

## Impact of Intellectual Capital on Performance of Private Banks in India from 1991-2013

### Abstract

Intellectual capital is one of the most important components of sustainable competitive advantage in organization. In fact, it comprises three basic components such as human capital, structural capital and customer capital to establish and enhance the organizational performance. Intellectual capital is significant factor of the future and is an organization's most important asset. The organizations which will learn to manage human resources effectively will realize accelerated performance and achieve the ultimate competitive advantage. Therefore, the aim of this paper is to examine the efficiency level of intellectual capital among Private sector banks and its impact on their banking industry's value added. Using a model introduced by Pulic (1998) to measure value added intellectual Capital (VAIC); the study found that with the increase in level of intellectual capital in Private sector banks there is an increase in banks' performance. Apart from this, banking industry's value added is highly related to the amount of capital employed as compared to other variables.

**Keywords:** Intellectual Capital, Human Capital, VAIC And Capital Employed.

### Introduction

Nowadays, with the expansion of industrial world leads to an era where economic growth depends highly on knowledge. There has been an exponential growth in the capabilities of information technology during the last twenty years. It has increased international competition, and strengthened the need for continuous innovation. There has also been a incredible growth in the services sector. More of what is produced and consumed today is intangible. These days, information technology skills, customer relationship skills and personal skills are given more emphasis than manual skills. Such skills provide a competitive advantage to the firms. In the past, raw materials, capital, land and machinery were considered to be the only valuable resources. Today, other resources such as brand, corporate routines, skills and creativity are considered no less important as these give a competitive advantage. Intellectual capital is a package of useful knowledge which includes organization processes, technological patents, employees' skills and information about customers, suppliers and stakeholders. It deals with particular, reasonable, knowledgeable and substantial fruits of the mind (Kok, 2007).

Intellectual capital significantly affects the performance of an organization. It has not only contributed in the creation of whole new types of business, but also provided various other ways of doing business. In fact, many companies such as those in the software field rely wholly on intellectual capital for generating revenue (Luthy, 2000).

Indian banking industry plays a dominant role in the financial sector of India. Banks constitute the backbone of a nation's financial system, performing manifold functions like liquidity, maturity and risk transformation. Indeed, it needs no gainsaying that the health of the economy is, in a way, the mirror reflection of the banking system, especially in bank-based financial systems such as ours.

### Objectives of the study

The main focus of the paper is to analyze in detail, the efficiency level of intellectual capital in private banks in India. Therefore, the intellectual capital efficiency level of private banks in India since 1991 has been studied in the present paper. More specifically the objectives of the present papers are:

### Deepak Kumar

Assistant Professor,  
Department of Economics,  
SGGSW University,  
Fatehgarh, Sahib (Pb)

1. To study the intellectual capital efficiency level in Private Banks since 1991-2013.
2. To analyze human capital efficiency and capital employed efficiency and value added intellectual coefficient of private banks since 1991-2013.

### Relevance of the Study

In recent times, there has been a wide use of the term Intellectual Capital. As developing economies are moving towards more liberalization and globalization, service sector is playing a dominant role in the growth of these economies. There are very few studies available on the intellectual capital and its growth in service sector. Therefore, this study and its findings are still valid and it is very important for banking sector to concentrate on performance of intellectual capital.

### Review of Literature

#### Intellectual Capital

Intellectual capital is defined as intangible assets that comprise of technology, customer information, brand name, reputation and corporate culture that are invaluable to a firm's competitive power (Low & Kalafut, 2002). To further classify it, intellectual capital usually consists of (1) tacit knowledge and innovativeness of the employees; (2) infrastructure of human capital (i.e. good working system, innovation) and improvement processes of structural capital; and (3) external relationships of the firm (i.e. customers' capital). These are the key drivers of organization performance and creation of future wealth (Bontis, Keow, & Richardson, 2000; Riahi- Belkaoui, 2003). Based on the definition given, intellectual capital can be divided into three important components: human capital, structural capital and capital employed.

Human capital can be defined as health, knowledge, motivation and skills, the attainment of which is regarded as an end in itself (irrespective of their income potential) because they yield fulfillment and satisfaction to the possessor. It is also referred to the employee competence in creating both tangible and intangible assets by contributing in the continuous generation of knowledge and ideas. Unlike structural capital, human capital is always owned by the individuals who have it, unless it is recorded in a tangible form or is incorporated in the organization's procedures and structures (businessdictionary.com). Human capital is the firm's collective capability which helps to extract the best solutions from the knowledge of its individuals (Bontis, 1998). Unfortunately, people's departure can lead to the loss of corporate memory. But there are others who believe that such a departure may be considered good as it provides the firm a chance to get new perspectives from replacement employees. Thus, human capital is the sheer intelligence of the organization's members (Bontis et al., 2000).

Human capital is represented by the employees of an organization. Employees produce intellectual capital through their competence, their attitude and their intellectual agility. Competence includes skills and education; attitude is the behavioural component of the employees' work; and

intellectual agility enables them to change the current practices and to think of innovative solutions to problems. The employees are considered the most important corporate assets in a learning organization, but they are not owned by the organization.

The mechanisms and structures of the organization lend support to the employees in their quest for optimum intellectual performance which affects the overall business performance. Efficient systems and procedures of an organization contribute towards improving the intellect of an individual. Thus, the processes and packages appearing under the structural capital allow human capital to be used effectively for creating value. It includes the information systems and the management competencies which leverage human capital (Moslehi et al., 2006). Cabrita and Vaz (2006) consider structural capital as the skeleton and glue of an organization because it provides the tools (management philosophy, processes, culture) the required human knowledge. The concept of structural capital allows intellectual capital to be measured and developed in an organization (Bontis, 1998).

Structural capital can be classified further into organizational, process and innovation capital. The organization philosophy and systems form organizational capital which is used to leverage the organization's capability. Process capital includes the techniques, procedures, and programmes which enhance the delivery of goods and services. Innovation capital includes intellectual properties such as copyrights and trademarks, and intangible assets (Luthy, 2000).

Customer capital depends highly on the loyalty of customer relations. Customer satisfaction, repeat business, financial well-being, and price sensitivity are the indicators of customer capital (Luthy, 2000). Customer capital relates to clients, buyers and suppliers, brand names, the company's reputation and clients' opinion about the company. Customer capital emphasizes on having a close interaction with the customer. It also includes their satisfaction, continuity, price reactions, and good relationship with loyal customers. Customer capital can be created by accustoming clients to the activities of the company. The trust of customers is vital in the sense that it forms a permanent relationship with them. It also establishes a correlation with other companies through different networks, especially those adopting high technologies are highly dependent upon each other (Kolakovic and Holmik 2006).

Belkaoui (2003) considers customer capital as the firm's value of its franchise, and its prevailing relationships with the people or organizations to which it sells. Proper marketing channels and customer relationships contribute towards customer capital. Understanding the customers in an effective way makes someone a business leader. Customer capital demands more attention to develop since it is most external to the organization's core. Customer capital becomes more valuable with the passage of time. Long lasting relationships become a source of

competitive advantage (Bontis, 1998; Hakansson and Snehota, 1995). Customer capital can be measured as a function of longevity (Bontis, 2002).

### Data and Methodology

This study focuses on the intellectual capital efficiency of Private sector banks in India. The annual reports of the Private sector banks from the publications of 'Indian Banks' Association' like special issues, annual publications on 'Performance Highlights of Private sector banks for the year 1990-91 to 2012-13 were chosen for this study. The data obtained from secondary sources have been used to derive value added intellectual coefficient (VAIC). VAIC measures the intellectual capability and performance of the organization. A higher value for VAIC implies a greater efficiency in the use of firm capital, since VAIC is calculated as the sum of human capital efficiency and capital employed efficiency. Intellectual capital in banks is measured through value added intellectual coefficient (VAIC). The steps involved in the process are follows.

Output (OUT) is the total of all income/revenue generated during the fiscal year by an organization by selling its goods or services. Input (IN) includes all the costs which are incurred by the organization towards purchase of inputs for operating and continuing the business. The employees' compensation and other costs incurred on them for training and development are deducted from total expenses due to the simple reason that they would be treated as investment and not expenditure. Value Added (VA) is defined as the difference between the output and input. It is the value created by the organization during a particular financial year. Thus,

$$VA = OUT - IN$$

Let us define it further as follows. Human Capital (HC) may be defined as all the expenses on compensation and development of employees. Capital Employed (CE) is all the physical and material assets of the organization. Capital Employed Efficiency (CEE) is ratio of VA to CE. This ratio provides the contribution made by every unit of capital employed to the value added in the organization. Hence,

$$CEE = VA / CE$$

Human Capital Efficiency (HCE) is the ratio of VA to HC. This ratio provides the contribution made by every unit of money invested in human capital to the value added in the organization. Thus,

$$HCE = VA / HC.$$

Value Added Intellectual Coefficient (VAIC) reflects the intellectual ability of the organization. It is the sum of the HCE and CEE, and is used to measure the intellectual capability of the organization. It can also be denoted as the Business Performance Indicator (BPI). Hence,

$$VAIC (BPI) = HCE + CEE.$$

Since the value added in any organization would be a function of the capital employed and also the intellectual capital invested, two regressions have been run using VA as the dependent variable in both, and CE as the independent variable in one and HC as the independent variable in the other:

$$VA = f(CE), \text{ and}$$

$$VA = f(HC),$$

Partial least square model has been used to examine the performance of Indian banks.

### Results and Finding

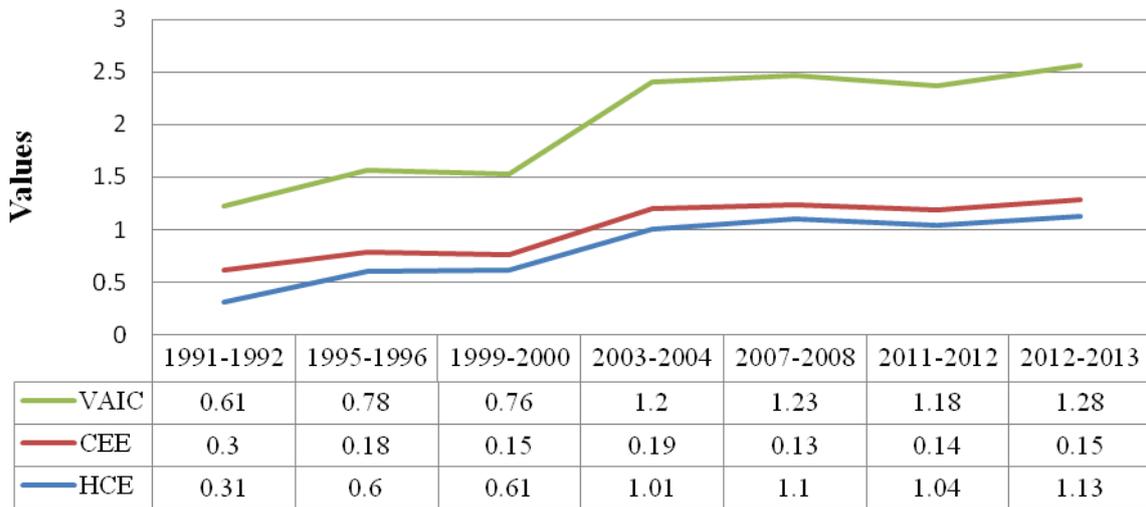
#### Private Sector Banks

The private-sector banks in India represent a big part of the Indian banking sector. The private sector banks are divided into two groups by financial regulators in India, that is, old and new. The *old private sector banks* also referred as *private sector banks*, that existed prior to the nationalization in 1969 and the *new private sector banks* are those which have gained their banking license since the liberalization in the 1990s.

#### Private Sector Banks

Various intellectual capital indices of old private sector banks in India are presented in Chart No.1 shows that the different intellectual capital indices. *HCE index* for the private sector banks has been increasing throughout the study period. On the whole, the HCE index has registered a positive trend growth rate of 4.69 percent per annum. *CEE* in the private sector banks has shrunk marginally which implies that the private sector banks have not been able to produce more value from a single unit of capital employed. The index has recorded an overall trend growth rate of -0.51 percent per annum. It also displayed many fluctuations in its growth over the period. Overall, the VAIC index has been increasing at a trend growth rate of 3.86 percent per annum. *Human capital efficiency and VAIC growth are almost synchronous with one another. With almost constant CEE, the VAIC has grown with the human capital efficiency.*

**Chart No. 1: VAIC index for Private Banks in India during 1991-92 to 2012-13**



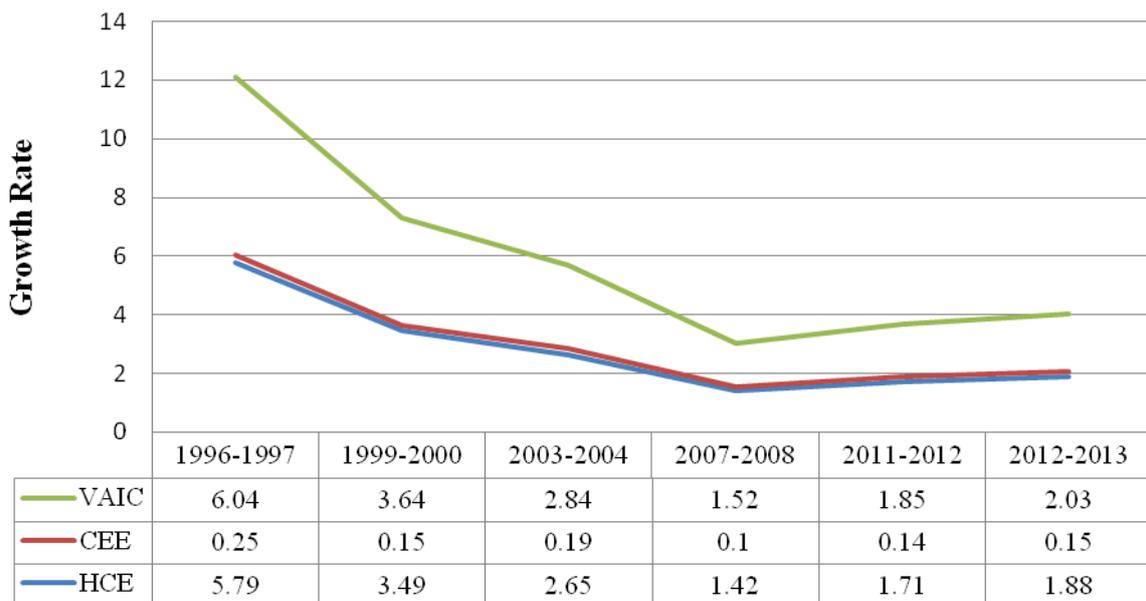
**Source:** Calculated by using Indian Banks' Association Annual Reports

**New Private Sector Banks**

For new private sector banks, various intellectual capital indices are presented in Chart No.2. HCE index for the new private sector banks has been decreasing continuously during the study period. On the whole, the HCE index has registered a negative trend growth rate of -7.70 percent per annum. CEE in the new private sector banks has also

been declining at the trend growth rate of -3.53 percent per annum. Overall, the VAIC index has been decreasing at the trend growth -6.81 during the study period. *New private sector banks are in the crisis period. Shrinking HCE and CEE are leading to declining VAIC. This has been primarily because of over investment in financial capital and human resources and smaller customer base. The problem has been partially compounded by ongoing decade of economic slowdown.*

**Chart No. 2: VAIC index for New Private Banks in India during 1996-97 to 2012-13**



**Source:** Calculated by using Indian Banks' Association Annual Reports

## Conclusion

In the nutshell, it can be concluded that all the indices of intellectual capital in private sector banks of India have shown a consistent and remarkable value addition and the resultant VAIC are the result of fast growing sales turnover and the capital employed. Human capital efficiency and VAIC growth are almost synchronous with one another. With almost constant CEE, the VAIC has grown with the human capital efficiency.

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