



www.elkjournals.com

THE CONTRIBUTION OF INTELLECTUAL CAPITAL IN THE PROCESS OF VALUE CREATION

Ismail Ahamed Huseen Banytaha (Research scholar, Department of commerce / Aligarh Muslim University, Aligarh (U.P), 202002, India, (Al_yacoub_77@yahoo.com))	Mohammed Ashraf Ali (Professor, Department of commerce / Aligarh Muslim University, Aligarh (U.P), 202002, India, (drashrafali1@gmail.com))
------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------

ABSTRACT

Intellectual capital is a widely used term and it has recently gain momentum in our life. Intellectual capital consists of three components: human capital, structural capital and customer capital. All of these components constitute intellectual capital and considered as intangible asset. The organizations reached to one fact that it has to own intangible asset such as human capital, structural capital, and customer capital because that can be powerful tools for them not only to survive and to achieve competitive advantages but also acquisition of these assets can be input in the process of value creation. The process of value creation has been linked to intellectual Capital and the acquisition of intangible assets can be very helpful in this process. The process of value creation is important and crucial for organizations and without it the organization cannot be success. Value creation is the ultimate aim for organizations whatever their type; all types of organizations have turned their attention increasingly to ways of creating value. This fact necessitates organizations to develop their capabilities and upgrade it to exploit all kind of resources to create and deliver value in order to achieve differentiation among others. It's required from the organizations to adopt the right strategies in order to empower and strengthen their situations in markets to get all opportunities which have been made by globalization thereby increase their income and market share and the final results will be survival for long term. In addition to the organizations must develop some mechanisms to create value for their customers and societies, availability of strategic and qualified management and intellectual capital can be the main reason for maximizing the value creation.

Keywords: Customer capital, Human capital, Intellectual capital, Structural capital, Value creation.

1. INTRODUCTION

The whole world has moved into knowledge based economy where the

knowledge considered as the basic unit in the processes of value creation. The process of value creation is linked with

the capabilities and abilities to own, to develop, and to manage the resource of knowledge such as intellectual capital and its components such as Human capital, Structural Capital and customer capital.

Intellectual capital regard as one of the intangible assets and it is a strategic asset in the knowledge economy where production and distribution depends on the accumulated knowledge and information and experience that are existing in the minds of distinguished individuals. This accumulated knowledge is applied in the workplace to help in generating wealth and value and increase the profits and achieving competitiveness for organization

1.1 Objectives of the study:

This main objective of this study is to identify the contribution of intellectual capital in the process of value creation. The study tried to answer the following main question. What is the contribution of intellectual capital and its components (human, structural and customers) in the process of creating value?

This study aims to show the contribution of intellectual capital in the process of value

creation through a set of sub-objectives, namely:-

1. Demonstrate the contribution of human capital in the process of value creation.
2. Demonstrate the contribution of structural capital in the process of value creation.
3. Demonstrate the contribution of customer's capital (relationship capital) in the process of value creation.

1.2 The Importance of the study:-

The issue of achieving and creating value is one of the most important objectives of the organization, as it ensures and increases the chances of survival and continuity. Also Intellectual capital has become one of vital business assets which the top management of organization must take it into their consideration at the stage of building their business strategies not only to make intellectual capital as a part of these strategies but also to make the components of intellectual capital as basic units during every stage of building these strategies which aim to create value. Therefore, the importance of this study show in linking between intellectual capital and the process of creating value in organisations.

1.3 Design/methodology/approach: - The approach is conceptual.

2. THE CONCEPT OF INTELLECTUAL CAPITAL

Druker indicated that at the end of World War II in 1945. Most of the “Agriculture-based economies” of Europe and North America began to shift to “Industrial economies” and the focus of land and workers shifted to physical assets and finance. But today, the economies of the world are turning to the so-called “knowledge economies”. This turning indicates that knowledge has become the main factor in production and it has become more important than land, labor and physical capital (Makki & Lodhi, 2008, p. 81).

Stewart is a prominent source of interest in intellectual capital through a series of articles in the Fortune magazine. In his articles, he has focused on how the organization can generate value through the power of mind “intellectual capital” (Sullivan, 1998, p. 4).

Stewart asserts that the intellectual component of processes has grown and

continues to grow while the physical component is beginning to decline in the new economies and the business world. Organizations focus on their unique capabilities to improve performance and survival opportunities; where knowledge resources and knowledge assets regard as crucial and vital factors in helping organizations to build competitive advantage in order to secure survival opportunities. The roots of such capabilities and resources are inherently intangible and can be described as intellectual capital (Lai, 2003, p. 1).

Ernst & Young asserts that over 60% of employees in the US are knowledge workers. This includes all professions from architects, bank staff, fashion designers, pharmacists, teachers and analysts. Therefore, all countries in the world seek to develop the capabilities of staff especially in knowledge; because of its implications for the effectiveness of the economy (Hernandez & Noruzi, 2010, p. 184). Therefore, all of this growing and accumulated knowledge constitute the intellectual capital of the organization (Shaaban, 2011, p. 34).

3. DIFFERENCES BETWEEN PHYSICAL AND INTELLECTUAL CAPITAL

Intellectual capital may be used with many names, such as knowledge capital and intangible capital (Najem, 2008, p. 289) or intangible assets (Shaaban, 2011, p. 35).

It is necessary to understand the fundamental differences between physical assets or physical capital and knowledge assets or intellectual capital. As shown in (Ref Table 1), this table provides a comparison between physical and intellectual capital, where the returns of intellectual capital is increasing against the diminishing returns of physical capital (Najem, 2008, p. 288).

The Following table can be used to deepen understanding of the differences between tangible and intangible assets as shown in (Ref Table 2):

4. THE MEANING OF INTELLECTUAL CAPITAL

Ambitious organizations seek to own knowledge and invest in it in order to gain good position and to control the markets by exploiting knowledge which exists in the minds of their individuals; Organizations that earn their profits by transforming

knowledge into value are called knowledge organizations(Sullivan, 1998, p. 4).The performance of organizations in the present economy depends on two factors: Firstly: the quality of knowledge assets and Secondly: the extent to which the organization can use knowledge to generate wealth and value(Banimahd, Mohammadrezaei, & Mohammadrezaei, 2012, p. 4478).

4.1 Definitions Pertaining to Intellectual Capital

There are many definitions that dealt with the concept of intellectual capital:

Business dictionary has defined the intellectual capital as “Accumulated knowledge” (whether documented or not) of individuals present in the organization or in the community, and can be used to generate wealth, multiply the output of physical assets or to achieve competitive advantage and can be used to enhance the value of other assets(WebFinance Inc., 2017).

Stewart defines it as the knowledge and information that generates efficiency that adds value to the wealth of organizations(Rehman, Abdul, & Rehman, 2011, p. 9).Brooking defines it as an

intangible asset that helps the organization manage its affairs(Brooking, 1996).

Intellectual capital can be defined as : A group of employees possess mental abilities, and their elements are (knowledge, skill, experience, values) – these elements can be employed and invested in increasing intellectual contributions to improve the performance of the organization's operations and develop its creativity in a way that achieves effective relationships with all parties involved and makes the difference between value Market and book value are significant(Anzi & Saleh, 2009, p. 171).

Edvinsson also defines it as the sum of “human capital” and “structural capital”. Also Hurbert saint-Onge is one of the pioneers of the knowledge field; he defined it as the sum of “human capital” (the capabilities of individuals required to provide solutions to customers), “customer capital”, and “structural capital” (organizational capacity to meet market needs)(Sullivan, 1998, pp. 4-5).

Intellectual capital defined by a group of researchers as follows (El-bannany, 2008, p. 490):

- Mavridis identifies it as an intangible asset with the potential to

generate value for both the organization and the community.

- Martinez and Garcia-Meca define it as: - Knowledge, information, intellectual property and experience that generate wealth.
- Brennan defines it as: - intangible assets including patents, intellectual property rights, copyright and privileges.
- Edvinsson& Malone also defines it as the information and knowledge that is applied at work to obtain value.

The two researchers can conclude that there is no consensus on a single definition of intellectual capital, but there are varieties of definitions but almost agree on the following aspects: -

1. Considered as an intangible asset.
2. Considered as knowledge, information and experience, and all are present in the minds of distinguished individuals.
3. Helps to add value, generate wealth, increase profits and enhance competitiveness.
4. It consists of several divisions, including human and structural and relations or customers.

Hence, the two researchers can define the intellectual capital as: - one of the intangible assets and it is a strategic asset in the knowledge economy where production and distribution depends on the accumulated knowledge and information and experience that are existing in the minds of distinguished individuals. This accumulated knowledge is applied in the workplace to help in generating wealth and value and increase the profits and achieving competitiveness for organization.

5. CLASSIFICATION OF INTELLECTUAL CAPITAL

Organization assets can be classified into three kinds of assets: “Tangible Assets”, “Intellectual Capital” and “Financial Capital”. Intellectual capital can be divided into three components, and many researchers, such as The Saint-Onge, H, Stewart, Edvinsson, support this classification of intellectual capital, the next classifications regards as One of the most popular and accepted classifications of intellectual capital (Phillips & Phillips, 2002, p. 4):

5.1. Human Capital.

5.2. Structural Capital.

5.3. Customer Capital.

5.1. Human capital:

Attention has been paid to this resource after experience which has shown that the first reason for the success or failure of the Organization is the good management of human resources. It is no less valuable than the physical capital. The human resource has become the main foundation in the construction and progress of societies, provided that this resource has the necessary qualifications and has been at the level of culture, education and training.

The origin of the word human capital dates back to the economist Schultz in 1961 and he was the first to coin this term. It has proved that the return on investment through training and education is greater than investment in physical assets. The idea of investing in human capital was developed for the first time by Adam Smith in his book *The Wealth of Nations*, in which he explained the differences in work and the difference in earnings according to the level of training and education (Baron & Armstrong, 2007, pp. 7-8).

One of the causes of the gap between developed societies and developing societies is the so-called “knowledge economy”. Developed countries have managed to process data and generate interest in it by successfully transforming data into knowledge, skills, expertise and manage them well, and thus the success of their organizations and the recovery of their economies. The former reason is the main motivation for investing in human capital (Al-Saffar, 2008, p. 85).

It should be noted that not all the information available with employees is intellectual capital. The skills and knowledge of workers are intellectual capital if they have two characteristics which are below (Hassan & Hariri, 2011, p. 4):

- **Distinctive:** - No one has the same skills or information in the competing organizations.
- **Strategic:** - that these skills and information have a value, the customers are ready to pay for it.

The Organization can also protect human capital, especially that it does not have it, through growth opportunities for

employees, providing a pleasant atmosphere and achieving job satisfaction. Protecting this asset is one of the most difficult tasks (Brooking, 1996, p. 137).

The two researchers can define the human capital as Individuals with talent and scientific and practical qualification who have the skills, high abilities, distinguished and strategic expertise, which are difficult to dispense with or find an alternative to them and they can achieve results that outperform the competitors and lead the organization to occupy excellent position in markets.

5.2. Structural capital

Structural capital is the support or infrastructure through which an organization can support human capital. Structural capital Encourages human capital to generate and raise knowledge, Structural capital included Direct and indirect support and for each type of support has tangible and intangible elements (Sullivan, 1998, p. 23).

- **Direct support:** includes tangible elements such as telephones, computers, tables, and intangible elements such as information

systems, computer programs, business procedures, marketing plans, and how-know.

- **Indirect support:** includes tangible elements such as factories, buildings, lighting, electricity, plumbing, and intangible elements such as strategic plans, payroll systems and relationships with suppliers.

Structural capital also includes (Sullivan, 1998, p. 6).

1. All things in the budget: financial assets, buildings, machinery, and infrastructure of the organization.
2. It also includes assets that are necessary to transform creative ideas into salable services and products such as manufacturing facilities, distribution capabilities and outlets.

Structural capital can be described as glue between parts of the organization because it provides it with tools such as philosophy of management, processes and culture to retain, pack and transfer knowledge.(Marti & Cabrita, 2012).It should be noted that intellectual capital is not important in itself to a knowledge organization if it does not

have the structural capital to complement it (Sullivan, 1998, p. 6).

The two researchers can define Structural capital as: a collection of strong supports resources or infrastructure, whether tangible or intangible, which helps human capital to enhance productivity and implement ideas.

5.3. Customer capital:

The Customers capital can be defined as: - the accumulated knowledge about the organization customers and their contacts, and information about their needs and their purchasing habits (Sugumaran, 2002, p. 275). It is also defined as the net relationships of the organization with other organizations, customers, suppliers and partners (Dabash zadeh, 2002, p. 252).

Sullivan defines customer capital as: Historical and geographical information and studies on personality, values, habits, attitudes, interests and lifestyles for the old and present and potential customers. Customer capital also includes relationships with internal and external customers (Sullivan, 1998, p. 68).

The two researchers can define customer capital as: total relationships of the organization with others such as internal

and external customers, suppliers and partners, and working hard in order to build strong alliances in achievement of lasting existence for the organization in order to increase their market share and to obtain profits.

6. VALUE CREATION

The process of value creation is one of the most fundamental missions of any organization and considered as ultimate objective of organizations. This process is vital and it's important for the success of the organization. Building on that fact, the organizations can adopt some activities which can help in the process of value creation called "value creation activities" such as education, training, knowledge, innovation, building organizational structure, developing customers, organizational and individual relationships and managing value and culture (Sullivan, 1998, p. 20).

According to Sullivan (1998) value creation means: it's a group of activities done by organizations depending on the contribution of human capital (employees who has knowledge, know-how, skills, and abilities) in innovation and in the process of creation and transfer knowledge through

learning or acquisition of knowledge. In order to get the most from human capital thereby the top management must place them in the right place or where is to be used. Also value creation is a process aim to generate new knowledge and convert that new knowledge into innovation with commercial value (Sullivan, 1998). And the main step in the process of value creation is to fix knowledge in codified form in order to become part of the organizations base (Sullivan, 1998, p. 89).

The International Integrated Reporting Council (IIRC), define the process of value creation as a process that take inputs of organizational resources and capital, and combining and applying them to produce outputs that can be created positive and negative effect on individuals, the organization and the environment. Simply the process of value creation is seen as a process and an outcome (Marinova, Larimo, & Nummela, 2016, p. 4).

Any organization have the abilities to find out the reasons which contribute and responsible for making people happy, thereby working hard to deliver Happiness for them in acceptable and reasonable prices meanwhile keeping their profits going on in order to cover the expenditures. This organization can be named as practicer for

value creation process (Kaiser & Young, 2013). Value creation concerns to the generation of new knowledge and its conversion into innovation with commercial value, so the management must focus is on people or human capital (Sullivan, 1998, p. 20).

Organizations that use intellectual capital are described as knowledge organizations; they use Knowledge as the primary source for building competitive advantage. Intellectual capital in knowledge organizations includes two types of knowledge: “The Codified knowledge” and “Tacit knowledge”.

It should be noted that the main step in the process of value creation is to fix knowledge in codified form in order to become part of the organizations base (Sullivan, 1998, p. 89). The (Ref Table 3) illustrates the difference between these two types of knowledge (Sullivan, 1998, p. 20)

It is worth noting that the process of generating value from intangible assets differs from the process of generating value from physical assets in some aspects such as (Kaplan & Norton, 2004).

- **Value Creation Is Indirect: -**

Intangible assets such as knowledge and technology rarely have a direct impact on revenues, lower costs and higher profits. But the process of improvement the intangible assets can lead to effect at financial outputs through the relation between cause and effect.

- **Value Creation is Contextual:-**

The value of the intangible assets depends on the degree of alignment with the strategy. For example: - Training to employees has greater value for organizations that follow the low cost strategy than to those that follow the strategy of innovation and leadership.

According to Sullivan, Context means: The internal and external realities of the organization: Internal realities: trends, resources and constraints (weaknesses, strengths and capacities). External realities are opportunities and threats (Sullivan, 1998, p. 28).

- **Value is Potential:-**

Intangible assets such as trained employees where they have latent or potential value. And the Internal processes such as design;

production, delivery and customer service are required to convert that latent or potential value of intangible assets to tangible value. If internal processes are not intended for customers or for financial improvements, the result will be that the latent value of the capabilities of employees and intangible assets will not be realized.

- **Value is bundled: -**

Intangible assets rarely generate value alone; they have no value when they are isolated from the organization or strategy, the value of intangible assets increases when they are effectively linked to and combined with other assets (tangible and intangible). The maximum value can be generated when intangible assets are organized together with tangible assets and strategy.

7. CONCLUSIONS

In the knowledge-based economy, knowledge has become the most important driver in increasing productivity and increasing the rate of growth. Most of

businesses are shifting into knowledge intensiveness. Intangible assets such as intellectual capital and its components such as human capital, structural capital and customer capital are depending on knowledge, Hence the knowledge is the basic unit of these assets. And they have become the most important factors in success and achieving a lot of benefits, particularly with availability of strategic intellectual capital management which can help in lever and take advantage of intangible assets to the most in order to do the process of value creation successfully. So availability of strategic and qualified management and intellectual capital can be the main reason for maximizing the value creation.

In addition to, the components of intellectual capital such as human capital, structural Capital and customer capital are the key to compete with others and they helps in adding value, generate wealth, increase profits and enhance competitiveness. Creating value is the ultimate objective for all kind of organizations: one of the task of the top management of any organization is to make sure to create culture among employees about value creation, Since the process of value creation is a people process; it is

required from the management is to make their employees value creators and learn them how to create it through value creations activities such as education, training, knowledge, innovation, building organizational structure, developing customer, organizational and individual relationships and managing value and culture.

There are some Limitations for this study which are: this study regard as conceptual study, also this study addressed only the main question which is what are the contribution of intellectual capital and its components (human, structural and customers) in the process of creating value? Both of researchers call for further research's on a more investigation of the relevance and contribution of the intellectual capital in different aspects such as strategy planning and execution. In addition to make more investigation to find the right strategies to introduce the intellectual capital to recent mangers to provide them awareness and evidences to show the importance and contribution of intellectual capital in the world of business and how the components of intellectual capital can be helpful for them in reaching their goals whether its financial or non-financial.

REFERENCES

- [1] Al-Saffar, A. A. (2008). The Effect of Human Capital on Banking Performance, An Analytical Study of the Opinions of a Sample of Jordanian Bank Employees. *Journal of Administration and Economics* , 48-108.
- [2] Anzi, S., & Saleh, A. (2009). *Intellectual Capital Management in Business Organizations*. Amman: Al Yazuri.
- [3] Banimahd, B., Mohammadrezaei, F., & Mohammadrezaei, F. (2012). The Impact of Intellectual Capital on Profitability, Productivity and Market Valuation: Evidence from Iranian High Knowledge-Based Industries. *Journal of Basic and Applied Scientific Research*, 2 (5), 4477-4484.
- [4] Baron, A., & Armstrong, M. (2007). *Human Capital Management: Achieving Added Value through People*. UK & USA: Kogan Page Publishers limited.
- [5] Brooking, A. (1996). *Intellectual Capital. Core asset for the third millennium enterprise*. Uk: Cengage Learning EMEA.
- [6] Dabash zadeh, M. (2002). *Information Technology Management in Developing Countries*. US & UK: Idea Group Inc (IGI).

- [7] El-bannany, M. (2008). A Study of Determinants of Intellectual Capital Performance Banks: The UK Case. *Journal of Intellectual Capital*, 9 (3), 487-498.
- [8] Hassan, H., & Hariri, A. G. (2011). Introduction to Human Capital Performance Assessment: A Major Challenge for the Competitiveness of Insurance Institutions. *5th International Forum on Intellectual Capital in Arab Business Organizations* (pp. 1-20). Algeria: Hassiba bin Buali University.
- [9] Hernandez, J. G., & Noruzi, M. R. (2010). How Intellectual Capital and Learning Organization Can Foster Organizational Competitiveness? . *International Journal of Business and Management*, 4, 183-193.
- [10] Kaiser, k., & Young, S. D. (2013). *The Blue Line Imperative: What Managing for Value Really Means*. UK: John Wiley & Sons.
- [11] Kaplan, R. S., & Norton, D. P. (2004). *Strategy Maps: Converting Intangible Assets Into Tangible Outcomes*. USA: Harvard Business Press.
- [12] Lai, V. Y. (2003). Intellectual Capital and Long-term Growth and Profitability: a Study of a Manufacturing Plant, (unpublished doctoral dissertation). Southern Cross University, New South Wales,, Australia.
- [13] Makki, M. A., & Lodhi, S. A. (2008). Impact of Intellectual Capital Efficiency on Profitability (A Case Study of LSE25 Companies). *The Lahore Journal of Economics*, 13 (2), 81-98.
- [14] Marinova, S., Larimo, J., & Nummela, N. (2016). *Value Creation in International Business: Volume 1: An MNC Perspective*. India: Springer.
- [15] Marti, J. M., & Cabrita, m. D. (2012). *Entrepreneurial Excellence in the Knowledge Economy: Intellectual Capital Benchmarking Systems*. US& UK: Palgrave Macmillan.
- [16] Najem, A. N. (2008). *Knowledge Management: Concepts, Strategies and Processes*. Amman, Jordan: Al Warraq Foundation.
- [17] Phillips, P. P., & Phillips, J. J. (2002). *Measuring Intellectual Capital: Twelve Case Studies from the Real World of Training*. USA: American Society for Training and Development.
- [18] Rehman, W., A. R., & Rehman, H. (2011). Intellectual Capital Performance and its impact on corporate performance:

empirical Evidence from modarba sector of Pakistan. *Australian Journal of Business and Management Research*, 1 (5), 8-16.

[19] Shaaban, M. (2011). Intellectual Capital and the Course of Achieving the Competitive Advantage of Palestinian Cellular Telecommunications Company Jawwal - Case Study (Unpublished Master thesis). Islamic University, Gaza, Palestine.

[19] Sugumaran, S. (2002). *Intelligent Support Systems Technology*. USA: Idea Group Inc (IGI).

[20] Sullivan, P. H. (1998). *Profiting from Intellectual Capital: Extracting Value from Innovation*. Canada: Wiley.

[21] WebFinance Inc. (2017). *intellectual capital*. Retrieved December 28, 2017, from <http://www.businessdictionary.com/definition/intellectual-capital.html>

LIST OF TABLES:

Table- 1

Table 1: Differences between Physical and Intellectual Capital		
	Physical Capital	Intellectual Capital
Basic attribute	Visible- Tangible	Intangible and invisible
Location	Within the organization	Headers of individuals
Representative model	Machine	The individual
Returns	Declining	Increasing
Wealth pattern	In resources	In attention and concentration
Individuals	Manual labor	Knowledge workers
Strength and Weakness	Aging cycle	Cycle of generating and self-enhancing

Note. Reprinted from Knowledge Management: Concepts, Strategies and Processes (p. 289), by Najem, A. 2008, Amman, Jordan: Al Warraq Foundation. Copyright 2008 by “Najem, A“.

Table- 2

Table 2: Differences between Tangible Assets and Intangible Assets	
Intangible Assets	Tangible Assets
Invisible	Visible
It is difficult to be quantified	Be quantified
Difficult to follow in accounting practices	Part of the balance sheet
Evaluation depends on assumptions	Investment generates revenue
Difficult to buy or imitate	Copies can be made
Multi-use without devaluation	Consumed by use
Short life if not used	Has limited application
<i>Note.</i> Adapted from Measuring Intellectual Capital: Twelve Case Studies from the Real World of Training (p. 4), by Phillips, P.P. & Phillips, J.J. 2002, US: American Society for Training and Development. Copyright 2002 by “ Phillips, P.P. & Phillips, J.J. “	

Table- 3

Table 3. Differences between Tacit knowledge and Codified knowledge		
	Tacit knowledge	Codified knowledge
Definition	It is a knowledge which is difficult to articulate and may be embedded in ways of doing things.	It is a knowledge which is written down in some medium.

Ownership	Ownership of this type remains with the owner of the knowledge. It is difficult to copy and transfer.	Technically, easier to protect by law and Easy to transport.
Example	<ul style="list-style-type: none"> • Experience • Skills • Lore 	<ul style="list-style-type: none"> • Blueprints • Code • Formulas and recipes • Computer programs
<p><i>Note.</i> Reprinted from Profiting from Intellectual Capital: Extracting Value from Innovation (p. 21), by Sullivan, P. H. 1998. Canada: Wily. Copyright 2002 by “Sullivan, P. H. “.</p>		