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THE ROLE OF RETAIL INVESTORS, CULTURAL DİSTANCES, AND INCOME INEQUALİTY İN SOUTH EAST ASİA STOCK MARKET DEVELOPMENT

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ABSTRACT

World Federations of Exchange stressing the important role of retail investor. Exchanges need to focus on financial literacy as well as quality and quantity of retail participation in their markets. Development of technology and deregulation of investment in stock market arising the phenomena of retail investors. The breakthrough of ASEAN Exchanges integration is the establishment of ASEAN Trading Link in 2012. Recently, three exchanges already connected to this system and the retail investors in Malaysia, Singapore and Thailand have wider access to investment selection across the three countries. This study aims to provide answers to the long-known debate of the retail investor roles in the stock market by showing the significant role of retail investors for the stock market development in developing countries. In addition, the importance of cultural differences and income level to the retail investors and the stock market in ASEAN needs to be established. Data availability, lack of previous study and measurement problem might be challenges that relevant to discuss in order to development of this study.
Keywords*: Type keywords, separated by commas, a minimum of three and maximum five keywords.*

1. Introduction

Refers to Cambridge dictionary, a public company is *"a business that is owned by many people who have bought shares in it"*. The owners of a public company are the individual with excess money than willing to gain prosperity from the sharing wealth of public company. Company with goodwill and business model (including sustainability) would essentially list their shares in the stock market in order to distribute their wealth from private to public. Unfortunately, not all of the public company has a goodwill and business model. Furthermore, equal distribution of wealth not achieved and public trust to stock market become questionable.

Surprisingly, World Federations of Exchange (2017) stressing the important role of retail investor (known also as household or individual). Exchanges that willing to increase the number of retail investors advised to decrease costs-to-trade and promoting financial literacy of investors in order to create proper investment decisions in the stock market. The regulators also need to concern to perceived value and experience of retail investors. Furthermore, exchanges must focus on quality and quantity of retail participation in their markets.

Since the end of the 1980s, South East Asian countries have rapidly developed their stock market by reducing government intervention and boost the role of retail investors to invest in the stock market (Pradhan et al., 2014). To foster the better investment climate in South East Asia, countries in the region agreed to establish The ASEAN Capital Markets Forum (ACMF) in 2004 and following by collaborations of seven exchanges from six countries called ASEAN Exchanges. Establishment of ACMF and ASEAN exchanges align with the vision of ASEAN Economic Community to create *"highly integrated and cohesive; competitive, innovative and* *dynamic; with enhanced connectivity and sectoral cooperation; and a more resilient, inclusive, and people- oriented, people-centered community, integrated with the global economy"* (ASEAN Capital Markets Forum, 2016).

In the beginning, the ACMF implement cross-recognition of Qualifications on Education and Experience of Market Professionals since 2007 or known as investor certification standard. Then, the breakthrough of ASEAN Exchanges integration is the establishment of ASEAN Trading Link in 2012. Recently, three exchanges already connected to this system and the retail investors in Malaysia, Singapore and Thailand have wider access to investment selection across the three countries (ASEAN Exchanges, 2018). As for January 2018, ASEAN Exchanges has over 3,000 listed companies on its Exchanges and doubling market capitalization since the establishment of ASEAN Trading link to almost US$3 trillion, this amount is close to London Stock Exchange (US$3.6 trillion) but still have huge gap compare to New York Stock Exchange (US$18 trillion).

In January 2018, U.S retail investors derive the financial market hit new highs (Bloomberg, 2018). That is the sign that the powers of retail investors exist and stock market needs to take the concern to them. Ho (2010) in their study shows that overconfident of individual investors tends to show a higher degree of the disposition effect, sell off of winners but keep losers.

Development of technology and deregulation of investment in stock market arising the phenomena of retail investors or known also as household investors or individual investor. Interesting fact happens in one of developing the country in South East Asia, young investors (below 41 years old) counted more than half of the total investors in Indonesia Stock Exchange (Jakartapost, 2018). This phenomenon might happen around the world, but the effect may mix especially since developing countries differences in term of demographic, cultural, technology adoption and income level. Furthermore, the role of retail investors becomes questionable in developing countries.

Practitioners and scholarly has long known debate of the retail investor's roles in the stock market. Retail investors represent the high possibly investor of generating dumb money compare to the institution that builds the construct of quality of retail investors. Moreover, the importance to boost retail investors known as the stock market participation. Then, the stock market as well-regulated investment platform in the economic system becoming the representative of liberalization of economics, sources of innovation-driven and wealth generation for society. Researcher conclude this section by three research questions of this study

a. How quality and quantity of retail investors influence the stock market development in ASEAN Exchanges?
b. How cultural distances influence the stock market development in ASEAN Exchanges?
c. How income inequality relates to stock market development in ASEAN Exchanges?

2. Literature Review & Hypothesis

Stock market development is a construct that shows the improvements based on quantity, quality, and efficiency of the stock market (Levine & Zervos, 1996). Stock market development builds up based on complex proxies related to the market activity, market capacity, information asymmetry, corporate governance, regulation of the market and behavioral factors (Pradhan, 2013). This study trying to show the importance of retail investors, income inequality and culture distance for stock market development. Consequently, this study constructs three main hypotheses to show the relationship between those variables and the research framework shown in Figure 1.

Lack of literacy prevents retail investors from stock market participating (Van Rooij, Lusardi, & Alessie, 2011). Low level of stock participation negatively impacts to SMD. Moreover, retail investor move markets as the direction of their trades in short horizon, besides over long horizon move the only price of small stocks (Barber, Odean, & Zhu, 2008). Therefore, the first hypothesis stated as follow:

H1a. The impact of financial literacy on stock market development is mediated by stock market participation.
H1b. Stock market participation has the positive and significant effect to the stock market development

Increasing the level of uncertainty avoidance has a negative effect on stock market development (de Jong and Semenov, 2002). On the other hand, power distance level has a positive effect on trade volatility (Pirouz and Graham, 2010). In addition, Reuter (2011) in the meta- analysis titled "A Survey of Culture and Finance" shows the role of investors in stock market functioning (included stock market development) affected significantly by the differences of culture. Therefore, the second hypothesis stated as follow:

H2a. Power Distance has the positive and significant effect on Stock Market Development
H2b. Uncertainty avoidance has the negative and significant effect on Stock Market Development

Income inequality is beneficial for transitional growth in poor countries but it is harmful to high-income economies (Brueckner, & Lederman, 2017). Several macroeconomics indicators are insignificant to financial literacy differences for countries (Klapper, Lusardi, & Van Oudheusden, 2015). Macroeconomic volatility does not significantly influence stock market development as well (Garcia & Liu, 1999). On the other hand, stock market reform and development have different result related to the income of countries (Durham, 2001). Then, level of income inequality believes become significant factors to moderate the relationship of stock market participation and SMD in this study. Therefore, the third hypothesis stated as follow

H3. The effect of stock market participation on the likelihood of stock market development becomes stronger as a country has low-income inequality

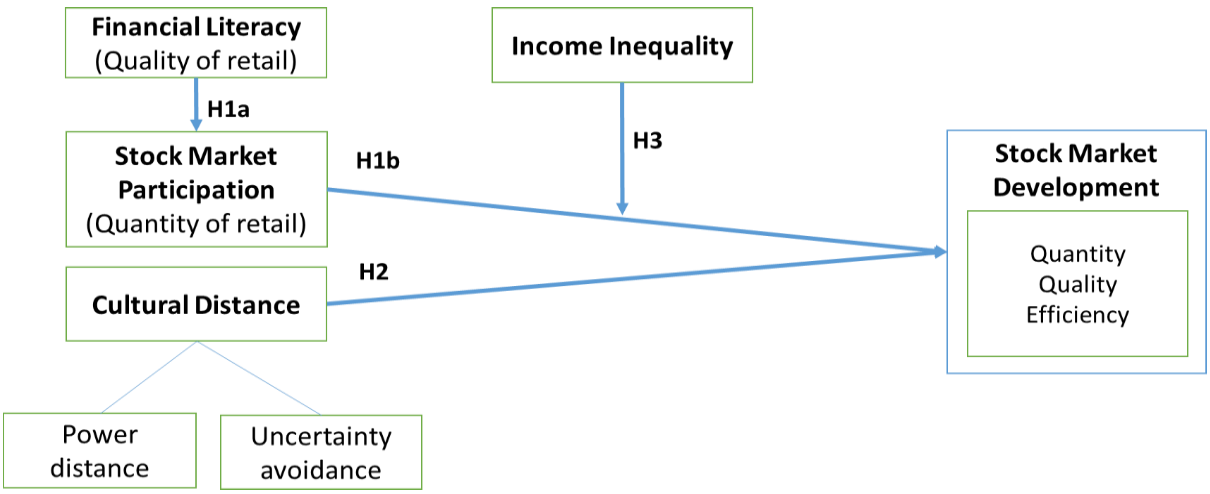

Figure 1. Research Framework

3. Methodology

This study conducts data collection process from secondary sources. The dataset comes from reliable sources, such as World Development Indicators (World Bank), World Exchange Federations Annual Statistic Guide, S&P Global Financial Literacy Survey, Hofstede's cultural dimension and The World Factbook. Researcher plan to make a panel data from 2012 – 2016. Stock Market Development would be dependent variable in this study. It will be measured based on four commonly used measures of stock market development, (1) market capitalization (MAC), (2) traded stocks (TRA), (3) turnover ratio (TUR), and (4) the number of listed companies (NLC). Quality of Retail Investors Financial literacy Index of Country. The role of the number of retail investors reflects by investor participation in the stock market. Stock market participation.

This study aims to become answers the long-known debate of the retail investor roles in the stock market by shows the significant role of retail investors for the stock market development in developing countries. In addition, the importance of cultural differences and income level to the retail investors and the stock market in ASEAN need to established. To conclude, some possible practical recommendation to regulatory of ASEAN Exchanges related to the importance of financial literacy for retail investors, give more attention to retail investors and establish policy that fulfill their interests and proactively protect retail investors from *"dumb"* firms in stock market (i.e: abandon corporate action that has bad effect to retail investors or Initiate the establishment of Securities Investor Association) are relevant to considers.

Table 1. Example of Data Available

Countries	Financial Literacy	Retail Investors	Market Cap. (USD mill.)	Listed companies	GDP/Capita (in USD)	Gini Index	Power Distance	Uncertainty avoidance
FBM KLCI (Malaysia)	36	1,849,048	382,976.7	902	26,623.3	46.2	104	36
SET (Thailand)	27	1,850,890	348,798.0	639	16,225.1	44.5	64	64
STI (Singapore)	59	1,682,100	639,955.9	769	86,139.1	45.8	74	8
[redacted]								
HNXi (Vietnam)	24	1,351,316	51,876.7	307	5,915.2	37.6	70	30
JCI (Indonesia)	32	526,027	353,271.0	521	11,040.2	36.8	78	48
PSEi (Philippines)	25	746,595	238,819.9	265	7,320.5	44.4	94	44

Note: example of dataset in 2015

4. Result & Discussion (Preliminary)

There are some challenges that are relevant to discuss to develop this study. Firstly, it is related to the data availability and generalization of using the data. The financial literacy rate for adults became generalization of retail investors quality in this study as unavailability data of investor literacy. Unavailability of time series data of financial literacy and Hofstede cultural dimension. Some incomplete data from stock exchanges. Not all countries have Retail investor data with Single Investor Identity (SID) numbers that are exclusively for stock market investment. Some countries mix up the number of retail investors in the stock market and other investment related, for example, bondholders or mutual funds. Table 1 shows an example of data available for the year 2015.

The second finding is related to the previous study that highlights the relationship between retail investors and financial literacy in the stock market. Retail investors and financial literacy studies that use country-level data are uncommon. In addition, it is rarely found the previous study that discusses culture and finances extensively (especially stock market) since it becomes a focus for non-finance scholars (i.e: Charles H. J. Reuter is an International Business Professor; John L. Graham is a Marketing professor. In addition, Karolyi (2016) on the paper titled "The gravity of culture for finance" found that measures of cultural values available in finance still not explain very well or they mention it as "fragility" measurement of culture in finance field using the data that available today.

The third concern of the possible challenges of this study is the measurement (or proxy) and the role of variables. The construct of country-level retail investor quality is rarely found, the researcher uses a proxy of country-level financial literacy in this study. Although, financial literacy has not explicitly measured the investors. Culture distance is well known as measured in management and marketing research field, in finance field it possibly needs specific proxy besides Hofstede's cultural dimension or World Value Surveys database.

The role of some construct in this study possibly challenges in term of trade-off stands. For instance, the role of income inequality could be dependent variable since the ultimate goal of the public company is to distribute wealth. Besides, cultural distance role might be more interesting as moderating variables rather than independent variables in this study. In addition, control variables for retail investors related to today's phenomena are essential to established (for example average age of investors and technology literacy).

Table 2. Preliminary Result of Study

OLS Regression Results						
Dep. Variable:	Market_Cap_USD_mill		**R-squared:**			
Model:	OLS		Adj. R-squared:		**0.987**	
Method:	Least Squares		**F-statistic:**		0.935	
Prob (F-statistic):	**0.0512**		Log-Likelihood:		**18.86**	
					-68.583	
	coef		std err			
const		1.33E+05		3.11E+05	t	P>|t|
Financial_Literacy		-2553.0614		1.22E+04	0.426	0.741
Retail_Investors		0.1143		0.103	-0.209	0.867
Gini_Index		-517.9192		3238.287	1.108	0.452
Power_Distance		-829.8014		3142.609	-0.16	0.904
Uncertainty_avoidance		2296.3043		4947.122	-0.264	0.839
					0.464	0.717
Omnibus:	0.742		Durbin-Watson:		1.938	
Prob(Omnibus):	0.69		Jarque-Bera (JB):		0.332	
Skew:	-0.438		Prob(JB):		0.847	
Kurtosis:	2.275		Cond. No.		3.38E+07	

The R-squared value of 0.987 suggests that 98.7% of the variability in market capitalization can be explained by the independent variables: Financial Literacy, Retail Investors, Gini Index, Power Distance, and Uncertainty Avoidance. This is a remarkably high value, indicating that the model has a very good fit to the data. In other words, the chosen predictors are collectively very effective at accounting for the changes in market capitalization across the different countries included in the analysis.

The F-statistic, which stands at 18.86, tests the overall significance of the regression model. This value indicates that the model is statistically significant and that at least one of the predictors is related to the dependent variable, market capitalization, in a meaningful way. The F-statistic compares the model with no predictors to the model with all the predictors, and a higher value suggests that the model with predictors is significantly better at explaining the variability in the dependent variable than a model without predictors.

The Prob (F-statistic) of 0.0512 is the p-value associated with the F-statistic. This value is slightly above the conventional threshold of 0.05 for statistical significance, suggesting that the model is on the borderline of being statistically significant at the 5% level. While the overall model fit is strong, the individual predictors do not show statistical significance (p-values > 0.05). This lack of significance for individual predictors could be attributed to the small sample size, which limits the statistical power and might mask the true effects of the predictors. To improve the model's robustness and reliability, increasing the sample size and exploring additional potential predictors or interactions between variables would be beneficial.

5. Conclusion

The regression analysis indicates that the model explains a substantial portion of the variability in market capitalization, as evidenced by the high R-squared value of 0.987. This suggests a strong overall fit, implying that the selected predictors—Financial Literacy, Retail Investors, Gini Index, Power Distance, and Uncertainty Avoidance—are collectively effective in explaining market capitalization differences. However, despite the strong overall fit, the individual predictors are not statistically significant, likely due to the limited sample size of six observations. To enhance the model's reliability, it would be advisable to collect more data and consider additional predictors or potential interactions among the variables.

For managers and policymakers, the high explanatory power of the model highlights the importance of understanding and addressing the various factors that influence market capitalization. Improving financial literacy and encouraging retail investor participation can be strategic goals to potentially enhance market performance. Furthermore, understanding the socio-economic factors such as income inequality (Gini Index) and cultural dimensions like power distance and uncertainty avoidance can provide deeper insights into market dynamics. Managers should focus on policies and initiatives that can positively influence these areas, such as financial education programs, investor-friendly regulations, and strategies to reduce income inequality and socio-economic disparities.

The role of some construct in this study possibly challenges in term of trade-off stands. For instance, the role of income inequality could be dependent variable since the ultimate goal of the public company is to distribute the wealth. Besides, cultural distance role might be more interesting as moderating variables rather than independent variables in this study. In addition, control variables for retail investor related to the today's phenomena are essential to established (for example average age of investors and technology literacy).

While the model demonstrates a high R-squared value, several limitations must be considered. The small sample size of only six observations limits the generalizability and statistical power of the findings. This small sample may lead to overfitting, where the model performs well on the existing data but poorly on new data. Additionally, the lack of statistically significant individual predictors suggests that the results should be interpreted with caution. There may also be other relevant variables not included in this analysis that could further explain variations in market capitalization. Future research should aim to incorporate a larger dataset and explore additional variables to provide a more comprehensive understanding of the factors influencing market capitalization.

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