# THE EFFECT OF HUMAN CAPITAL DISCLOSURES ON THE FINANCIAL PERFORMANCE IN THE LEBANESE COMMERCIAL BANKS

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## ABSTRACT

***Purpose:*** *The aim of this study is to explore the relationship between human capital (HC) and the financial performance in the Lebanese commercial banks (LCB).*

***Design/methodology/approach:*** *A sample of 48 bank/year observations is used to* the level of HC disclosures in the LCB *for 2015-2017 period. Depending on a content analysis, HC index developed by the researchers* is used *to measure the level of HC disclosures.*

***Findings:*** *The results show that the level of HC disclosure has a significant negative relationship with the financial performance of commercial banks in Lebanon. These findings indicate that LCB should disclose properly HC information in order to enhance their value and performance.*

***Originality/value:*** *This study opens a new field for the service companies as banking sector to shed light on the states of HC disclosures. The results supposed to benefit the commercial banks in Lebanon.*

**Keywords:** Human Capital, Disclosure, Performance, Lebanese Commercial Banks.

**JEL Classification**: M41

## INTRODUCTION

Nowadays the business environment and the system structure of many service companies have been altered due to the evolution of economy and globalization. Recent years has witness a big change in interest of companies. Organizations have become more concerned in emerging and developing intangibles as knowledge, level of education, employee competence which is form of intellectual capital(IC). IC is categorized in to three major components : human capital (HC), structural capital, and relational capital (Edvinsson & Malone, 1997; Roos et al., 1997; Stewart, 1997; Bontis et al., 2000). HC is the core focus of this research.

It's substantially important to invest in HC through improving the knowledge, experience, professional skills of the employees, increasing the enterprise process, employee's relationships in order to improve the organization performance. Therefore, it's important to disclose more information concerning the employees that affect the financial performance in order to attract more anticipated stakeholders which is the one of the main role of disclosing financial information (FASB, 2001; IASB, 2000)**.**

In Lebanon, the banking sector compromises in general a perfect area for HC research. It is an ideal sector for research on HC because its business nature is "intellectually" concentrated, and the whole employees are more homogenous than in other economic sectors. Banks use a massive extent of HC indicators for their presence and consider that people are its crucial and essential asset (Kubo & Saka, 2002; Firer, 2003; Mavridis, 2004; Kamath, 2007; Brüggen et al, 2009, Muhammad and Ismail, 2009; Bassey & Arzizeh, 2012).

HC is considered as the crucial factor in improving the financial performance of enterprises. It becomes significantly essential for the development of banks performance. Therefore, banks have become concerned in emerging and developing HC. (Ahuja & Ahuja, 2012; Kamath, 2007; Goh, 2005).

Most of the studies found that a positive significant relationship exists between company's financial performance and HC disclosure. Although the lack of studies concerning HC disclosures in banks and its effect on the financial performance but most of these studies find a positive significant relationship. Consequently, the study research question is:

*"Does the financial performance of the LCB is positively affected by the disclosure of HC?"*

Therefore, the study main objectives are to explore the extent of HC disclosure and to examine the nature and the type of the relationship between HC disclosure and the financial performance of the LCB.

The rest of this article is structured as follows: The second section present the prior studies concerning the nature and the main indicators of HC to create its index and studies that focuses on the relationship between HC disclosure and the financial performance in order to develop the hypothesis**.** The next section presents the research design and identifies the methods used. The fourth Section discusses the data analysis and results. The final section summarizes the findings.

## LITERATURE REVIEW

### Human Capital Disclosure

Most IC frameworks tend to categorize IC into three main elements: human capital (HC), relational capital, structural capital. HC is considered as the most principal element of IC in the literature review, the most essential, important and largest intangible asset in companies (Gharoie, 2011) that is consist of group of employee knowledge, know-how, innovation, competencies, creativity, skills, experiences, expertise of the entire employees of the company and managers, in addition to training, education and relations. **(**Sveiby, 1997; Roos et al, 1997; Stewart, 1997; Edvinson & Malone, 1997; Sveiby, 1997; Petty & Guthrie, 2000; Mei-Chun Chen, 2001; Kym &Moon, 2006; Huang et al., 2007; Bhasin, 2011; Neysi et al., 2012).

Some studies recognize HC as what employee owned as experience, skills, knowledge, competencies in other word the knowledge store in the company signified by its employees (Fitz-enz, 2002; Magrassi, 2002). Other studies described it as personal ability that is directly related to the work (AL Maani & Jeradat, 2010). Riahi-Belkaoui (2003) finds in his study that the innovation necessary to create new products and services is produced by HC. It creates value and develops the business processes as well.

HC has many components that are different between the studies; most of the components are related to education, training and other indicators as: knowledge, skills, abilities and values

of the company staff that will result in the employee's performance and satisfaction that will eventually stimulate the company performance (Rizvi, 2010). It embodies the knowledge, skills, intelligence, education, experience of the entire staff a management, organizational employees and expertise of the company (Bontis & Fitz-Enz, 2002; Roslender & Fincham, 2004; Perera & Thrikawala, 2012).

Based on the literature review, many studies focus on the disclosure of the three elements of IC, presenting the level and the extent of indicators disclosed for each type (Van der Meer-Kooistra & Zijlstra, 2001). In terms of HC disclosure, Mangena et al., (2010) also confirm that the greatest level of information provided by companies is concerning HC. In Malaysia, Haji & Ghazali, (2012) conclude that the level of HC disclosure level increased significantly (2008-2010). Similarly, in Chinese listed companies, An et al., (2015) find that scoring of HC category was the highest. Brown et al., (2016) recognized that in Commercial Banks the highest frequency of disclosed IC elements was the percentage of HC disclosures.

In Jordan, Al-Hamadeen & Suwaidan (2014) indicate that the lowest HC information disclosed by the companies are related to: employees' productivity, human value, and employees' loyalty and the most HC information disclosed in the reports are employee's knowledge, employee's information and human resources, which form some indicators of HC.

Even though disclosing information concerning HC, affect the financial position and lead to the success for an organization and it can still be observed that the extent of HC disclosure in most of companies is so low. In fact, it's difficult to measure or disclosed the value of HC in the financial statements that's why a lot of studies conduct the content analysis that have qualitative dimension measured by HC index.

HC index was extracted from related literature review (41 items- index). To calculate the level of HC disclosure, selective items are chosen. 41 items- index are reduced to 10 items based on the most common in the literature review, highly frequent HC items, reflected in other comprehensive elements, and has no separated indicator. Table 1 indicates the selected HC indicators.

**Table 1**
**THE ITEMS OF HC INDEX COLLECTED FROM PREVIOUS STUDIES**

| | List of indicators | Prior studies | Measurement method |
|---|---|---|---|
| **Human capital** | 1. Salaries and wages | (Flamholtz,1999; Huang et al., 2012; Haniffa et al., 2013; Rezai & Mousavi, 2015) | $ |
| | 2. Employee work-related knowledge (Know-how) | (IFAC,1998; Edvinsson & Malone, 1997; CIMA, 2005) (Skandia,1994; Edvinsson & Malone,1997; Johnson, 1999; Dzinkowski, 2000; Brennan & Connell, 2000; OECD, 2001; Davis & Harrison, 2001; Flamholtz et al, 2002; Bontis & Fitz-enz, 2002; CIMA, 2005; Swart,2006; Tovistiga & Tulugurova, 2009; Rizvi, 2010; Baron, 2011; chang & Lee, 2012; Rawal & Mahini, 2014; Kamath, 2014; Todericiu & serban, 2015) | -% of employees who share work knowledge that create value (%) |
| | 3. Employee work-related and leadership skills | (Skandia,1994; Edvinsson & Malone,1997; Dzinkowski, 2000; Davis & Harrison, 2001; OECD, 2001; Harris, 2000; Bontis, 2000; Flamholtz et al, 2002; Bozbura, 2004; Swart, 2006; Vuolle et al., 2009; Rizvi, 2010; Baron, 2011; Lee & Huang, 2012; Yu-Je Lee, 2013; Kamath, 2014) (IFAC, 1998; Miller et al., 1999; | Skill asset value = (cost of skills) × (average years of service) × (retention rate) = ($)<br><br>-Percentage of managers who take part in leadership (%) |

| | | | |
|---|---|---|---|
| | | Johnson,1999; Dzinkowski, 2000; Bozbura, 2004; CIMA, 2005) | |
| | 4. Training | ( Bozbura, 2004; Baum, 2000; Dzinkowski, 2000; Vuolle et al., 2009; Haniffa et al., 2013; Rezai & Mousavi, 2015) | -Training participation rate (%):Number of staff who took part in at least one internal and/or external training and education course in the reporting year relative to average headcount (Participants in training programs/total employees)<br>-Training expenditures per employee ($): amount of training per employee or the money spent on each employee training.<br>-Training days or hours per employee(days/hours)<br>-Percentage of persons trained in terms of the total number of staff (%) |
| | 5. Experience | (Miller et al.,1999; Flamholtz et al., 2002; Bozbura, 2004; Vuolle et al., 2009; chang & Lee, 2012; Haniffa et al., 2013; Rawal & Mahini, 2014) | -Years of experience in profession (number of years) |
| | 6. Education levels | ( Sveiby, 1997; IFAC, 1998; Baum, 2000; Bontis, 2000; Guthrie & Petty, 2000; Dzinkowski, 2000; Bozbura, 2004; CIMA, 2005; Vuolle et al., 2009 Haniffa et al., 2013) | -Percentage of the employees with university degree.<br>-Number employees with a PhD holder (number of doctoral personal/the total number of bank members) |
| | 7. Employee creativity and innovation (employee abilities and capabilities) | (Baum, 2000; Dzinkowski,2000; Bozbura, 2004; Vuolle, Lönnqvist, Meer, 2009; Haniffa et al., 2013; Rawal & Mahini, 2014)(Skandia,1994; Edvinsson & Malone,1997; Dzinkowski,2000; Davis & Harrison,2001; Rizvi,2010) | -Employees who are able to translate customer needs into service.(%)<br>-Income from employees' new and original ideas generation ($)<br>-The abilities of employees to participated in international projects |
| | 8. Employee Satisfaction and Motivation | (Miller et al., 1999; Dzinkowski, 2000; Bozbura, 2004; Rizvi, 2010)<br>(Miller et al., 1999; Dzinkowski, 2000; Edvinsson & Malone, 1997; Meritum Guidelines, 2002; Ismail, 2005; li et al., 2008) | Employee Satisfaction index :<br>-percentage of labor absenteeism;<br>- percentage of satisfied customers,<br>- percentage of staff members are motivated and competent<br>-percentage of employees are promoted out |
| | 9. Employee attitudes principles and Commitments(loyal) | (Edvinsson & Malone,1997; Bontis,2000; Rudolf, 2004; Bontis & Fitz-enz, 2012) | -percentage of the employees have been involved in developing the bank mission<br>-percentage of the employees have been involved in shaping the bank vision |
| | 10. Employee behavior (moral values- human values) | (Dzinkowski, 2000; Guthrie & Petty, 2000; Cuganesan et al., 2007; Rizvi, 2010) | -percentage of the employee participate in Social/cultural activities (e.g. run for Lebanon, help for cancer children) |

**Source:** *Developed by the researchers*

HC has many advantages. In addition, Yusuf (2013) pointed out that the main aim of any company is to increase the shareholders' value by an appropriate investment in capital. He figures out that the efficient use of HC lead to some successful financial benefits. Therefore, one

of the important advantages of HC is its effect on financial performance that will be discussed in the next section.

## The Effect of HC on Financial Performance

The effect of HC on the financial performance has become a very important issue for success, progress and the evolution of any organization. The relationship between HC and financial performance has been studied since the early 1990. The finding of these results can be classified in three categories:

**1.** Studies that revealed a significant positive relationship between HC and financial performance: (Goh 2005; Makki et al. 2008; Gan & Saleh 2008; Ting & Lean 2009; Phusavant et al. 2011; Curado et al., 2011; Mondal & Gosh 2012; Maaloul & Zéghal,2015; Melloni, 2015)

**2.** Studies that show a direct positive relationship between HC and financial performance: (Youndt & Snell, 2004; Mention & Bontis, 2013; Guthrie & Petty, 2000; Bontis et al., 2000; Rudez & Mihalic, 2007; Cabrita & Bontis, 2008; Segal et al., 2009; Clarke et al., 2010; Gharoie, 2011; Lin et al, 2012; lee et al., 2012; Al nachef &Al hajjar, 2015). Clarke et al., (2010), indicate that a direct relationship exist between HC & firm financial performance. Firms enhance their employees' knowledge and skills in order to get investing benefits. Therefore, results indicate that making enhancement in the HC enhance firms financial performance and provide greater innovativeness since HC has big impact over firm financial performance. Parham & Heling, (2015) investigate in Dutch production companies the impact of HC on the financial performance. The results of the study show that there is positive relationship between HC and corporate performance measured by Return on Total Assets (ROA) and Return on Equity (ROE).

**3.** Studies that revealed an indirect relation between HC and performance (Wang and Chang, 2005; Miller et al., 1999; Bontis et al., 2000; Mouritsen & Murthy, 2011) by mediating many factors such as: Relational capital and Information Technologies. According to Miller et al., (1999) and Mouritsen & Murthy, (2011), HC influence the organizational capital (process capital and innovation), which affects also the relational capital that will operates to financial performance.

Moreover, Wang & Chang (2005) found that there is not any direct impact between HC and performance; this relationship is correlated by the other IC elements. Consistent studies of Huang and Hsueh, (2007) and Hsu & wang, (2010) assert that the joined effect of HC and relational capital sturdily influence the firm performance and develops the learning capability of the company as training and the employee level of education. Wang & Chen (2013) show that the main HR practices that facilitate the innovation capability of a firm and support social and organizational capital are such as knowledge, teamwork, employee training, skills, compensation and employee participation.

In summary, regardless to the direct or indirect relationship between HC and financial performance, the effect of HC on the financial performance has become a very important issue for the progress and development of any organization regardless the sector, the next section will focus on knowledge-based organizations such as banks in particular.

## The Effect of HC on Financial Performance in the Banking Sector

Several empirical studies (Goh, 2005; Mavridis, 2005; Kamal et al., 2012; Mondal & Gosh, 2012; Mention & Bontis, 2013) examine the interaction between banks financial performance and IC through the consideration of HC. The results indicate that IC is a strong estimator of a bank's financial performance. Consistent with Ahuja & Ahuja (2012), successful banks are more likely with better IC performance.

Measuring the financial performance through IC, will permit to understand how HC affect the banking's financial performance. (Shamsudin & Yian, 2013). With the best knowledge of the researchers, there are rare research in the banking sector that have tried to examine the relationship between HC and financial performance, from these researches some find negative relationship and others have positive relationship.

Goh (2005) shows in his study, which is conducted on both domestic and foreign banks in Malaysia for a period 2001 till 2003, that investment in HC will contribute higher return on investment than over other component of IC. Mavridis (2005) examined in Greek banking sector, the impact of physical capital and HC on a non-traditional measure the value added. Analysis shows a strong significant positive relationship between value added and both physical capital and HC, although, Mohiuddin et al. (2006) revealed consistent results, conducted in commercial banks in Bangladesh.

Mondal & Gosh (2012) examine for a period of 1999 to 2008 the relationship between IC and financial performance in Indian banks. Findings indicate that investing in HC enhance the bank financial performance. Kamal et al. (2012) test the relationship between commercial banks performance from the traditional accounting-based perspective and the level of capital employed, HC, and structural capital using return on assets (ROA) and return on equity (ROE). Results indicate a significance impact of value added capital employed, value added HC on commercial banks financial performance. Mention & Bontis (2013) revealed that from 200 banking institutions examined in Luxembourg and Belgium, HC affect directly and indirectly the financial performance of the business.

Conversely, contradictory results were indicated by Puntillo (2009), the overall results revealed that the relationship of the return on investments (ROI) and return on assets (ROA) as dependent variables for the business performance of Italian banks for three-years period 2005-2007 is insignificant with the variations of HC efficiency value . Similar results, in Malaysia, were found by Shamsudin & Yian (2013), negative significant relationship exist between ROA and ROE for local commercial banks and HC efficiency.

Worlu & Onyinyech (2016) find that the impact of HC on financial performance is insignificant also. As the Bank employees have not been well developed intellectually and sufficiently motivated as to make significant impact on the profitability of banks.

Finally, many of these studies revealed a positive relation, which provide an incentive to present the research to study the effect of HC disclosure on the banks financial performance in the Lebanese context, in order to explore the relation between HC disclosure and the LCB performance.

Therefore, with the intention to specify the relationship between HC and financial performance in the LCB, the following hypothesis from the above-mentioned analyses are:

*H1. The level of HC disclosure has a positive significant effect on the financial performance of the LCB.*

## METHODOLOGY

The aim of this research shows the extent of the HC disclosures in the LCB, and the relationship between the HC disclosure and the financial performance of the LCB. Therefore the design conducted in this research will try to answer the research question and test the hypothesis empirically.

## Population and Sample

The population consists of 53 Lebanese commercial. Lebanon has been considered for long as a trustworthy center for banking activities in the Middle East and North Africa ("MENA") region. The Lebanese banking sector is stable and remains one of the main supports of the country's economy. The strength and the flexibility of the banking system allowed Lebanon to spread financial stability (ABL, Association of Banks in Lebanon, 2018).

From the 53 LCB, 20 banks are eliminated because it does not disclose HC information. 17 banks are also excluded because the values in the annual reports are not disclosed in the Lebanese currency. Therefore, the final number of the sample was 16. The sample will be taken for the period from 2015 till 2017 which resulted in a final sample of 48 bank/year observations.

**Table 2**
**CRITERIA OF SELECTING THE SAMPLE**

| | Total number |
|---|---|
| LCB | 53 |
| **Criteria:** | |
| LCB that doesn't disclose HC information | (20) |
| LCB that doesn't disclosed in the Lebanese currency | (17) |
| = Sample chosen | 16 |

**Source:** *developed by the researchers*

## Data Collection

Data will be gathered directly from the annual reports of the sample which is 48 bank/year Lebanese commercial bank from 2015 till 2017.

## Variables Measurements

### Dependent variables: Financial performance

Financial performance is defined as the extent for a period of time to which a company financial health is calculated. (Naz et al., 2016)

Many related studies measured financial performance by using many ratios such as Return on assets, return on equity, earnings per share. In banks, the most widespread measure of financial performance mainly used by different studies is the Return on Assets (ROA) and Return on Equity (ROE).

In this study the bank financial performance will be measured through Return on assets (ROA) compatible with many studies such as (Coskun, 2007; Li, Pike & Haniffa, 2008; Kiong et al., 2009; Ozkan et al., 2016). Consistent with many studies (Taliyang et al., 2011; Shamsudin & Yian, 2013; Meressa, 2016), ROA is measured by the following formula: ROA= pre-tax net income/Total assets.

### Independent variables: The level of HC disclosure

A content analysis will be used in this study using the HC index developed by the researchers from the most related, in order to measure the extent of HC disclosure in the

LCB.This technique used in many previous research (as Guthrie & Petty, 2000; April et al., 2003; Goh & Lim, 2004; Guthrie et al., 2006; Abeysekera & Guthrie, 2005; Abeysekera, 2008)

To determine the disclosure practices of HC information, HC Index developed by the researcher was applied to the annual reports of the sample. The annual report of each bank was widely studied to assess HC disclosure practices, through the content analysis.

In addition, to score the level of HC base on the HC disclosure index, 1 is given as score for the item disclosed in the annual report and zero if not. A disclosure score was calculated by dividing the actual number of items disclosed by the maximum number of items that could be disclosed by the bank (which are 10 items). Appendix-A shows the total scoring of HC indicators for the annual reports of 2015 to 2017.

## RESULTS AND DISCUSSION

### Descriptive Statistics

A descriptive statistics analysis is used showing the mean, the standard deviation, min and max for each dependent variables and independent variables.

**Table 3**
**DESCRIPTIVE STATISTICS**

**Panel A: Variables distributions**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| HC disclosure in 2015 | 16 | 3 | 10 | 8.06 | 2.235 |
| HC disclosure in 2016 | 16 | 5 | 10 | 8.31 | 1.580 |
| HC disclosure in 2017 | 16 | 7 | 10 | 8.94 | 1.124 |
| HC disclosure | 48 | 3 | 10 | 8.44 | 1.712 |
| ROA | 48 | 0.47 | 3.5 | 1.32 | 0.724 |

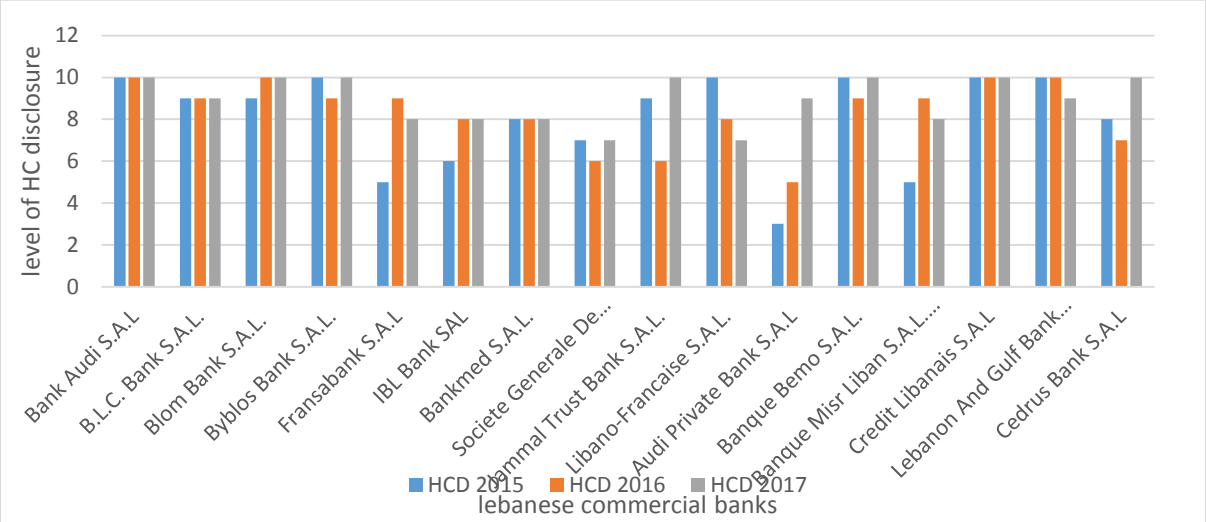


**FIGURE 1**
**COMPARATIVE DESCRIPTIVE STATISTICS OF HUMAN CAPITAL DISCLOSURE (HCD) FOR 2015 TILL 2017 FOR THE SAMPLE**

Panel A of Table 3 presents the distribution of the variables to identify the mean, standards deviation, minimum, and the maximum of HC disclosures. Results indicate that level of HC disclosures of the sample has a max of 10 and minimum of 3 indicators. The dispersion (the standard deviation) is in the medium level (1.712) this indicates small differences exist between banks as shown in the Figure 1 and this difference is might due to ranking of the bank, size, number of customer, assets value**.**

In addition, a 10- items index was developed to measure the level of HC disclosure, the results of the content analysis show that the extent of human capital disclosure is increasing over time. Results indicate that the average total HC disclosures increased from 129 (80.63%) in 2015 to 133 (83.13%) in 2016 to 143 (89.38%) in 2017. The mean of HC disclosure increase in 2015 from 8.06 to 8.31 in 2016 and 8.94 in 2017. This increasing indicates that the LCB are interested in disclosure of HC items. (See **Appendix-A**)

The examination of the disclosures of HC elements, as shown in the **Appendix-B**, reveals that the highest items disclosed in 2015 form the HC indicators are: "*Employee creativity and innovation (abilities, capabilities); Employee attitudes principles and commitments*", and the lowest are "*Work related and entrepreneurial skills*". In 2016, the highest indicators are the "employee knowledge, Training, Experience", and the lowest are: "*Employee Satisfaction and Motivation*". In 2017, the highest frequency of indicators: salaries, Training, skills, experience and the indicators with less frequency are: Employee attitudes principles and commitments, Employee behavior (moral values- human values).

Attempting to compare the change in the level of HC disclosed between the consecutive years, Freidman test is conducted.

**Table 4**
**FREIDMAN TEST**

| Ranks | | **Test Statistics[a]** | |
|---|---|---|---|
| | Mean Rank | | |
| HCD2015 | 1.81 | Chi-Square | 1.762 |
| HCD2016 | 2.03 | df | 2 |
| HCD2017 | 2.16 | Asymp. Sig. | 0.414 |
| a. Friedman Test | | | |

**Table 5**
**WILCOXON SIGNED RANKS TEST**

| **Panel A**-Ranks HCD 2015-2016 | | | | | | |
|---|---|---|---|---|---|---|
| | | | **HCD2016 - HCD2015** | **Sum of Ranks** | **Test Statistics[a]** | **HCD2016 - HCD2015** |
| HCD2016 - HCD2015 | Negative Ranks | 6 | 4.67 | 28.00 | Z | -0.450[b] |
| | Positive Ranks | 5 | 7.60 | 38.00 | Asymp. Sig. (2-tailed) | 0.653 |
| | Ties | 5[c] | | | | |
| | Total | 16 | | | | |
| a. HCD2016 < HCD2015 | | a. Wilcoxon Signed Ranks Test | | | | |
| b. HCD2016 > HCD2015 | | b. Based on negative ranks. | | | | |
| c. HCD2016 = HCD2015 | | | | | | |
| **Panel B**-Ranks HCD 2017-2016 | | | | | | |
| | | **N** | **Mean Rank** | **Sum of Ranks** | **Test Statistics[a]** | **HCD2017 - HCD2016** |
| HCD2017 - | Negative | 4[a] | 4.00 | 16.00 | Z | -1.218[b] |

**Table 5**
**WILCOXON SIGNED RANKS TEST**

| | | | | | | |
|---|---|---|---|---|---|---|
| HCD2016 | Ranks | | | | | |
| | Positive Ranks | 6[b] | 6.50 | 39.00 | Asymp. Sig. (2-tailed) | .223 |
| | Ties | 6[c] | | | | |
| | Total | 16 | | | | |
| a. HCD2017 < HCD2016 | | | a. Wilcoxon Signed Ranks Test | | | |
| b. HCD2017 > HCD2016 | | | b. Based on negative ranks. | | | |
| c. HCD2017 = HCD2016 | | | | | | |

Tables 4 and 5 reveals that the result of Freidman test and Wilcoxon Signed Ranks Test, which shows an insignificant difference (Chi-Square=1.762, *p-value* =0.414) through the 3 years.

In addition, Correlation analysis is conducted through Pearson's correlation coefficient. It's used to measure the strength of the relation between the level of HC disclosure as independent variable and return on assets as dependent variable.

**Table 6**
**PEARSON CORRELATION COEFFICIENT FOR THE MODEL VARIABLES**

**Panel A: Correlations between HC disclosure and financial performance**

| | | HCD | ROA |
|---|---|---|---|
| HCD | Pearson Correlation | 1 | **-0.085** |
| | Sig. (2-tailed) | | 0.568 |
| ROA | Pearson Correlation | -0.085 | 1 |
| | Sig. (2-tailed) | 0.568 | |

**Panel B: Correlations between HC indicators and financial performance**

**Correlations**

| | | **HC1** | **HC2** | **HC3** | **HC4** | **HC5** | **HC6** | **HC7** | **HC8** | **HC9** | **HC10** | **ROA** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HC1 | Pearson Correlation | 1 | 0.918 | 0.976 | 0.918 | 0.918 | 0.397 | -0.386 | 0.500 | -0.636 | -0.803 | 0.791 |
| | Sig. (2-tailed) | | 0.260 | 0.139 | 0.260 | 0.260 | 0.740 | 0.748 | 0.667 | 0.561 | 0.407 | 0.419 |
| HC2 | Pearson Correlation | 0.918 | 1 | 0.982 | 1.000** | 1.000** | 0.000 | -0.721 | 0.115 | -0.277 | -0.500 | 0.483 |
| | Sig. (2-tailed) | 0.260 | | 0.121 | 0.000 | 0.000 | 1.000 | 0.488 | 0.927 | 0.821 | 0.667 | 0.679 |
| HC3 | Pearson Correlation | 0.976 | 0.982 | 1 | 0.982 | 0.982 | 0.189 | -0.577 | 0.300 | -0.454 | -0.655 | 0.640 |
| | Sig. (2-tailed) | 0.139 | 0.121 | | 0.121 | 0.121 | 0.879 | 0.609 | 0.806 | 0.700 | 0.546 | 0.558 |
| HC4 | Pearson Correlation | 0.918 | 1.000** | 0.982 | 1 | 1.000** | 0.000 | -0.721 | 0.115 | -0.277 | -0.500 | 0.483 |
| | Sig. (2-tailed) | 0.260 | 0.000 | 0.121 | | 0.000 | 1.000 | 0.488 | 0.927 | 0.821 | 0.667 | 0.679 |
| HC5 | Pearson Correlation | 0.918 | 1.000** | 0.982 | 1.000** | 1 | 0.000 | -0.721 | 0.115 | -0.277 | -0.500 | 0.483 |
| | Sig. (2-tailed) | 0.260 | 0.000 | 0.121 | 0.000 | | 1.000 | 0.488 | 0.927 | 0.821 | 0.667 | 0.679 |
| HC6 | Pearson Correlation | 0.397 | 0.000 | 0.189 | 0.000 | 0.000 | 1 | 0.693 | 0.993 | -0.961 | -0.866 | 0.876 |
| | Sig. (2-tailed) | 0.740 | 1.000 | 0.879 | 1.000 | 1.000 | | 0.512 | 0.073 | 0.179 | 0.333 | 0.321 |
| HC7 | Pearson Correlation | -0.386 | -0.721 | -0.577 | -0.721 | -0.721 | 0.693 | 1 | 0.606 | -0.466 | -0.240 | 0.259 |
| | Sig. (2-tailed) | 0.748 | 0.488 | 0.609 | 0.488 | 0.488 | 0.512 | | 0.585 | 0.691 | 0.846 | 0.833 |
| HC8 | Pearson Correlation | 0.500 | 0.115 | 0.300 | 0.115 | 0.115 | 0.993 | 0.606 | 1 | -0.986 | -0.918 | 0.925 |
| | Sig. (2-tailed) | 0.667 | 0.927 | 0.806 | 0.927 | 0.927 | 0.073 | 0.585 | | 0.106 | 0.260 | 0.248 |
| HC9 | Pearson | -0.636 | -0.277 | -0.454 | -0.277 | -0.277 | -0.961 | -0.466 | -0.986 | 1 | 0.971 | -0.975 |

**Table 6**
**PEARSON CORRELATION COEFFICIENT FOR THE MODEL VARIABLES**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Correlation | | | | | | | | | | | |
| | Sig. (2-tailed) | 0.561 | 0.821 | 0.700 | 0.821 | 0.821 | 0.179 | 0.691 | 0.106 | | 0.154 | 0.142 |
| HC10 | Pearson Correlation | -0.803 | -0.500 | -0.655 | -0.500 | -0.500 | -0.866 | -0.240 | -0.918 | 0.971 | 1 | -1.000* |
| | Sig. (2-tailed) | 0.407 | 0.667 | 0.546 | 0.667 | 0.667 | 0.333 | 0.846 | 0.260 | 0.154 | | 0.012 |
| ROA | Pearson Correlation | 0.791 | 0.483 | 0.640 | 0.483 | 0.483 | 0.876 | 0.259 | 0.925 | -0.975 | -1.000* | 1 |
| | Sig. (2-tailed) | 0.419 | 0.679 | 0.558 | 0.679 | 0.679 | 0.321 | 0.833 | 0.248 | 0.142 | 0.012 | |
| | | | | | | | | | | | | 48 |

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

*. Correlation is significant at the 0.05 level (2-tailed).

The correlation test results indicate that Pearson Correlation coefficient is r= -0.085and the *p-value* =0.568. This value is low and negative which indicate an insignificant negative weak relation between the level of HC and the financial performance of the LCB. Thus an inverse relation exists. Accordingly, hypothesis H1 is rejected.

Panel -B show the correlation between each HC indicator and the financial performance. Results reveal that HC indicators are correlated with the financial performance of the Lebanese commercial bank except for: Employee attitudes principles and commitments; Employee behavior (moral values- human values).

**Multi Regression Analysis**

In order to find out what are the determinants that affect the financial performance in the LCB and if HC disclosure is one of the determinant affecting the financial performance of the bank a multi regression analysis is conducted.

Therefore, the determinants of financial performance in the LCB will be tested through the following regression model:

$$ROA=\alpha+\beta1\ HC\ disclosure+\beta2size+\beta3leverage+\beta4liquidity+\beta5age+\varepsilon$$

Where, α=Regression intercept.
βi=The regression coefficients i=1-5.
ε=Error term of the regression.
Each variable will be measured as follows:

**Financial performance:** It is measured by using Return on Assets (ROA), through the formula: ROA=Net income over the total assets. ROA measure the bank efficiency in using its total assets. It's an indicator of the bank profitability and performance. (Dammak et al., 2008; Ousama et al., 2012; Shamsdin and Yian, 2013).

**HC disclosure:** The level of HC disclosure is measured through a content analysis. A scoring of 1 is given for indicators disclosed in the annual report and zero if not.

**Size:** will be measured by natural logarithm of the bank total assets .Due to the mitigating heteroscedasticity problem and the varied values total assets were changed to natural logarithm.

**Leverage:** In line with the earlier studies, many studies as (Brammer and Pavelin, 2006; Fernando and Ariovaldo, 2010; Mondal and Ghosh, 2014). Leverage (LEV) is calculated by total liabilities divided by the book value of the total assets.

**Liquidity:** Liquidity is defined as the ability of the bank to meet its obligations and to finance any increase in assets, without incurring unacceptable losses (BCBS, 2008). Bank liquidity is measured by liquidity ratios based on accounting data such as Liquidity Coverage Ratio= liquid assets by its total net cash flows **(**Basel III, 2011) Or liquid assets to total assets or total loans to total deposits (Moore, 2010; Vodova, 2011). In this study, liquidity is calculated by this formula: liquid assets over total assets.

**Age:** Age (AGE) is calculated by time since the date of establishment following many studies (Mondal & Ghosh, 2014; Meressa, 2016).

**Table 7**
**STATISTICAL REGRESSION**

| **Variables** | ***Coefficient*** | ***t-test*** | ***Sig. (p- value)*** |
|---|---|---|---|
| (Constant) | 4.050 | 3.865 | |
| HCD | -0.019 | -0.328 | 0.744 |
| SIZE | -0.044 | -1.796 | 0.117 |
| LEV | -0.013 | -2.075 | 0.043 |
| Liquidity | -0.007 | -0.641 | 0.525 |
| Age | -0.003 | -1.110 | 0.273 |
| $R^2$ 0.183 | | | |
| Adjusted $R^2$ 0.086 | | | |
| N 48 | | | |
| F 1.884 | | | |
| Durbin-Watson 1.994 | | | |
| * Correlation is significant at the 0.05 level (2-tailed). | | | |

Table 7 presents the results of the regression analysis. Results show that the coefficient of determination (represented by $R^2$) is 0.183. This means that 18.3% of the variables explain the financial performance. The adjusted R-squared value is 0.086, infer that 8.6% of the financial performance of the LCB can be poorly explained by variations in size, leverage, liquidity, age and HC. Durbin-Watson value is 1.994 which means that there is no autocorrelation problem in the sample.

Furthermore, an insignificant negative relation between bank's financial performance measured by ROA and the level of HC disclosure of the LCB, the coefficient is (B= -0.019 and p-value =0.744). The coefficient of the bank's size is B= -0.044 and p-value =0.117, that's mean an insignificant negative relation between ROA and size. Bank's leverage has significant negative impact on the LCB financial performance the coefficient value and p value are respectively (B= -0.013 and p-value = 0.043). Finally, firm's age with a coefficient (B= -0.003 and p-value =0.273) that's mean an insignificant negative relation between the age of the financial performance of the Lebanese commercial bank. Thus, results asserts that HC disclosure, size, leverage, liquidity and age are not considered as determinants that affect the financial performance in the LCB.

At the end, results are not surprising because from the 10 indicators of HC correlation, 2 of the indicators:" Employee attitudes principles and Commitments (loyal); Employee behavior (moral values- human values)" revealed a high negative results (t=-0.975; t=-1.000*

respectively). This full negative significant correlation indicate that banks does not disclose properly HC indicators although banks inter in many social and cultural activities but banks does not reveal the contribution of their employees in the annual reports.

It may indicate many reasons one of them: that maybe because of non-obligatory nature of HC disclosure. In addition, some indicators will not by nature represented in the annual report as for example the percentage of the employees are proud of being a member of the firm or The employees with an entrepreneurial, enthusiasm spirit that indicate the commitment and the employee attitudes, thus this will need another method of collection. Consequently, removing those 2 indicators could affect and change the results.

In addition, the results of this study confirm that Lebanese commercial bank although that the level of HC disclosure increases from year to year but HC information are not properly disclosed.

## CONCLUSION AND RECOMMENDATIONS

These papers figures out the level of HC disclosure in the LCB and explore what is the relation between the disclosure of HC and the performance of LCB.

Findings indicate that there is a significant negative relation between level of HC disclosure and financial performance (ROA) of the LCB. Base on this result, LCB should be encouraged and interested in disclosing properly more information concerning HC.

This study would hopefully contribute towards enriching and explaining the challenges facing the accounting profession with regard to the accounting treatment of HC which is claimed to be relative rare. In addition, this study contributes to the IC literature as it is a study which examines the level of HC disclosure in the LCB using HC index.

Also, this study could be of interest for standard setters and regulatory accounting bodies that have not yet developed an adequate HC reporting standards and measurement method. It will be resourceful to the policy makers in the commercial banks, because it will enhance the existing policies and increase their effectiveness in attempt to have better HC disclosure and financial performance.

Furthermore, there are limitations from the accounting perspective concerning the financial information when specifying the HC index, especially that there is no standard concerning measuring and reporting HC. Moreover, many of the studies are conducted in developed companies, but this study is conducted in non-developed although that it’s on banking sector.

Finally, this study draws attention to avenues for future research. This study do not consider corporate governance attributes (e.g. board independence, board diversity) that may influence profitability if those variables are added in the future study, results could be change. Also, new studies could be conducted in MENA regarding measuring and reporting HC and in larger sample for more than three years.

The study recommends that LCB shell put more attention on the employees in order to be more developed, well trained, more educated and motivated enough to make a significant impact on the performance of the banks. It’s recommended that the bank's HC management use the HC index developed by the researchers. It will be very helpful because it will add new value for the banking sector.

# APPENDICES

**Appendix A**
**TOTAL SCORING OF HC INDICATORS FOR THE ANNUAL REPORTS OF 2015, 2016 AND 2017**

| | | 2015 | | 2016 | | 2017 | |
|---|---|---|---|---|---|---|---|
| | **Banks name** | **Human capital** | **%** | **Human capital** | **%** | **Human capital** | **%** |
| 1. | Bank Audi S.A.L | 10 | 100 | 10 | 100 | 10 | 100 |
| 2. | B.L.C. Bank S.A.L. | 9 | 90 | 9 | 90 | 9 | 90 |
| 3. | Blom Bank S.A.L. | 9 | 90 | 10 | 100 | 10 | 100 |
| 4. | Byblos Bank S.A.L. | 10 | 100 | 9 | 90 | 10 | 100 |
| 5. | Fransabank S.A.L | 5 | 50 | 9 | 90 | 8 | 80 |
| 6. | IBL Bank SAL | 6 | 60 | 8 | 80 | 8 | 80 |
| 7. | Bankmed S.A.L. | 8 | 80 | 8 | 80 | 8 | 80 |
| 8. | Societe Generale De Banque Au Liban S.A.L. (SGBL) | 7 | 70 | 6 | 60 | 7 | 70 |
| 9. | Jammal Trust Bank S.A.L. | 9 | 90 | 6 | 60 | 10 | 100 |
| 10. | Libano-Francaise S.A.L. | 10 | 100 | 8 | 80 | 7 | 70 |
| 11. | Audi Private Bank S.A.L | 3 | 30 | 5 | 50 | 9 | 90 |
| 12. | Banque Bemo S.A.L. | 10 | 100 | 9 | 90 | 10 | 100 |
| 13. | Banque Misr Liban S.A.L. (BML ) | 5 | 50 | 9 | 90 | 8 | 80 |
| 14. | Credit Libanais S.A.L | 10 | 100 | 10 | 100 | 10 | 100 |
| 15. | Lebanon And Gulf Bank S.A.L | 10 | 100 | 10 | 100 | 9 | 90 |
| 16. | Cedrus Bank S.A.L | 8 | 80 | 7 | 70 | 10 | 100 |
| | Total | 129 | 80.63 | 133 | 83.13 | 143 | 89.38 |

**Source:** developed by the researchers

**Appendix B**
**STATISTICS OF HC INDICATORS FOR 2015 TO 2017**

| HC indicators/ Years | **HC1 Salaries and wages** | **HC2 Employee knowledge (Know-how)** | **HC3 Work related and entrepreneurial skills** | **HC4 Training** | **HC5 Experience** | **HC6 education levels** | **HC7 Employee innovation (abilities, capabilities)** | **HC8 Employee Satisfaction And Motivation** | **HC9 Employee Attitudes principles and commitments** | **HC10 Employee Behaviour (moral values-human values)** |
|---|---|---|---|---|---|---|---|---|---|---|
| **2015** | 11 | 11 | 10 | 14 | 14 | 13 | 16 | 11 | 15 | 14 |
| **2016** | 14 | 15 | 14 | 15 | 15 | 12 | 9 | 9 | 16 | 14 |
| **2017** | 16 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 12 | 13 |

**Source:** Developed by the researchers

## ENDNOTE

1. IC has been defined by many researchers (Edvinsson and Malone,1997; Klein and Prusak, 1994; Kym and Moon, 2006; Perera and Thrikawala, 2012) as the enhanced value of a firm and an indicator of effective companies, that is attributable to assets, generally of an intangible nature, resulting from the company's organizational function, processes and information technology networks, professional knowledge and skill, education relationships, and technological capacities, experiences, training, competency and efficiency of its employees and its relationship with its customers.

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