Ranking of Public and Domestic Private Sector Commercial Banks in Pakistan on the Basis of the Intellectual Capital Performance

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ABSTRACT

In a knowledge-based economy, intellectual capital is a main source for organizations to gain competitive advantage. This study is a preliminary study that focuses on banking sector to examine the intellectual capital performance through using VAIC and intellectual capital efficiency (ICE) method. The principal aim of this study is to rank Pakistani public and private banks based on intellectual capital performance. Value Added Intellectual Coefficient (VAIC) developed by Pulic (1998) was operationalized to achieve the desired aim. The available data was obtained from the annual reports of commercial banks during the period of 2005-2009. The results indicate that majority of the banks showed satisfactory intellectual performance. This study is based on limited scope. Therefore, it does not cover all banks in Pakistan. The findings of this study may be a good reference for future study and useful input for banking sector to strengthen their intellectual capital for optimum output.

JEL Classification Code: M10, M50

Keywords: Intellectual, Human and Structural Capital; Value Added Intellectual Coefficient (VAIC); Intellectual Capital Efficiency (ICE).

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1. INTRODUCTION

In a knowledge based economy the role of intellectual capital is highly recognized, and in fact, it has become an important determinant of competitive advantage albeit the existence of physical assets is considered crucial (Chen, Lin and Chang 2006). It is understood that the banking sector plays a pivotal role in the economy of every country. Sound, well established and competitive banking system will play integral role for the development of an economy. On the other hand, incompetent and weak banking system will jeopardize the whole economy of a country.

The Pakistani banking sector has been providing a significant contribution to its economy. Financial sector in Pakistan mainly comprises of the central bank, commercial banks, specialized financial institutions, insurance companies, stock exchanges and development finance institutions. Commercial banks are playing a significant role in financing and enhancing the productivity of the economy (Usman, Zongjun, Faiq and Humera (2010). After independence, financial institutions were mainly in the private sector. In 1974 banking sector was nationalized, and since then it was under government control until at the beginning of 1990.

In December 1998, financial liberalization program was launched with the help of the World Bank and the International Monetary Fund. The principal objectives of the liberalization program were to restructure, improve supervision of nationalized commercial banks and licensing of new private banks. Therefore, the governments of Pakistan denationalized commercial banks and a number of new private and foreign banks have come into the market (Ayub, 1996; Rizvi, 2001; Usman, Zongjun, Faiq and Humera 2010).

Iswati and Anshori (2007) argue that monetary industry is a knowledge-intensive industry where its activities are based on intellectual capital as compared to physical assets. Hence, the banking industry could be classified as a knowledge-intensive industry. Due to the significant importance of intellectual capital, banking sector needs more information and knowledge about intellectual capital to acquire competitive advantage. Therefore, this study attempts to examine the Value Added Intellectual Capital Coefficient (VAIC) and the efficiency level of intellectual capital (ICE) in banking sector in Pakistan.

The remainder of this paper is organized in the following sequences: section 2, gives the literature review with emphasis on the definition of intellectual capital (IC) and its importance; section 3 details the development of the methods normally used to measure IC and methodology, which focuses of the various approaches to measure IC and sources of data used by the study; section 4 details results of the analysis and main findings; and finally section 5 details discussion and conclusion, which also highlights some of the limitations of this study and main policy implication.

2. LITERATURE REVIEW

There are many definitions of intellectual capital available in the literature related to this topic. Intellectual capital is defined as the total stock of the collective knowledge, information, technologies, skills, expertise, intellectual property, team management and customer satisfaction that can be used to create organization's wealth. Bontis, Keow and Richardson (2000) explained intellectual capital as the submission of individual workers' and organizational knowledge that contribute to sustainable competitive advantage. In the concept of the same line, Pulic (2000a) definition of intellectual capital includes all employees and their abilities to create value addition.

Intellectual capital is a main pillar of knowledge-based economy. Intellectual capital management would lead management to make appropriate investment, management and operation decisions to achieve competitive edge and gain. On the other hand, lack of information and awareness about intellectual capital may lead to underestimation of future earnings (Roslender and Fincham, 2004).

There are a number of studies which focus on the definition of IC (Ahonen and Hussi, 2002; Brooking, 1996; Edvinsson and Molone, 1997, Marr and Schium, 2001; Mayo, 2001 and Roos and Roos 1997). Although the differences of opinion on the definition of IC, however, it seems that there is a general agreement that IC of an organization comprises mainly these three components: human capital, relational capital and structural capital.

Human capital is the main source of intellectual capital generation. According to Roos and Roos (1997), intellectual capital is generated through the competence, attitude and intellectual agility of employees in an organization. Therefore human capital is a very important source of intellectual capital for organizations to create wealth. Resources which are related to external stakeholders are considered as relational capital. Among others, they include customers and suppliers relationships and brand image. Structural capital is also very important for the success of an organization. It is based on competitive intelligence, formula, polices, information system, polices etc. In plain words structural capital is the intellectual value that remains with the enterprise when people leave (Muhammad and Ismail, 2009).

A number of literature focuses on the development of appropriate methods to measure IC. The traditional measurement of IC mainly focuses on the financial and physical aspects of organizations, and the system may not include relevant information required for the measurement of IC performance (Antola, Kujansivu and Lonnqvist 2005). Other literatures have included both financial and non-financial factors into consideration. Among others, they include studies conducted by Antola, Kujansivu and Lonnqvist (2005); Mouritsen, et al; (2003); Brooking (1996); and Meritum (2001). One of the popular methods of measuring IC was developed by Pulic (2000, 2003) known as Value Added Intellectual Coefficient (VAIC). The subordinate concept of VAIC is intellectual capital efficiency (ICE) which elaborates on efficiency within an organization.

3. RESEARCH METHODOLOGY

In this section the measurement of IC used in this study is discussed. The two measurements are the Value Added Intellectual Coefficient (VAIC) and intellectual capital efficiency (ICE). In addition, the main source of data used in this study is also discussed. Most studies used VAIC and ICE to measure to measure IC. Thus, a similar approach will be adopted by this study.

Value Added Intellectual Coefficient (VAIC)

Pulic (1998, 2000) developed a VAIC method which is based on human capital, structural capital and capital employed, where capital employed is based on total assets of organization. VAIC is used to measure the total value creation efficiency, while intellectual capital efficiency describes the efficiency of intellectual capital within a company (Kujansivu and Lönnqvist 2006). According to this method, value creation is derived from two primary resources namely intellectual capital and physical resources. VAIC represents the total efficiency of value creation from all resources employed and intellectual capital, while intellectual capital efficiency (ICE) reflects the efficiency of value created by the intellectual capital (Pulic 2000; Van

der Zahn, Tower and Neilson 2004; Kujansivu and Lönnqvist 2006). VAIC is calculated as the sum of capital employed efficiency, human capital efficiency and structural capital efficiency. On the other hand, intellectual capital efficiency (ICE) is calculated by adding human capital efficiency and structural capital efficiency (Makki, Lodhi and Rashid 2008). The VAIC and ICE method employed in this study was constructed by Pulic (1998, 2000a, 2001). The formula for the computation of VAIC and ICE are given below.

Value Added Intellectual Coefficient (VAIC)

- Output = Gross income.
- Input = Operating expenses (excluding personal costs).
- Value added = Output-Input.
- HC = personnel cost, considered as an investment.
- CE = Capital employed (both physical and financial capital).
- SC = VA – HC (an appropriate proxy for structural capital), a result of human capital's past performance.
- HCE = VA ÷ HC (indicator of human capital efficiency).
- CEE = VA ÷ CA (indicator of capital employed efficiency).
- SCE = SC ÷ VA (indicator of structural capital efficiency)
- VAIC = HCE + CEE + SCE (Value added intellectual coefficient).

Intellectual Capital Efficiency (ICE)

- ICE=VAHU+STVA

Source of Data

The required data was collected from all domestic private and public commercial banks operating in Pakistan during the period of 2005-2009. Only 11 out of 25 local private commercial banks and one out of 4 public commercial banks were included in this study. Those banks that showed consistent profits in their accounts during the above mention duration were included in the study and the rest were discarded to avoid unnecessary biased against them. The required list of banks was obtained from the Banking Statistic of Pakistan (2007-2008).

Due to diversity in operations and regulations, four of the local public banks were not included in this study, namely Zarai Taraqiati Bank of Pakistan, Small Medium Enterprise Bank, Industrial Development Bank of Pakistan and Punjab Provincial Co-operative Bank. These banks were restricted to offer their services to specialized area (Akhtar, 2010).

4. RESULTS AND FINDINGS

The principal objective of the study was to rank the public and domestic private sector commercial banks on the basis of average value of Value Added Intellectual Coefficient (VAIC) and Intellectual Capital Efficiency (ICE) during the period 2005-2009. Table 1 shows the ranking of the banks on the basis of VAIC. The results show that only three banks, namely Habib Metropolitan Bank Ltd, Muslim Commercial Bank Ltd and Soneri Bank Ltd, are in good performance bracket. According to the results, Habib Metropolitan Bank Ltd stood at the top position having 6.55 VAIC score and Bank Al-Falah Ltd secured last position among their competitors. Table 2 shows the results in details.

Table 2 shows the ranking position of public and domestic private commercial banks of Pakistan on the basis of average value of Intellectual Capital Efficiency (ICE) which is also based on 2005-2009 period. Results show that, in term of ICE, Habib Metropolitan Bank Ltd secured the highest 6.52 (ICE) score among public and private commercial banks in Pakistan. The results from Table 1 and Table 2 give similar ranking.

Table- 1: Ranking of Banks on the basis of (VAIC) Year 2009

No	Bank Name	Rank
1	Habib Metropolitan Bank Ltd.	6.55
2	Muslim Commercial Bank Ltd.	6.03
3	Soneri Bank Ltd.	5.35
4	National Bank of Pakistan	4.43
5	Allied Bank Ltd.	4.22
6	United Bank Ltd.	4.05
7	Faysal Bank Ltd.	3.72
8	Standard Chartered Bank(Pakistan) Ltd	3.63
9	Habib Bank Ltd.	3.29
10	Meezan Bank Ltd.	3.18
11	Askari Bank Ltd	2.82
12	Bank Al-Falah Ltd.	2.42

Table 2: Ranking of Bank on the basis of Intellectual Capital Efficiency Year 2009

No	Bank	Rank
1	Habib Metropolitan Bank Ltd.	6.52
2	Muslim Commercial Bank Ltd.	5.97
3	Soneri Bank Ltd.	5.28
4	National Bank of Pakistan	4.39
5	Allied Bank Ltd.	4.20
6	United Bank Ltd.	4.01
7	Faysal Bank Ltd.	3.69
8	Standard Chartered Bank(Pakistan) Ltd	3.60
9	Habib Bank Ltd.	3.24
10	Meezan Bank Ltd.	3.15
11	Askari Bank Ltd	2.79
12	Bank Al-Falah Ltd.	2.40

5. DISCUSSION AND CONCLUSION

Using VAIC and ICE, this paper attempts to rank the Pakistani public and private commercial banks during the period of 20005 – 20009. According to Kamath (2007), the organizations having score of 5.0 or above represent top performers, while those with a score of between 4.0 and 5.0 are considered to posses good performance. Respectively, organizations with the score between 2.5 to 4.0 and less than 2.5 are considered common and bad performers. The result shows that the IC performance of Pakistani Banks is quite satisfactory. Only Bank Al-Falah Ltd showed poor IC performance.

The study has it limitations, particularly in term of its sample size which is based on only 12 banks, including one public commercial bank and 11 domestic private commercial banks. Therefore, its applications may not be appropriate for all financial institutions. Secondly, the study focused only to rank the Pakistani Banks using VAIC and ICE methods using only 5 years data.

This study is somewhat preliminary in nature and it focused on the ranking of banking sector in Pakistan. It may be a good starting point for research on intellectual capital. It would be fruitful for the management of respective banks to examine its position on the subject of intellectual capital. This study would provide guidelines for policy makers in Pakistani Banking sector to formulate and implement effective policy on intellectual capital development in their institutions.

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