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A STUDY ON "IMPACT OF INTELLECTUAL CAPITAL ON THE FINANCIAL PERFORMANCE OF INDIAN PUBLIC SECTOR BANK"- WITH A SPECIAL REFERENCE OF STATE BANK OF INDIA.

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Abstract
It is well accepted now a days that the knowledge base economy started from the end of 20th century has significantly different from the industrial economic pervious to the mid 20th century. Economist belief that intangible assets play a essential role as a determinate of value creation in business organization. Since accounting principal standard does not allow fully recognize and disclose of firm's acquired or internally produced wide range of intangibles assets. Many researchers, academic and professional have studied in recent year that management , investment and credit decision have been made on the basis of financial statement which do not reflect the intangible determinants of corporate value and as a result a significant economic losses for both firm and their supplier of goods, capital or services. The attached study attempts to throw light on intellectual capital performance of banking sector and its possible association with business performance. The study was wholly based on the domestic public sector bank for a period of five years from 2009 to 2013.In this study Ante Pulic's Value Added intellectual Coefficient (VAIC) was used to measured the intellectual capital performance while growth rate in revenue (GR) was used as a financial performance indicator to measure the financial performance of public sector banks in India. The finding of this study, suggested that the bank's financial performance and long term growth was highly positively associated with human capital, structural capital and capital employed efficiency. Human capital was highly influence the bank's financial performance other than capital employed and structural capital .The major contribution on Growth Rate in Revenue was from Human capital efficiency.

Key Words: Capital employed value added, Growth Rate in Revenue, Indian Banking sector, Intellectual Capital, Structural Values Added, Value Added, Value added Human capital,., Value Added Intellectual Coefficient.

Introduction

Rapid growth of knowledge and emergence of capital in new sense are the two basic driver for dramatic changes in economic growth. In global economy intellectual capital can represent a principal asset of many organizations has giving importance to become a key driver for a business sustainability in knowledge era intellectual capital is the primary source for wealth creation of organization (specially in the service sector) and also for nation. Though the in intellectual capital is being considered as a key driver for firm's value creation, still there are also many unsettled issues regarding identification, measuring, reporting and managing intellectual capital. The issue of the development of intellectual capital measurement model are generally responsible for answering the reason for hidden firm's value .It has been seen in recent year that a considerable number of companies and countries to develop intellectual capital reporting framework so as to reflect the firm's value that are absent in the traditional reporting (Majdshaban, V.Kavida,2013).However still it is not to know clearly the firm's view toward the intellectual capital whether they considered it as a critical asset or not .(Usoff,thibodeau and Burnaby ,2002). So it is needed to recognize the impact of intellectual capital on the performance of (both current and future) the companies as to find out the importance to manage its intellectual capital. This study selected Banking sector as the subject of study because of nature of Banking Sector, which provides an ideal environment for conducting intellectual capital research and also for available reliable data in the firm of published accounts. Banking Sector is one of the knowledge intensive sectors in India and its human resource more homogenous in nature than in other sectors.

Intellectual Capital

The term intellectual capital was first used by John Galbraith in 1969. The term intellectual capital, knowledge capital, intangible assets, non-material asset are used interchangeable in many literature as well in business practice .There is no generally well accepted definition of intellectual capital. One of the concise definitions of intellectual capital has given by Stewart (1997.p67) as "Packaged useful knowledge", which includes an organization processes, technologies, patents, employee's skill and information about customer, suppliers and stakeholders. The concept such as ability, skill, expertise, communication intelligence, innovation skill, financial and marketing intelligence and ecological intelligence that are create economic value used in different definitions. Intellectual capital legally defined as intellectual property, such as patents, trademark and copy right.

Value added

It can be used as a substitute measure for the stock of firm's intellectual capital. It helps management by better understanding exact what contribution that has been made by company's intangible resources and as a result a effective manage of

company's intellectual capital could be possible. The difference between total revenue and operating expenses is the value created by the organization during the particular financial year.
Value Added= Output-Input.

Where output = Total Revenue and Input= Operating Expenses, except cost of labour, tax, interest, dividends and depreciation.

Structural Values Added.(SVA)
Structural capital is one of the important determinants of Intellectual capital. All non human assets are included in structural capital. It recognized as all system, procedures, copy right, patent, data base, structural procedures, rules and policies are important for decision making as advocated by Bontis et.al (200).

Value added Human capital.(HC)
Human capital is the sum total of all the expenses incurred on compensation and development the employees. Employee's compensation and other development cost are considered as investment not expenditure and hence would be deducted from total expenses.

Capital employed value added.(CE)
Capital employed is formed with all the physical and material assets of the company. Capital employed efficiency in another indicator of vale added create by the capital that perform by the organization with efficient.

Importance of Measuring Intellectual Capital
A Typical profit seeking firms uses its asset to produces goods and services and generating cash by selling them, tangible and intangible both the assets are used for this purpose. The efficiency of cash generated cycle is depends on intangible assets. The firms can utilised the cash so generated either in capitalization more tangible assets or spent in development of more intangible assets or in dividend payment.

Indian Banking sector
The Indian financial sector is blending of banks, non-banking financial companies, or NBFCs and housing finance corporation or HFCs, which is very lopsided with the majority share of banks which is back born of Indian economic, mainly public sector banks. ICRA has been conducted a survey in march 2011 and it was found that the Indian financial sector reported a compound annual growth (CAGR) of 19% over the last three years and their credit portfolio stood at close to 49 trillion (which was around 62% of 2010-11 GDP) out of which 86% of total credit was accounted by banking sector in which public sector banks contributed around 70% of the total credit. The Indian banking sector has managed to grow with stability during the post reform era. Still the Indian banking sector has a large unexplored market.

Literature Review
Intellectual capital heightens the performance of firms and creates a long term competitive advantage of firms in market places. Hence it is important to identify measure and manage intellectual capital. Though many firms have indentify, measuring, managing and reporting of their intangibles but still complete IC reporting in its infancy stage. There are few studies has been conducted in context of intellectual capital disclosure and its effect on financial performance of firms. A snatch momentary of international view of relevant studies are presented here to provide a brief look of existing literature Majid Shaban, V.Kavida(2013), measure the impact of intellectual capital on the financial performance of private sector banks in India during 2005-2011 by using a sample of 18 private sector banks and concluded that intellectual capital has a significant positive association with financial performance of private sector banks.

A.M. Goyal (2013) examined the impact of capital structure on profitability of public sector banks listed on National Stock Exchange (2008-2012) by using of regression analysis and concluded that short term debt is positively associated with profitability of public sector banks in India.

Mani Mukta and Sharma Eliza (2012), discussed the impact of human capital efficiency on the performance of public and private sector banks in India (2006-2010). The result of this study indicates that the private sectors banks have outperformer than the public sector banks with regard to human capital efficiency.

P.K.Bandgar (2012), found the most of the companies in India ignored the human resources accounting .However Infosys Ltd follows human resources accounting and used the Lev and Schwartz model to compute the value of human resources.

Ashim Paul (2012), has conducted a study on information technology sector in India to investigate the problem of valuation and accounting of intellectual capital .The study duration was 2009-2012 where three leading IT companies were selected as a sample. The study was found that IT companies are incorporated their intellectual capital assets in their financial statement in the same way as they include and show their traditional hard assets.

Basanta Khamrui and Dilip Kumar Karak (2012), measured the effect of intellectual capital on financial performance of selected firms. The data were collected from published financial statement during the period from 2010 to 2012. This study argues that the performances of the firms are mainly depending on how they will create, capture and leverage their intellectual capital.

R.K. Mishra and Shital Jhunjhenwala (2009), measured the financial value of 422 companies listed in National Stock Exchange (2008) by using return on asset method and confirmed that intangible value is not correlated to estimated value.Kamath (2007) has a made study on Indian banks between the period of 2000 to 2004 and using VAIC model to measured intellectual capital and noticed a vast difference in the performance of Indian banks indifferent segments and found an overall improvement in performance over the study period. There was an evident bias in favour of foreign banks performance as compared to the domestic banks.

Objective of the Study

The aim of this study was to empirically evaluate the impact of intellectual capital on the financial performance of public sector bank in India. To achieve this main objective the following sub objectives were considered in this study.

- To measure the relevance of intellectual capital in Public sector banks in India.
- To study the relationship between the intellectual capital and its components.
- To measure the impact of intellectual capital on financial performance e.
- To identify the most contributing component in the overall financial performance e of public baking sector.

Methodology

Data Source

The study was based on the secondary data collected from the annual report of public sector bank published in their official website .The study cover a period from 1st April 2009 to 31st march 2013 ie five year. The Bank of Baroda was taken as a sample bank from the public sector bank purposely.

Method of Measuring the Intellectual capital.

Value Added Intellectual Coefficient (VAIC) method was used for measuring intellectual capital. This Austrian method, introduced Anti Piulic in 1997.Survey of literature showed that most of the research studies used value added intellectual coefficient (VAIC) method. This method measured the efficiency firms three types of input, physical / financial capital .human capital and structural capital and the sum total of these three value added efficiency indicators form VAIC A higher value of VAIC indicates better management and proper utilization of companies strategy resources.

VAIC=HC+CEE+SCE

On the other hand, there is several way of measurement the financial performance of the firm such as return on equity (ROI), Return on Assets (ROA) and Growth in revenue (G R). In his study Growth revenue (GR) was used to measured the financial performance of the concern bank as a traditional financial performance indicator.

Results and Discussion

Table-1 Present the descriptive statistics of the variables. The GR (growth revenue) range from 34.0186 to 9.2747 with a mean of 23.19232 and Standard deviation 9.84755 .The mean value of VAIC was fond 9.699751which indicate the VACI was not high because the minimum value 7.9215 and maximum value was 11.51108 with a low standard deviation 1.6656 which revealed that the values were not widely spread. The mean value of capital employed efficiency 0.075724with a standard deviation 0.007314.It was low because the maximum range was 0.08407 .The variation among the value of CEE was very low though the standard deviation was very low (0.007314). The mean value of Human Capital efficiency (HCE) was 8.741692, it was low as the maximum value and minimum value were 10.5317 an7.774 respectively and the standard deviation was 1.638183 which indicates small difference between the values of HCE .The mean value of Structural capital efficiency (SECE) was 0.882313 with a range from 0.90505 to .Besides there was low standard deviation 0.021522 indicates a narrow spread.

Table. 2; represent the result of the correlation coefficient between VAIC and its component VAHU. The result revealed a significant perfect positive association with VAHU. The result suggested that banks with greater value of VAHU greater the value of VAIC.

Table3; represent the result of the degree of correlation coefficient between VAIC and it's another component VACE. The result indicates a highly positive association was exist between VAIC and VACE, which was statistically significant .The results suggested that banks with greater VACE greater the value of VAIC.

Table. 4; represent the result of the correlation coefficient between VAIC and it's third component STVA. The result revealed a highly positive significant association with STVA. The result suggested that banks with greater value of STVA greater the value of VAIC.

Table. 5; represent the result of the correlation coefficient of GR and VAIC. The result revealed that VAIC was significantly and positively associated with the financial performance as measured by GR. The result suggested that banks with greater value added perform better in terms of revenue generated.

Table. 6, table 7 and table 8 showed that GR was positively associated with VAHU, VACE and STVA. The result suggested that the bank's financial performance and long term growth was highly positively associated with human capital, structural capital and capital employed efficiency. Human capital was highly influence the bank's financial performance other than capital employed and structural capital .The major contribution on Growth Rate in Revenue was from Human capital efficiency. Thus the institution should give more importance to best use of employee talent.

Table 1-Descriptive Statistics.

	Mean	Standard Deviation	Maximum	Minimum
GR	23.19232	9.84755	34.0186	9.2747
VAIC	9.699751	1.6656	11.51108	7.9215
CEE	0.075724	0.007314	0.08407	0.0696
HCE	8.741692	1.638183	10.5317	7.774
SECE	0.882313	0.021522	0.90505	0.8564

Table .2 Pearson's Test of Linear Correlation for "Vaic=Stav+Vahu+Vace" vs "Vahu"

Two-tailed p value:	< 0.001 [1]
Pearson's R statistic	1.0
Degrees of Freedom (df)	3
Linear Regression Details	
Slope	0.984
Intercept	-0.798

[1]If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is a relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Table .3 Pearson's Test of Linear Correlation for "Vaic=Stav+Vahu+Vace" vs "Vace=Va/Ce"

Two-tailed p value	0.082 [1]
Pearson's R statistic	0.83
Degrees of Freedom (df):	3
Linear Regression Details: Slope	: 0.004
Intercept	0.04

If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Table. 4 Results of Pearson's Test of Linear Correlation for"Vaic" vs "Stva"

Two-tailed p value	< 0.001 [1]
Pearson's R statistic	0.995
Degrees of Freedom (df):	3
Linear Regression Details: Slope	0.013
Intercept	0.758

[1]If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is relationship. Note: a statistically significant difference may not necessarily be of any practical significance

Table. 5 Results of Pearson's Test of Linear Correlation for "Growth Revenue_" vs "Vaic=Stav+Vahu+Vace"

Two-tailed p value	0.821 [1]
Pearson's R statistic	0.141
Degrees of Freedom (df):	3
Linear Regression Details Slope	0.024
Intercept:	9.145

If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is a relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Table. 7 Results of Pearson's Test of Linear Correlation for Growth Revenue_" vs "Vace=Va/Ce

Two-tailed p value	: 0.475 [1]
Pearson's R statistic	0.426
Degrees of Freedom (df):	3
Linear Regression Details Slope	
Intercept	0.068

If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is a relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Table 6, Results of Pearson's Test of Linear Correlation for: Growth Revenue_" vs "Vahu=Va/Hu"

Two-tailed p value	0.822 [1]
Pearson's R statistic	0.14
Degrees of Freedom (df):	3
Linear Regression Details: Slope	0.023
Intercept	8.2

[1] If p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is a relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Table .8 Results of Pearson's Test of Linear Correlation for"GrowthRevenue_" vs "Stva=Sc/

Two-tailed p value	0.71
Pearson's R statistic	0.102
Degree of Freedom(df)	3
Linear Regression details slope	0.00
Intercept	0.877

p is small, e.g. less than 0.01, or 0.001, you can assume the result is statistically significant i.e. there is a relationship. Note: a statistically significant difference may not necessarily be of any practical significance.

Conclusion

Present study has an attempted to empirically evaluate the impact of intellectual capital on the financial performance of public sector bank in India. The study was wholly based on the domestic public sector bank foe a period of five years from 2009 to 2013.In this study Ante Pulic's Value Added intellectual Coefficient (VAIC) was used to measured the intellectual capital performance while growth rate in revenue (GR) was use as a financial performance indicator to measure the financial

performance of public sector banks in India. The finding of this study, provide evidence that intellectual capital has a significant positive association with financial performance of public sector bank. Besides that, the study revealed that the financial performance was positively and significantly associated with human capital efficiency nest followed by structural capital efficiency and next followed by capital employed efficiency .The finding from this study have implications for numerous stakeholders such as policy makers, regulators, shareholders and managers of banks.

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