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Intellectual Capital and Firm Financial Performance in ASEAN: The Role of Dynamic Capability

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Abstract

This study seeks to explore the relation between intellectual capital, dynamic capability and firm performance within an emerging market environment, ASEAN. In order to evaluate the moderating role of dynamic capability in the link between intellectual capital and performance, we examine first the effect of intellectual capital and dynamic capability consisting of research and development and marketing capability on firm performance. A sample of ASEAN countries (Indonesia, Malaysia, the Philippines and Singapore) non-financial companies during 2018-2020, is utilized for Panel data regression model's study. A total of 327 observations constitutes the final sample used in this study. The results demonstrated a positive impact of IC on the performance of companies. This result showed that intellectual capital may provide companies with greater financial success. The relation between dynamic capability, which is research and development capability and marketing capability towards performance is also positive. Meanwhile, the positive relation between intellectual capital and corporate financial performance may be moderated by dynamic capabilities, which are research and development capabilities, as well as marketing capabilities. This conclusion suggests the use and maintenance of intellectual capital by companies together with their dynamic capabilities, research and development and marketing capabilities.

Keywords: Intellectual Capital, Dynamic Capability, Research And Development Capability, Marketing Capability, Firm Financial Performance.

Introduction

At December 2015, the ASEAN Economic community (AEC) was actively implemented by the Association of Southeast Asian Nations (ASEAN). Even though the AEC is more active and aggressive in shaping the ASEAN area, it might lead to more rivalry among ASEAN companies. This demands companies to make more efficient and efficient use of resources so that companies may produce additional value and compete in the AEC.

ASEAN Economic Community (AEC) implementation can have a favorable influence on ASEAN economic growth. In the meanwhile, there might be increased competitiveness between companies and organizations in the ASEAN area. This will surely need companies to develop

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and increase their performance by using resources effectively and effectively so that they may produce additional value and compete in competitive marketplaces.

Intellectual capital is a resource, based on resources theory, which is at the center of the production of value and the competitive advantage of companies (Barney, 1991). Chen et al. (2005); Wang (2008) describe how companies may compete with other companies in order to generate value and succeed by benefiting from their competitive sustainability advantage. Several researches have tested IC's relation to performance in earlier studies but the results remain uncertain. Studies Chen et al (2005); Firer & Stainbank (2003); Pratama & Wibowo (2017); Tan et al (2007) demonstrate that IC is making a positive impact on company performance. The study found that IC has a positive impact. Studies by Chan (2009); Firer & Mitchell Williams (2003), on the other hand, have been unsuccessful in finding evidence of the link between IC and company performance. The first objective of the study was to investigate the impact of IC on the performance of non-financial industry companies in ASEAN based on the discrepancy of results of previous study and the lack of research done in developing countries and emerging market.

This study also sought to identify a new additional variable to bridge the research gap that might account for the inconclusiveness of past research to find the influence of IC on business performance. In a dynamic and rapidly changing environment Dynamic Capabilities (DC) is a supplement to RBT. The DC word alludes to the notion of capacity for renewal in order to adjust to a changing business environment (Ntim et al., 2017; Teece, 1998). DC is a routine in organizations that assist and support organization's development (Eisenhardt, 1989). On that basis, this study accepted Teece, Pisano and Schuen's concept of DC namely, processes to rearrange organizational resources and normal operations in response to changes in the environment. Companies faced with external changes are prone to competitive crises, and thus it is important to take advantage of companies' acquired competencies to deal with the crisis. Instead of an examination of the dynamic tactics that may be used to DC companies, it is necessary to explain these phenomena. DC improves the capacity of a company to deal with a rough external environment. This study also looks at the beneficial effects of DC in terms of research and development skills and marketing capabilities for the financial performance of the company, because of the relevance of DC.

Meanwhile, it is crucial to note, nevertheless, that in this situation, intangible resources – IC – aren't sufficient for optimizing corporate performance (Szulanski, 1996). Capacity is a process of transformation, using resources and transforming them into organizational results (Dutta et al., 2005). This research claims that resources are a source of organizational competencies and are the major source of corporate performance (Grant, 1991). The usage and distribution of resources that operate together with capacity may therefore increase the performance of business. It is acknowledged. Intellectual capital or IC are referred to here as resources whereas the dynamic capabilities or DC. This study will also evaluate DC's, namely research and development capabilities and marketing capabilities, role in enhancing IC's impact on company financial performance.

This research was conducted on the firms engaged in non-financial industries in ASEAN countries, such as Indonesia, Malaysia and Singapore. Non-financial industry was chosen because this industry is an industry that relies on IC and many conduct research and development for their firms' activities and innovations. This study uses panel data regression models, namely fixed effect and random effect regression. This research contributes to the literature by describing the complete relationship between IC, DC, and the firm financial performance, so that firms can get a complete picture of the role of DC in strengthening IC's

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effect towards financial performance so that firm can form appropriate strategies to improve their performance and compete in the global era which is getting tougher.

Literature Review and Hypotheses Development

Resource-based Theory (RBT)

RBT provides an essential framework for explaining and forecasting what might underlie competitive advantages and business performance (Barney et al., 2011). RBT argued that creating a competitive sustainable profit is strongly connected to the fact that these resources can be efficiently allocated as well as deployed, in precious, scarce and irreplaceable resources (Barney, 1991).

Kozlenkova et al. (2014) said that this theory is founded on two key assumptions about company resources and how such resources may produce a competitive advantage in a sustainable way and why certain companies can continuously outperform others. First, even within the same industry, the company has a diverse set of resources (Peteraf & Barney, 2003). Assumptions concerning the variety of these resources demonstrate that certain companies are more qualified to carry out specific tasks since they have unique resources (Peteraf & Barney, 2003). Secondly, there will be disparities in resources owing to the problems in exchange between companies (assumption of resource capital) which, from time to time, will benefit the heterogeneity of those resources (Kozlenkova et al., 2014).

Valuable, rare, imperfectly imitable, organization (VRIO) characteristics present four requirements to analyze how a resource might create a viable competitive advantage (Kozlenkova et al., 2014). The VRIO features are as follows:

- a. Valuable. A company resource may be seen as valuable when the resource allows businesses to create and implement strategies capable of reducing business expenses and/or increasing company revenues more than when resources are not available.
- b. Rare. Only a limited number of competing companies possess rare resources. The usage of such resources will lead to competitive equality if they are valued but not scarce, because other companies, which also have these resources, are capable of using these.
- c. Imperfectly imitable. It is not possible to get improperly imitable resources by duplicate or direct substitution by companies without them.
- d. Organization. It would be possible to structure the corporate resources so as to maximize the competitive potential of these resources. Organizations function as adaptation elements that enable companies to take full use of the benefits of the resource.

According to RBT, the preceding explanation provides for IC to achieve the VRIO features to provide the business a competitive advantage. By benefiting from the competitive advantage of IC, companies may compete and achieve optimal performance in a competitive market.

Dynamic Capabilities

As a supplement to RBT, Dynamic Capabilities (DC) will explain the competitive advantage in a fast-moving context. Dynamism has recently garnered significant attention, particularly in talks on how skills in creative solutions to market shifts are updated from time to time. The DC word alludes to the notion of capacity for renewal in order to adjust to a changing business environment (Teece, 1998).

Teece et al. (1997); Teece & Pisano (1994) proposed the idea of DC for the first time, stating that, in a dynamic environment, the business' competitive advantage would depend on the internal routines of the company which enable the business to regenerate its organizations.

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DC may therefore be seen as a routine in companies that advise and help organizational capability development (Eisenhardt & Martin, 2000). In response, Teece et al (1997) took the concept of DC as processes which rearrange organizational resources and operating routines in reaction to the changes in the environment. Based on these thoughts, part of DC is Research and Development capabilities and marketing capabilities.

Firms that have experienced failures or disruptions in their research and development investments in the past, may have weaker knowledge and result in more limited assimilation capabilities over time. Conversely, firms with increased securities that are consistent in developing knowledge and technology from time to time can obtain a strategic competitive advantage over their competitors who have a weaker commitment to the development of research and development capabilities. Overall marketing capability can meet customer needs now and in the future which usually requires timely and continuous investment in marketing. The tendency of the company towards prior marketing investments may sometimes be of lasting economic benefit for the company, because this investment allows companies to collect fresh information more effectively. R&D and marketing efforts are intimately linked to the process of development of the DC. In managerial writing this method is also employed (Kor & Mahoney, 2005; Thornhill, 2006).

Hypothesis Development

Intellectual Capital and Firm Performance

IC plays a significant part in the company's sustainable development and value generation. This is in accordance with the idea of resources, which states that IC is at the heart of the company's value generation and competitive advantage (Barney, 1991). From the RBT point of view, the development of a sustainable competitive advantage is strongly linked to the company's capacity to preserve value-for-money assets, to allocate them efficiently and to deploy them (Barney, 1991). Companies who have the durable competitive advantage may win the competition in the market industry, so that value can be created and company performance optimized.

Several earlier research on the IC-business relation succeeded in identifying the IC-business performance link. Chen et al (2005) found that IC held by a company has a beneficial influence on value and financial success in business, and may also be an indication of future financial performance. Clarke et al (2011) have also discovered that a direct connection exists between IC and the business performance of companies listed on the Australian Bourse. More than one research has also shown that IC has a beneficial influence on company performance (Steven Firer & Stainbank, 2003; Pratama, 2016; Pratama & Wibowo, 2017; Tan et al., 2007). The hypothesis suggested in this study are as follows, based on the preceding explanations: H1: Intellectual capital has positive effect towards the firm financial performance.

DC and Firm Performance

The capabilities of companies typically depend on an external dynamic environment, however the accurate link between the inner and outside capacities of the company remains uncertain (Zajac et al., 2000). When analyzing their capabilities, companies often aim to identify their strengths in comparison with rivals. A frequently used framework tries to explain a company's competitive ability through the utilization of resources throughout time. This framework is a passive reaction to the external environment for companies. However, companies facing a competitive crisis must employ the company's accumulated capacity to tackle the problem. Instead of a static strategy analysis of dynamic strategies that may be implemented in the

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exploitation of DC companies, it is necessary to explain this phenomenon. DC improves the ability of a company to cope with a hostile external environment.

Although companies confront numerous challenges from a changing environment, many possibilities for development and profitability for the company are produced at the same time. In order to sustain performance, companies in a dynamic setting need to produce numerous new goods. To take advantage of this potential, a significant R&D investment and sustainable innovation DC is required (Blonigen & Taylor, 2000). DC is extremely essential for companies to enhance their technical skills to sustain a significant number of research and development investments that retain excellent research capabilities and sophisticated infrastructure (Pike et al., 2005). The DC also ensures the control of important knowledge and allows companies to establish unique research platforms leading to future success. Continuing research and development activities Therefore, if a company invests in long term research and development, it is believed that the performance would grow over the long run (Lantz & Sahut, 2005).

In the meanwhile, managers must decide how the available resources must be distributed after the marketing strategy of the business has been created. This strategy is aimed at attracting the target market of the Company, identifying their goods' competitive position in these markets and generating cash flows from each new introduction. A company generally needs continual investments in marketing initiatives in the longer term to attain this aim. In particular from a relation-based marketing point of view (Hunt & Morgan, 1995), the previous marketing investment history of the firm can now and in the future have lasting economic worth for the company since such investments assist companies retain a stronger and more significant customer relationship for profitability and future management (Rauyruen & Miller, 2007). There are therefore differences between companies in their dynamic capacity for R&D (Helfat, 1997) and marketing (Deeds & Hill, 1999; Griffith & Harvey, 2001) with regard to corporate performance in this study. The hypothesis suggested in this study is as follows: H2a: Research and development capabilities has positive effect towards the firm financial performance

H2b: Marketing capabilities has positive effect towards the firm financial performance

The Role of DC Moderation in Strengthen the Effect of IC towards Financial Performance

The capacity of the company to move forward and grow depends on the company's ability to make optimal use of all resources, both financial, intellectual and physical. Although company resources can take the form of several types of resources, intellectual resources are at the heart of every company (Barney, 1991).

It is crucial to understand, however, that immaterial resources, in this case IC, are not enough for maximizing corporate performance (Szulanski, 1996). Capacity is a process of transformation, using resources and transforming them into organizational results (Dutta et al., 2005). This research claims that resources are a source of organizational competencies and are the major source of corporate performance (Grant, 1996). The usage and distribution of resources that operate together with capacity may therefore increase the performance of business. It is acknowledged.

DC is a technique for rereferring the operating resources and routines in reaction of changes of environmental impacts, refers to (Teece et al., 1997). DC's skills for research and development and marketing are based on these ideas. Companies with enhanced securities that create knowledge and technology from time to time are able to gain strategic competitive advantages over competitors with a lower commitment to research and

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development capacity growth. In the meantime, total marketing skills can now and in the future fulfill the requirements of consumers who normally need prompt and constant marketing investments. The tendency of the company towards prior marketing investments may sometimes be of lasting economic benefit for the company, because this investment allows companies to collect fresh information more effectively. R&D and marketing activity are therefore intimately linked to the process of production of DC. Based on this explanation, the hypothesis proposed in this study are as follows:

H3a: Research and development capabilities strengthen the effect of IC towards financial performance

H3b: Marketing capabilities strengthen the effect of IC towards financial performance

Methodology of Research

Types and Data of Research

The data used is secondary data in this study. This study includes data accessible on the Indonesia, Malaysia, Singapore and the Philippine Stock Exchanges listed in the financial statements of non-financial businesses. Data are acquired from the Indonesia, Malaysia, Singapore and Philippine Stock Exchanges official website or from the website of each business. The study observation years are during 2018 and 2020.

Sample

The examples in this research include companies in the Indonesian stock market, Malaysia, Singapore and the Philippines. The companies are active in a non-financial field.

This non-financial industry is an industry that relies on IC and performs much RnD to support its operations and developments, and the non-financial industry has been selected. In accordance with Bontis (2001); Hermans & Kauranen (2005), industry with many operations employing ICs is appropriately and interestingly employed for IC research.

Variables

Independent Variables

Intellectual Capital (VAIC). IC evaluated using VAIC (Pulic, 2000, 2004). The following equation measured by VAIC:

$$VAIC_t = HCE_t + SCE_t + CEE_t$$

Where:	
VAICt	= Value added intellectual coefficient at t
HCE _t	= VA _t /HC _t ; human capital efficiency coefficient at t
SCEt	= SC _t / VAt; structural capital efficiency coefficient at t
CEEt	= VA _t / CE _t ; capital employed efficiency coefficient at t
VAt	= OUTt - INt = OPt + ECt + Dt + At; VA is the calculation of output (OUTt)
	calculated from total sales reduced by Input (INt) calculated from bought-in
	materials or cost of goods or services sold; or it could be the calculation of
	operating income (OPt); employee costs (ECt); depreciation (Dt); and
	amortization (At).
HCt	= total salary and wages at t
SCt	= VA _t - HC _t ; structural capital at t
CEt	= book value of the net assets at t

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Dynamic capability (DC). Referring to (Krishna et al., 2009), this study uses DC proxy, namely the capability of the firms in terms of Research and Development and Marketing. Therefore, DC is measured using 2 (two) indicators, namely RnD capabilities and Marketing capabilities that are measured using the proportion of RnD Development and Marketing Development with Total Revenue (Krishnan & Park, 2005). DC measured by the following equation:

 $RnD = \frac{RnD_t}{TotalRevenue_t}$

Where:

RnDt = Research and Development at t TotalRevenuet = Total revenue at t

$Marketing = \frac{Marketing_t}{TotalRevenue_t}$

Where:

Marketingt = Marketing at t

TotalRevenuet = TotalRevenue at t

Dependent Variable

Firm Performance (Firm_Perf). The company's performance is assessed by ROA, following Cinintya Pratama & Wibowo (2017) and Pratama (2016). ROA is calculated by:

ROA = Profit before tax / Average total assets.

Control Variable

Firm Size (FSize). Firm size is measured by using firm's total assets at year t, and then calculated the natural logarithm.

Leverage (Lev). Leverage is calculated by dividing long-term liabilities to total assets. Analysis techniques

The study employs model analyzes of panel data regression, namely fixed and random effect. This study utilizes Hausman test to determine which panel data regression model is more appropriate between fixed effect and random effect regression.

The hypotheses testing in this study were using two equation models. Model (1) is used to examine the IC's direct effect towards firm financial performance, and examine the effect of Dynamic Capabilities that is proxied by Research and Development (RnD) and Marketing (MK) towards firm financial performance. Meanwhile, Model (2) is used to test the moderating effect of Dynamic capabilities which is proxied by Research and Development (RnD) and Marketing (MK) in strengthening the effect of IC towards firm financial performance. The following is the model used to carry out testing in this study:

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES Vol. 11, No. 3, 2021, E-ISSN: 2225-8329 © 2021 HRMARS $ROA = \beta_0 + \beta_1 VAIC + \beta_2 RnD_t + \beta_3 MK_t + \beta_4 FSize_t + \beta_5 Lev_t + \varepsilon_t$ (1)

$$ROA = \beta_0 + \beta_1 IC + \beta_2 RnD_t + \beta_3 MK_t + \beta_4 IC * RnD_t + \beta_5 IC * MK_t + \beta_5 FSize_t + \beta_6 Lev_t + \varepsilon_t$$
(2)

Where:	
ROA	= Firm Performance
IC	= Intellectual Capital
RnD = Rese	arch and Development capabilities
MK	 Marketing capabilities
IC*RnD	= Interaction Variable of IC and RnD
IC*MK	= Interaction Variable of IC and MK
FSize	= Firm Size
Lev	= Leverage
ε _t	= error term

Results and Discussion

Descriptive Statistics

A general overview of the data distribution to its central value can be utilized to view descriptive statistics (mean). The standard deviation number shows one indicator of data distribution. The smaller standard deviation number shows that the data tends to approximate the average data value. The descriptive statistics for the variables utilized in this investigation were shown in Table 1.

The ROA variable has a mean value of 10,07664 which indicates that most of the firm has good profitability. Meanwhile, the VAIC variable which is the proxy of intellectual capital has a mean value of 3.830977. Meanwhile, the mean value of marketing capabilities and RnD capabilities in the firms sampled ranged from 0.2066253 and 0.012465 respectively. Overall, the descriptive statistics of each variable can be seen in Table 1 below.

Variable	Mean	Min	Max	Std. Dev.		
ROA	10.07664	0.07	51.69	9.259581		
IC	3.830977	0.9782588	9.643191	1.741388		
МК	0.2066253	0.0249979	0.6182258	0.1321502		
RnD	0.012463	0.0001001	0.0868945	0.0195002		
Lev	0.0855298	0	0.4643257	0.1181211		
Size	21.99371	17.08975	26.89956	2.081531		

Table 1. Descriptive Statistics Results

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Hypothesis Test Results

Table 2. Hypothesis Test Results

_	Model 1	Model 2	
Independent Variable	Dependent Variable		
_	ROA	ROA	
Const	-12.78746	-9.109441	
	(-0.50)	(-1.56)	
VAIC	1.774115	0.7363407	
	(5.13)***	(1.68)	
RnD	323.3622	185.8947	
	(4.96)***	(5.93)**	
МК	23.42479	7.691263	
	(3.08)***	(1.78)	
VAIC*RnD		4.590535	
		(3.71)*	
VAIC*MK		27.14673	
		(2.94)*	
FSize	0.3354666	0.3333275	
	(0.30)	(1.29)	
Lev	-2.114798	-1.752379	
	(-0.29)	(-0.43)	
R ² Within	0.6467	0.6729	
F	44.66	17.78	
Prob > F	0.0000	0.0543	

Note: *** significant at 1%; ** significant at 5%, * significant at 10%

The Result of Hypothesis 1 Test

Testing Hypothesis 1 seeks to assess the positive impact of intellectual capital on financial performance. The findings of the total hypotheses tests in this study were shown in Table 2. The results of tests for hypothesis 1 demonstrate a positive impact on ROA by the VAIC, the proxy for the financial performance of companies with a coefficient of 1% of 1.774115. This shows that if a company can make better use of its intellectual capital it can lead to a rise in the company's financial success. Thus, Hypothesis 1, which states that there is a positive effect of intellectual capital towards financial performance is supported at the level $\alpha = 1\%$. The results of tests of Hypothesis 1 have confirmed that an effective and efficient usage of IC.

The results of tests of Hypothesis 1 have confirmed that an effective and efficient usage of IC leads to greater financial success for companies. The results are based on earlier research done by Chen et al. (2005); Cinintya Pratama & Wibowo (2017); Clarke et al. (2011); Firer & Stainbank (2003); Pratama (2016); Pratama et al (2020) who have found ROA as the corporate financial performance proxy for intellectual capital.

The Result of Hypothesis 2 Test

Hypothesis 2 test aims to examine positive effect of Dynamic Capability towards firm financial performance. Dynamic capability itself consists of 2 variables, namely Research and development capabilities and Marketing capabilities. Therefore, hypothesis 2 is divided into two, namely hypotheses 2a and 2b.

The result of hypothesis 2a testing showed that there is a positive effect of Research and development capabilities variable towards firm financial performance with a coefficient of

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323.3622 at a 1% significance level. This indicates that if a firm has good Research and development capabilities, it can lead to financial performance improvement. Therefore, hypothesis 2a which stated that there is a positive effect of Research and development capabilities towards financial performance of firm operating in non-financial industry, supported by a level of $\alpha = 1\%$.

A significant number of investments in DC in research and development are necessary for companies to build up their technical skills to maintain excellent research capabilities and advanced facilities (Pike et al., 2005). DC also monitors vital information and enables companies to establish distinct research platforms that will lead to future successes through continuous research and development efforts. So, when a company invests in R&D over time, it is hoped that the result would be a growing long-term success (Lantz & Sahut, 2005). This explanation was demonstrated by the results of this investigation.

Meanwhile, the result of hypothesis 2b testing showed that there is a positive effect of marketing capabilities variable towards firm financial performance with a coefficient of 23.42479 at a 1% significance level. This indicates that if a firm has good marketing capabilities, it can also lead to improvement of financial performance. Therefore, hypothesis 2b which stated that there is a positive effect of marketing capabilities towards financial performance of firm operating in non-financial industry, supported by a level of $\alpha = 1\%$.

The outcomes of this investigation correspond to the stated theory. After the company has developed its marketing plan, managers have to decide how the resources available must be distributed. The major purpose of this strategy is to attract the target market for the company, to assess their product's competitive position in these areas and to produce cash flows from each entrance. A company generally needs continual investments in marketing initiatives in the longer term to attain this aim. In particular from the point of view of connection marketing (Hunt & Morgan, 1995), the company's previous marketing investment history can have a lasting economic worth both today and in the future as these investments assist companies retain better and stronger business and customer relationships (Rauyruen & Miller, 2007).

The Result of Hypothesis 3 Test

Hypothesis 3 test aims to answer the research question whether dynamic capability can strengthen the effect of intellectual capital towards firm financial performance. As in hypothesis 2, hypothesis 3 in this study is also divided into two, namely hypotheses 3a and 3b.

The result of hypothesis 3a test showed that there is a positive effect of the interaction variable of VAIC * RnD towards ROA with a coefficient of 4.590535 at a significance level of 10%. This indicates that Research and development capabilities can strengthen the positive effect of intellectual capital towards financial performance. Meanwhile, the result of hypothesis 3b test showed that there is a positive effect of the interaction variable of VAIC * MK towards ROA with a coefficient of 27.14673 at a significance level of 10%. This indicates that marketing capabilities are able to strengthen the positive effect of intellectual capital towards financial performance. Strengthen the positive effect of intellectual capital towards financial performance. Therefore, the results of hypothesis test showed that hypotheses 3a and 3b are supported.

IC resources must be used through capacity in order to maximize corporate performance (Szulanski, 1996). Capacity is a process of transformation, using resources and transforming them into organizational results (Dutta et al., 2005). This research claims that resources are a source of organizational competencies and are the major source of corporate performance (Grant, 1996). The usage and distribution of resources that operate together

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with capacity may therefore increase the performance of business. It is acknowledged (Teece et al., 1997), In reaction to environmental changes, DS is the procedures for reorganizing organization resources and operational routines. Research, development and marketing capabilities that are part of dynamic capacities, which have been shown to function in parallel with the use of resources, intellectual capital in this case, to increase company performance, have been shown by the results of this study.

Conclusions

This research investigated IC's positive effect on non-financial companies in ASEAN nations such as Indonesia, Malaysia and the Philippines. Empirical data demonstrate a favorable influence on financial performance of the company. Intellectual capital. This suggests that the company will be more financially efficient and successful in the utilization of intellectual capital. That means that companies in the AEC era must be more conscious that intellectual capital is used efficiently and effectively to meet the demands of the AEC.

This study also examined the positive impact of dynamic capabilities, which are Research and Development capabilities and marketing capabilities on the firm financial performance. The empirical results found Research and Development capabilities and marketing capabilities both have positive effect on firm financial performance. Dynamic capabilities which consist of Research and Development capabilities and marketing capabilities are proved to be able to help firms to succeed in this competitive environment. Firms that have good capabilities are getting more benefits than those that do not.

This study also tests the moderating role of dynamic capabilities in strengthen the effect of intellectual capital towards firm financial performance. The results supported the hypothesis and proved that the existence of dynamic capabilities, both research and development capabilities and marketing capabilities will lead to more optimal impact from intellectual capital in improving the firm financial performance.

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