Abstract

Intellectual capital is a vital asset of an organization in a knowledge-based economy. The principal thrust of this research paper is to examine the relationship of intellectual capital with the organizational performance of banking sector in Pakistan. The study was conducted in Islamabad, the capital city of Pakistan. Random sampling technique was used for data collection. The structured questionnaires were administrated as a research instrument to collect the data from the respondents. Pearson Correlation was used to test the relationship between the components of intellectual capital and the performance of banking sector. The results demonstrated that the component of intellectual capital has significant positive relationship with the organizational performance. The findings of this research will be useful for bankers to understand and apply intellectual capital in their organizations.

Key words- Intellectual capital, human capital, structural capital, social capital, Organizational performance
1. Introduction

In present era intellectual capital is recognized as the most important and vital ingredient for the success of organizations in a competitive environment. Present economy is a knowledge-based economy. The main ingredients of the production-based economy were land, labor, capital and physical assets. However, in a knowledge-based economy intellectual capital (IC) has become more important to add values when it is compared to physical assets (Bontis, 2001, Yalama, 2007, Khalique, Isa and Shaari, 2011a). In the same way (Lonnqvist, Kujansivu and Sillanpaa (2008) and Shaari, Khalique and Isa (2010) argues that intellectual capital has been recognized as the most important source of competitive advantage of various organizations which lead to increase the business performance and a country’s economic growth. Cohen and Kaimenakis (2007), Chong and Lin (2008) and Tovstiga and Tuluğurova (2009) also pointed out that intellectual capital is the most powerful source to influence positively on the performance of organizations. Shih, Chang and Lin (2010) argued that there are little studies that focused on the relationship of intellectual capital with the organizational performance of banking industry. However, banking industry is very important for the development of economy. The role of banking industry in economy is highly acknowledged. In the same way, Mavridis (2004) pointed out that banking sector around the world has grown as a knowledge concentrated sector in dynamic and competitive environment.

Moreover, the banking sector is a good sector for research on intellectual capital issue because this sector is knowledge intensive and its entire staff are moreover are identical intellectually (Mavridis, 2004; Kubo and Saka, 2002). From the last decade, the banking sector has been undergoing dramatic change in both structural and technological advancement pushing top management to reformulate their business strategies (Cabrita and Bontis, 2008). In addition, Bhartesh and Bandyopadhyay (2005) pointed out that it is very important for organizations to understand their intellectual capital assets and should need to be properly managed if the organizations want to compete successfully in competitive environment. Therefore, it is
indispensable that the executives of the banking industry learn to employ the intellectual capital to improve their organizational performance in a knowledge-based economy.

Pakistan is a developing country and sixth largest populous country in the world which is situated in South Asia. India and China, the two most populous countries of the world, are her neighbor. Due to its large population size, it is a potential market for many commercial activities (Ahmed and Ahmad, 2008). Undoubtedly a well established, efficient organized and feasible financial system is a prerequisite for the economic development of any economy. However, the financial sector performing a critical role in the development activities and economic growth (Anwar, Shabir and Hussain, 2010). Well developed banking sector and stock market lead faster growth over the period as compared to those countries having lagged financial system (Levine 1997). Beck, Demirguc-Kunt and Levine (2000) and Ang (2008) pointed out that the role of banking sector is highly correlated with the development of economic activities.

2. Literature review

According to Shih et al., (2010) the term intellectual capital was first proposed by Galbraith (1969), as a form of knowledge, intellect, and brainpower activity, which used knowledge to create value. The importance of intellectual capital in a knowledge-based economy is widely accepted and Stewart (1997) pointed out that intellectual capital is referred as to the accumulation of all knowledge, skills and expertise of employees that can lead to take competitive advantages. In the same way Edvinsson and Sullivan (1996) argues that intellectual capital is essentially defined as the knowledge assets that can be converted into value. In addition, Bontis (1998) illustrated that intellectual capital comprises three components: human capital, customer capital and structural capital. Moreover, researchers argued that intellectual capital is mainly based on intangible assets for example knowledge, skills of employees, customer satisfaction, loyalty, policies, procedures, social value, intellectual property, industrial property, faith, ethics etc., (Edvinsson and Malone 1997; Sveiby 1997; Brooking 1996; Bontis, 1998; Ismail, 2005; Bueno et al., 2004; Khalique et al., 2011b). They argued that intellectual capital is mainly based on human capital, customer capital, structural capital, social capital,
technological capital and spiritual capital. In this study, only three components of intellectual capital namely human capital, structural capital and social capital were tested empirically. Human capital is mainly based on the individual abilities, knowledge, know-how, talent, education, skills and experiences of employees in organizations (Bontis, Keow and Richardson, 2000; Edvinsson & Malone 1999; Shaari et al., 2010). Human capital is a critical factor that creates intellectual capital in organizations. Human capital is the most important component of intellectual capital, and it is critical for creativity and innovation (Bontis 1998; Edvinsson & Malone 1999; Stewart 1997, Khalique, Shaari, Isa and Ageel, 2011c). Snell and Dean (1992) pointed out that human capital is creative, bright and skilled employees with expertise in their function.

Structural capital is also one of the most important components of intellectual capital. Structural capital is a glue of organization. It based on the internal structure of the organization, to the processes and procedures, guidelines, rules and etc. It encompasses of all non-human storehouse of knowledge in organizations including organizational competitive intelligence, routine, formula, policies, procedures and databases (Salleh and Selamat, 2007; Cabrita, 2009; Khalique, Shaari, Isa and Ageel, 2011d).

Social capital is recognized as one of the most important components of intellectual capital (Khalique et al., 2011b). In 1992 Bourdieu and Wacquant defined social capital as a “sum of resources accumulated in the organization by a stable network of intraorganizational relationships”. Naphat and Goshal, (1998) argued that organizations having high social capital can take more competitive advantage and they pointed out that it mainly based on three dimensions which is widely accepted such as structural, cognitive and relational. These dimensions of social capital create the value of the intellectual capital of an organization. Cohen and Prusak (2001) stipulated that social capital represents the value of human connections based on confidence and on personal networks. Social capital includes relationships, attitudes and values that manage interactions among people and contribute to economic and social development in a society (Yazdani and Yagoubi, 2011). Social Capital includes the set of relationship with the remaining social agents which is playing highly significant role in the
development of intellectual capital in an organization (Cohen and Prusak, 2001; Bueno et al., 2004; Hamzah and Matt Isa, 2010).

3. Relationship of intellectual capital with organizational performance

Many studies indicate that intellectual capital has significant positive impact on the performance of organizations. The dimensions of intellectual capital are the main sources of firm competitive advantage and superior performance (Bontis, 1998; Khalique, Shaari, Isa and Ageel, 2011b). The literature stressed that the one or several dimensions of intellectual capital can affect on the performance of organizations. However, the affect of intellectual capital’s dimensions have varying magnitudes (Bontis, 2002; Pablos, 2004; Wang and Chang, 2005; Khalique et al., 2011d). Previous studies have found that intellectual capital has significant relationship with the organizational performance (Bontis, 1998; Bontis et al., 2000; Ismail, 2005; Cabrita and Bontis, 2008).

3. Research Model and Hypothesis Development

In order to identify the relationship of intellectual capital with the organizational performance of banking sector in Pakistan, three components of intellectual capital, namely human capital, structural capital and social capital were employed. Previous studies revealed that intellectual capital is positively associated with the organizational performance of organizations (Bontis, et al., 2000; Huang and Wu, 2010). The research model adopted for this study is mainly based on three independent variables namely human capital, structural capital, social capital and one dependent variable, i.e., organizational performance. The research model hypothesized that there is a direct and positive association between intellectual capital and organizational performance (Stewart, 1997, Bontis et al., 2000, Huang and Wu, 2010, Bueno et al., 2004). The flow of relationship between the variables is depicted in Figure1.
Based on the above model, the following four research hypotheses were constructed.

**Hypothesis 1:** Human capital has positive association with organizational performance of banking sector in Pakistan

**Hypothesis 2:** Structural capital has positive association with organizational performance of banking sector in Pakistan

**Hypothesis 3:** Social capital has positive association with organizational performance of banking sector in Pakistan

4. Research Methodology and Sample Size

A structured questionnaire based survey having 32 items was used to collect the data from banking sector in Islamabad. The amended version of Bontis, (1998), Ismail (2005), Bueno et al., (2004), Young, et al., (2007), and Choudhury (2010) questionnaires items were used for this study. The amendments were made to ensure that the constructs is relevant to this research in Pakistani context. A total of 230 set of questionnaires were distributed in Islamabad city. A total of 160 set of complete questionnaires were returned. Four questionnaire forms were discarded due to incomplete information. The net response rate was 67.8% which was considered as a good.
5. Reliability of the Instrument

The data were screened and cleaned, to ensure the reliability of the instrument, Cronbach Alpha was used. Cronbach Alpha value is widely used to check the reliability of the construct. The results showed that human capital had a coefficient of 0.910, structural capital of 0.871, social capital of 0.857 and organizational performance of 0.935. All constructs had showed above the suggested value 0.5 (Nunnally and Bernstein, 1994; Nunnally, 1974). Therefore, on the basis of reliability test it was assumed that the scales used in this research is reliable to capture the constructs. Reliability of the constructs is shown in Table 1.

Table 1: Reliability Test of Constructs

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital</td>
<td>0.910</td>
</tr>
<tr>
<td>Structural Capital</td>
<td>0.871</td>
</tr>
<tr>
<td>Social Capital</td>
<td>0.857</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>0.935</td>
</tr>
</tbody>
</table>

6. Results

As indicated earlier this research study attempted to explore the relationship between the components of intellectual capital and organizational performance of banking sector and three research hypotheses were constructed. To test research hypotheses Pearson correlation was used. The results of the study indicate that the components of intellectual capital are positively related to the organizational performance of banking sector in Pakistan. The result also shows that human capital has more positive relationship with organizational performance as compared to other variables. Moreover, judging from the findings of the Pearson correlation social capital is the second variable and structural capital is the third variable that shows positive relationship with organizational performance. Therefore, the findings supported the three research hypotheses of the study. The results of Pearson correlation are depicted in Table 2.
Table 2: Pearson Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>HUC</th>
<th>STC</th>
<th>SOC</th>
<th>ORGP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital (HUC)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural Capital (STC)</td>
<td>0.637**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Capital (SOC)</td>
<td>0.595**</td>
<td>0.561**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Organizational Performance (ORGP)</td>
<td>0.716**</td>
<td>0.656**</td>
<td>0.701**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed)

7. Discussion

The crux of this study was to examine theoretically and empirically the relationship of the components of intellectual capital on the organizational performance of the banking sector in Pakistan. The empirical results of the study showed that the components of intellectual capital have positive significant relationship with the organizational performance of banking sector in Pakistan. Previous studies also supported the findings of this research study such as Bontis et al., (2000), Cabrita and Vaz (2005), Goh (2005), Shaari et al., (2010) and Khaliq et al., (2011d). The result shows that the employed components of intellectual capital has vital contribution to achieve the organizational performance.

9. Conclusion

The main thrust of study was to find out the relationship of intellectual capital with the organizational performance of banking sector in Pakistan. Generally, the study concludes that intellectual capital is a very important factor for the success of the organizations in a knowledge-based economy. The component of intellectual capital, namely human capital, structural capital, and social capital showed positive relationship with organizational performance. On the basis of findings the study suggests that the components of intellectual capital can play a significant role to enhancing the organizational performance of banking industry in Pakistan.

10 Future Research Avenues and Study Limitations
The findings of the study will be helpful to practitioners, policy makers and top level managers to understand the concept and role of intellectual capital in depth. This is a preliminary study in banking sector to analyze the role of intellectual capital in banking sector in Pakistan. Therefore, this study will be a milestone for practitioners to explore their intellectual capital in more appropriate way.

This study also has some limitations for example; in this study the sample size was small, therefore the findings of the study may not be applicable in all industries. The researches would like to suggest future researchers to extend the sample size for more generalized results. Finally, the researchers would also like to recommend the potential contributors to conduct their study which incorporated all the major components of intellectual capital.

References:


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