Human Capital: Major Driver of Organizational Performance

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Abstract:

Human Capital or Talent Capital is the currency of new millennium. The new age organizations has begun to recognize their human assets as one of the most important force for sustainable competitive advantage. In today's world where customer relations & knowledge plays vital role; human capital which represents a company's stock of knowledge, technical skills, creativity and experience, is becoming significant value preposition; the employees are treated as the productive assets of an organization, rather than as an expense or cost center.

Human Capital can prove to be driver of business performance if systematic methods and framework can be established for securing, managing, measuring and motivating a workforce that are capable of achieving significant business goals.

This paper aims to address the importance of Human Capital on the performance of manufacturing companies in India and intends to show various dimension of intellectual capital that will contribute to the performance of Manufacturing companies. With the emergence of knowledge intensive global economy, it has been realized that it is the human talent which plays a major role in company's success.

The objective of this study was to explore the relationship among various components of Intellectual Capital which are Human Capital , Structural Capital Customer Capital and Firm performance and to study the impact of Human Capital Management on Organizational Performance.

Key words : Human Capital, Intellectual Capital, Firm Performance, Knowledge Capital

1.1 Introduction :

Intellectual Capital is the soul of every organization. The knowledge economy has shifted the focus from tangible assets to intangible assets. In an emerging knowledge era, the organizations can no longer grow and compete only with the tangible assets. Efficient as well as effective management of Intellectual Capital is prerequisite to unleash the potential Intangible assets belonged to an organization.

The basic components of Intellectual Capital are Human Capital, Structural Capital and Customer Capital (Edvinsson & Malone, 1997). Today's Organizations have realized that management and measurement of these three forms of capital is the real force behind gaining competitive edge.

1.2 Capital Redefined :

The Latin root of the word Capital itself is *Caput* – " head". Capital is the value of economic means capitalized in natural, human and physical resources. An organization is made up of competencies which we can loosely call 'capital'. Its key components are Customer Capital, Structural capital and human capital. Further it can extended to other forms of capital such as, Emotional Capital, Thought Capital, Spiritual Capital, innovation Capital, knowledge capital, etc

Noble laureate, economists Gary Backer (1993), proposed that human capital comprises skills, experience, knowledge, personality, appearance, reputation and credentials. According to the Definition put forth by Flamholtz (1974), the term Human Capital means, " the knowledge, skills, competencies and other attributes embodied in individuals or groups of individual acquired during their life & used to produce goods, services or ideas in market circumstances."

Edvinsson (1996) asserts structural capital is, what is left when the human resources go home. The sum of the strategy, systems and processes (Grantham 1997), the hardware, software, databases, organizational structure, and everything else of organizational capability (Edvinsson 1997) including the organizational routines of the business (Bontis1999), the models, computer and administrative systems (Sveiby 1997) and the company's operating philosophy (Edvinsson 1996). Organisational structure, systems, process, strategies, administrative systems and operational philosophies are intangible assets that are specific to the firm and add value to the firm performance.

Relationship with customers, suppliers and other stakeholders also act as major parameter for successful organization. Stewart (1997) says it is the value of an organization's relationships with the people with whom it does business. Bontis defines it as the knowledge embedded in the relationships established with the outside environment (Bontis 1999)

Intellectual capital in short is the summation of all three forms of capital i.e. Intellectual capital = Human capital + structural capital + Customer capital. In order to achieve the economic benefits, the organizations have to undertake effective measurement and management of Intellectual capital.

1.3 Review of Literature :

The phrase 'human capital' was coined by Schultz (1961) who elaborated his concept in 1981 as follows: 'Consider all human abilities to be either innate or acquired. Attributes…. which are valuable and can be augmented by appropriate investment will be human capital.' A more detailed definition was put forward by Bontis et al (1999) as follows: "Human capital represents the human factor in the organization ; the combined intelligence skills and expertise that gives the organization are those that are capable of learning, changing, innovating and providing the creative thrust which if properly motivated can ensure the long-term survival of the organization." Thomas Davenport, in his book "Human Capital: What it is and Why People Invest in it", wrote that employees should not be viewed as assets, or factors of production, but "investors in a business, paying in human capital and expecting a return on their investment."

Human capital is defined as "the accumulated value of investments in employee training, competence and future. Might also be described as the employees' competence, relationship ability and values" . It is an element under the broader umbrella of intellectual capital - comprising of human capital, structural capital, organisational capital, innovation capital, and process capital, according to the Intellectual Capital Prototype Report, Skandia 1998.

People are the chief engine of prosperity for most organizations. "Workers are assets" has become the dominant metaphor of late 20th-century management. However, Thomas O. Davenport, objects to calling workers as assets. In his article entitled "Workers are not assets" he argued that "assets are passive - bought, sold, and replaced at the whim of their owners; workers, in contrast, take increasingly active control over their working lives". In his book "Human Capital: What it is and Why People Invest in it", he again contends that employees should not be viewed as assets, or factors of production, but "investors in a business, paying in human capital and expecting a return on their investment."

Kaplan and Norton (1996) have considered human capital as consisting of employee capability, employee satisfaction, and employee sustainability. Sveiby (1997) emphasized employee capability as a key asset for organizational growth. Employee satisfaction refers primarily to an employee's emotional or affective state.

Maree Kevin (2001), in his thesis, "Valuation of Intellectual Capital in South African Companies : A Comparative study of three valuation methods", had highlighted that that future economic benefits will flow to the enterprise from a properly managed intellectual capital base. He stressed on calculating the financial value of Intellectual Capital and putting these values in the financial statement of the organization.

Kannan Gopika (2001), in her thesis, "Antecedents and consequences of Human Capital value addition among knowledge professionals", stated that, leveraging the knowledge of employees is one of the pre-eminent factors in improving productivity and innovation and subsequently results into better firm performance.

Mazlan Bin Ismail(2005), in his thesis, "The Influence of Intellectual Capital on the Performance of Telecom Malaysia", has depicted, the impact of effective managing, measuring and leveraging the intellectual capital in business performance of Malaysian telecom company. The study indicates a positive significant relationship between relational, human, spiritual and structural capital and managing and leveraging of intellectual capital on the performance whereas knowledge management has indirect relationship to the performance.

As Becker *et al* (2001) emphasize: 'The most potent action HR managers can take to ensure their strategic contribution is to develop a measurement system that convincingly showcases HR's impact on business performance'. It means that new age HR professionals should establish the system so as to identify and measure the brains behind firms value creation process.

1.4 Management By Measurement :

New age organizations have understood the need and importance of leveraging the potential of their 'Thought Capital' by evaluating and measuring it. Various metrics and indicators are used to put the 'Emotional Assets' i.e. people on the asset side of the Balance Sheet. Employees or the human assets are most precious assets of every organization. Human Capital therefore is not only one of the components of intellectual capital but also it serves as foundation for other forms of capital.

In today's competitive knowledge epoch, the presence, performance and perpetual existence of an organization will be determined largely by how the right capital mix between physical and intellectual capital of the organization is leveraged to gratify the interest of its stakeholders i.e. investors, creditors, suppliers, customers, employees and society.

1.5 Research Methodology:

The data was collected by undertaking the survey and visits to 40 companies by way of setting questionnaire . Moreover Structured observations including interviews of HR Managers , key personnel and employees were also conducted. Statistical tools like Correlation & Regression Analysis have been used. While framing and designing the Questionnaire, items were taken from Edvinsson & Malone (1997), Brookings(1996), Sveiby(1997), and Bontis et al. (2000)

Overlapping indices were combined and finally the researcher selected indices and created a questionnaire based on them . For each of the question, respondents were asked to indicate the extent of their agreement on a 5 point Likert's scale. (where 1 = strongly disagree to 5 = strongly agree.)

1.5.1 Sample : The relevant data had been collected from 40 companies employing more than 500 employees. These organizations under study represents various sectors like Pharma, IT, Automobile, Equipments, Electrical, Aeronautical, Oil and Chemical etc.

1.5.2 Research Objectives :

1. To study the concept of Human Capital Accounting followed in selected organizations.
2. To study the relation between human capital , its deployment and profitability.

1.5.3 Hypothesis :

Employees are the valuable assets of a company along with other assets.

1.5.4 Primary Data

For this Study, a total of 240 Questionnaire were distributed to HR managers and Vice Presidents (Human resources) and few key employees from the various levels. There were 8 respondents who failed to return the questionnaires and 3 respondents failed to give their answers to all of the questions asked. These unanswered questions were treated as missing values to be discarded to avoid the data having any missing value. As a result only 229 respondents were included in the final sample. Manufacturing firms were chosen for the main reason that most of the indices of Human Capital, Customer Capital and Process Capital were related to the production process.

1.5.5 Secondary Data

The data supporting Human Capital Measurement is also collected from secondary sources like - Annual Reports, Company's Policy Manual, Books on Human Capital, Journals & websites.

1.5.6 Indicators Used In The Study:

While selecting the various Indicators for Human Capital, Customer capital and Process capital, items were taken from Edvisson & Malon(1997), Brookings(1996) Sveiby(1997), Bontis (2000), Mark Huselid etc. Indicators were also derived from the literature of Youndt (1998) who stated the relationship between Intellectual capital and firm performance, Walker(2001), about relation between human capital and firm performance.

Table 1 Intellectual Capital Indicators :

Human Capital Indicators	**Customer Capital Indicators**	**Process Capital Indicators**
HC -1 Knowledge Creation	CC-1 Customer Loyalty	PC-1 Process System
HC-2 Knowledge Application	CC -2 Customer feedback	PC-2 Process Strategy
HC-3 Innovations	CC-3 Customer & supplier relations	PC-3 New Product Success rate
HC-4 IT Literacy	CC-4 Customer Satisfaction	PC-4 R & D Investment
HC-5 Employee Satisfaction	CC-5 Reduction in complaints	PC-5 Reduction in Wastages
HC-6 Attrition Rate	CC-6 On time delivery	PC-6 ISO Certification
HC-7 Employee suggestions	CC-7 No. of Customers	PC-7 Employee involvement in process
HC-8 Absenteeism Rate	CC-8 Sales through Customers	PC-8 Process Cost
HC- 9 Knowledge acquisition & Training	CC-9 Supplier Strength	
	CC- 10 Market Share	

Fig. 1 Research Model for Human Capital Management :

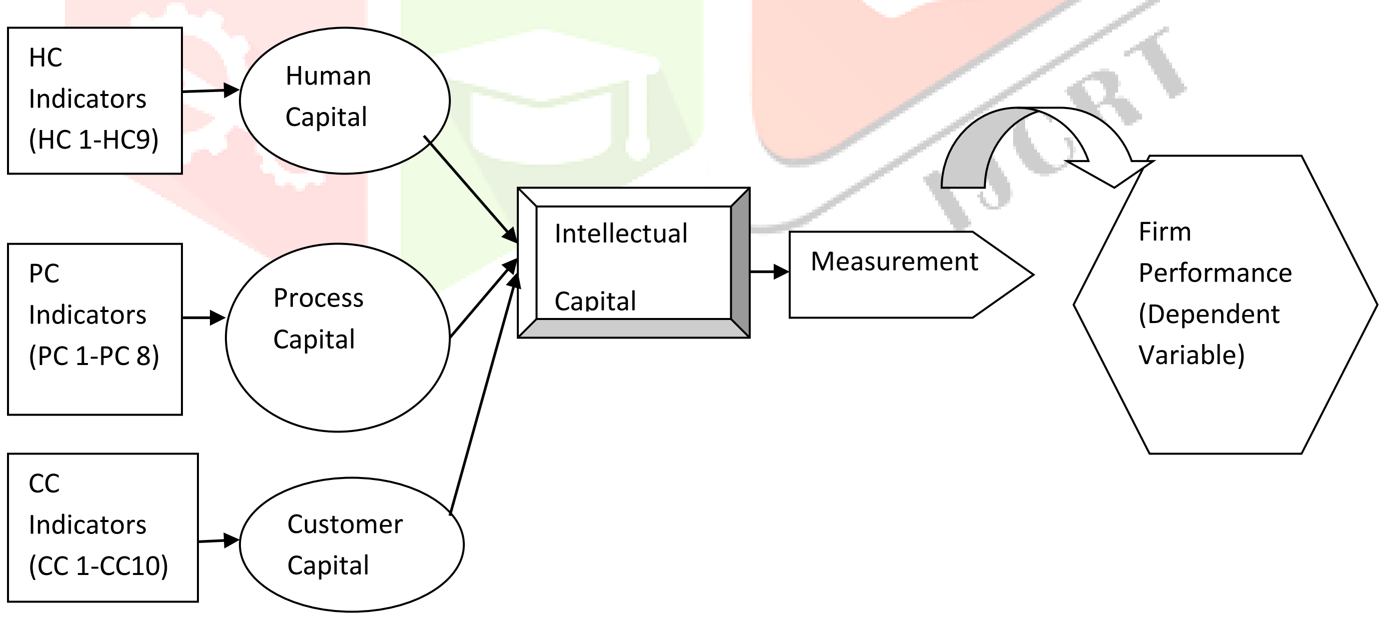

Fig. 1 indicates that three components of Intellectual Capital which are Human Capital, Structural Capital and Customer capital, when effectively managed and measured by the organizations can create value due to better firm performance.

1.6 Data Analysis & Interpretation

As the data used in this research was numerical and qualitative in nature, the research methodology was of a quantitative as well as qualitative nature. The statistical procedures applied to these data was aimed at to investigate the nature and extent of relationship between the three measures of Intellectual Capital which are Human Capital(HC) – Structural Capital (SC)- Customer Capital (CC) (predictor variables) and Firm Performance (predicted variable) .

1.6.1 .Correlation analysis of Human Capital, Process Capital & Customer Capital :

The results of the Pearson's correlation coefficient analysis are reflected below. It showed correlations and significance levels achieved across all variables within as well as with dependent variable that is Firm Performance. Correlations are deemed to be significant at the level $p < .05$. For the purpose of analysis, Process Capital, Human Capital and Customer Capital are coded as X1, X2 and X3.

Correlations among X1 (Process Capital), X2 (Human Capital), X3 (Customer Capital)

X1 X2

X2 0.556 ← Pearson correlation

0.000← P Value

X3 0.773 0.579 ← Pearson correlation

0.000 0.000← P Value

Here all p value is coming out to be 0 which indicates the correlation is significant.

And there is a positive correlation between the variables of :-

(X1,X2) ie (**Process Capital, Human Capital)** **r** = 0.556

(X1,X3) ie (**Process Capital, Customer Capital)** **r** = 0.773

(X1,X2) ie (**Human Capital, Customer Capital)** **r** = 0.579

1.6.2 Interpretation

A) The correlation coefficient between Process capital and Human Capital **is 0.556**. It is positive and statistically significant value. It means that excellent firm performance has roots in having talented and dedicated work force. It further indicates that presence of talented and dedicated workforce can draft, formulate, nurture, develop and finally implement world class internal organizational processes and systems (Called Process Capital) which will finally result into excellent Firm Performance.

B) Process capital and customer capital also has a statistically significant positive correlation **(r = 0.773)** It indicates that world class manufacturing processes, ISO Certification and reduction in Process costing has direct impact on-

a. Customer loyalty
b. Customer Satisfaction
c. Reduction in customer complaints
d. Increasing no of customer
e. Market Share

C) Human Capital and Customer Capital also has a positive correlation**(r=0.579**). This demonstrated that there is reason to believe that human capital has a direct impact on customer capital. It is an indicator of the fact that Loyal, committed, talented and experienced Human resources (employees) are there at the root to achieve

a. Customer satisfaction,
b. On time delivery of projects
c. Customer loyalty
d. Positive customer feedback
e. Healthy relations with suppliers and customers.

D) The Firm Performance in terms of Sales per Employee, Targets Fulfilled, Market performance and Profit Per Employee etc also positively influenced by the presence of Skilled and Talented workforce responsible for assigned particular work in the organization.

1.7 Analysis & Findings

This study is empirical research carried put on 40 Manufacturing Companies using Questionnaire based survey and Interviews. After a thorough interaction and interviews with the HR managers and Key employees of the organizations, the researcher compiled the following reasons for measurement and management of Human Assets in the organization, which are enlisted below: Human Capital Management helps the organizations –

1. To focus attention on "What Gets Measured Gets Managed".
2. To improve the management of Intangible Resources
3. To help in assessing strategy execution for better resource allocation
4. To identify core competencies and create the resource based strategy.
5. To attract new talents and retain the old valued employees
6. To attract new client base and retain old client
7. To assess and communicate the value of HR to the stakeholders.
8. To reflect the value of HR on firms business performance in the financial statements.
9. To ensure relative assessment of productivity , profitability& return on investment.
10. Human Capital or the employees are the essence of organizational wealth. They are the real force behind the value creation and knowledge architecture of any firm.

Findings :

1. The research study has revealed that presence of talented and dedicated workforce can draft, formulate, nurture, develop and finally implement world class internal organizational processes and systems (called Process Capital) which will finally result into excellent Firm Performance in the companies under study.
2. The Study has explored that human capital has a direct impact on customer capital. It is an indicator of the fact that loyal, committed, talented and experienced Human resources (employees) are there at the root to achieve Customer satisfaction, On time delivery of projects, Customer loyalty, Positive customer feedback, Healthy relations with suppliers and customers.

3. The researcher also found that world class manufacturing processes, ISO Certification and reduction in Process costing has direct impact on Customer loyalty, Customer Satisfaction ,Reduction in customer complaints, Increasing no of customers and Market Share.
4. The result of Correlation Analysis showed that, Business performance can be improved or positively & upwardly influenced due to the presence of World class manufacturing process, Internal systems, New product success rate, Reduction in process cost & Excellent business strategies.

The hypothesis constructed for this research has been thus, positively tested and supported by the fact that human assets are most valuable assets and its importance can be visualized the way it is being managed in the organization so as to provide competitive and economic advantage to the firms.

1.8 Cost Adjusted Benefit Model **: [CAB Model -Proposed by researcher & based on Morse's (1973) Net Benefit Method]**

Under this method, the value of human resources is equivalent to the present value of economic benefits of Organisation after cost adjustment, from the service of its employees. The following steps are involved under this approach :

1. Total revenue and other monetary benefits derived by the firm due to the efforts of human resources in their individual and collective capacity during the year. (A)
2. The value of direct and indirect payments to the employees during that financial year.(B)
3. Excess of total benefits derived over total cost incurred specifically on human resources is ascertained. (C) This represents Cost Adjusted Benefits to the enterprise because of human resources.
4. By applying a predetermined discount rate (usually the cost of capital) to above net benefit(C), the present value is determined. This amount represents the value of human resources to the enterprise.

1.9 Limitations and scope for further research

One of the limitations of this research is that, it involved the study of intellectual capital - an intangible, which is difficult to quantify using the present measurement system. The results and findings of this research are applicable to Manufacturing sector since other sectors are not falling in the gamut of scope of study. The study may be extended to other knowledge intensive industries. This Study is confined to the three most popular components of Intellectual Capital that is Human Capital, Structural Capital, Customer capital; whereas other components of like Social Capital, Innovation Capital could be added in future researches to increase the versatility of the research.

1.10 Conclusion:

Talent is the currency of new millennium and organizations can heavily bank upon this currency to build its success stories. This paper has discussed the concept of human Capital which is key to business success in today's knowledge era.

Knowledge capital of a firm is its possession of knowledge, applied experience, organizational technology, customer relationships and professional skills that provides it with competitive edge in the market. With the emergence of knowledge intensive global economy, it has been realized that investment in talent reap rich dividends. Thus, effective management and measurement of Human Capital is the call of the day.

"Though invisible and difficult to measure, knowledge and human expertise are Starting to be seen for what they are – the source of value creation."

-Lank 1997

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