there are many written rules and regulations. These structures control employee behaviour using written rules so that employees have little autonomy to decide on a case-by-case basis. An advantage of formalisation is that it makes employee behaviour more predictable. Whenever a problem at work arises, employees know to turn to a handbook or a procedure guideline. Therefore, employees respond to problems in a similar way across the organisation; this leads to consistency of behaviour.

While formalisation reduces ambiguity and provides direction to employees, it is not without disadvantages. A high degree of formalisation may result in reduced innovativeness because employees are used to behaving in a particular manner. In fact, strategic decision making in such organisations often occurs only when there is

a crisis. A formalised structure is associated with reduced motivation and job satisfaction as well as a slower pace of decision making (Frederickson, 1986; Oldham & Hackman, 1981; Pierce & Delbecq, 1977; Wally & Baum, 1994). The service industry is particularly susceptible to problems associated with high levels of formalisation. Sometimes employees who are listening to a customer's problems may need to take action, but the answer may not be specified in any procedural guidelines or rulebook. lower-level employees have limited power to resolve a customer problem and are constrained by stringent rules that outline a limited number of acceptable responses.

Formalisation is the strict organisational structure and set of rules and regulations that determine relationships within the organisation. Formalisation aims at the establishment of highly formal relationships between the leader and followers based on their professional relations. Formalisation does not admit the establishment of close personal relationships, including friendly relations, between the leader and followers. Formalisation is a bureaucratic process, in a way, because leaders set clear, concise rules, which the organisation and members have to respect. At any rate, formalisation enhances the leadership consistently because formalisation introduces comprehensible and concise rules, which the organisation has to follow. More important, the leader becomes the authority and can take decisions that will have consequences for the entire organisation, which the leader heads on the ground of the rules established due to the formalisation (Madsen & Shafritz, 2010). The maintenance of formal relationships between the leader and his/her followers allows the leader to exercise his/her authority to the full extent because there remains little room for personal relations. At the same time, formalisation helps to establish clear and comprehensive rules and regulate relationships between the leader and followers effectively without wasting time on the establishment of positive interpersonal relations. Instead, the leader and subordinates just follow established rules and norms.

After this presentation, can look to the formalisation, the degree provided rules and procedures and documents written, because it specifies how, where, and by whom tasks are to be performed, These documents could be policy manuals or job description, and usually behaviours and activities are included in them.

2.3. The importance of organisational structure

The division of work and obligations of each member in the OS, According to the structure design, to achieve the goals and increase effectiveness (Rogers & Rogers 1976, 78).

According to Mullins (1999, 301), the purpose of the structure is to specify the duties of organisational members and increase the coordination among them with main scope goal achievement. Mintzberg (1979, 2) on the other hand, considers that coordination is the most significant feature of the structure; therefore, he defined the structure as the: "the total of the ways in which it divides its labour into distinct tasks and then achieves coordination among them."

Mintzberg (1979, 2-3) also claimed that coordination is not an easy task to achieve because it involves various means which he named coordinating mechanisms. Coordinating mechanisms are not concerned only with job coordination itself but also with control and communication. Five such mechanisms were identified by Mintzberg: mutual adjustment, direct supervision, and standardisation of the work process, of outputs, of skills.

OS help everyone to know who does what. To have an efficient business and to function properly, it is necessary to know that there are people to handle each type of task. At the same time, you want to make sure that people are not running against each other. Creating a structure with clearly specify roles, duty, authority, and methods help ensure that your employees are working together to accomplish everything the business must do.

Without a formal OS, employees may have difficulty knowing who they officially report in different situations, and it may not be clear exactly who has ultimate responsibility for what. The OS improves operational efficiency by providing clarity to employees at all levels of a company. By paying attention to the OS, departments can work rather like well-oiled machines, concentrating time and energy on productive tasks. A well-sketched structure can also provide a roadmap for internal promotions, allowing companies to create strong leads for employees to advance entry-level workers. (Smallbusiness Web page [21.4.2016]).

2.4. Designing organisational structure

The structural or organisational design is crucial and vital for organisations. It is through the design of the structure that managers set the goals for the Organisational

members to achieve since Organisations are inherently purposive and goal oriented. (Dutch, 2009, 408-410).

According to Mintzberg (1979, 65), organisation design is assumed as the ability to change established systems that influence the division of labour and coordinating mechanisms thereby affecting the Organisation functions as a whole.

Managers are asked to achieve coordination through structure design by predetermining the way employees should work. The structure itself focus on differentiation of position, formulation of rules and prescription of authority; therefore it exists to decrease uncertainty in individuals behaviour by defining specific roles and tasks to its members. (Dutch, 2009, 408-410)

However, designing OS is not an easy task. The first difficulty comes because of the existence of multiple options. Managers have to choose among thousands of projects, departments, methods, etc. The more choices one has, the more elaborate the conditions become therefore the correct choice is harder to get. (Dutch, 2009, 408-410) Another problem that occurs for managers during this process is the fact that structure represents "the established forces of habit, tradition, and power" and as established forces are difficult to be changed. There are some cases when the structure is not compatible with the natural, flow of work or social needs of organisation members, then the change is quickly and broadly accepted, but usually, the structure represents real Organisation also needs, for this reason, is resistant to change. (Mintzberg 1979, 66-68).

Steps to build the organisational structure

The first step: Setting goals of the institution and the number of jobs (activities) required to achieve these aims.

The second step: It prepared detailed lists of activities needed to achieve the organisation's goals.

The third step: This step will focus on grouping similar activities together and placed in one administrative unit.

Step Four: Identify organisational relationships.

After you configure the administrative units, it has to be linked to these groups with each other through the identification of appropriate relationships between employees in various administrative levels vertically and horizontally. These organisational relationships related to the core concepts of the most important: Authority -

Responsibility - the mandate - centralised and decentralised - the scope of supervision - Committees

Step Five: Determine the relations between administrative units.

After creating the administration units of the organisation such as financial management, production management, marketing management, human resource management, we have to find a coordinated through the creation of official contacts, including a network that allows the exchange of data and information flow and smoothly.

Step Six: The selection and development of human resources to implement the functions of the administrative units.

After the completion of the OS, design process begins selecting individuals for jobs in the structure of the process, and must be based on the principle of choice (put the right person in the right place).

Step Seven: Drawing the OS in the form of the scheme called the (organisational chart).

The regulatory map shows the size of the OS (organisation) and dependency, and the scope of supervision for each person and the number of management levels, and give an idea of the different positions.

Step Eight: Organisational guide Preparation.

At this stage is the preparation of the so-called regulatory guide is a summary in the form of a booklet includes the organisation's name, title, objectives, policies, OS Subdivisions the main and Sub and procedures ..., etc.

Step Nine: The need for Control of the regulatory process, permanently and continuously, appropriate modifications when needed to meet any changes are required.(Amira Ismail, 2011)**,** (HRdiscussion Web page [24.4.2016]).

2.5. Characteristics of good organisational structure

Good structure is vital for the function of organisations. It has a direct affection not only to economic growth but also to morale and job satisfaction and therefore to production and performance. Even though the structure and its characteristics function independently from the member of an organisation who carries out the job, however, individuals personality play a significant role in the success and goal achievement, because it is individuals behaviour working within the structure that puts life in the structural framework. (Mullins 1999, 307).

According to Drucker (1974) in his book Management-Tasks-Responsibilities-Practices claims that the first thing a new organisation should do to increase effectiveness is to identify the activities that this Organisation will be responsible for and that will define the final organisational form. According to the former structure is the means to attain objectives and goals. Therefore any work on the structure should be done based on the particular strategy. The Strategy determines the purpose of the organisation by defining the activities of the given Organisation.

Good structure and normal function of an organisation, as well as mal-Organisation and malfunction, are easy to be identified by anyone with experience in management. (Drucker 1974, 440). The OS to be efficient and serve the objectives and management of the institution, and even judge the OS, it is sufficient to be several properties in the availability of this structure, namely:

1- Take advantage of specialisation:

Each worker burdens of the single function or department each work until the achievement then artistry speed and cost reduction achieved.

2- Coordination between the works of the Organisation:

To eliminate duplication and repetition and work on the principle of complementarity between the works of the organisation.

3- Interests the great activities of the Organisation and to distinguish between valuable and less important:

The real OS that gives priority and attention of the major event and put them in the appropriate management level.

4- The effectiveness of Censorship:

The real OS that provides adequate supervision, so as to separate the control function, is not to be controlled by the same employee.

5- Taking into account the environmental conditions:

Must pay attention, considering the internal and external environment of the organisation and its effects on them, so that the flexibility to respond to any changes or emergency.

6- No extravagance:

The OS if good, Provides a necessary cost to the needs of the speciality units, not an extravagance for the additional functions.

2.6. Organic and Mechanic structure

Burns and Stalker (1966, 96) recognised two organic structures named mechanic and organic organisations. Both of them have unique characteristics. They perceived that there is a difference between OSs of dynamic environments and stable ones. Mechanic organisations distinguished by some characters such as great intricacy, focus and hierarchy. These structures based on repetitive activities and operations. They are highly related to the planned behaviours and react to unpredictable events. On the other hand, organic structures are relatively flexible and applicable. These structures focus on parallel relationships, and their effectiveness is based on skill and knowledge, and not on the organisational situation. The responsibilities are flexible, and their concentrates on the data shared.

Burns and Stalker (1966) emphasised that none of these structures is better than the other and the identity of organisational environment determines the kind of structure which should be used (Amiri et al., 2010, 96). The mechanic structure has a bureaucracy identity, and the management causes the power of the employees to appear along with their obedience. But the organic organisation, relating to inter-Organisational relationships, is dependent on the manager's tendency toward partnership and group work (Van Marrewijk and Trimmers, 2003, 179). Relating to the Organic structures that managing knowledge is based on the variable, flexible and renovated organisational conditions which are created by the renovation of building knowledge (Isaac et al., 2010). Ferguson et al. (2005) observed that the comprehensive quality management and organisational learning systems, related to the dynamic external environments, support the characteristics of the organic structure. Shivers (2006, 31) mentioned that the

Organic and mechanic structures affect stable and predictable conditions, respectively. Vogt (2005, 117) emphasises that working conditions should be established based on a suitable structure, and employees should be allowed to create the connection and improve on their human abilities freely. Amiri et al. (2010) in their research concluded that on the organisations' movements toward the knowledge-based goal and focuses on intellectual processes, they need organic and flexible structures by which the required area for inter-Organisational creativity, innovation, doing work, promoting knowledge and establishing learning organisations. Isaac et al. (2010) suggest that organic environments lead to

interactive behaviour, building trust and enabling IC management systems. According to this fact, there is a direct or an indirect relationship between creativity, innovation and organic structure. Some researchers believe that mechanic structures are not able to achieve the strategic goals. As a result, organic structures could act better than mechanic structures, because bureaucracy does not prevent innovation, group objectives are better than individual ones, risk-taking has been accepted, leadership is related to employees' skill and not to the hierarchical situations and behavioural improvement with emphasis on mutual respect. (Ahmadi, Tadayon, Salamzadeh, & Daraei, 2012, p. 8243).

Table 2.1 Characteristics for Organic and Mechanic structure

Characteristics	Organic	Mechanic
Specialization	Joint Specialisation: Employees work together and coordinate tasks	Individual specialisation: Employees work separately and specialise in one task
Centralization and Decentralization	Decentralization: Authority to control tasks is delegated. Most communication lateral	Centralization: Decision-making kept as high as possible. Most communication is vertical.
Formalization	Much verbal communication	Much written communication

Source: prepared by the researcher

2.7. Knowledge Management and Organisational Structure

Traditional organisation theorists who consider as the most dominant form of OS the scalar Organisation the pyramid structure of superiors and subordinates. Modern Organisational theorists believed that organisations should be what we want them to be, for this reason, they should be free. Free from the organisation could be a misleading term but what means is that OS should define specific tasks and not supposedly eternal purposes. The best way of working within this structure is small groups or teams, but this demands strict self-discipline of the members involved. Each member has to be responsible for teams' performance and its individual

performance. No organisation can stand on its own without some element of hierarchy in its structure, for this reason, there should be one person who would make decisions in the name of the whole group without wasting time. (Drucker,1974)

As firms shift from an industrial to a post-industrial mode of operations that uses time-based manufacturing, they need a structure that has:

1- Rules and regulations that encourage creative, autonomous work and learning (the nature of formalisation).
2- Few layers in the organisational hierarchy to enable quick response.
3- A high level of horizontal integration to increase knowledge transfer.
4- A decentralised decision-making so operating issues can be dealt with efficiently and quickly.
5- A high degree of vertical and horizontal communication to ensure coordinated action.

The growing demand for knowledge poses a new challenge to the OS. In fact, the knowledge economy poses new demands on process-based organisational structuring. The new approach is to develop new types of organisational forms to facilitate the management of knowledge, in particular, the flow of knowledge.

Effective knowledge management requires boundaryless, knowledge-based organisations need to break with the restriction of spatial boundaries and construct a perceptual framework limited by the identity and trust of the Organisation. In this way, the organisational knowledge survey can expand beyond the narrow limits of a physical boundary. Doing this allows employees to access information without hindrance from the formal control structure. Informal relationships play a crucial role in the blurring of the border.

Effective knowledge management requires a flow of knowledge rather than an inventory of knowledge. Organisational design should smooth the flow of knowledge and enable knowledge to have a much greater impact on performance. Informal relationships promote the proliferation of internal and external networks to facilitate the flow of knowledge.

Effective knowledge management depends on to a large extent on tacit knowledge management. Informal relationships promote interpersonal, inter-functional and

inter-Organisational interaction and are the primary method of sharing tacit knowledge, as well as of coding and producing tacit knowledge.

For an adequate production of results based on knowledge, the structure must be flexible rather than defined, allowing for an appropriate and timely restructuring of the knowledge and temporal constellations of people and units to meet the needs of the organisation. Organisations can not be seen as stable frameworks, but as transitory entities, created and remodelled by different processes. This requirement is fulfilled through informal relationships. (Wang & Ahmed, 2003, 57–58).

2.8. Intellectual Capital and Organisational Structure

An efficient OS shall facilitate the working relationships between the different elements of the organisation and can improve the efficiency of work within the organisational units. The organisation shall maintain order and control established to allow the monitoring of the processes. An organisation must support the command to deal with a mix of powers and a change of conditions while the work is being performed. Organisations should allow the application of individual skills to allow high flexibility and apply creativity. When an organisation expands, the chain of authority will expand, and the control will be expanded. When an organisation comes of age, flexibility will decrease, and creativity will wear out. Therefore, OSs will be altered from time to time to allow for recovery. The OS depends on the output to be developed. Wheelwright and Clark (1992) describe OSs between two extremes, functional organisations and project Organisations.

In the knowledge economy, IC is the most significant asset of organisations. (Amiri, Ramezan, & Omrani, 2010, 99). Knowledge is the basis of IC and is therefore at the core of organisational capabilities. Organisational skills are based on knowledge. Thus, knowledge is a resource that forms the foundation of the organisation's capabilities. Skills combine to become competencies, and these are core competencies when they represent a domain in which the organisation excels. (Prahalad and Hamel, 1990, 79–91).

From a strategic aspect, IC is used to build and improve the organisational value, and success requires IC and the capability to manage this scarce resource dominated by an organisation. From another point of view, managing IC focuses on constructing an active measurement model, the combine financial and non-financial indices are

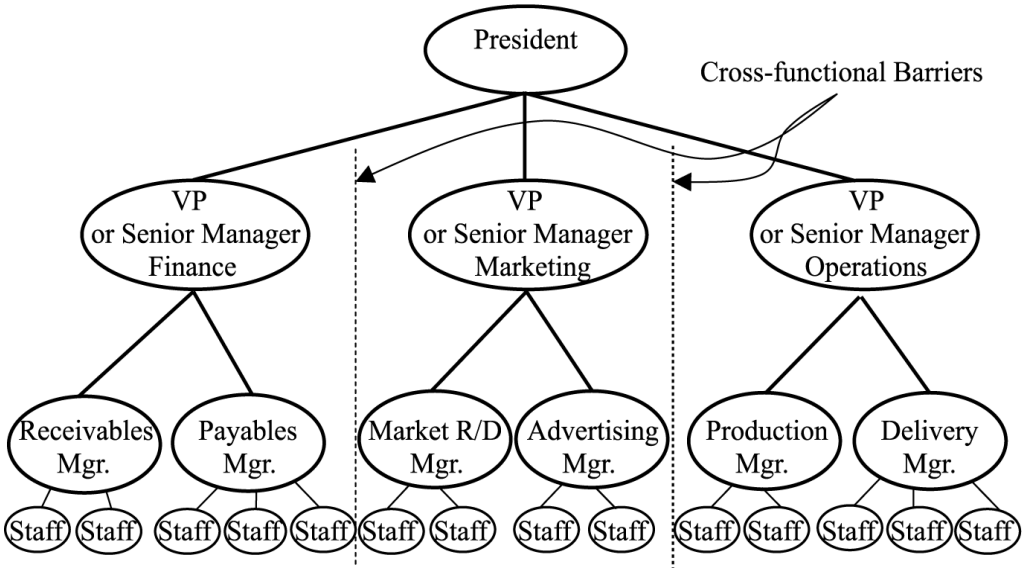
together to reflect Organisation's process completely under the impact of the knowledge economy and to offer more accurate information for knowledge management. (Chen, Zhu, & Xie, 2004, 206).

Researchers show that the IC is affected by the OS in organisations (Wang & Ahmed, 2003, 51–62)

2.9. Knowledge-Based Structure

To improve IC in the organisation, we need a knowledge-based structure. Traditional hierarchical management structures, as shown in (Fig 2.1), allow the transfer of vertical knowledge through the typical chain of command, but inhibit the transfer of horizontal knowledge that must cross the functional boundaries of the organisation. Increased competition and reduced rates of technological change require the better transfer of knowledge across organisational boundaries (Gopalakrishnan & Santoro, 2004); Therefore, Organisations need a knowledge-based framework that facilitates the transfer and sharing of knowledge throughout the organisation.

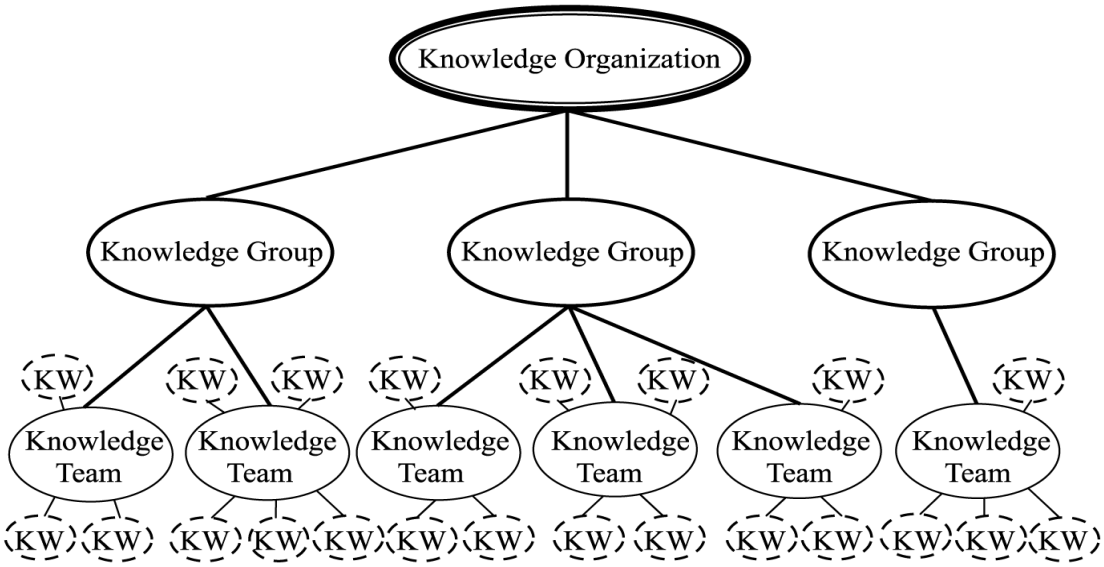
Figure 2.1 Traditional organisation management hierarchy



Source: Walczak, S. Organizational knowledge management structure. The Learning Organization,(2005), 332.

An OS based on knowledge is shown in the (Fig 2.2). Knowledge organisation is composed of knowledge groups that are composed of knowledge teams, which are constructed from knowledge workers selected to participate in a knowledge team because of their tacit knowledge and skills.

Figure 2.2 Elements of the knowledge organisation hierarchy



Source: Walczak, S. Organizational knowledge management structure. The Learning Organization, (2005), 333.

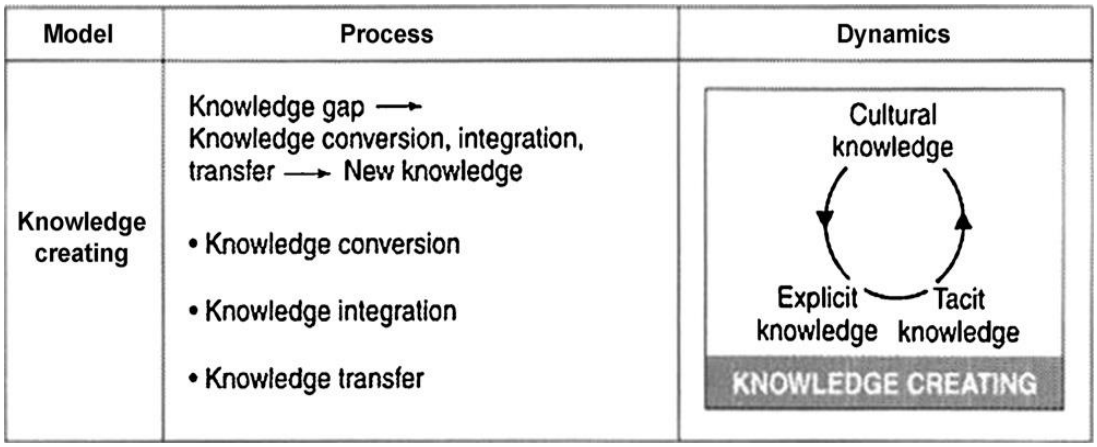
Knowledge workers in any knowledge team appear from various organisational and educational backgrounds and will bring a difference of tacit knowledge and expertise to the team. The adoption of a new OS of the "knowledge organisation" or methodology "culture of knowledge" faces resistance management within the organisation. Resistance to change can be minimised by decreasing the perception of change for stakeholders.

Initially, the knowledge team management structure can be aligned with an existing hierarchical management structure by aligning knowledge groups with existing organisational, functional areas including accounting, marketing, production, and research similar to the idea of communities of practice. The OS will facilitate the development of a "culture of knowledge" within an organisation by first supporting the decision-making of knowledge workers through collaboration in knowledge teams (real or virtual). Second, facilitating the exchange of tacit knowledge through interaction in knowledge groups with other knowledge workers). This turn leads to better IC in the organisation (Walczak, 2005, 332- 338).

Therefore, a knowledge-based structure is an organic OS which gives managers a practical way to approach cross-Organisational knowledge sharing.

The organisation has three types of knowledge: tacit knowledge in the expertise and experience of the employee, explicit or rule-based knowledge in artefacts, rules, and routines, and cultural knowledge in the theory and beliefs used by employees to assign value and importance to new information or knowledge. Knowledge creation is precipitated by the recognition of gaps in the organisation's existing knowledge.

Figure 2.3 Knowledge creating



Source: Choo, C. W., & Bontis, N. (Eds.). The strategic management of intellectual capital and organisational knowledge. (Oxford University Press, 2002), 81.

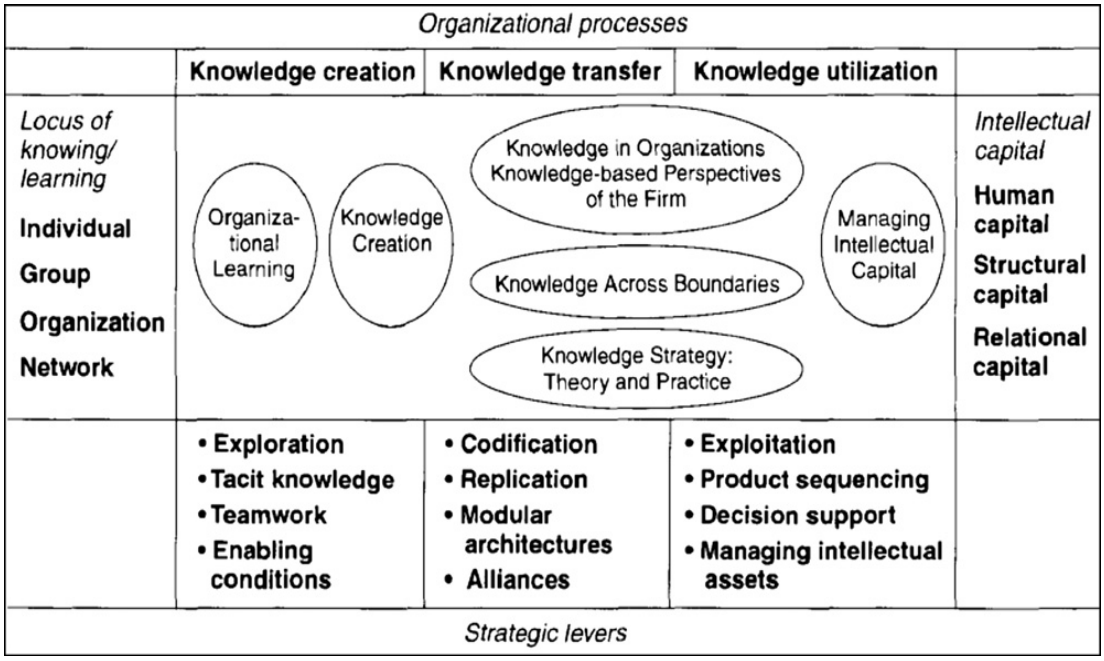
Such knowledge gaps can be interposed in how to solve a problem, develop a new product or take advantage of an opportunity. Groups then create new knowledge by converting tacit knowledge into explicit knowledge, integrating and combining knowledge, and acquiring or transferring knowledge across boundaries (.Choo & Bontis, 2002) (Fig.2.3).

In the conversion of knowledge, the organisation regularly creates new knowledge by converting the employee, tacit knowledge of individuals who develop a creative vision to the shared, explicit knowledge through which the organisation develops new products and innovations. (Nonaka&Takeuchi, 1995, 441-443).

Tacit knowledge is shared and externalised through discussion that utilises metaphors and analogies. New concepts are built, and the concepts are justified and appraised according to its fit with organisational mission. Concepts are examined and developed by building archetypes or prototypes. Finally, ideas that have been created, justified, and modelled are moved to other levels of the organisation to generate new cycles of knowledge creation.

According to Bontis and Choo, "learning helps organisations to create knowledge and this, in turn, leads to IC improvement". (Choo & Bontis, 2002) (Fig (1.4).

Figure 2.4 A framework for strategic knowledge management



Source: Choo, C. W., & Bontis, N. (Eds.). The strategic management of intellectual capital and organisational knowledge. (Oxford University Press, 2002), 81.

Therefore, the creation of knowledge leads to the improvement of IC. Therefore, one of the main prerequisites for increasing IC is a kind of OS that streamlines the transfer of knowledge throughout the organisation.

Researchers show that the informal structure represents better the actual organisational activities and reflects a dynamic interaction that is fundamental for the creation of knowledge.

CHAPTER THREE

THE GENERAL FRAMEWORK OF THE RESEARCH

3.1. Research Problem

The world today is doomed real number shifts, the change towards a knowledge society, and the transition towards a knowledge-based economy, the shift towards MicroNet Technology, these transformations affect the style of working in any organisation and make a difference in the developing world and the developed countries.

Business Organisations had achieved a huge success when it relied on a simple principle, but a significant effect is to adopt managing creative and innovative capacity, experience and excellence. Business organisations succeed in reconsider their policies to be mainly oriented towards the market demands and to review their OS and built to be flexible and adaptable, culture systems training and rehabilitation of employees to be supportive of creativity and innovation, exchange of experiences and knowledge implied. Service sectors do not vary from business organisations, regarding ownership of IC, but are inherently possess a huge deal of it, more than what is in the solid teams, many successes that have occurred in the business sector can bring it back to the service area. IC in the Municipality of Sulaimaniyah untapped. for this reason the administration of Sulaimaniyah Municipality need to IC to face the external environment changes and challenges, to achieve maximum efficiency in the performance of jobs and cope with problems.

A research question to the Problem of the study:

What type of Organisational structure can be fit by Intellectual Capital Capacity?

What type of Organisational structure can be fit by establishing IC department in Sulaimaniyah Municipality?

- Why does Municipality of Sulaimaniyah need to create IC department?
- What is the degree of organisational structure components (Formalization, Centralization, and Specialisation) in the Municipality of Sulaimaniyah?
- What is the nature of the relationship and effect among Organisational structure with their components (Formalisation, Centralization, and Specialisation) and

Intellectual Capital with their components (Human Capital, Structure Capital, and Customer Capital) in the Municipality of Sulaimaniyah?

3.2. The Importance of Research

Elements of IC are considered indicators to measure the evolution of management thought business Organisations. Because this variable contributes to detecting and identify individuals who possess creative abilities, it can convert to the benefit of the interests of labour Organisations in which they work, and then work on the development of these individuals, also to maintain them consistently and try attracting other numbers of them.

According to Mullins (1999, 301), the purpose of the structure is to specify the duties of organisational members and increase the coordination among them with main scope goal achievement. Unlike to traditional organisation theorists who consider as the most dominant form of OS the scalar Organisation the pyramid structure of superiors and subordinates. Modern organisational theorists believed that organisations should be what we want them to be, for this reason, they should be free. Free from the organisation could be a misleading term but what means is that OS should define specific tasks and not supposedly eternal purposes.

3.3. Research Objectives

In light of the research problem and the importance of the study, the primary aims of the study are to describe the IC and to analyse the IC components at the municipality of Sulaimaniyah. Through the practical side and based on the theoretical framework within the scope of the questionnaire, the role of IC components should activate, and participants should be encouraged to adopt work practices referring to justifications of the IC components. The researcher identifies the primary objectives as:

1- Identify the key elements of IC and OS, Define the concept of each of them, and find a relationship between these variables.

2- Illustrate the importance of exploiting IC; for the purpose of assisting the senior management, to design the curriculum is interested in upgrading the level of skills, experiences, and creations of workers, to achieve the goals of the municipality of Sulaymaniyah.

3- Identify the degree of availability of IC, and its three dimensions (human, structural and customers) in the Municipality of Sulaymaniyah.

4- Identify the OS type, by selecting the presence (centralization, specialisation, and formalisation) in the Municipality of Sulaymaniyah.

5- To reach some conclusions, and make some recommendations that the researcher hopes to contribute to the activation of IC and use it to increase the creativity and innovation of the municipality of Sulaymaniyah.

6- Increase IC in the Municipality of Sulaymaniyah.

3.4. Research Hypothesis

H_o There is a correlation between IC and OS

This central hypothesis is leading to several sub-hypothesis as follows:

H1a There is a correlation between Centralization and IC.

H1b There is a correlation between Specializations and IC.

H1c There is a correlation between Formalization and IC.

H1d There is a correlation between Centralization and HC.

H1e There is a correlation between Centralization and SC.

H1f There is a correlation between Centralization and CC.

H1g There is a correlation between Specialisation and HC.

H1h There is a correlation between Specialisation and SC.

H1i There is a correlation between Specialisation and CC.

H1j There is a correlation between Formalization and HC.

H1k There is a correlation between Formalization and SC.

H1l There is a correlation between Formalization and CC.

H1m There is a correlation between OS and HC.

H1n There is a correlation between OS and SC.

H1o There is a correlation OS and CC.

H_o1 There is an impact of OS on IC

This central hypothesis is leading to several sub-hypothesis as follows:

H2a There is an impact of Centralization on IC.

H2b There is an impact of Specialisation on IC.

H2c There is an impact of Formalisation on IC.

H2d There is an impact of Centralization on HC.

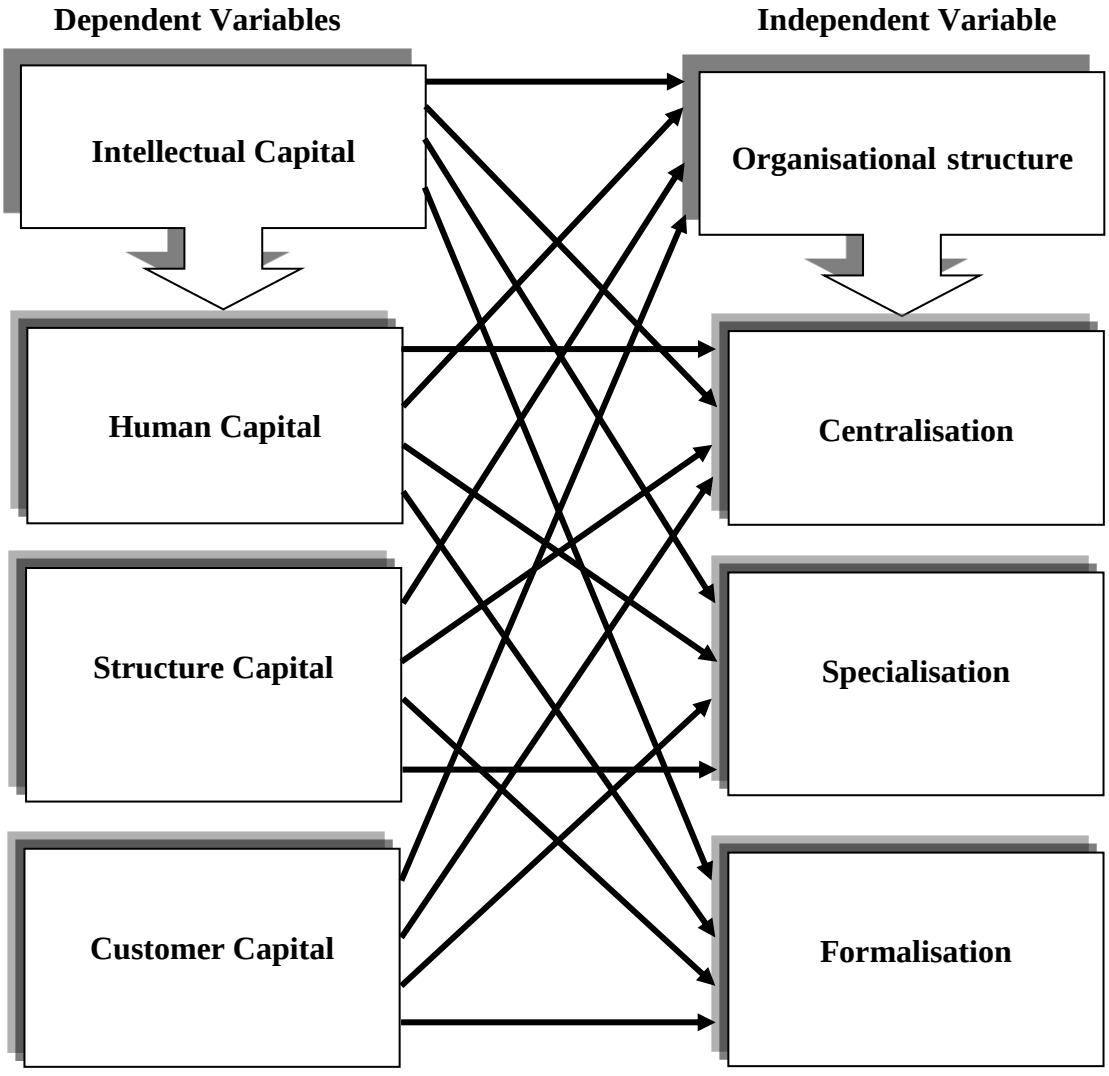
H2e There is an impact of Centralization on SC

H2f There is an impact of Centralization on CC

H2g	There is an impact of Specialisation on HC.
H2h	There is an impact of Specialisation on SC
H2i	There is an impact of Specialisation on CC
H2j	There is an impact of Formalisation on HC.
H2k	There is an impact of Formalisation on SC.
H2l	There is an impact of Formalisation on CC
H2m	There is an impact of OS on HC.
H2n	There is an impact of OS on SC.
H2o	There is an impact of OS on CC

Research Model

Figure 3.1 Research Model



3.5. Methodology:

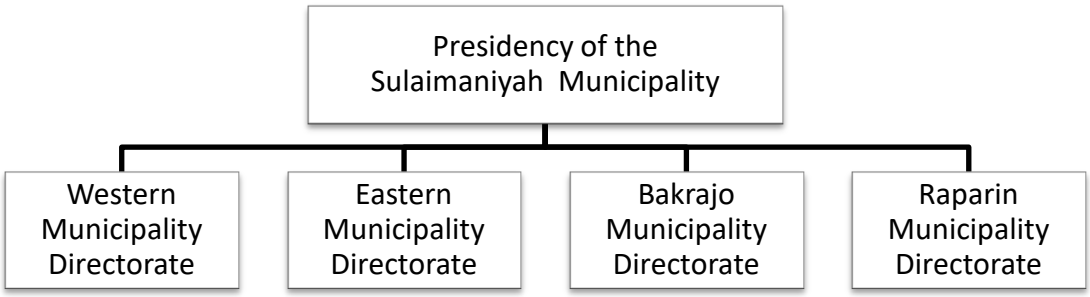
The Methodology of this study involves the design of investigation through the identification of dependent variables (IC) and independent variables (OS). The researcher used the analytical method and sampled descriptive because it is appropriate to the nature of the study and the objectives to be achieved, as well as the nature of the data to be collected. Also, the researcher found that the questionnaire is the most appropriate instrument to achieve the objectives of this study and statistical software (SPSS) V.22) used to analyse the data.

3.6. Research Population

The municipality of Sulaimaniyah has three types of a department, Technical, Accounting and Administration Department. The researcher conducted this study at those departments because they have a great importance for the development of the Sulaimaniyah city; The researcher chose the Municipality of Sulaimaniyah because the title of the thesis is about effects of IC components on OS and Municipality of Sulaimaniyah is responsible for developing and growing the city. Moreover, Most of the project under control and managing Municipality of Sulaimaniyah . The Municipality of Sulaimaniyah include :

Presidency of the Sulaimaniyah Municipality, Western Municipality Directorate, Eastern Municipality Directorate, Bakrajo Municipality Directorate, and Raparin Municipality Directorate.

Figure 3.2 Structure of Sulaimaniyah Municipality



3.7. Research Sample

The Municipality of Sulaimaniyah includes Technical, Accounting and administrator's staff holding (Master, Bachelor, Technical Institute, Higher Secondary and Secondary school) degrees, which includes (3095) employees according to a statistic of administration affair at Municipality of Sulaimaniyah 2015-2016. (450) questionnaires distributed, (389) responded, according to social and humanity scientific research, the sample was taken must be equal to or bigger than 5 %, the sample is 7.95 % it means that the sample in high accuracy.

3.8. Data Collection

To reach the necessary data and information to answer the questions about research and testing of hypotheses were available which have some methods as follows:

-The Theoretical Side: It adopted the researcher to cover the theoretical aspect of the research which is available from Arabic, Persian and foreign sources on the subject of the study including the following:

* Books
* Studies.
* Journal.
* Conference proceedings.
* Thesis and dissertation.
* The international information network (Internet).

- The Practical Side: The researcher depends on the implementation of the practical study on personal interviews with some heads of department at the Municipality of Sulimaniya. To clarify on the study subject as well as taking the data will be helpful for research, then the researcher found that the questionnaire is the most appropriate instrument to get data.

- Time Limits: The researcher took two weeks for distribution and collection of questionnaire data from 6/9/2016 to 19/9/2016.

- Spatial Limits: Limited to the Municipality of Sulaimaniyah, (http://www.sharawani.com/) - Kurdistan Region of Iraq.

3.9. Questionnaire Design

The researcher designed a questionnaire according to the following steps:

- The researcher designed the questionnaire to achieve objectives of the study. Which included (41) statements distributed among two areas (IC and OS), with Demographical Information about the members (Gender, age, scientific qualification, organisational position, workplace and years of experience) as shown in the table (4:1).

- Researcher adopted these studies of (Mustafa Sagssan2008, Nick Bontis, Abdelmohsen Nassani. 2007, Salahadin Babaker Mohammed 2010, Hamdan Salim Alawamleh 2013) for the designing questionnaire.

Table 3.1 Designing Questionnaire

Number	Field		Number of Statements
1	IC	HC	10
		SC	6
		CC	10
2	OS	Formalization	5
		Centralization	5
		Specialization	5
Total			41

- The researcher used a scale of (**likert quinet**) to answer the questionnaire state statements as:

Levels	Strongly Agree	Agree	neutral	Disagree	Strongly Disagree
Points	5	4	3	2	1

3.10. The Research Tool

The researcher utilised the questionnaire as a tool for the research, which is a convenient tool to obtain information, data, and facts associated with an absolute reality.
450 questionnaires distributed; because the sample of study includes 3095 staff of the (technical, accounting, administration department), Depending on (Richard Geiger

equation) to distribute the questionnaires, 389 responded, which represents the 86.44%.

3.11. Results

This chapter of this thesis (Effects of IC components on OS: a case of Sulaimaniyah Municipality) demonstrates the findings of this study, which have resulted from the analysis of the collected data, based on the pre-discussed literature review. Regarding data analysis, a descriptive analysis was initially performed to provide information about the biography of the respondents. At a later stage, the Pearson correlation was used to test the relationship between the variables. Then, multiple regression analysis was conducted to see if the impact hypothesised between the dependent variables and the independent one exists. It should be mention that all the analytical processes have performed by using the V.23 of the software SPSS. 450 questionnaires distributed; because the sample of research includes 3095 technical, accounting, administration staff of Municipality of Sulimaniya.

The researcher used Richard Geiger equation for distributing the questionnaires, 389 responded, this represents 86.44%. Is considered a high proportion of respondents indicate cooperation and interest in the subject. The statistics of the members of the study sample concerning (Gender, age, scientific qualification, organisational position, workplace and years of experience). However, explaining that through Frequency and the percentage of each classification.

3.12. Demographical Information

Age

Table 3.2 Age Distribution of Respondents

		Frequency	Percent
Valid	Under 30y	121	31.1
	Between 30y and 40y	153	39.3
	Between 40y and 50y	87	22.4
	Between 50y and 60y	28	7.2
	Above 60y	0	0
	Total	389	100.0

The participants in this research came from various age levels, which have been demonstrated in Table 4:2. While 31.1% were under 30 years old, only 22.4% were between 40 and 50 years of age. Another age group with high level of participants is between 30 and 40 years that held for 39.3% of respondents. 7.2% were between 50 and 60 years of age, and just 0% had been above 60 years old.

Gender

Table 3.3 Gender of the Respondents

		Frequency	Percent
Valid	Male	163	41.9
	Female	226	58.1
	Total	389	100.0

As represented in the above table, among 389 participants in this study, 163 were a male who account for 41.9% of all those involved while 226 of them were female with the percentage of 58.1%.

Scientific Qualification

Table 3.4 Scientific Qualification of the Respondents

		Frequency	Percent
Valid	PHD	0	0
	Master	2	0.5
	Bachelor	157	40.4
Valid	Technical Institute	161	41.4
	Higher Secondary	45	11.6
	Secondary school	24	6.2
	Total	389	100.0

The table demonstrates the educational level (qualifications) of the participants. As it can see from the above table, the higher rate of the respondents‟ approximately (41.4%, n = 161), were with the qualification of API degree. Whereas, the rest of the other groups, bachelor, high school, Intermediate, Master and Ph.D and were only (40.4%, n=157) (11.6%, n=45), (6.2%, n= 24) (0.5%, n= 2) and (0%, n= 0) respectively.

Work Place of the Participants

Table 3.5 Work Place

		Frequency	Percent
Valid	Technical Department	158	40.6
	Department of Administration	149	38.3
	Department of Accounting	82	21.1
	Total	389	100.0

The above table shows the place for the respondents. As seen, the higher rate of the respondents was from Technical Department (40.6% n= 158). Whereas the rest of the participants are from the Department of Administration, and Department of Accounting only (38.3%, n=149), and (21.1%, n= 83) respectively.

Organisational Position of the Participants

Table 3.6 Organisational Position

		Frequency	Percent
Valid	Manager	7	1.8
	Associate Director	11	2.8
	Head of the Dept.	23	5.9
	Engineer	73	18.8
	Surveyor	55	14.1
	Accounts	67	17.2
	Administrative	121	31.1
	Lawyer	22	5.7
	IT	10	2.6
	Total	389	100.0

The above table shows the position of the respondents. As seen, the majority higher of the respondents was a Administrative member (31.1% n= 121). whereas the rest of the participants' positions, Engineer, Accounts, Surveyor , head of department, Lawyer, Associate Director ,IT and Manager were only (18.8%, n=73) (17.2%,

n=67) (14.1%, n=55), (5.9%, n=23), (5.7%, n=22) (2.8%, n=11), (2.6%, n=10) and (1.8%, n= 7) respectively.

Work Experience of the Participants

Table 3.7 Work Experience

		Frequency	Percent
Valid	Less than 5 years	86	22.1
	From 5-10 years	111	28.5
	From 10-15 years	64	16.5
	More than 15 years	128	32.9
	Total	389	100.0

The above table shows the tenure years for the respondents. As it‟s obvious, the higher rate of the respondents was from group More than 15 years (32.9% n= 128). Whereas, the rest of the participants work experience, From 5-10 years, Less than 5 years and From 10-15 years were only (28.5%, n=111) (22.1%, n=71), and (16.5%, n= 26) respectively.

Table 3.8 Description of Human Capital

redro	Mean	Sum	Level					Description	statement
			strongly disagreed	disagree	neutral	Agree	strongly agree		
First	2.88	1114	46	106	123	83	31	N	First
			11.8	27.2	31.6	21.3	8	Percent	
Fifth	2.65	1030	91	95	82	102	19	N	Second
			23.4	24.4	21.1	26.2	4.9	Percent	
Fourth	2.68	1042	77	102	93	103	14	N	Third
			19.8	26.2	23.9	26.5	3.6	Percent	
Ninth	2.42	943	115	105	77	73	19	N	Fourth
			29.6	27	19.8	18.8	4.9	Percent	
Sixth	2.58	1004	107	100	63	87	32	N	Fifth
			27.5	25.7	16.2	22.4	8.2	Percent	
Eighth	2.43	945	78	124	131	54	2	N	Sixth
			20.1	31.9	33.7	13.9	0.5	Percent	
Tenth	2.38	926	117	104	88	63	17	N	Seventh
			30.1	26.7	22.6	16.2	4.4	Percent	
Third	2.77	1079	90	81	72	119	27	N	Eighth

			23.1	20.8	18.5	30.6	6.9	Percent	
seventh	2.57	1000	98	102	82	83	24	N	Ninth
			25.2	26.2	21.1	21.3	6.2	Percent	
Second	2.78	1081	89	85	81	91	43	N	Tenth
			22.9	21.9	20.8	23.4	11.1	Percent	

3.13. Questionnaire Reliability

Cronbach‟s alpha reliability coefficient commonly ranges between 0 and 1. However, there is no lower limit to the ratio. The closer the Cronbach‟s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Moreover, the following rules of thumb are provided for Cronbach‟s alpha values: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ >.6 – Questionable, _ > .5 – Poor, and_ <. 5 – Unacceptable" (George & Mallery, 2003). As it projected on the table (4:9), all of the factors; loadings are approximately above 0.7 proving that the study has conducted with proper discriminate validity.

Table 3.9 Questionnaire Reliability

Variables		Cronbach's Alpha	N of Items	Reliability
IC	HC	.771	10	Acceptable
	SC	.738	6	Acceptable
	CC	.846	10	Good
IC (Total)		.810	26	Good
OS	Centralization	.801	5	Good
	Specialization	.715	5	Acceptable
	Formalization	.865	5	Good
OS(Total)		.716	15	Acceptable

3.14. Descriptive Statistics

Table 3.10 Descriptive Statistics for the Study Variables

Variables	Mean	Std. Deviation	N
IC	2.8	0.52	26
OS	3.17	0.51	15

The above table demonstrates the descriptive statistics for the study variables (dependent and independent variables). As it is evident, the mean and standard

deviation values for the IC and OS were (M=2.8, SD=0.52)and (M=3.17, SD=0.51) respectively. Since the average value is above the midpoint of the 5-point Likert scale, it can assert that the research participants show a moderate level of perceptions toward IC. Also, the standard deviation value refers to an acceptable distribution of responses within the study sample.

3.15. Correlation Analysis

Table 3.11 Pearson's Correlation Coefficients of the Study Variables

		IC	OS	HC	SC	CC	Cent	spec	form
IC	Pearson Correlation	1	.579**	.514**	.618**	.804**	.361**	.201**	.467**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
	N	389	389	389	389	389	389	389	389
OS	Pearson Correlation	.579**	1	.132**	.416**	.566**	.748**	.706**	.385**
	Sig. (2-tailed)	.000		.009	.000	.000	.000	.000	.000
	N	389	389	389	389	389	389	389	389
HC	Pearson Correlation	.514**	.132**	1	-.023-	.013	.229**	.091	-.062-
	Sig. (2-tailed)	.000	.009		.657	.799	.000	.072	.223
	N	389	389	389	389	389	389	389	389
SC	Pearson Correlation	.618**	.416**	-.023-	1	.434**	-.019-	-.094-	.785**
	Sig. (2-tailed)	.000	.000	.657		.000	.714	.065	.000
	N	389	389	389	389	389	389	389	389
CC	Pearson Correlation	.804**	.566**	.013	.434**	1	.386**	.289**	.348**
	Sig. (2-tailed)	.000	.000	.799	.000		.000	.000	.000
	N	389	389	389	389	389	389	389	389
centrali zation	Pearson Correlation	.361**	.748**	.229**	-.019-	.386**	1	.617**	-.172**
	Sig. (2-tailed)	.000	.000	.000	.714	.000		.000	.001
	N	389	389	389	389	389	389	389	389
specaliz ation	Pearson Correlation	.201**	.706**	.091	-.094-	.289**	.617**	1	-.245**
	Sig. (2-tailed)	.000	.000	.072	.065	.000	.000		.000
	N	389	389	389	389	389	389	389	389
formali zation	Pearson Correlation	.467**	.385**	-.062-	.785**	.348**	-.172**	-.245**	1
	Sig. (2-tailed)	.000	.000	.223	.000	.000	.001	.000	
	N	389	389	389	389	389	389	389	389

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

The aim of the correlation test is to explain the strength and direction of the relationship between the studied variables. Therefore, to examine the associations between the independent variables and the dependent variable, Pearson correlation

coefficient was used in the present study. Furthermore, the relationships among the predictors included in this research study tested. Table (4:11) shows that all independent variables have a statistically significant positive correlation with depended variable.

Table 3.12 Hypothesis Remarks

Hypothesis	Relationship	Sig.	Remarks
H1	IC → OS	.579**	Accepted
(H1a)	Centralisation → IC	.361**	Accepted
(H1b)	Specialisation → IC	.201**	Accepted
(H1c)	Formalisation → IC	.467**	Accepted
(H1d)	Centralization → HC	.229**	Accepted
(H1e)	Centralization → SC	-.019	Rejected
(H1f)	Centralization → CC	.386**	Accepted
(H1g)	Specialisation → HC	.091	Rejected
(H1h)	Specialisation → SC	-.094**	Rejected
(H1i)	Specialisation → CC	.289**	Accepted
(H1j)	Formalisation → HC	-.062**	Rejected
(H1k)	Formalisation → SC	.785**	Accepted
(H1l)	Formalisation → CC	.348**	Accepted
(H1m)	OS → HC	.132**	Rejected
(H1n)	OS → SC	.416**	Accepted
(H1o)	OS → CC	.566**	Accepted

3.16. Multiple Regression Analysis

Regression analysis has been conducted to determine the effects of the dependent variable and independent variables. It has been done to measure to what extent these constructs measure the independent variable.

Table 3.13 Model Summary

Impact	Dependent.Var	Independent Variables					N
Yes	IC	OS					Total
		Mean Square residual	F	B	R^2	Sig.	
		123.205	149.975	.579	.335	.000	
Yes	IC	Centralization					1
		Mean Square residual	F	B	R^2	Sig.	
		161.143	57.96	.361	.13	.000	
Yes	IC	Specialisation					2
		Mean Square residual	F	B	R^2	Sig.	
		177.776	16.331	.201	.04	.000	
Yes	IC	Formalisation					3
		Mean Square residual	F	B	R^2	Sig.	
		144.853	107.999	.467	.218	.000	
Yes	HC	Centralization					4
		Mean Square residual	F	B	R^2	Sig.	
		46.347	21.485	.229	.053	.000	
No	SC	Centralization					5
		Mean Square residual	F	B	R^2	Sig.	
		22.599	.134	-.019	.000	.714	
Yes	CC	Centralization					6
		Mean Square residual	F	B	R^2	Sig.	
		65.830	67.842	.386	.149	.000	
No	HC	Specialisation					7
		Mean Square residual	F	B	R^2	Sig.	

		48.511	3.265	.091	.008	.072	
No	SC	Specialisation					8
		Mean Square residual	F	B	R^2	Sig.	
		22.409	3.415	-.094	.009	.065	
Yes	CC	Specialisation					9
		Mean Square residual	F	B	R^2	Sig.	
		70.898	35.325	.289	.084	.000	
No	HC	Formalisation					10
		Mean Square residual	F	B	R^2	Sig.	
		48.733	1.487	-.062	.004	.223	
Yes	SC	Formalisation					11
		Mean Square residual	F	B	R^2	Sig.	
		8.667	622.470	.785	.617	.000	
Yes	CC	Formalisation					12
		Mean Square residual	F	B	R^2	Sig.	
		68.024	53.168	.348	.121	.000	
Yes	HC	OS					13
		Mean Square residual	F	B	R^2	Sig.	
		48.073	6.817	.132	.017	.009	
Yes	SC	OS					14
		Mean Square residual	F	B	R^2	Sig.	
		18.699	80.868	.416	.173	.000	
Yes	CC	OS					15
		Mean Square residual	F	B	R^2	Sig.	
		52.553	182.749	.566	.321	.000	

According to the Table (3:13), R-square equals to .335 that shows 33.5% of the dependent variables is affected by the independent variables. The Sig, The column indicates the P-value should be less or equal to 0.05 so that the significant impact on the independent and dependent variable can deduce. According to Sig values presented in Table (4:14), the significant impact of IC and OS (r= 335**, p< 0.000), is confirmed (H2). The significant impact between Formalization and SC (r= 617**, p< 0.000), is confirmed (H2k). The significant impact between OS and CC (r= 321**, p< 0.000), is confirmed (H2o). The significant impact between Formalization and IC (r= 218**, p< 0.000), is confirmed (H2c). The significant impact between Formalization and IC (r= 218**, p< 0.000), is confirmed (H2c). The significant impact between OS and SC (r= 173**, p< 0.000), is confirmed (H2n). The significant impact between Specialization and IC (r= 130**, p< 0.000), is confirmed (H2a). The significant impact between Formalization and CC (r= 121**, p< 0.000), is confirmed (H2l). The significant impact between Specialization and CC (r= 84**, p< 0.000), is confirmed (H2i). The significant impact between Centralization and HC (r= 53**, p< 0.000), is confirmed (H2d). The significant impact between Specialization and IC (r= 40**, p< 0.000), is confirmed (H2b). The significant impact between OS and HC (r= 17**, p< 0.009), is confirmed (H2m). Thus, just four of the hypotheses were unaccepted (Table 3:14).

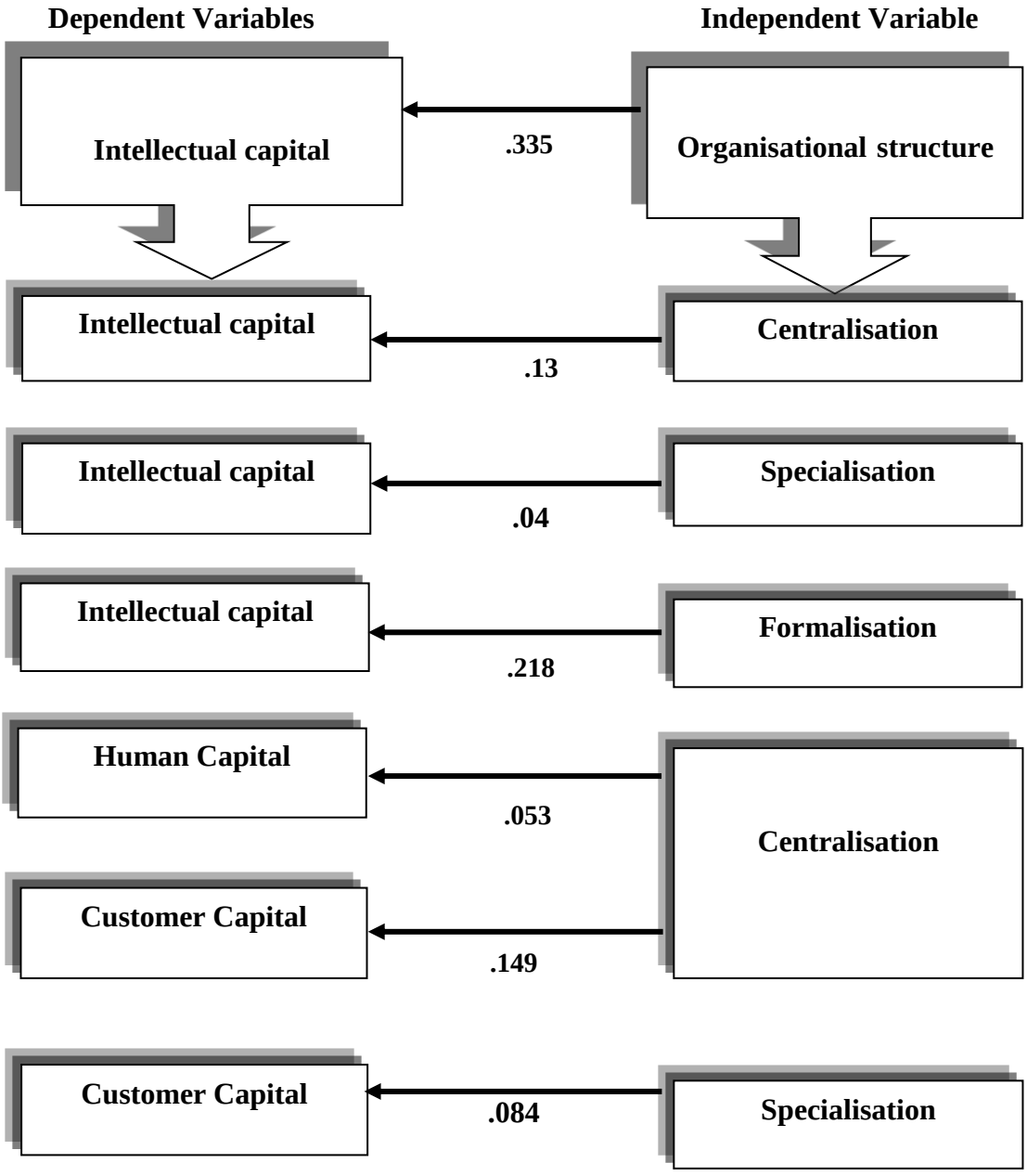
Table 3.14 Hypothesis Remarks

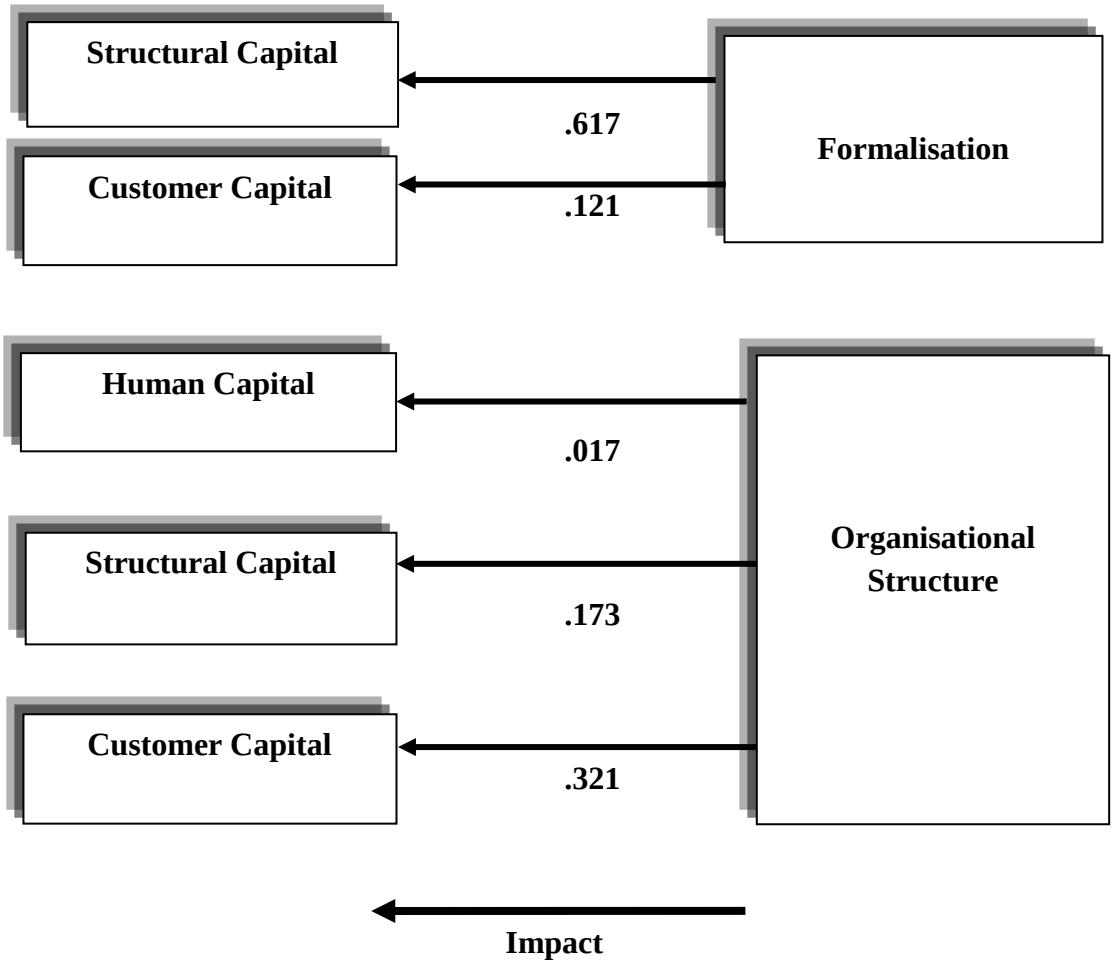
Hypothesis	Impact	Beta	R Square.	Sig	Remarks
H2	IC → OS	.579	.335	.000	Accepted
(H2a)	Centralization → IC	.361	.130	.000	Accepted
(H2b)	Specialization → IC	.201	.040	.000	Accepted
(H2c)	Formalization → IC	.467	.218	.000	Accepted
(H2d)	Centralization → HC	.229	.053	.000	Accepted
(H2e)	Centralization → SC	-.019	.000	.714	Rejected
(H2f)	Centralization → CC	.386	.149	.000	Accepted
(H2g)	Specialization → HC	.091	.008	.072	Rejected
(H2h)	Specialization → SC	-.094	.009	.065	Rejected
(H2i)	Specialization → CC	.289	.084	.000	Accepted
(H2j)	Formalization → HC	-.062	.004	.223	Rejected

(H2k)	Formalization → SC	.785	.617	.000	Accepted
(H2l)	Formalization → CC	.348	.121	.000	Accepted
(H2m)	OS → HC	.132	.017	.009	Accepted
(H2n)	OS → SC	.416	.173	.000	Accepted
(H1o)	OS → CC	.566	.321	.000	Accepted

Figure 3.3 Research Conceptual Model

Research Conceptual Model




Structural Capital
Customer Capital
.617
.121
Formalisation
Human Capital
Structural Capital
Customer Capital
.017
.173
.321
Organisational Structure
Impact

3.17. Discussions

The Intellectual Capital considered as one of the most important organisational assets because organisational abilities are based on Intellectual Capitals. Therefore it is necessary to provide and improve Intellectual Capital in the current organisations especially in the Municipality of Sulaimaniyah. The purpose of this study was to investigate the impact of the dimensions of Organisational Structure on the components of Intellectual Capital. Dimensions of the Organisational Structure include Centralisation, Specialisation, and Formalisation. Then the components of Intellectual Capital have been supposed as Human, Structural, and Customer Capital. The statistical population of this study includes Municipality of Sulaimaniyah staff.

The results of data analysis indicated that dimensions of Organisational Structure have a relationship with the Intellectual Capital and its components. The results indicated that there is no relationship between Centralisation and Structure Capital, it means that this hypothesis rejected, because the sample of the study has been selected randomly (experience, age, qualification, workplace). Also the staff will not be satisfied by their work. Additionally, there is no relationship between Specialisation with Human Capital and Structure capital. Then, there is no relationship between Formalisation and Human Capital. Finally, there is no relationship between Organisational Structure and Human Capital. Based on this findings the human resource managers in the Municipality of Sulaimaniyah and other organisations attend to organisational structure and its designing because if it is designed suitably leads to increasing and improving the intellectual capital of the Municipality of Sulaimaniyah. Also, the restrictions of organisational formality limitations lead that the workers cannot acquire their needed information easily. To this, the informal communications have many important roles in removing Formalisation in the organisation.

The results of data analysis indicated that dimensions of Organisational Structure impacted on the Intellectual Capital and its components. The results indicated that Centralisation has not impact on Structure Capital; it means that this hypothesis rejected. Also, Specialisation has not impact on Human Capital and Structure Capital. Then, Formalisation has not impact on Human Capital. Also, because the sample of the study has been selected randomly staff (experience, age, qualification,

workplace). Also the staff will not be satisfied by their work. Additionally, based on this findings the human resource managers in the Municipality of Sulaimaniyah and other organisations attend to organisational structure and its designing because if it is designed suitably leads to increasing and improving the Intellectual Capital of the Municipality of Sulaimaniyah. Additionally, the decisions made at the top level of management and their worker's creativity and innovation decreased and also it is an obstacle to creating the integrated organisational culture and debilitating horizontal communications in the organisation. Designing organisational structure is one of the serious responsibilities of management, and this leads to success or failure of organisations. The managers especially in the Municipality they design random structure, organisational structures confront many problems in its advancing in the future and because of this, designing organisational structure should have a fundamental valid the concept, professional knowledge in designing methods.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATION

CONCLUSIONS

The study shows evidence that organisations with better IC efficiency return greater profitability and wealth growth in both the current and the coming years. Hence, when entering a knowledge area, organisations will have to be more adaptable and flexible to increase IC and capture opportunities in the dynamic environment. The traditional understanding of OS fails to capture the essence of organisational development in the face of new challenges. Therefore, was not able to improve IC in organisations. The researcher concluded that IC has a relation with OS in the Municipality of Sulaymaniyah. As a result, some of the hypotheses have accepted. Therefore, this study analysis the IC and describes of the OS as well as identifying the components of IC, namely: HC, SC and CC, and identifying three components of OS namely: Centralization, Formalisation, and Specialisation.

The researcher reached a set of practical conclusions as follows:

1. The majority of individuals under study has the limited experience in the field of work, enabling them to give the knowledge through prepare learning organisational to make them a Capital for a municipality of Sulaymaniyah.
2. Some of the individuals under study hold academic qualifications meaning they could not understand very well the variables in the questionnaire and answer them correctly.
3. The result of the correlation analysis shows that there is a strong indication that the independent variable(OS) has the statistically significant positive relationship with the depended variable (IC). And the components of the independent variable (Centralization, Specialisation and Formalisation) have the positive correlation with the depended variable(IC). Additionally have a positive relationship with(HC and CC), then (Formalisation) has a positive correlation with (SC and CC), also that (Formalisation and Specialisation) have a negative correlation with (HC), however (Centralization and Specialisation) have the negative relationship with (SC), finally,(OS)has a negative correlation with (HC),it mean that (OS)has a positive correlation with (SC and CC).
4. Further analysis revealed that the results displayed the existence of the effect of the independent variable (OS) on the dependent variable (IC). For the components of

(IC and OS); (Centralization, Formalisation, and Specialisation) have a significant effect on components of (IC); (HC, SC and CC) additionally, only (Centralization and Specialisation) have not a significant effect on (SC), ultimately, (Formalisation, and Specialisation) have not a significant effect on (HC).

RECOMMENDATIONS

From the results, the researcher found grounds to for providing the following recommendations:

• The administration of Sulaymaniyah municipality must continue to attend and run courses and seminars on the scientific conformance in the field of IC and describes the OS to improve continuously.

• Working towards building trust between employees to empower them and to enhance mutual communication among them by investing their knowledge energies and abilities, and to develop them being the IC of the Sulaymaniyah municipality.

• There is a requirement to build an infrastructure of technology to establish an effective connectivity within at the Sulaymaniyah Municipality.

• Innovative employees should be encouraged and motivated.

• Managers who design OS should help the development of a "knowledge culture." Within an organisation by first supporting the decision-making of knowledge workers through collaboration in knowledge teams.

• Facilitating the transfer of tacit knowledge through interaction, in knowledge groups with other knowledge workers.

• Managers, need to consider the importance of organic structure to facilitate knowledge creation, knowledge transferring and knowledge sharing. It leads to improving IC and sustaining competitive advantage for organisations.

• Should be worked in the investment of HC and the provision of specialised training programs for professional development for administrators and employees of the Sulaymaniyah municipality.

• Teamwork should be encouraged, and the working groups should be formed to collect data, analyse problems and develop appropriate solutions to work on improving administrative procedures.

• The municipality of Sulaymaniyah needs to support strengthening and improve customer relations and dealing with different organisations.

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Turkish Republic Of Northern Cyprus

Near East University

Faculty Of Economics And Administrative Sciences

Innovation And Knowledge Management Department

Questionnaire

The Researcher Investigates the Effects of Intellectual Capital Components on organisational structure in Municipality of Sulaymaniyah /Iraqi Kurdistan Region, as a partial fulfilment of the requirements for the master's degree of Innovation and Knowledge Management Department. Your answers are the most important and have a vital importance in the success of the study. Please read all the articles of the attached questionnaire and choose the answer that reflects the real case. Be sure that the filled information will be dealt with secretly and it will use for scientific research only. Many thanks to you.

First: Demographic variables

1. Gender:
   - Male ☐
   - Female ☐

2. Age:
   - less than 30 years ☐
   - From 30-40 years ☐
   - From 40-50 years ☐
   - From 50-60 years ☐
   - More than 60 years ☐

3. Scientific Qualification:
   - PHD ☐
   - Master ☐
   - Bachelor ☐
   - Technical Institute ☐
   - Higher Secondary ☐
   - Secondary school ☐

4. Organisation position:
   - Manager ☐
   - Vice director ☐
   - Head of dept. ☐
   - Engineer job ☐
   - Surveyor job ☐
   - Accounts job ☐
   - IT. job ☐
   - Administrative job ☐
   - Lawyer job ☐

5. Work experience:
   - less than 5 years ☐
   - From 5-10 years ☐
   - From 10-15 years ☐
   - More than 15 years ☐

6. Workplace:
   - Technical Department ☐
   - Department of Administration ☐
   - Department of Accounting ☐

Second: Intellectual Capital Components

1. Human Capital

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	Our employees have skills that can use in other departments.					
2	Our staff share relevant information with other employees.					
3	Our staff have the ability to combine various sources of knowledge from different departments.					
4	The municipality of Sulaymaniyah is interested in involving workers in the training sessions, for the purpose of development and to expand their skills and expertise.					
5	The Municipality of Sulaymaniyah relies on experienced employees and owners of long-term service to fill important jobs.					
6	The Municipality of Sulaymaniyah has the necessary knowledge to the employee's to perform their duties in the best manner.					
7	The experienced employees in the Municipality of Sulaymaniyah share knowledge with new staffs.					
8	The employees make a contribution to their scientific knowledge possessed by staff in providing excellent solutions to the problems they face at work.					
9	The municipality of Sulaymaniyah owns a sufficient number of workers who had scientific expertise, needed to perform work efficiently and productively.					

10	Employees perform their duty in a renewed manner and also are capable of providing new job methods.					

2. Structural Capital

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	The municipality of Sulaymaniyah is interested in speed to respond and to deal with different organisations.					
2	Encourage Municipality of Sulaymaniyah scientific development for staff through education and training.					
3	The Municipality of Sulaymaniyah tends to decentralise the administration.					
4	The Municipality of Sulaymaniyah is interested in strengthening and develop customer relations and dealing with different organisations.					
5	Competencies among the various organisational units of the Municipality of Sulaymaniyah are non-overlapping.					
6	The Municipality of Sulaymaniyah adopts a flexible Organisational structure. For example (providing staff with the facilities to perform their duties in an excellent way).					

3. Customer Capital

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	The municipality of Sulaymaniyah has the capacity, to solve customer's problem quickly.					
2	The Municipality of Sulaymaniyah has the capacity, to solve customer's problem in easy ways.					
3	The Municipality of Sulaymaniyah has a rapid response to complaints, suggestions, and customer feedback.					
4	The Municipality of Sulaymaniyah is trying to find a better way to solve customers' problems to a great extent.					
5	The Municipality of Sulaymaniyah is seeking to reduce the routines to solve customers' problems to a great extent.					
6	The important thing about the Municipality of Sulaymaniyah is the satisfaction of the client.					
7	Our customers are satisfied from Municipality of Sulaymaniyah.					
8	The municipality of Sulaymaniyah has the ability, to build customer satisfaction by meeting their expectations.					
9	We capitalise on our clients' wants and needs by continually striving to make them satisfied.					
10	Regularly meet with customers to find out what they want from Municipality of Sulaymaniyah.					

Third. Organisational Structure Aspects

1. Centralization

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	The number of employees, This decision is made by the top level manager.					
2	The decision of employee selection, this decision is made by the top level manager.					
3	There are no coordinative mechanisms of making the decision among the departments in Municipality of Sulaymaniyah.					
4	The top level manager only formalises budgeting.					
5	Each department in Municipality of Sulaymaniyah has capacity in making own decision.					

2. Specialization

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	The municipality of Sulaymaniyah put the right person in the right place.					
2	There is orientation program in Municipality of Sulaymaniyah.					
3	The staff municipality of Sulaymaniyah has high expertise in their designated work.					
4	The Municipality of Sulaymaniyah encourages that employee has a unique ability for doing his/her job's perfectly.					
5	The Municipality of Sulaymaniyah distributed work, and the worker must have their specialised field.					

3. Formalization

N	Phrases	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	Verbal communication rather than written communication supports in Municipality of Sulaymaniyah.					
2	There are many standards and rules prepared in advance most of the practical aspects of current procedures.					
3	When faced with a new attitude of work, relying only on the written rules.					
4	There is a written description and distributed to workers shows clearly defines the duties and responsibilities of each job.					
5	The administration oversees directly on the application of the job description for the purpose of standing on the commitment of its employees.					

ATTACHMENTS

Organisational structure and Intellectual capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579[a]	.335	.333	11.100

a. Predictors: (Constant), organisational structure

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.574	3.523		6.692	.000
	Organisational structure	1.021	.073	.579	13.963	.000

a. Dependent Variable: intellectual capital

Centralization and Intellectual Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.361[a]	.130	.128	12.694

a. Predictors: (Constant), centralization

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	49.518	3.039		16.293	.000
	centralization	1.210	.159	.361	7.613	.000

a. Dependent Variable: intellectual capital

Specialisation and Intellectual Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201[a]	.040	.038	13.333

a. Predictors: (Constant), specialisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	61.893	2.622		23.605	.000
	specalization	.671	.166	.201	4.041	.000

a. Dependent Variable: intellectual capital

Formalisation and Intellectual Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.467[a]	.218	.216	12.036

a. Predictors: (Constant), formalisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.581	1.886		28.403	.000
	formalization	1.362	.131	.467	10.392	.000

a. Dependent Variable: intellectual capital

Centralization and Human Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229[a]	.053	.050	6.808

a. Predictors: (Constant), centralization

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.740	1.630		11.497	.000
	centralization	.395	.085	.229	4.635	.000

a. Dependent Variable: human capital

Centralization and Structure Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.019[a]	.000	-.002-	4.754

a. Predictors: (Constant), centralization

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.801	1.138		15.640	.000
	centralization	-.022-	.060	-.019-	-.366-	.714

a. Dependent Variable: structure capital

Centralization and Customer Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.386[a]	.149	.147	8.114

a. Predictors: (Constant), centralization

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.977	1.943		6.681	.000
	centralization	.837	.102	.386	8.237	.000

a. Dependent Variable: customer capital

Specialisation and Human Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.091[a]	.008	.006	6.965

a. Predictors: (Constant), specialisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.732	1.370		17.326	.000
	specalization	.157	.087	.091	1.807	.072

a. Dependent Variable: human capital

Specialisation and structure capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.094[a]	.009	.006	4.734

a. Predictors: (Constant), specialisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.056	.931		20.469	.000
	specalization	-.109-	.059	-.094-	-1.848-	.065

a. Dependent Variable: structure capital

Specialisation and customer capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.289[a]	.084	.081	8.420

a. Predictors: (Constant), specialisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.105	1.656		11.538	.000
	specalization	.623	.105	.289	5.943	.000

a. Dependent Variable: customer capital

Formalisation and human capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.062[a]	.004	.001	6.981

a. Predictors: (Constant), formalisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.386	1.094		25.029	.000
	formalization	-.093-	.076	-.062-	-1.219-	.223

a. Dependent Variable: human capital

Formalisation and structure capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785[a]	.617	.616	2.944

a. Predictors: (Constant), formalisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.500	.461		14.087	.000
	formalization	.800	.032	.785	24.949	.000

a. Dependent Variable: structure capital

Formalisation and Customer Capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348[a]	.121	.119	8.248

a. Predictors: (Constant), formalisation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.695	1.293		15.235	.000
	formalization	.655	.090	.348	7.292	.000

a. Dependent Variable: customer capital

Organisational structure and human capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.132[a]	.017	.015	6.933

a. Predictors: (Constant), variable2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.452	2.200		9.294	.000
	variable2	.119	.046	.132	2.611	.009

a. Dependent Variable: human capital

Organisational structure and structure capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416[a]	.173	.171	4.324

a. Predictors: (Constant), variable2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.210	1.372		3.797	.000
	variable2	.256	.028	.416	8.993	.000

a. Dependent Variable: structure capital

Organisational structure and customer capital

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.566[a]	.321	.319	7.249

a. Predictors: (Constant), variable2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.089-	2.301		-.908-	.365
	variable2	.645	.048	.566	13.518	.000

a. Dependent Variable: customer capital