# THE IMPACT OF INTELLECTUAL CAPITAL EFFICIENCY ON FINANCIAL PERFORMANCE AND MARKET VALUE: FINANCE SECTOR COMPANIES LISTED ON COLOMBO STOCK EXCHANGE

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### ABSTRACT

The study aims to find how efficient intellectual capital is by comparing valuations and financial performances of listed companies on the Colombo Stock Exchange. This research follows a positivist approach to understanding this issue and employs a deductive method. The study includes the commercial banking sector of all financial institutions operating within Sri Lanka. 46 companies were selected for the sample. This sample is comprised of specified numbers from twenty-six licensed financial firms, ten listed commercial banks, and one listed specialized bank. The remaining are eight listed insurance companies and one special-purpose leasing company. All of which belong to the main board of the Colombo Stock Exchange; From 2017 to 2021, secondary data from annual institutional reports were used to focus on a certain domain. That was otherwise neglected by the previous researchers and scholars. Statistical observations that can be observed through observations are such as Mean, and standard deviation to perform multivariate linear regression analysis. The output of the study is analyzed according to different criteria to make sense and draw a conclusion from it. The results indicated that the effectiveness of structural assets is less than human assets and overall assets. This study revealed that the market value of financial institutions is not affected by the intellectual capital in Sri Lanka. There is more evidence that for financial growth to happen, intellectual abilities are the prime requisite in underdeveloped countries. Research gives a clear view of how it works. While new technologies have an impact on the value of intellectual capital, there is a need to understand potential outcomes.

**Keywords:** Capital Employed Efficiency, Colombo Stock Exchange, Financial Institutions, Human Capital Efficiency, Structural Capital Efficiency, Value Added Intellectual Coefficient

### 1. Introduction

#### 1.1 Background of the study

Intellectual capital has become an essential resource for organizations in today's economy. To thrive in a dynamic and fiercely competitive market, an organization must consistently allocate resources towards enhancing the knowledge and honing the skills of its personnel. This strategic investment is crucial for long-term success. In addition, the

economy is gradually transitioning into a knowledge-based and resource-based economy, placing greater reliance and emphasis on information technology, skills, and knowledge possessed by people rather than physical assets. Many firms have become increasingly concerned about their intellectual capital (Muhammad and Ismail, 2009). Companies are urged to prioritize and dedicate more resources to enhancing the caliber of their personnel to effectively adapt to changes in the market. Intellectual capital is the collective knowledge and expertise possessed by individuals at all levels within an organization. It has emerged as a crucial resource in the contemporary economy, supplanting traditional forms of capital such as physical and financial assets. Companies that grasp the notion of intellectual capital are more likely to achieve success, as they recognize its high value. Therefore, regular upgrades will be made to their knowledge and talents to compete with others (Huffman, 2012). Put simply, effectively managing and investing intellectual capital has the potential to provide organizations with a competitive edge. The growing significance of intellectual capital in today's economy cannot be overlooked, and it is further influenced by the ASEAN Economic Community (AEC), an integration initiative within the ASEAN area that has the potential to make ASEAN nations more appealing to investors. The integration of the economy among ASEAN member nations is driven by their shared desire to expand and strengthen economic ties. This is achieved through the implementation of new and existing projects, all of which are backed by a specific timetable. Consequently, the rivalry for human resources and business would intensify significantly compared to previous circumstances.

This study aims to carry out an empirical test for the effects on a firm's financial performance and market value due to its intellectual capital (Pulic 2000). A large number of investigators have explored the connection between intellectual capital and corporate performance. Such research will attempt to examine how intellectual capital or intangibles affect the financial performance and market value of Financial listed firms in Sri Lanka. One hopes that a more encompassing idea of how intellectual capital can serve the present developing economy will arise.

### 1.2. Research Problem

While numerous studies have investigated the relationship between intellectual capital, financial performance, and market value in various global contexts, there remains a research gap focusing specifically on the finance sector companies providing services in Sri Lanka. Given Sri Lanka's status as a developing nation, an examination of the effects of intellectual capital on financial sector enterprises becomes imperative, given that these enterprises serve as the fundamental pillars of the Sri Lankan economy.

In addition, numerous studies have concentrated on investigating intellectual capital in developed countries. However, there is a scarcity of research that has examined emerging developing countries, particularly Sri Lanka, as a study to assess the impact of intellectual capital on specific industries such as financial institutions. There is a gap that needs to be addressed due to the fast-paced and dynamic nature of the business environment, characterized by innovation, information, and technology. Both developed and developing

economies are facing increasing threats from global competition, which highlights the growing significance of intellectual capital for firms in terms of sustainability and gaining a competitive edge (Muhammad and Ismail, 2009).

## 1.3. Objectives of the Study

The study used two forms as measures of profitability and employed the market-tobook value ratio to determine how much impact intellectual capital. As a result, the research has developed two subsidiary objectives.

- 1. To assess the influence of intellectual capital efficiency on a company's financially successful outcomes.
- 2. To assess the influence of intellectual capital efficiency on a company's market value.

## 1.4. Significance of the Study

This study uses the financial sector to find the impact of intellectual capital on financial performance and market valuation since the finance sector is a highly knowledge-intensive sector when considered in the Sri Lankan context. The financial sector relies heavily on intellectual capital, as it requires complex decision-making and problem-solving. By studying the financial sector, this study can gain insight into how intellectual capital affects financial performance and market valuation. Therefore, this study provides important insights into the importance of intellectual capital in the financial sector.

Additionally, it will assist management in firms across many sectors, particularly those in knowledge-based industries, in comprehending the impact of different elements of intellectual capital on their expansion. Through the process of assessing the individual contributions of various components of intellectual capital, firms may ascertain the relative significance of each component and subsequently allocate priority appropriately. This can assist them in determining the most strategic use of their resources to optimize their expansion.

## 2. Review of literature

## 2.1. Theoretical Literature Review

## 2.1.1 Stakeholder theory

The stakeholder theory prioritizes trustworthiness and transparency by adopting a comprehensive strategy towards its stakeholders. Stakeholder theory emphasizes the importance of organizational accountability, not just in terms of economic or financial performance. Therefore, the company's assets are committed to providing intellectual capital disclosures to ensure the resolution of any information asymmetry that may exist between the stakeholders and the organization.

#### 2.1.2 Resource-based theory

Many studies concerning the explanation of how intellectual capital affects a firm's performance and market value have adopted a resource-based perspective. Utilizing resources: The resource-based approach emphasizes that the resources should be unique. Unique implies valuable, rare, inimitable, and difficult to substitute so as not only to get a competitive edge but also to keep it durable. The resource-based approach places great emphasis on the way companies use such internal resources as physical assets and intellectual property in their competitive operations.

### 2.1.3 Intellectual capital and firm performance

Various types of studies have shown that there is a direct link between intellectual capital and better performance in the workplace. Joshi et al., (2013) show that the firm performance within a five-year period of 2008 through 2012 in Australia, shows an excellent correlation between financial indicators and certain parts of intellectual capital alone or together. The three factors that are human capital efficiency, structural capital efficiency, and capital employed efficiency are interrelated. They can define the overall performance of an organization. The Australian banking system and the productivity of people are significantly influenced by intellectual abilities and learning. Australian organizations usually hire employees who are highly qualified from prestigious institutes. Hence, their human capital is in a better position as compared to the structural and other capital deployed by the bank. Firer and William (2003) studied the impact of intellectual capital capital on performance. Nonetheless, research findings showed that the main important element in South Africa is capital.

The company's market value and financial performance both depend upon intellectual capital in the present as well as coming years, according to a study conducted by Chen et al. (2005). The VAIC components for which the value drivers, capital employed, human capital, and structural are measured separately according to their nature. Tan along with his colleagues conducted a study in 2007 where they examined the stock exchange data of approximately 150 companies and found out that there is a very strong positive relationship between the performances of today and tomorrow. There has been extensive use of VAIC and its components such as human capital effectiveness, structural capital efficiency, and the efficiency of capital employed to make linkages between intellectual capital and financial performance. To assess the financial performance, one needs to calculate the return on assets (ROA) and return on equity (ROE).

## 2.1.4 Intellectual capital and market value

The assertion that IC affects investment decisions has made it clear that most of the difference between a company's book value and its market value is due to its intangibles. So, because they have overlooked company IC and focused too much on just physical capital, it is difficult to quantify IC (Kaplan & Norton 2001; Ittner et al. 1998.). For standard accounting concepts that have yet to define an accepted, trustworthy measure of IC--this was a huge setback. Because of this, an information gap exists. The IC financial

reporting approach currently in use still ignores all other significant components of the latter and picks out only a few to report. Such as goodwill, R & D costs, licenses-in; patents-out, or trademarks sold outside are some examples included within this grouping. Only the financial statements of an organization are used in traditional accounting procedures to determine its book value. Subtracting liabilities from the firm's total assets gives such a figure. As a result, the most valuable invisible asset of all -organizational intellectual capital-is ignored by conservative forms of accounting (Sveiby 2001). This myopia makes the market value and book value of firms further diverge. Edvinsson and Malone (1997) define the value of intellectual capital as being equal to a firm's marketless book value. The widening gap between the market and book values of businesses has generated much interest in research on how best to measure organizations' intellectual capital, or whether such a market as an independent variable exists for quantifying the value that is created from selling things. Using modeling sales as a result of a firm's organization capital which is the sum total of net fixed assets, workforce and R & D funding Lev and Radhakrishnan (2003) created their own measure. Compared to existing assets and growth prospects, they found that the estimation of organizational capital explains much more about enterprise market values using a 250-enterprise sample. Some studies have demonstrated in an empirical way the beneficial influence of IC on a firm's MV, but there are also highly regarded scholars who found no link between the two. Chen et al. (2005), using a sample of listed companies on the Taiwan Stock Exchange, examined how IC affects MV. These results show a relatively significant positive relationship between the firm's MV and IC.

### 2.2 Empirical Literature Review

The need to measure intellectual capital in a company and its inclusion on financial statements was studied by Roslender et al. (2006). Assessment and reporting on a company's intellectual capital provide an original perspective for discerning its invisible value. But to take a true picture of the company's operations and market value, all must be reckoned. Therefore, it is necessary to quantify intellectual capital and appropriately apply the information contained. Many research projects have explored the effect of intellectual capital on company performance. Riahi-Belkaoui (2003) studied the connection between intellectual capital and U.S.-based multinational firms 'success is one case in point. The research sample was a total of 84 firms. This study shows a solid, healthy relationship between intellectual capital and commercial performance. In this study, we shall focus in particular on the effect of intellectual capital upon local cement industry firms' performance. Stainbank and Firer (2003) carried out a study on how the degree of intellectual property ownership is related to financial success in South African companies listed on the Johannesburg Stock Exchange. In the research, evaluations of productivity, profitability, and market value were made. When using a sample of 75 organizations, the research did not find that there was any strong correlation between the intellectual valueadded coefficient and company performance. Since the adoption of Financial Accounting Standards (SFAS) No.19 in Indonesia, Revised 2000, Intellectual Capital has played a more prominent role. Intangible assets are defined in this standard as non-financial assets that can be recognized but have no physical form. A: These assets are used to produce or distribute goods and services, rented out to third parties for use on their account, or administrative purposes. Such assets include innovation and technology; the establishment, introduction of or change to modern procedures or systems (also including patents); and licenses such as environmental protection permits so long as they didn't arise from violating any laws in the first place. Other examples are intellectual property rights, and market knowledge captured by business conducts like technical services foreign enterprises provide their local partners with these things It is an asset with a special nature that cannot be replicated easily by other enterprises. Intellectual capital is an important resource for businesses to create market value and realize financial success, allowing them both in the battle against competitors as well as from this perspective.

Through his observations on 96 Greek businesses listed on the Athens Stock Exchange (ASE), Maditinos, et al (2011). concluded that there is a strong relationship between human capital and financial performance. This study revolves around how Ulum et al. (2008) studied Indonesian banks from 2004 to 2006. This study indicates that the company's intellectual abilities have a strong influence on its financial gains. Banks listed on the Dhaka Stock Exchange were studied by Najibullah (2005) to find a potential link that exists between financial performance and intellectual capital. Through the study, we were able to find out about the important relationship between performance, market value, and organizational capital. According to the literature, multiple research support that there is a strong positive relationship between intellectual capital and a company's performance or market value. However, additional researchers show contradictory results, but some studies suggest negative associations. However, a few types of research have claimed that there's no link between firm success and intellectual perspectives. The purpose of this task is to correct mistakes in the previously penned documents.

### 3. Methodology

The research approach will determine the overall methodology used to collect and analyze data. Sample selection will outline the selection criteria for research participants. The data collection method will explain the techniques employed to collect the data. The theoretical background will provide the context for the research. The variables used in the research will be determined by the variable definition. The conceptual framework will provide the theoretical framework for the research. The hypotheses will identify the research questions to be answered. The model formulation will explain how research data is used to develop a model.

## 3.1. Sample, Data, and Data Collection

In this study, a population is defined as all of Sri Lanka's financial institutions. Fortysix enterprises were selected in the sample size. The sample consists of the twenty six licensed financial firms, ten listed commercial banks, one listed specialized bank, eight listed insurance companies, and one listed special purpose leasing company all of which are on the main board of the Colombo Stock Exchange. These are firms directly connected with the financial sector. The data span the years 2017-2021. Secondary data collection relies on the annual reports of those institutions, which have not been covered by many researchers before.

### 3.2. Conceptual Framework



Figure No 1: Conceptual Framework

Source: Author Compiled

## 3.3. The Development of Hypotheses

H1 : The value-added intellectual coefficient (VAIC) substantially influences financial performance, as quantified by Return on Equity (ROE).

H1a: Capital-employed-efficiency (CEE) substantially influences financial performance, as quantified by Return on Equity (ROE).

- H1b: Human capital efficiency (HCE) substantially influences financial performance, as quantified by Return on Equity (ROE).
- H1c: Structural-capital efficiency (SCE) substantially influences financial performance,
- as quantified by Return on Equity (ROE).
- H2 : Value-added intellectual coefficient (VAIC) substantially influences financial performance, as quantified by Return on Assets (ROA).

H2a: Capital-employed-efficiency (CEE) substantially influences financial performance, as quantified by Return on Assets (ROA).

- H2b: Human capital efficiency (HCE) substantially influences financial performance, as quantified by Return on Assets (ROA).
- H2c: Structural-capital efficiency (SCE) substantially influences financial performance,
- as quantified by Return on Assets (ROA).

- H3 : Value-added intellectual coefficient (VAIC) substantially influences Market to Book value (M/B).
- H3a: Capital-employed-efficiency (CEE) substantially influences Market to Book value (M/B).

H3b : Human-capital-efficiency (HCE) substantially influences Market to Book value (M/B).

H3c : Structural-capital-efficiency (SCE) substantially influences Market to Book value (M/B).

### 3.4. Operationalization

Stens	Label	Formula	Description	Citation
1	Value Added (VA)	VA = OUT-IN	OUT = Revenues encompass the total income generated from the sale of all items and services in the market. IN= All operational expenditures of a corporation, excluding human charges that are not included as expenses.	Pulic (1998,2004)
2	Human Capital Efficiency (HCE)	HCE= VA/HC	HC = Aggregate expenditure on personnel salaries and compensation	Pulic (1998,2004)
3	Structural Capital Efficiency (SCE)	SCE = SC/VA	SC = VA-HC VA = OP + EC + D + A	Pulic (1998,2004)
4	Intellectual Capital Efficiency (ICE)	ICE =HCE +SCE	Human Capital Efficiency with Structural Capital Efficiency add up to what is known as Intellectual Capital Efficiency.	Pulic (1998,2004)
5	Capital Employed Efficiency (CEE)	CEE = VA/CA	CA = net asset book value	Pulic (1998,2004)
6	Value Added Intellectual Coefficient (VAIC)	VAIC=CEE+HC E+SCE	Value Added Intellectual Coefficient is the total of all components of intellectual capital.	Pulic (1998,2004)

## Table No 1: Operationalization

Source: Author Compiled

#### 3.5 Analysis of Data

In order to analyze how efficient use of Intellectual Capital affects a company's financial performance and market value, the following regression models are used.

2
4
6

#### 4. Results and discussion

The descriptive statistics for 230 observations, with three dependent variables and four independent variables are presented in Table 2. VAIC and HCE deviate further from the mean values of 1.8526 and 1.6750, respectively. The respective range values for VAIC and HCE are 7.2232 (range:7.8555-063, or 1% to -4%) and 6.6013; that is, the ranges of both percentage levels lie within a very small band from  $\pm 1$ % to -4%. The return on assets (ROA) is the one with the least departure from its mean value of 0.0267 and shows the lowest level of dispersion in distribution as measured by range: Its minimum was 0. The maximum minimum value for VAIC is 0.6323, and the minimizer smallest change occurs in SCE at -0. The VAIC has the biggest maximum, at 7.855; while on the opposite extreme, the ROA shows a low of 0.0866 as its largest figure in that same category.

	ROE	ROA	MB	VAIC	CEE	HCE	SCE
Mean	0.1007	0.0172	1.4227	4.1674	0.0601	3.3936	0.6433
Std. Dev.	0.1148	0.0267	0.8213	1.8526	0.0339	1.6751	0.2434
Min	-0.1759	-0.0369	0.2905	0.6323	0.0106	0.1770	-0.0367
Max	0.2993	0.0866	3.3801	7.855	0.1382	6.7783	0.9218
Skewness	-0.5063	0.5147	0.8445	0.8758	0.6689	0.1333	-1.5817
Kurtosis	3.2348	4.1953	3.1468	2.5703	2.5703	2.5933	4.8148

Table No 2: Descriptive Statistics

Source: Author Compiled

Table 2 demonstrates that an absolute skew value over 2 indicates a significant deviation from normalcy. Hence, to guarantee the normality of the obtained data, the skewness value should not surpass  $\pm 2$ . Kurtosis quantifies the degree of peakedness in a distribution. The kurtosis value should not exceed 5. A data collection is considered to be properly distributed if its kurtosis value is below 5.

Variables	ROE	ROA	MB	VIC	CEE	HCE	SCE
ROE	1.0000						
ROA	0.8356	1.0000					
MB	0.0054	-0.0436	1.0000				
VAIC	0.6828	0.6078	0.1260	1.0000			
CEE	0.4660	0.6537	-0.0780	0.4083	1.0000		
HCE	0.7357	0.6593	0.1552	0.9418	0.4506	1.0000	
SCE	0.5985	0.4997	0.2001	0.8131	0.2311	0.7412	1.0000

**Table No 3: Pairwise Correlation Matrix** 

Source: Author Compiled

The correlation coefficient measures the relationship between two variables. Correlation occurs when an independent variable and its dependent variable change in the same way as one another when one variable's value changes. The correlation matrix between variables is shown in Table 3. By excluding the correlation between CEE and MB, the results of Table 2 demonstrate that VAIC is significantly and positively related to ROE, ROA, and MB in all four models. These results are supported by the figures below from which we can see that there is no correlation problem with explanatory variables (CEE/HCE = 0.4506, CEE/SCE = 0.2311 and HCE/SCE= 0.7412).

### 4.1 Empirical Results of Multiple Regression

In Model 1, we examine the impact of return on equity of total VAIC. The statistical significance of VAIC is extremely high (P = 0.0), and it has a highly significant impact upon ROE. With an overall R2 of 0.467, this means that some 46 % of the variation in ROE can be accounted for by this measure alone. This study established that VAIC is strongly and positively correlated with ROE (coefficient = 0. 0367, p-value = 94 .2 has a very small probability of correlating by chance or coincidence) so firms with high value added in capital are highly likely to have a high return on equity. In conclusion, it is reasonable to say that Hypothesis 1 has been accepted.

How does the aggregate measure of intellectual capital (VAIC) affect return on assets? The VAIC is highly dependent on the ROA, as Table 4's regression result indicates (p = 0.0 %). In the model, based on its R2 of 0.3695, we would say that variation in ROA accounts for as much as 37 % of all variance in VAIC. See the following Table 4 in which it can be seen that VAIC has a prominent and positive impact on ROA (coefficient = 0.072, p-value = 0), As a result, Hypotheses H2 can be accepted. They also found that the combined measure of Intellectual capital (VAIC) only has an insignificant relationship to MB and its significance value is 0.455 (p > 1). That means higher VAIC does not affect market values. The overall R2 of 0.0159 tells us that model's VAIC accounts for only 1.6 % of the variation in MB, while Model 5 shows an F-statistic value of p= ().45 which indicates no significant impact from being a member at this time this finding not rejecting Hypotheses H3.

Variables	Model 1	Model 3	Model 5
Coefficient	0.0367	0.0072	-0.0257
Robust Std. Err	0.0069	0.0018	0.0343
VAIC (P-value)	0.0006	0.0000	0.455
R <sup>2</sup>	0.4662	0.3695	0.0159
Z	5.26	4.01	-0.75
Wald chi <sup>2</sup> (1)	27.63	16.07	0.56

Table No 4: The result of multiple regression of VAIC as the independent variableand ROE, ROA, and MB as dependent variables

Source: Author Compiled

Model 2 examines how CEE, HCE, and SCE affect Return on Equity. However, the F score for Model 2 is high (F =86.49, p=0), so it still seems that CEE and HCE have some bearing on ROE as well. Taking the regression model as a whole, with an R-square value of 0.5691 and three independent variables (CEE, HCE, and SCE), these accounted for 56. This model has the CEE (with a coefficient of 0.797 and p-value = 0.021) as well as HCE with (coefficient = 0.0357, p-value = 0.000) Both for SCE itself, and there is no statistically significant connection between it the term ROE). Concerning this coefficient value, it's 0. 0389 and the p-value has a significance of greater than 5 %. It can be inferred from these figures that hypotheses H1a and H2b are accepted and hypothesis H3c is rejected.

ROE	Coef.	Robust Std.	Z	P> z	[95% Conf. Interval]		
<b>Model - 02</b>		Err.					
CEE	0.7977	0.2956	2.70	0.007	0.2181	1.3773	
HCE	0.0357	0.0081	4.36	0.000	0.0196	0.0517	
SCE	0.0389	0.0325	1.20	0.231	-0.0247	0.1027	
_cons	-0.0939	0.02171	-4.33	0.000	-0.1365	-0.0514	
Wald $chi^2(1)$		86.49					
$Prob > chi^2$		0.0000					
R <sup>2</sup>		0.5691					

Table No 5: The result of multiple regression of components of VAIC as theindependent variables and ROE as the dependent variable

Source: Author Compiled

From the data presented in Table 6, it seems that CEE does indeed have a significant and positive effect on financial industry firms' Return on Assets (ROA). The return on assets (ROA) depends very much on human capital efficiency HCE, with a statistically significant effect (p = 0.000, b = 0.0059). The effect of SCE on ROE is not significant (p = 0.646, b = 0.092). At 0.5966, the R-squared value of the model tells us that these three components (CEE, HCE, and SCE) account for the roundly tangible portion of Return on

Equity (ROE). The other 40.34 % of ROE could be influenced by various factors. So, we accept Hypotheses H2a and H2b, rejecting hypothesis H2c.

ROA	Coef.	Robust Std.	Z	P> z	[95% Conf. Interval]		
Model - 04		Err.			-	-	
CEE	0.3407	0.0709	4.80	0.000	0.2016	0.4799	
HCE	0.0059	0.0016	3.60	0.000	0.0027	0.0092	
SCE	0.0029	0.0064	0.46	0.646	-0.0096	0.0155	
_cons	-0.0255	0.0064	-4.69	0.000	-0.0362	-0.0149	
Wald $chi^2(1)$		86.39					
$Prob > chi^2$		0.0000					
<b>R</b> <sup>2</sup>			0.:	5966			

 Table No 6: The result of multiple regression of components of VAIC as the independent variables and ROA as the dependent variable

Source: Author Compiled

The purpose of Model 6 is to evaluate the impact that different parts of intellectual capital-such as CEE, HCE, and SCE have on MB. As for the whole model F = 1.1379 (p = 0.767). Therefore, we conclude that none of these three variables has a statistically significant effect on Market To Book value With an R-squared value of 0.0256, the independent variables CEE, HCE and SCE explain only 2.56 % of MB's variation in this model which is far less than other models mentioned above. Using the above model, concerning a 95 % level of confidence, the coefficients for CCE (coefficient = 1.5993, p-value = 0.514) and HCE (coefficient = -0.0515, p-value = 0.389) are not statistically significant. showing that they are not probable causes in any case. Concerning SCE, the data show that there is no appreciable evidence (coefficient = 0.1628, p-value=0.411) of a statistical association between them in Table 7 as given below: Therefore H3a, H 3b, and H 3c are all refuted.

MB	Coef.	Robust Std. Err.	Z	P> z	[95% Conf. Interval]		
Model - 06							
CEE	1.5993	2.4516	0.65	0.514	-3.2057	6.4044	
HCE	-0.0515	0.05976	-0.86	0.389	-0.1686	0.0656	
SCE	0.16289	0.19821	0.82	0.411	-0.2255	0.5513	
_cons	1.3958	0.18003	7.75	0.000	1.0429	1.7486	
Wald $chi^2(1)$			1.14				
$Prob > chi^2$		0.7671					
$\mathbb{R}^2$		0.0256					

 Table No 7: The result of multiple regression of components of VAIC as the independent variables and MB as the dependent variable

Source: Author Compiled

## 4.2 Hypotheses Testing

Hypotheses	Description	Statistics	H1 - Results
H1	The value-added intellectual coefficient(VAIC)substantiallyinfluences financial performance, asquantified by Return on Equity (ROE).	0.000	Accepted
H1a	Capital employed efficiency (CEE) substantially influences financial performance, as quantified by Return on Equity (ROE).	0.007	Accepted
H1b	Humancapitalefficiency(HCE)substantiallyinfluencesfinancialperformance, as quantified by Return onEquity (ROE).	0.000	Accepted
H1c	Structural capital efficiency (SCE) substantially influences financial performance, as quantified by Return on Equity (ROE).	0.231	Rejected
H2	Value-added intellectual coefficient (VAIC) substantially influences financial performance, as quantified by Return on Assets (ROA).	0.000	Accepted
H2a	Capital employed efficiency (CEE) substantially influences financial performance, as quantified by Return on Assets (ROA).	0.000	Accepted
H2b	Human capital efficiency (HCE) substantially influences financial performance, as quantified by Return on Assets (ROA).	0.000	Accepted
H2c	Structural capital efficiency (SCE) substantially influences financial performance, as quantified by Return on Assets (ROA).	0.646	Rejected
НЗ	Value-added intellectual coefficient (VAIC) substantially influences on Market to Book value (M/B).	0.455	Rejected
H3a	Capital employed efficiency (CEE) substantially influences on Market to Book value (M/B).	0.514	Rejected

## Table No 8: Hypotheses Summarized

H3b	Human capital efficiency (HCE) substantially influences market-to-book value (M/B).	0.389	Rejected
НЗс	Structural capital efficiency (SCE) substantially influences on Market to Book value (M/B).	0.411	Rejected

Source: Author Compiled

#### 5. Conclusion

### 5.1 Conclusion

This study provides significant insights by investigating the influence of intellectual capital and its constituents on the operational effectiveness of financial sector organizations in Sri Lanka. The VAIC model reveals that the financial performance of Sri Lanka's financial sector is significantly impacted by the CEE and HCE factors, which aligns with previous research findings (Joshi et al., 2013; Joshi et al., 2010; Goh, 2005). It is evident that Sri Lankan financial institutions prioritize the efficient and effective management of finances, as well as the disclosure of human resources, which is highly valued by stakeholders. According to the findings of this study, financial institutions operating in Sri Lanka may not achieve improved levels of financial performance while having high levels of structural capital efficiency. The results are consistent with previous study findings (Shiu. 2006: Saengchan. 2008: Ting and Lean. 2009: Clarke et al.. 2011: Zou and Huan. 2011: Joshi et al..2013).

Moreover, the findings of hypothesis testing indicated that there was no statistically significant impact of intellectual capital on Market to Book Value. Trisnowati et al. (2017) have also documented similar findings in the Indonesian banking industry. Effectively managing intellectual property has the potential to boost the market value of a firm and enhance its corporate value. Despite acknowledging the importance of the stock market in Sri Lanka, investors failed to take into account the impact of the company's intellectual property. The limited availability of data on the company's intellectual assets might potentially be a contributing factor. Consequently, investors may solely rely on the company's perception and evaluation of its own stock value in the stock market. As the stock price of the firm increases, more investors will see the company as having a higher value.

## 5.2 Managerial Implication

Based on the aforementioned study, it can be inferred that organizations should prioritize their intellectual capital to enhance their competitiveness. The research shows that it effectively enhanced the financial performance of the enterprises, hence potentially strengthening their long-term market value. Furthermore, it would be advantageous for organizations to increase their transparency regarding the management of intellectual capital and regularly communicate their strategies and progress in this area.

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