UTILIZING INTELLECTUAL CAPITAL ON COMPANY PERFORMANCE IMPROVEMENT (A CASE STUDY IN HOSPITALITY, RESTAURANT AND TOURISM SUB SECTOR COMPANIES LISTED IN IDX)

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Nowadays, business condition could not rely only on physical assets, yet managing intellectual capital as intangible asset is important to improve financial performance and win the market competition. Due to that reason, this study aims to show the significant effect of the intellectual capital indicators, namely HCE, SCE, RCE, and CEE on the financial performance of companies that are proxy by Net Profit Margin (NPM) and Return on Equity (ROE). The observed subjects in this study are hospitality, restaurant and tourism companies, with the observation period from 2010 until 2014. Secondary data from annual financial statements of sample companies that are published in Indonesia Stock Exchange or company's official website have been chosen as the research data, while the data collection has been done by the method of literature and documentation. After applying the purposive judgement sampling, eleven eligible companies have been selected as samples.

This study used descriptive statistics test, classic assumption test and the significance test with panel data regression which were analyzed with the help of Eviews 8.0. The result showed that the indicators of the intellectual capital have a significant influence on NPM and ROE simultaneously. NPM is affected by the HCE and RCE, whereas both ROA and ROE were affected significantly by SCE and CEE.

Keyword: *Intellectual capital, HCE, SCE, RCE, CEE, NPM, ROA, ROE.*

În prezent, condițiile de afaceri nu s-ar putea baza doar pe activele fizice, însă gestionarea capitalului intelectual ca activ necorporal este importantă pentru îmbunătățirea performanței financiare și câștigarea concurenței pe piață. Din acest motiv, acest studiu își propune să demonstreze efectul semnificativ al indicatorilor de capital intelectual, respectiv HCE, SCE, RCE și CEE asupra performanței financiare a companiilor, reprezentate prin marja de profit net (NPM) și rentabilitatea capitalului propriu (ROE). Obiectele observate în acest studiu sunt companii care își desfășoară activitatea în domeniul activității hoteliere, restaurantelor și turismului. Perioada de observație cuprinde anii 2010-2014. În calitate de date de cercetare au fost alese datele secundare din situațiile financiare anuale ale societăților-eșantioane, publicate în Bursa de Valori din Indonezia sau pe site-ul oficial al companiei, în timp ce colectarea datelor a fost realizată prin metoda literaturii și a documentației. După aplicarea eșantionării raționale intenționate, unsprezece companii eligibile au fost selectate ca obiecte de cercetare.

Acest studiu a folosit testul statistic descriptiv, testul de presupunere clasic și testul de semnificație cu regresia datelor din panou, care au fost analizate cu ajutorul Eviews 8.0. Rezultatul a arătat că, în același timp, indicatorii capitalului intelectual au o influență semnificativă asupra NPM și ROE. NPM este afectat de HCE și RCE, în timp ce ROA și ROE au fost afectate semnificativ de SCE și CEE.

Cuvinte-cheie: *capital intelectual, HCE, SCE, RCE, CEE, NPM, ROA, ROE.*

В настоящее время, бизнес может не только опираться на физические активы, но и управлять интеллектуальным капиталом, поскольку нематериальные активы важны для улучшения его финансовых показателей и рыночной конкурентоспособности. Данное исследование направлено на то, чтобы показать влияние значимости показателей интеллектуального капитала, а именно HCE, SCE, RCE и CEE на финансовые показатели компаний, которые представлены

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посредством чистой прибыли (NPM) и рентабельности собственного капитала (ROE). Объектами данного исследования являются компании, относящиеся к ресторанному бизнесу, туристической и гостиничной деятельности. Анализируемый период: 2010-2014 гг. Были отобраны вторичные данные из годовой финансовой отчетности выборочных компаний, которые опубликованы на Индонезийской фондовой бирже, а также данные размещенные на официальном сайте компаний. Сбор данных осуществлялся на основе анализа литературы и документации. После применения целенаправленной пробной выборки, в качестве объектов исследования были отобраны одиннадцать компаний.

В исследовании использовался тест описательной статистики, классический тест допустимости и тест значимости для обработки данных панельной выборки регрессии, которая была проанализирована по итогам обработки с помощью Eviews 8.0. Полученные результаты демонстрируют, что показатели интеллектуального капитала одновременно оказывают значительное влияние на NPM и ROE. NPM находится под влиянием HCE и RCE, тогда как ROA и ROE под всущественным влиянием SCE и CEE.

Ключевые слова: *интеллектуальный капитал, HCE, SCE, RCE, CEE, NPM, ROA, ROE.*

JEL Classification: L24, L29, L89.
UDC: 005.336.4:338.487

Introduction

Towards the end of 2015, all the countries which are members of ASEAN, had prepared to face ASEAN Economic Community (AEC). Through AEC, the entire resource of goods, services, labor and a source of investment funds will be integrated in the ASEAN free market. That's why AEC offers a big chance for anyone in every ASEAN countries who is ready to compete and develope their business. This is really a golden opportunity for Indonesian companies to enlarge the business and prove their power and existance in ASEAN.

Indonesia has to be brave, ready and confident in order to maximize business sector that according to predictions, will be successful through AEC, mainly in terms of service, logistic, health and tourism sectors. Therefore, we have to manage th four sector by ourselves, because both our natural and human resources are considered to be sufficient to meet the needs of that four sectors.

As sectors that are expected to grow when the MEA takes place, sub-sectors of the hospitality, restaurant and tourism must be able to present financial statements that interpret the company's performance in order to improve competitiveness. Companies can use the analysis of financial performance as a benchmark of productivity, for example the profitability ratio.

High profitability level which is shown through the financial statements means the company has to implement policies effectively and efficiently and also create high profits on their assets. The higher the profitability level of the company is, its chance to expand and prove the competitiveness of enterprises is growing. If the company can convey that information, then the sub-sectors such as hospitality, restaurant and tourism will get power to attract foreign investors during AEC.

Services sector that sell expertise and treatment must implement knowledge management to operate, so it can increase the value added and create a multiplier effect on any investment by the company, such as employee training costs. In addition, as a part of the service sector, sub-sector of the hospitality, restaurant and tourism also have a lot of intangible assets compared to other business sectors.

Intangible assets factors become increasingly important related of the Resource-Based Theory, which states that the company will excel in the competition and get a better financial performance than others by having important and strategic asset either tangible or intangible, subsequently control and their efficient use. This further supports the assessment of intangible assets which are generally attached to the company.

Management of intellectual capital should be done as efficiently as possible. Therefore, there are several ways to measure performance efficiency of intellectual capital within the company, in both, monetary and non-monetary ways.

This study attempted to measure the effect of intellectual capital in monetary values, by analyzing intellectual capital efficiency that is proxy by M-VAIC on the financial performance of hospitality, restaurant and tourism sub sectors. This study will use M-VAIC, which is one of the alternative methods of measuring intellectual capital which had been used in the research of Ulum. M-VAIC is basically similar with the calculation of VAIC™ method, which has been introduced by Pulic. The M-VAIC

components are composed of the company's resources, namely physical capital through Capital Employed Efficiency (CEE), human capital through Human Capital Efficiency (HCE), and structural capital through Structural Capital Efficiency (SCE), plus indicators of relational capital through Relational Capital Efficiency (RCE) [15].

Theoretical review

1. Intangible Asset

According to IAS 38, Intangible assets are defined as non-monetary asset without physical substance [8]. At paragraph eight of PSAK 19, there is stated that the intangible asset is an identifiable non-monetary asset without physical form. PSAK 19 also explains that there are three fundamental characteristics of intangible assets, namely identifiable, control, and future economic benefit [3].

2. Intellectual Capital

The simplest form of intellectual capital can be expressed as the value of knowledge within an organization or business knowledge that is listed in the form of intangible assets, employee knowledge, skills, and experience in the business [9].

Intellectual capital is defined as capital based on science that can create value for the company in achieving and maintaining a competitive advantage of a company [22].

The intellectual capital is a combination of the labour quality with structural capital, that are corporate structure, systems, work culture, technology, professional expertise, customer relationships, experience, and age of the organization [11].

Intellectual capital measurement of monetary value. Here are six popular methods to measure intellectual capital of monetary value [19]:

A. The EVA and MVA Model by Bontis *et al.* (1999)
B. The Market-to-Book Value Model
C. Tobin's q Method by Luthy (1998)
D. Pulic's VAIC ™ Model by Ante Pulic (1998, 2000)
E. Calculated Intangible Value by Dzinkowski (2000)
F. The Knowledge Capital Earnings Model by Lev and Feng (2001)

3. Value added Intellectual Coefficient (VAIC™)

The VAIC™ is the most promising instrument for measuring performance of company's intellectual capital in the 90s. This approach is relatively easy and it is possible to do because it was built by financial statement accounts, such as accounts in balance sheet and income statement. VAIC™ based on figures derived from market and it is objective to be counted, either numeric outputs, inputs, value added, physical assets, and intellectual potential. This makes intellectual capital can be calculated appropriately and can be the basis of a new measurement system because it is easy to follow [15].

The measurement with VAIC™ method uses company's financial statement data in calculating the coefficient of efficiency of three capital types that are Human Capital (HC), Structural Capital (SC) and Capital Employed (CE). Although using accounting data, measuring process only focus on resource efficiency to create value for the company, not on costs [14].

4. Modified Value added Intellectual Coefficient (M-VAIC)

The use of VAIC™ has managed to overcome some problems that are related to intellectual capital ability to obtain data on financial statements, but does not rule out the possibility that there are some aspects that still have not been revealed in the analysis of intellectual capital impact [21].

Although the measurement of intellectual capital M-VAIC method in Indonesia is the first held by him, adding Relational Capital Efficiency (RCE) as the third component in the VAIC™ method believed to further increase the strength of this method in measuring and predicting performance of intellectual capital. M-VAIC can also be applied in many sectors, not only banks [20].

M-VAIC method assessed complements VAIC™ and proven methods may be used to measure the efficiency of intellectual capital by adding customer / relational capital as a new component in it. In terms of the VAIC™ development, this method is relatively easy and very possible to implement, due to is the fact that it is constructed with accounting data. Data for measurement model of M-VAIC can be obtained either directly or indirectly from financial statements.

Here are some explanations of the four M-VAIC indicators:

A. Human Capital Efficiency (HCE):

HCE value is obtained by dividing value added to value of human capital. HCE shows how much value added can be generated by the funds that are spent on labour. HCE value measures amounts of money that are generated by each of the human capital that is invested. It can also be the success of HC in value creation indicator.

B. Structural Capital Efficiency (SCE):

Structural capital is not an independent criterion as employed capital and human capital in the process of value creation. Value of structural capital is the result of reducing value added by structural capital value.

Structural Capital Efficiency is obtained by dividing the value of structural capital with the value added. SCE shows the contribution of structural capital in value creation. SCE value measures the amount of structural capital required to produce the rupiah value added and is an indicator for structural capital's success in value creation.

C. Relational Capital Efficiency (RCE):

RCE value is obtained by dividing the value of relational capital on value added. RCE illustrates the efficiency of investment in relational aspects. This ratio measures the number of relational capital required to produce one rupiah of value added and is an indicator of relational capital's success in value creation.

D. Capital Efficiency (CEE):

This indicator is an indicators for the value added created by one unit of physical capital, not the intangible assets such as other indicators. CEE value is obtained by dividing value added to the value of capital employed. CEE measures the amounts of money that is generated by each of the physical capital invested and is an indicator of physical capital's success in value creation.

5. Resource – based Theory

Intellectual Capital is one of the company's assets that is considered capable to increase company's value added when it is processed and utilized efficiently. This is in accordance with the opinion of Resouced – based Theory, according to which a company which owns and manages certain qualitative resources will be able to compete and win the market. It shows that intellectual capital as an asset is very unique and different for each company.

The Father of Modern Resources – based Theory stated that the competitive advantage of each company is different due to heterogeneity of companies. Resources – based Theory also explained a real and comprehensive framework that the company can get more value than other companies when it has VIRN (Valuable, Rare, imperfectly imitable, Non-constitutable) assets [1].

Resource – based Theory becomes an explanation about the efficiency of a sustainable company performance [2]. Resource – based theory is a very appropriate source of theories to explain the research on intellectual capital monetarily. This theory suggests that the company is able to direct a good and long-term performance plan if it has the key resources to improve the quality and make the company be a superior of the competition [20].

6. Stakeholder Theory

Besides Resource – based Theory, assessment of intellectual capital in monetary terms can be associated with the stakeholder theory. This theory considers that the stakeholders are one of the most important in the company. Stakeholder Theory explains that every policy in company that is material should be reported and made by considering the stakeholders condition.

Concept of stakeholder approach is a fundamental reference for the development of Stakeholder Theory. With the approach of stakeholder concept, hopefully the company will be more sensitive to business environment and can meet the demands expected by environment, namely stakeholders [7].

Stakeholder Theory is the literature basis on the changing habits of narrow viewpoint that business is only a tool in maximizing profits for capital's owner. Furthermore, the Stakeholder Theory has evolved to address the problem in understanding and managing business in the world of 21st century, both the problem of value creation and trade [7].

7. Knowledge – based Business

In the midst of this globalization era, companies generally use a Knowledge – based Business as a business operations basis. The base of business is no longer limited to physical capital, but also to knowledge-based capitals in order to increase the value added of company.

The father of Knowledge – based Business argued that companies with knowledge basis should have a leader who provides a solution, employees who work with high ethic, and company's owner that dared to

sacrifice short-term profits for the sake of a better value added in the long run. Knowledge – based Business also must have a wise and open-minded leader as well as employees who are creative and not afraid to fail. Companies that apply Knowledge – based Business will become superior competitors without a dictator commands, cumbersome bureaucracy, and various structures also hinder the enterprise system [10].

8. Analysis of Financial Performance

To determine the financial performance of a company, we can also carry out the analysis of financial statements which are published by the company. Through this analysis, we can understand the company's financial condition, the company's ability to generate profits, the company's ability to pay debts, and many more.

The analysis of financial ratios is classified into five types [12], namely:

A. Profitability Ratio

This ratio describes the company's ability to relatively generate profits. Relative in this definition is meaning that profit is not only measured by its amount, because sometimes a great profit is not showing actual profitability. Profitability benchmarks are revenue, funding and capital.

B. Liquidity Ratio

This ratio aims to determine the company's ability to pay short-term liabilities.

C. Activity Ratio

This ratio describes the company's performance in managing inventory and receivable accounts.

D. Ratios Efficiency and Effectiveness of Data Usage and Costs

Another name of this ratio is the ratio of costs on sales revenue. This ratio can show the efficiency and cost effectiveness of the use of funds.

E. Solvency Ratio

This ratio is intended to reflect the company's ability in paying long-term liabilities.

Profitability ratio was compiled by this ratios below [13]:

A. Net Profit Margin (NPM)

NPM = Net profit / Sales

Increasing of NPM value indicates that the company is capable to generate net profit higher than its sales activity.

B. Return on Asset (ROA)

ROA = Net profit / Total Assets

ROA measures the company's ability in generating net income derived from investment activities.

C. Return on Equity (ROE)

ROE = Net profit / Total Equities

ROE is used to measure the success of company in generating profits for shareholders, so that ROE is considered as a representation of the shareholder or the company's value.

9. Perceptions

From these studies, the first hypothesis in this research can be formulated and it is the following:

1. Relationship of each independent variable partially on NPM

H_{0a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously do not affect the NPM.

H_{1a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously affect the NPM.

H_{0b}: Variable of Human Capital Efficiency (HCE) partially has no effect on NPM.

H_{1b}: Variable of Human Capital Efficiency (HCE) partially affects NPM.

H_{0c}: Variable of Structural Capital Efficiency (HCE) partially has no effect on NPM.

H_{1c}: Variable of Structural Capital Efficiency (HCE) partially affects NPM.

H_{0d}: Variable of Relational Capital Efficiency (HCE) partially has no effect on NPM.

H_{1d}: Variable of Relational Capital Efficiency (HCE) partially affects NPM.

H_{0e}: Variable of Capital Employed Efficiency (HCE) partially has no effect on NPM.

H_{1e}: Variable of Capital Employed Efficiency (HCE) partially affects NPM.

2. Relationship of each independent variable partially on ROA

H_{0a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously do not affect the ROA.

H_{1a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously affect the ROA.

H_{0b}: Variable of Human Capital Efficiency (HCE) partially has no effect on ROA.

H_{1b}: Variable of Human Capital Efficiency (HCE) partially affects ROA.

H_{0c}: Variable of Structural Capital Efficiency (HCE) partially has no effect on ROA.

H_{1c}: Variable of Structural Capital Efficiency (HCE) partially affects ROA.

H_{0d}: Variable of Relational Capital Efficiency (HCE) partially has no effect on ROA.

H_{1d}: Variable of Relational Capital Efficiency (HCE) partially affects ROA.

H_{0e}: Variable of Capital Employed Efficiency (HCE) partially has no effect on ROA.

H_{1e}: Variable of Capital Employed Efficiency (HCE) partially affects ROA.

3. Relationship of each independent variable partially on ROE

H_{0a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously do not affect the ROE.

H_{1a}: Variable of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE) simultaneously affect the ROE.

H_{0b}: Variable of Human Capital Efficiency (HCE) partially has no effect on ROE.

H_{1b}: Variable of Human Capital Efficiency (HCE) partially affects ROE.

H_{0c}: Variable of Structural Capital Efficiency (HCE) partially has no effect on ROE.

H_{1c}: Variable of Structural Capital Efficiency (HCE) partially affects ROE.

H_{0d}: Variabl of Relational Capital Efficiency (HCE) partially has no effect on ROE.

H_{1d}: Variable of Relational Capital Efficiency (HCE) partially affects ROE.

H_{0e}: Variable of Capital Employed Efficiency (HCE) partially has no effect on ROE.

H_{1e}: Variable of Capital Employed Efficiency (HCE) partially affects ROE.

Research method

This study is classified as a quantitative descriptive research that represents a research to help researchers in revealing influence degree between variables. This study makes the hospitality, restaurants and tourism subsector that are listed in Indonesia Stock Exchange (IDX) as an object under study. In this study, processed data is a secondary data from Financial statements of the hospitality, restaurants and tourism subsectors in Indonesia that are already opened for public. These data between 2010 – 2014 has been chosen for analysis. Data were obtained from Indonesia Stock Exchange website and the company's official website.

Sample determination that will be examined in this study is done by purposive judgment sampling method with six qualifications. One of qualification in purposive sampling in this study is previous research [17], which describes that a company with a negative value added means the company has no more value for stakeholders, so it is contrary to VAIC™ theory that aimed to determine value added in the company; therefore, it should be eliminated. Based on that purposive sampling, there are only eleven of 21 companies in the subsector of hospitality, restaurants and tourism which are worthy of being part of the study samples.

This study aimed to analyze the influence of intellectual capital efficiency on financial performance with M-VAIC method. M-VAIC is a modified monetary measurement from VAIC™ method, which has been popularized by Pulic [15]. Here are the M-VAIC indicators which are used as independent variables in this study:

$$\text{HCE} = \frac{VA}{HC}$$

VA = output – input = operating profit + employee cost + depreciation + amortization

A. $\text{SCE} = \frac{\text{SC}}{\text{VA}}$

SC = VA – HC

B. $\text{RCE} = \frac{RC}{VA}$

RC = marketing cost

C. $\text{CEE} = \frac{VA}{CE}$

In this study, there are three dependent variables as a proxy of the company's financial performance, namely:

A. $\text{NPM} = \frac{\text{Net Profit}}{Sales}$

B. $\text{ROA} = \frac{\text{Net Profit}}{Total\ Assets}$

C. $\text{ROE} = \frac{\text{Net Profit}}{Total\ Equities}$

Processing panel data regression was performed using the Eviews 8.0 software. In this study, unvaried panel data regression analysis is performed three times. Each dependent variable will have a model of its own equation.

Results

There are three alternative method approaches to process panel data regression, namely Common-Constant Method (OLS Method), Fixed Effect Method (FEM), and Random Effects Method (REM). To determine the most appropriate method to be used in regression, every model has to be tested first.

1. Chow Test

Chow test aims to identify and choose the most appropriate method between fixed effects method or pooled least square method.

In this section, NPM, ROA, ROE models have been tested, while NPM fits to Fixed Effect Method, ROA fits to Fixed Effect Model, and ROE fits to Fixed Effect Model.

2. Haussman Test

Hausman test aimed to make a comparison between Fixed Effects Method and Random Effects Method. This testing is a continuation step of Chow test results that have a probability value Cross-section $F < 0.05$.

In this section, NPM, ROA, ROE models were tested and NPM fits to Fixed Effect Method, ROA fits to Fixed Effect Model, while ROE fits to Fixed Effect Model. But, special for ROE, after the normality test was done, the data are not normal, so it indicates that the model is not perfectly suitable and changes should be made to the OLS method, then it was changed into it.

3. Lagrange Multiplier (LM) Test

LM Test aimed to compare random effects method with pooled least square method. This testing is a continuation step of Chow test results that have a probability value Cross-section $F > 0.05$.

In a panel data regression, three violations of the assumptions are very likely to occur. Three violations of the assumptions made up of heterocedasticity, auto-correlation, and multicollinearity.

Normality test is done to ensure that the research data is distributed normally. One of normality test is the test of Jarque – Berra that is an asymptosis test or large sample based on the residue. Jarque Bera test result will show that data distributed normally if the value of chi – square statistic < chi – square table or a probability value Jarque Bera test results > 0.05. The result of normality test for NPM shows that the data for this equation model is normally distributed, so being with ROA and ROE data.

Heteroscedasticity test is done to ensure that data are homogeneous and not violate the BLUE (Best Linear Unbiased Estimated) assumption. One way of determining a model's heteroskedastisitas is by apply the White test (residual test). If the probability value of residue test results or Prob (F-statistic) > 0,05, then data is homogeneous. The White test results can be seen from value of Prob (F-statistic). The result of the test shows that the research data is homogeneous for NPM, ROA and ROE equation model.

Autocorrelation test is done to ensure that there is no correlation between observations. Autocorrelation test can be done by testing the value of Durbin – Watson of research model. In this study, the Durbin-Watson value for NPM equation is 2.51. These results are at 4-du < 2.51 < 4-d, so there are no autocorrelation conclusions in the NPM equation model and the research can be proceed. The DW score for ROA is at dl < 1,615026 < du, so there are no autocorrelation conclusions in the ROA equation model and the research can be proceed. The DW value of ROE equation model are at dl < 1.68 < du that means there are no autocorrelation conclusions in the ROE equation model and the research can be proceed.

Multicollinearity test is done to ensure that there is no autocorrelation between variables in the research model. A high multicollinearity in model makes research parameter become unreliable. The test results of multicollinearity of NPM as the dependent variable in this study showed no autocorrelation between HCE and SCE indicator with a value of 0.950666 relationship. HCE and SCE relationship likely due to HC and SC is a variable that together makes up a value added so that the relationship between the two variables is very high up approaching one. One of two mutually correlated variables (which has a lower degree of correlation relationship) must be removed from the model to fulfil the assumption of multi-collinearity. In this study, for NPM model, SCE variable is eliminated, while for ROA and ROE, HCE variable is eliminated.

Table 1

Summary of Research Result

	NPM (*Net Profit Margin)*							
Independent Variable	T – Test			F – Test			Hypotheses Result	Signification Result
(X)	Probability of T-Test		5% Sig.	Probability of F-Test		5% Sig.		
Simultaneous (M-VAIC)				0,0000	<	0,05	H_0 rejected	Significant
HCE	0,0000	<	0,05	-	-	-	H_0 rejected	Significant
RCE	0,0088	<	0,05	-	-	-	H_0 rejected	Significant
CEE	0,2235	>	0,05	-	-	-	H_0 accepted	Insignificant
Variable	**ROA (*Return on Asset)***							
Independent	T – Test			F – Test			Hypotheses Result	Signification Result
(X)	Probability of T-Test		Hypotheses Result	Probability of T-Test		5% Sig.		
Simultaneous (M-VAIC)				0,0000	<	0,05	H_0 rejected	Significant
SCE	0,0036	<	0,05	-	-	-	H_0 rejected	Significant
RCE	0,1819	>	0,05	-	-	-	H_0 accepted	Insignificant
CEE	0,0000	<	0,05	-	-	-	H_0 rejected	Significant
Independent	**ROE (*Return on Equity)***							
Variable	T – Test			F – Test			Hypotheses Result	Signification Result
(X)	Probability of T-Test		5% Sig.	Probability of T-Test		5% Sig.		
Simultaneous (M-VAIC)				0,000	<	0,05	H_0 rejected	Significant
SCE	0,0283	<	0,05	-	-	-	H_0 rejected	Significant
RCE	0,4269	>	0,05	-	-	-	H_0 accepted	Insignificant
CEE	0,0000	<	0,05	-	-	-	H_0 rejected	Significant

Source: Summary from Eviews 8.0 output, 2016.

Based on Table 1 with a significance level of 5%, the test results simultaneously indicate:

1. Relationship of M-VAIC indicators against NPM

Simultaneously, M-VAIC indicators have a significant effect on NPM. Indicators of M-VAIC simultaneously can explain NPM about 99% and the rest is influenced by other factors outside the model testing.

Partially, HCE and RCE known to significantly affect the NPM, while the CEE does not significantly affect the model with signification level of 5% on 55 samples tested.

2. Relationship of M-VAIC indicators against ROA

Simultaneously, M-VAIC indicators have a significant effect on ROA. Indicators of M-VAIC simultaneously can explain ROA with about 93.6% and the rest is influenced by other factors outside the model testing.

Partially, SCE and CEE known to significantly affect the ROA, while the RCE does not significantly affect the model with signification level of 5% on 55 samples tested.

3. Relationship of M-VAIC indicators against ROE

Simultaneously, M-VAIC indicators have a significant effect on ROE. Indicators of M-VAIC simultaneously can explain ROE with about 96.2% and the rest is influenced by other factors outside the model testing.

Partially, SCE and CEE are known to significantly affect the ROE, while the RCE does not significantly affect the model with signification level of 5% on 55 samples tested.

Discussion

The test of intellectual capital's effect partially on NPM shows that only HCE and RCE directly affect the NPM models. This means that CEE has not had a significant impact on NPM models tested on a sample of eleven companies for five years. In other words, increase of CEE has no effect in improving NPM. If the company wants to increase NPM, then the appropriate intellectual capital ratio that has to be enlarged is

HCE or it should focus in managing HCE. The company can add investment in human capital and relational capital to be utilized optimally and efficiently, in order to increase the value of NPM.

Partially, M-VAIC indicators that significantly influence the ROA are SCE and CEE, while RCE does not have a significant effect on the model tested. This may be due to the limited sample size or the observation period which is not long enough, but it doesn't mean that RCE will have a significant impact if the period of observation is extended and study sample is enlarged. In this model, the addition of RCE has no effect on the increase in ROA. Companies can increase the value of SCE and CEE if they pursue for a higher ROA. Additional investments in structural capital and physical assets (capital employed) accompanied by effective asset management can increase the ROA.

In tune with test results of ROA, only SCE and CEE are able to influence the improvement of ROE significantly. Significance test results showed that the RCE does not have a significant effect on ROE in the model tested. This means the addition of RCE has no effect in improving ROE. If the company is working to increase ROE, it is more appropriate to increase value of SCE and RCE by adding structural investment capital and physical assets (capital employed) efficiently.

The majority of results of significance testing of M-VAIC indicator against financial performance which is proxied by NPM, ROA and ROE are in accordance with previous studies. CEE could affect ROA and ROE significantly, also SCE could affect NPM, ROA, and ROE significantly [5]. CEE and SCE partially significant effect on ROA and ROE [6]. SCE has a significant effect on ROE, which is also evident from the results of previous research [23]. Both HCE and SCE partially could affects ROA and ROE significantly according to previous research [16].

In addition to compatibility with previous studies, there was one previous study that is not suitable with the present study, which stated that the RCE has a significant effect on ROA and ROE [4]. Results of research conducted by the author show the opposite result, meaning that the RCE has not been able to influence the ROA and ROE significantly. It can be caused by a limited number of samples, namely eleven companies in a fairly short period of observation of only five years. It does not rule out the possibility that RCE will have a significant impact when the sample is propagated by extend the study period or expand the sector of observation.

There is also a contra result about CEE's effect on NPM that previous result has proven that CEE could affect NPM in a significant way, but this study hasn't reached that condition. The same is with the RCE condition, due to, perhaps, the limited number of samples. It may be significant if the study period is extended or the sector of observation is expanded [5].

Results of this study have proven that intellectual capital either simultaneously, or partially can significantly influence the company's financial performance which is proxied by NPM, ROA, and ROE. Companies that have high-performance intellectual capital are able to generate better profitability and efficiency. This is consistent with the grand theory that is used as the basis of research, namely the Resource-based Theory and Stakeholder Theory.

The father of Resources – based Theory first defined that different assets of each company and the ability of its management who will show the diversity of performance among companies, so it takes VIRN (Valueable, Rare, imperfectly imitable, Non-constitutable) asset for win the market [1]. Related opinion about Resource – based Theory also defined that an organization requires two main things, namely the advantages of resources (intangible assets and tangible assets) and the ability to manage resources to be able to compete in the business [18].

This research shows that companies with good intellectual capital efficiency as PNSE, PJAA, INPP and PTSP could get a higher profitability ratio than other companies tested. The company that successfully manages intellectual capital that is special and unique, efficiently uses it in proper operational activities, in order to boost the company's profitability improvement. On the other hand, HOME and BAYU got the lowest profitability. Both companies are also known to have a small value of intellectual capital efficiency. This proves Resource – based Theory that the company will be difficult to compete in the era of Knowledge – based Business without optimizing the intellectual assets owned.

This study is also in accordance with Stakeholder Theory that every material decision made by companies should consider the stakeholders condition and the result has to be reported to them, because they deserve it. Companies must pay attention to stakeholders in the preparation of strategic management. Not only that, companies that have committed to report their activities to stakeholders are largely aimed at

maintaining the balance and sustainability in the creation of value for all stakeholders, ie shareholders, employees, government and society.

Stakeholder theory is a reference that can help companies to be more sensitive and caring to the stakeholders, so that the company can see the required demand and improve quality in business competition and company is not limited to the pursuit of profit targets by this theory [7]. Furthermore, the stakeholder theory is capable of explaining the relationship between the companies, stakeholders and profits. The greater transparency for stakeholders is, in terms of demand and performance of reporting, they tend to react more positively to the company. At the same time, companies need a good image in the eyes of stakeholders as an effort to improve performance and profit.

Through stakeholder theory, the company is required to be more open and consider the interests of stakeholders in making business decisions. Companies should no longer ignore the stakeholders in the modern business era, as their concern, either directly, or indirectly affects stakeholders. If the local community and government feel aggrieved, they will react negatively to the company. Consumers and suppliers are also entitled to get good performance report, so that they know the company well and are loyal to the company. Investors areone of the most important stakeholders in terms of funding, so that the company must consider their situation in any business decision.

Management of intellectual capital that is well proven can significantly increase the profitability of company. This shows that the company has taken the appropriate business policies without ignoring interests of stakeholders. Good condition of profitability as a result of intellectual capital utilization also showed maturity and readiness of the company in the face of competition in the era of Knowledge based - Business, so that stakeholders can feel confident about the performance of the company.

Through this research, it also known that the most dominant asset that can impact to profitability ratios are structural capital and capital employed (physical assets). From all three dependent variables tested, the most suitable equation belongs to NPM with the highest value of Goodness of Fit amounted 99%. In this study, NPM equation becomes the most appropriate equation.

The test results simultaneously and partially on the whole company of the samples showed that companies in the sub-sectors of hospitality, restaurant and tourism have been managing intellectual capital owned efficiently and engaged their efforts in improving the company's financial performance. In the other words, companies fromn sub-sectors of hospitality, restaurant and tourism have run knowledge-based business in the modern era. It's just that there are still companies that have not managed in an optimum way the intellectual capital, so the maximum profitability is not yet achieved. With this result, the expected sub-sectors of hospitality, restaurant and tourism can continue to be consistent and evolve with maximizing intellectual capital in the ASEAN Economic Community (AEC), which began in the end of 2015.

Conclusion, limitation and recommendation

Result of this study represent a correlation with significant effect from intellectual capital efficiency (M-VAIC) to financial performance (profitability ratio) in companies from the sub-sector of hospitality, restaurants and tourism. It shows that M-VAIC could affect NPM simultaneously with 99%, affects ROA simultaneously with 93.6%, and affects ROE simultaneously with 96.2%.

Other conclusions of this research are that the effects of M-VAIC on profitability ratios are partial. For NPM correlations at 5% significance level, HCE and RCE successfully affect the NPM partially, while CEE is not yet capable to affect NPM significantly. With 5% of significance level, SCE and CEE successfully affect the ROA partially, while RCE is not yet capable to affect ROA significantly. Similar with ROA correlation, SCE and CEE successfully affect the ROE partially, while RCE is not yet capable to affect ROE significantly.

Based on that result, we know that if companies from the sub-sector of hospitality, restaurants and tourism are going to increase their profitability ratio to improve their performance, they should improve the M-VAIC ratios as implementation of intellectual capital efficiency. For more specific, if they want to increase their NPM, they have to push the HCE and RCE scores. When their focus is ROA, they can increase the SCE and CEE scores. If they want to improve their ROE, they can increase the SCE and CEE scores.

There are several limitations of this research: 1. Data used is only for a five year period, 2. The study was only done for the sub-sector of hospitality, restaurants and tourism, so these results are less generalizable to cases from other sectors, 3. This study focuses only on the analysis of the value of intellectual capital in monetary terms without assessing the influence of non-monetary values, such as the level of disclosure and its impact for the company.

Further, research is expected to complement the existing shortcomings in this research, as follows: 1. to include analysis of intellectual capital in non-monetary values as a comparison, 2. to add dependent variable of other financial performance ratios, not only profitability ratios, 3. to apply much longer study period to produce a better analysis, 4. to develop samples by enlarging the observed sector, so that the obtained results can be generalized as a concept.

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