

## Companies' profitability and asset growth within and across ASEAN

Khawaja Khalid Mehmood

Lecturer, Institute of Management Sciences, Bahauddin Zakariya University, 60800, Multan, Pakistan

[khawjakhaliid@bzu.edu.pk](mailto:khawjakhaliid@bzu.edu.pk)

Muhammad Haroon Hafeez

College of Business, Universiti Utara Malaysia, / Bahauddin Zakariya University, Multan, Pakistan

### ABSTRACT

The global financial crisis tested ASEAN on their national and business policies following after which successful recovery was witnessed in many of these economies. Nonetheless, economic and business performance seems diverse among them. This research fills information gap of total asset growth and profitability comparisons within and across four ASEAN countries during 2009-2013. It utilizes descriptive, graphs and Turkey's HSD test to make comparisons. Findings reveal that asset growth was greater in all countries after 2009. Profitability of Thai companies was lowest in 2009 and for Singaporean companies, it was better in 2010. Across ASEAN, Indonesian companies had higher asset growth and profitability compared to others in various years. Singaporean companies had overall lowest profitability and Malaysian companies had overall lowest asset growth. With its invaluable contribution, this research adds to information on ASEAN business and corporate climate along with providing input to economic and business policy makers.

**Keywords:** Return on Invested Capital, Total Asset Growth, Public Limited Companies, ASEAN.

### INTRODUCTION

ASEAN (Association of Southeast Asian Nations) represents emerging nations characterized by high economic growth, disparate inflation rates, and lower labour costs (Mahadwartha, 2010). The overall GDP growth for ASEAN countries was projected around 6% per year from 2011 to 2016 (Leggett, 2014). According to Asian Development Bank report (2015), the group is expected to mark a growth of 5.3% in 2016. The drive behind economic growth in ASEAN is evident through increasing cross border investments together with acquisitions and mergers in several industries like manufacturing, communications, transport, and banking (ASEAN, 2013). At the same time, ASEAN represent diverse economies in terms of products, customers, production, and pricing and offer attractive market opportunities for global investment in manufacturing, distribution and supply; and possibilities for successful intra-ASEAN trade (Kim, 2002; Leggett, 2014; Ng, 2002; Ong & Habibullah, 2012). By 2010, ASEAN had become home for 227 multinational companies (Vinayak, Thompson, & Tonby, 2014).

Growth and prosperity of corporate sectors in ASEAN is

central to achieving national growth targets and long term societal welfare (Goldstein & Xie, 2009; Rahim & Saad, 2014). Efficacious national policies concerning important corporate sectors drivers like tax rates, investment incentives, labor rates, and utility prices could indeed provide upsurge to corporate sector. Conversely, non-friendly policies and unfavorable circumstances could hamper its output. For instance, 2007-09 crisis badly hit corporate sector and companies' performance in ASEAN-5, whereby economic growth slowed down from 6.3% (2007) to 4.9% in 2008, marking net change of -6.6% from 2007 to 2009 (Goldstein & Xie, 2009).

In this scenario, tracking and appraising public limited companies' profitability and asset growth could be considered as an important exercise in updating information and guiding industrial sectors (Khatri, Leruth, & Piesse, 2002; Malik, 2013). This is indeed more important for ASEAN due to their emerging markets, growing importance of the region, and diversity among the nations. Within ASEAN context, certain past studies looked into issues like companies' expansion (Arsyad & Hwang, 2014), intellectual capital and its impacts on firm value and performance (Nimtrakoon, 2015), cash flow and audit quality effects (Rusmin, Astami, & Hartadi, 2014), and mergers and acquisitions performance (Rao-Nicholson, Salaber, & Cao, 2015).

Others have investigated into areas like industrial restructuring (Hiley, 1999), Asian stock market convergence (Chien, Lee, Hu, & Hu, 2015), corporate social responsibility (Waworuntu, Wantah, & Rusmanto, 2014), and impact of financial crisis on Asian companies (Goldstein & Xie, 2009). Specifically, there have been limited studies investigating the profitability and asset growth patterns of limited companies within and across ASEAN countries and filling this research gap became this research's objective. Therefore, this research addresses two questions. Firstly, how has the profitability (Return on Invested Capital ROIC) and asset growth (Total Asset Growth TAG), of limited companies in each ASEAN country behaved during the five years period: 2009-2013? Secondly, how do ASEAN countries compare with one another in terms of ROIC and TAG over those years. The coming sections present literature review, data and methodology, findings and conclusions followed by limitations and future research.

## LITERATURE REVIEW

Keeping in view this research's purposes, four countries having comparable GDP during 2009-2013 were selected for analysis. As per figures provided by ASEAN, four countries namely Indonesia, Malaysia, Thailand, and Singapore have been top ones with respect to their GDPs during the period. This section includes discussion about industrial sectors and economic outlook for sample countries.

### Industrial Sectors and Economic Outlook in ASEAN

**Malaysia.** The 2008 global financial crisis (GFC) could be considered as the most unfavourable one after the 1930's Great Depression (Khoo & Mah-Hui, 2010; Lai, Aziz, & Chan, 2014). The crisis had an impact on the performance of companies all over the world including those in Asia. Malaysia being export oriented nation was also affected as reflected through its lowered industrial output, exports, and industrial investments (Khoo & Mah-Hui, 2010). The GDP growth also significantly dropped at mere 0.1% in the last quarter of 2008. Kuala Lumpur Composite Index also decreased by 45% (from 1516 to 829) during October, 2008 (Lai et al., 2014).

The crisis had awful effect on the financial condition of Malaysian companies belonging to various sectors (Alfan & Zakaria, 2013). Although during last few years, corporate leverage has declined and investment in different sectors has risen but the figures are unfavourable compared to pre-crisis figures (International Monetary Fund [IMF], 2014). Though better but challenges prevail for Malaysian companies in form of tight credit conditions, falling international demand and pressures for high performance and profitability (Mehmood & Hilman, 2015).

**Indonesia.** Among ASEAN, Indonesia was most rigorously affected by Asian financial crisis (AFC) 1997-1998 that resulted into 13% fall in GDP in 1998; however, recovery from the crisis was successful as indicated through improved return on assets (ROA) and return on equity (ROE) of Indonesian companies (IMF, 2006). During 1998-2002, corporate sector's financial performance improved as evident through companies' lower debt to equity ratio (IMF, 2003). During 2007-08, Indonesian companies compared favorably against international companies for having lower debt to assets ratios and corporate leverage ratios, higher interest coverage ratios and average rate of ROA (Rumbaugh, 2012).

Indonesian economy figures post GFC were comparatively better than those during AFC and the country was less severely affected by GFC, mainly due to lower dependence on manufactured exports, and lesser exposure to banks in EU, US, and Japan (IMF, 2013a; Wie, 2012). Corporate sector performance was better among member countries and profitability of non-financial listed companies has been gradually increasing after 2009 (IMF, 2013a, 2015). However, Indonesian companies are supposed to face a challenging environment in future characterized by tight financial conditions, currency devaluation, and slowing economy (IMF, 2013a).

**Thailand.** Thailand has shown high economic growth rate in World Bank's executive summary for East Asia (Nimtrakoon & Tayles, 2015). It looks through the analysis of literature that performance of Thai companies and various sectors has been better during the last few years. This comes with the fact that Thai economy was exposed to tremendous challenges such as horrible floods during 2011, supply chain problems due to Japan tsunami, and GFC (IMF, 2013b).

Thai economy was well prepared to absorb shocks of GFC after lessons learned in AFC and the economy entered recession with overall better financial strength (IMF, 2010). During 2012, owing to better management and business policies, manufacturing sector made successful recovery after floods in areas like electric and electronic parts, hard disk drives, and automobiles (Bank of Thailand [BOT], 2012). During 2013, although there was stability in the corporate sector but profitability reduced a little bit as evidenced through reduction in operating profit margin to 6.1% from 6.5% during first nine months; however current ratio and debt equity ratio were stable (BOT, 2013).

**Singapore.** For over a decade, Singaporean companies have been comparatively more vulnerable to external shocks. During 2010, growth was observed in the corporate sector whereby shareholder's equity rose by 9.5% and total assets in the corporate sector grew by 8.4% wherein electronics and pharmaceutical industries contributed for more than 50% of shareholder's equity in manufacturing sector (Department of Statistics Singapore [DSS], 2010).

Similar pattern was reported for 2011 and 2013. During 2011-2012, leverage in the corporate sector edged up in spite of low interest costs, whereas profitability in terms of ROA and ROE also went down during the years compared to 2010 (IMF, 2013c). Hence, although economic development has been there in ASEAN but there has been variety in how various sectors have performed.

## METHODOLOGY

The analysis required data about ROIC and TAG of publicly listed companies in various sectors for five years: 2009 to 2013, and for four countries. The data were downloaded through Thomson Reuters Data stream as it is quite accurate and reliable source of data (Scotland, 2015; Zhao, 2015).

### ROIC

ROIC is frequently used for determining company profitability; gauges the payback on investment and specifies how well a company makes use of its overall assets; and it also indicates a company's capability to remunerate those who supply long term finances and to attract prospective suppliers of money (Gibson, 2011). Data stream uses following formula to calculate ROIC of companies:

### Tag

Total Asset Growth is another measure having strong estimation and prediction of financial position (Cao, 2011). Data stream uses following formula to calculate TAG:

$(Total\ Assets\ (Current\ Year) / Total\ Assets\ (Last\ Year) - 1) \times 100$

As noted before, the choice of countries was primarily dependent on their GDP growth rate along with complexity of data. After deleting outliers using box plots (Guan, 2006; Hunt, 1996), total observations for ROIC were 14104, and 14738 for TAG. Analyses were conducted on SPSS and all pair wise ratios' differences for years and countries were compared using Turkey's HSD Test (Abdi& Williams, 2010; Ollevent, Humphries, & Roe, 1999).

## DISCUSSIONS

### ROIC and TAG in ASEAN

**Malaysian companies' ROIC and TAG.** Table 1 depicts that ROIC of Malaysian companies was increasing after 2009 until 2011, it decreased a little in 2012 from 6.67 to 6.01, but was minimum in 2013 at 4.67. TAG also shows similar trend, however, it was minimum for 2009 (4.22).

**Table 1**

Variable	N	Mean	Std. Deviation
ROIC	2009	816	4.88
	2010	729	6.30
	2011	609	6.67
	2012	786	6.01
	2013	863	4.67
	<b>Total</b>	<b>3803</b>	<b>5.63</b>

Table 1 continued

Variable	N	Mean	Std. Deviation
TAG	2009	820	4.22
	2010	848	7.56
	2011	843	7.82
	2012	864	7.46
	2013	875	7.24
	<b>Total</b>	<b>4250</b>	<b>6.88</b>

### ROIC and TAG of Malaysian Companies (2009-13)

Let us have a look on Table 2 for Turkey's HSD Test's results (for entire analyses only significant results are discussed). Firstly, significant differences among years regarding ROIC were not revealed. However, TAG of Malaysian companies was lower in 2009 than TAG in 2010, 2011, and 2012 indicating significant asset growth on the part of Malaysian companies after 2009.

**Table 2**

ROIC			TAG		
(I) Years	(J) Years	Mean Difference (I-J)	(I) Years	(J) Years	Mean Difference (I-J)
2009	2010	-1.41157	2009	2010	-3.33896(*)
	2011	-1.78161		2011	-3.60780(**)
	2012	-1.13007		2012	-3.24425(*)
	2013	.21023		2013	-3.02527
2010	2011	-.37004	2010	2011	-.26885
	2012	.28150		2012	.09471
	2013	1.62180		2013	.31369
2011	2012	.65154	2011	2012	.36355
	2013	1.99184		2013	.58254
2012	2013	1.34030	2012	2013	.21898

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Turkey's HSD Test for Malaysian Companies

**Indonesian companies' ROIC and TAG.** Just like

Malaysian companies, ROIC of Indonesian companies has also been increasing from 2009 until 2011; however in 2013, it was at its minimum (8.76) as shown in Table 3. Regarding TAG, year 2009 was clearly apart with minimum TAG of 6.96.

**Table 3**

Variable	N	Mean	Std. Deviation
ROIC	2009	412	9.73
	2010	431	10.64
	2011	460	11.64
	2012	472	11.14
	2013	474	8.76
	<b>Total</b>	<b>2249</b>	<b>10.38</b>
TAG	2009	414	6.96
	2010	432	20.55
	2011	459	24.25
	2012	471	20.69
	2013	466	22.70
	<b>Total</b>	<b>2242</b>	<b>19.27</b>

### ROIC and TAG of Indonesian Companies (2009-13)

Tukey's Test (Table 4) also indicates that significant increase in TAG was noticed concerning 2009 and the other years. Specifically, TAG of 2009 (6.96) was significantly lower than TAG of all other years individually. This confirms aggressive growth in Indonesian companies after 2009 until 2013.

**Table 4**

TAG		
(I) Years	(J) Years	Mean Difference (I-J)
2009	2010	-13.58889(***)
	2011	-17.28887(***)
	2012	-13.73674(***)
	2013	-15.74053(***)

Table 4 continued

(I) Years	(J) Years	Mean Difference (I-J)
2010	2011	-3.69998
	2012	-.14785
	2013	-2.15164
2011	2012	3.55214
	2013	1.54834
2012	2013	-2.00379

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Turkey's HSD Test for Indonesian Companies

**Thailand companies' ROIC and TAG.** Table 5 indicates rise and fall in ROIC of Thai companies. TAG was more than double in 2010 (10.84) compared to that of 2009 (4.95) and maximum in 2012 (16.85).

**Table 5**

Variable	N	Mean	Std. Deviation
ROIC	2009	841	6.07
	2010	886	8.45
	2011	936	8.36
	2012	967	9.65
	2013	977	8.48
	<b>Total</b>	<b>4607</b>	<b>8.25</b>
TAG	2009	861	4.95
	2010	891	10.84

2011	944	15.63	35.17
2012	973	16.85	33.24
2013	985	15.11	38.92
<b>Total</b>	<b>4654</b>	<b>12.88</b>	<b>33.33</b>

**ROIC and TAG of Thailand Companies (2009-13)**

Table 6 shows that profitability in 2009 was lower than other years. However, increasing ROIC didn't become a trend after 2009. About TAG, the table indicates aggressive asset growth in years 2011 to 2013 compared to either 2009 or 2010.

**Table 6**

ROIC			TAG		
(I) Years	(J) Years	Mean Difference (I-J)	(I) Years	(J) Years	Mean Difference (I-J)
2009	2010	-2.37514(**)	2009	2010	-5.89404(***)
	2011	-2.28381(**)		2011	-10.67896(***)
	2012	-3.58167(***)		2012	-11.90622(***)
	2013	-2.40394(**)		2013	-10.16250(***)
2010	2011	.09133	2010	2011	-4.78492(**)
	2012	-1.20654		2012	-6.01218(***)
	2013	-.02880		2013	-4.26847(**)
2011	2012	-1.29787	2011	2012	-1.22726
	2013	-.12013		2013	.51646
2012	2013	1.17773	2012	2013	1.74372

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

**Turkey's HSD Test for Thailand Companies Singaporean companies' ROIC and TAG.**

Descriptive about Singaporean companies (Table 7) initially point out towards an upward trend till 2010 and after that a downward trend in ROIC till 2013. TAG doubled in 2010 (14.51) after 2009 (6.99) whereas it decreased down again in 2012 at 8.64.

**Table 7**

Variable	N	Mean	Std. Deviation
ROIC	2009	683	4.10
	2010	684	7.97
	2011	652	4.92
	2012	706	2.81
	2013	720	3.42
	<b>Total</b>	<b>3445</b>	<b>4.62</b>
TAG	2009	687	6.99
	2010	706	14.51
	2011	717	14.49
	2012	737	8.64
	2013	745	12.49
	<b>Total</b>	<b>3592</b>	<b>11.44</b>

**ROIC and TAG of Singaporean Companies (2009-13)**

Table 8 shows that profitability was better in 2010 compared to that in 2009, 2012, and 2013. Regarding TAG, it was higher in 2010, 2011, and 2013 compared to one in 2009. Further 2010 and 2011 were better years in terms of asset growth compared to 2012.

**Table 8**

ROIC	TAG
------	-----

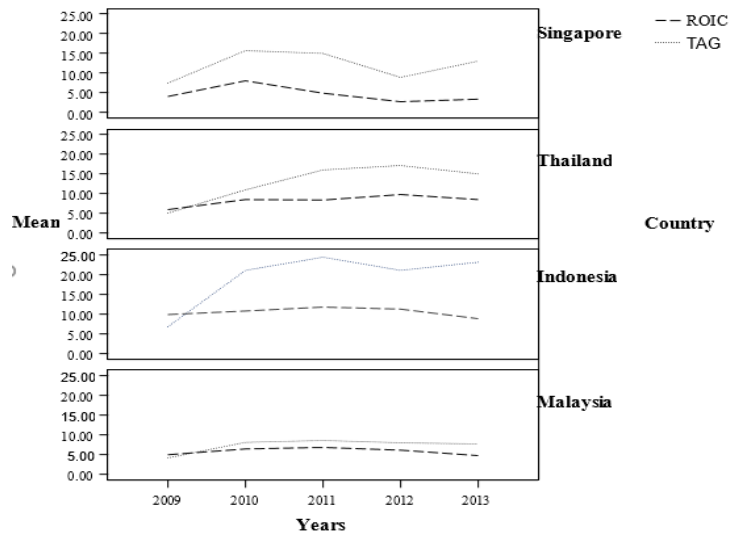
(I) Years	(J) Years	Mean Difference (I-J)	(I) Years	(J) Years	Mean Difference (I-J)
2009	2010	-3.87489(*)	2009	2010	-7.52558(***)
	2011	-.82402		2011	-7.49857(***)
	2012	1.28287		2012	-1.65173
	2013	.67753		2013	-5.50176(**)
2010	2011	3.05086	2010	2011	.02701
	2012	5.15776(***)		2012	5.87385(**)
	2013	4.55242(**)		2013	2.02382
2011	2012	2.10690	2011	2012	5.84684(**)
	2013	1.50156		2013	1.99681
2012	2013	-.60534	2012	2013	-3.85002

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

**Turkey's HSD Test for Singaporean Companies**

**CONCLUSIONS**

Based on the findings, it could be inferred that specific patterns of companies' profitability and asset growth in ASEAN countries have been different. However, year 2009 was not comparable with other years wherein profitability and asset growth were lower compared to other years. Figure 1 presents graphs of companies' ROIC and TAG from 2009-13 for all countries.



**Figure 1. Companies' ROIC and TAG (2009-2013)**

Graph of TAG for Malaysian companies shows increase after 2009. Certain past scholars have also reported higher asset growth of Malaysian companies against others for particular years (Ting, Kweh, & Chan, 2014; Watanabe, Xu, Yao, & Yu, 2013). Significant rise in TAG of Indonesian companies after 2009 is also evident from graph. Overall industrial growth in 2010 (5.09%), 2011 (6.90%), 2012 (6.42%), and 2013 (6.10%) was also reported higher in contrast to 2.56% in 2009 (Ministry of Industry Indonesia, 2012). Asset growth in banking sector during 2010-12 has also been progressing (Besar, 2012).

Thailand's economic and business situations have been convincing during last few years indicated through sound position of corporations and banks (IMF, 2013b). Previous findings along with Figure 1 indicate significant increase in TAG after 2009 and 2010 and in ROIC after 2009 which point

towards successful recovery from the crisis. It was probably brought by corporate sector's low reliance on leverage and high emphasis on profitability coupled with sound policies by the Bank of Thailand (IMF, 2010). Consequently, profitability and asset growth particularly in commercial banks has been rising after 2009 until 2013 (IMF, 2013b).

For Singaporean companies, 2010 was better year than 2009 for profitability, while asset growth in companies was also higher in 2010-11. DSS (2010) also reported higher profitability in 2010 (ROA=4.7%, ROE=14.3%) compared to that in 2009 (ROA=4.5%, ROE=13.8%) providing support for these findings. Moreover, their figures show that pretax profit although fell in 2008 (\$121,848 million) compared to 2007 (\$219,765 million), but it increased in 2009 (\$167,192 million) and for 2010 it touched \$194,794 million. Further, as mentioned earlier, it was reported high asset growth in 2010, 2011, and 2013 by DSS wherein it increased by 8.4% and 5.1% in 2010 and 2011 respectively.

### ROIC and TAG across ASEAN

This section presents year wise comparison of countries on the variables. Consider Table 1, 3, 5, and 7. For 2009, they reveal maximum ROIC of Indonesian companies (9.73) and minimum for Singaporean companies (4.10). TAG is however, maximum for Singaporean companies (6.99) and minimum for Malaysian companies. Table 9 reveals that Indonesian companies comparatively did better in profitability during 2009.

**Table 9**

ROIC			TAG		
(I) Countr y	(J) Country	Mean Difference (I-J)	(I) Countr y	(J) Country	Mean Difference (I-J)
Malaysia	Indonesia	-4.841(***)	Malaysia	Indonesia	-2.74007
	Thailand	-1.187		Thailand	-7.3155
	Singapore	.7873		Singapore	-2.77191
Indonesia	Thailand	3.654(**)	Indonesia	Thailand	2.00852
	Singapore	5.629(***)		Singapore	-.03184
Thailand	Singapore	1.979	Thailand	Singapore	-2.04036

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Tuckey's HSD Test for 2009

For 2010, Table 1, 3, 5, and 7 reveal maximum ROIC (10.64) and TAG (20.55) for Indonesian companies and minimum for Malaysian companies (ROIC = 6.30, TAG = 7.56). Table 10 reveals that in 2010, Indonesian companies' asset growth was highest among all, while they did well on profitability compared to Malaysian and Singaporean companies. Singaporean companies also had higher asset growth than Malaysian or Thai companies.

**Table 10**

ROIC			TAG		
(I) Countr y	(J) Countr y	Mean Difference (I-J)	(I) Countr y	(J) Countr y	Mean Difference (I-J)
Malaysia	Indonesia	-4.339(***)	Malaysia	Indonesia	-12.990(***)
	Thailand	-2.151		Thailand	-3.286

	Singapore	-1.675	Singapore	-6.958(***)	
Indonesia	Thailand	2.188	Indonesia	9.703(***)	
	Singapore	2.663(*)		6.031(***)	
Thailand	Singapore	.47514	Thailand	Singapore	-3.671(*)

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Tuckey's HSD Test for 2010

Similar to 2009, for 2011, Table 1, 3, 5, and 7 reveal that Indonesian companies had highest profitability (11.64) while Singaporean companies marked lowest (4.92). TAG of Indonesian companies was also highest (24.25) while Malaysia marking lowest growth in assets (7.82). Table 11 confirms higher profitability of Indonesian companies compared to all others during the year and also affirms better profitability of Thai companies against Singaporean companies. Indonesian companies marked higher asset growth compared to all others followed by Thai companies.

**Table 11**

ROIC			TAG		
(I) Countr y	(J) Countr y	Mean Difference (I-J)	(I) Countr y	(J) Countr y	Mean Difference (I-J)
Malaysia	Indonesia	-4.973(***)	Malaysia	Indonesia	-16.4214(***)
	Thailand	-1.68975		Thailand	-7.80270(***)
	Singapore	1.74492		Singapore	-6.66268(***)
Indonesia	Thailand	3.283(**)	Indonesia	Thailand	8.61844(***)
	Singapore	6.718(***)		Singapore	9.75846(***)
Thailand	Singapore	3.434(***)	Thailand	Singapore	1.14003

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Tuckey's HSD Test for 2011

For 2012, Table 1, 3, 5, and 7 indicate highest ROIC for Indonesian companies (11.14) and lowest one for Singaporean companies (2.81). Just like the previous year, Indonesian companies had highest TAG (20.69), while Malaysian companies had lowest (7.46). Table 12 also confirms higher ROIC and TAG of Indonesian and Thai companies against Malaysian and Singaporean companies.

**Table 12**

ROIC			TAG		
(I) Country	(J) Country	Mean Difference (I-J)	(I) Country	(J) Country	Mean Difference (I-J)
Malaysia	Indonesia	-5.126(***)	Malaysia	Indonesia	-13.26(***)
	Thailand	-3.631(***)		Thailand	-9.39(***)
	Singapore	3.2003(**)		Singapore	-1.1794
Indonesia	Thailand	1.4865	Indonesia	Thailand	3.8390
	Singapore	8.3259(***)		Singapore	12.05(***)
Thailand	Singapore	6.8394(***)	Thailand	Singapore	8.2141(***)

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

### Tuckey's HSD Test for 2012

Lastly, regarding 2013, Table 1, 3, 5, and 7 again indicate highest ROIC and TAG of Indonesian companies. Singaporean companies had lowest ROIC and Malaysian companies had lowest TAG. Table 13 also confirms better profitability of Indonesian and Thai companies against Malaysian and Singaporean companies. Additionally, Malaysian companies marked lower TAG compared to others, while Indonesian companies had more TAG compared to other companies.

**Table 13**

ROIC			TAG		
(I) Countr y	(J) Countr y	Mean Difference (I-J)	(I) Countr y	(J) Countr y	Mean Difference (I-J)
Malaysia	Indonesia	-4.0853(***)	Malaysia	Indonesia	-15.4553(***)
	Thailand	-3.8073(***)		Thailand	-7.86878(***)
	Singapore	1.25464		Singapore	-5.24840(**)
Indonesia	Thailand	.28481	Indonesia	Thailand	7.58655(***)
	Singapore	5.3417(***)		Singapore	10.2693(***)
Thailand	Singapore	5.0567(***)	Thailand	Singapore	2.62038

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

**Tuckey’s HSD Test for 2013**

From previous findings it is evident that Indonesian companies have been doing well on profitability compared to others during 2009-13. Thai companies have also been doing better during 2011 and 2012 particularly. Malaysian companies did well on ROIC in 2012 against Singaporean companies, whereas later ones did not have better profitability in any year. Concerning TAG, Indonesian companies again were highly aggressive in asset growth. Thailand and Singaporean companies also had higher figures during three years against certain countries, but Malaysian companies did not surpass any other companies on TAG in any year.

To investigate further, an additional analysis with overall ROIC and TAG for all years altogether was conducted. The analysis revealed that with average ROIC of 7.00 for entire region, Indonesian companies (10.38) had highest profitability followed by Thailand (8.25). Singaporean companies had least ROIC (4.62). With average TAG of 11.77 for the region, Indonesian companies had highest TAG (19.27) followed by Thailand (12.88). Malaysian companies had least TAG (6.88).

**Table 14**

ROIC			TAG		
(I) Country	(J) Country	Mean Difference (I-J)	(I) Country	(J) Country	Mean Difference (I- J)
Malaysia	Indonesia	-4.7592(***)	Malaysia	Indonesia	-12.3922(***)
	Thailand	-2.6218(***)		Thailand	-6.00186(***)
	Singapore	1.00828		Singapore	-4.56361(***)
Indonesia	Thailand	2.1375(***)	Indonesia	Thailand	6.38936(***)
	Singapore	5.7620(***)		Singapore	7.82762(***)
Thailand	Singapore	3.6646(***)	Thailand	Singapore	1.43826

\*, \*\*, \*\*\* are significant at .10, .05, and .01 levels respectively

**Tuckey’s HSD Test for All Years**

Table 14 verifies this inference. Indonesian companies have been surpassing all other companies during the years in both, ROIC and TAG. Thai companies did well compared to Malaysian and Singaporean companies on ROIC, whereas Thai and Singaporean companies went for greater asset growth compared to Malaysia companies during these five years. The graphical representation of both variables for all countries in Figure 1 also verifies these analyses.

The literature supports number of findings. Nimtrakoon (2015) argued that Indonesia expanded during GFC and did better in 2011 as compared to other economies; that Indonesian

technology firms generated profitability unlike those of Malaysia, Thailand, and Singapore. Singapore suffered more from GFC due to decrease in non-oil exports in manufactured products created by unfavorable economic conditions in Europe and US, and loss in wealth because of fast deteriorating Singapore Stock market (Thangavelu, 2008). Particularly, Kim, Kim, and Lee (2015) reported that Indonesia had highest stock price return against various countries like US, Korea, Thailand, Philippines, and Taiwan during 2007-2009. Further, Lin (2012) claimed that during global crisis period 2008-10, Indonesian companies had higher stock prices compared to Thai ones. Also, Indonesia had highest median TAG (11.92) among Thailand (5.63), Malaysia (5.23), and Singapore (7.74) for the period 1982-2010 (Watanabe et al., 2013).

**LIMITATIONS AND RECOMMENDATIONS**

This research has conducted asset growth and profitability analyses of four ASEAN countries by relying on rate of TAG and ROIC, however, other indicators of performance and growth could also be used in future depending on data availability. The choice of countries, variables and range of years were also based on nature of data and availability. Future research could change range of years, variables, and add more or different countries if permitted by data source. Time series data and analysis might also reveal important information.

**REFERENCES**

Abdi, H., & Williams, L. J. (2010). Tukey’s honestly significant difference (HSD) test. In N. Salkind (Ed.), *Encyclopedia of Research Design*, (pp. 1-5). CA: Sage.

Alfan, E., & Zakaria, Z. (2013). Review of financial performance and distress: A case of Malaysian construction companies. *British Journal of Arts and Social Sciences*, 12(2), 143-157.

Arsyad, N., & Hwang, P. (2014). Multinational expansion of ASEAN firms: The role of technological, political and knowledge resources. *Journal of Asia Business Studies*, 8(2), 104 – 117.

Asian Development Bank (2015). *Asian Development Outlook 2015: Financing Asia’s Future Growth*. Philippines: ADB.

Association of Southeast Asian Nations (2013). *Investing in ASEAN: 2013 | 2014*. Retrieved from <http://www.asean.org/resources/item/investing-in-asean-2013-2014> (October 10, 2015)

Bank of Thailand (2012). *Thailand’s Economic Conditions in 2012*. Thailand: BOT.

Bank of Thailand (2013). *Financial Stability Report 2013*. Thailand: BOT.

Besar, D. S. (2012). *Indonesian banking development: Financial services liberalization, the regulatory framework, and financial stability* [PowerPoint slides]. Retrieved from [https://www.wto.org/english/tratop\\_e/serv\\_e/wkshop\\_june\\_12\\_e/besar\\_e.pdf](https://www.wto.org/english/tratop_e/serv_e/wkshop_june_12_e/besar_e.pdf) (October 16, 2015)

Cao, S. (2011). *The total asset growth anomaly: Is it incremental to the net operating asset growth anomaly?* (Unpublished PhD dissertation). University of

- Illinois at Urbana-Champaign.
- Chien, M. S., Lee, C. C., Hu, T. C., & Hu, H. T. (2015). Dynamic Asian stock market convergence: Evidence from dynamic cointegration analysis among China and ASEAN-5. *Economic Modelling*, 51, 84-98.
- Department of Statistics Singapore (2010). *Singapore's Corporate Sector 2010*. Singapore: Singapore Department of Statistics.
- Gibson, C. H. (2011). *Financial statement analysis* (12<sup>th</sup> edition). USA: South-Western.
- Goldstein, M., & Xie, D. (2009). *The impact of the financial crisis on emerging Asia*. Peterson Institute for International Economics (Working Paper No. 09-11). Retrieved from <http://dx.doi.org/10.2139/ssrn.1499875> (September 22, 2015)
- Guan, Z. (2006). Statistical graphing in spreadsheets, *CAL-laborate International*, 15(1), 1-7.
- Hiley, M. (1999). Industrial restructuring in ASEAN and the role of Japanese foreign direct investment. *European Business Review*, 99(2), 80–90.
- Hunt, N. (1996). Boxplots in Excel, *the Spreadsheet user*, 3(2). 13.
- International Monetary Fund (2003). *Indonesia: Eighth review under the extended arrangement and request for waiver of performance criteria-staff report; staff supplement; and press release on the executive board discussion* (Report No. 03/375). Washington: IMF.
- International Monetary Fund (2006). *Indonesia: Selected Issues* (Report No. 06/318). Washington: IMF.
- International Monetary Fund (2010). *Thailand: Staff report for the 2010 Article IV consultation* (Report No. 10/344). Washington: IMF.
- International Monetary Fund (2013a). *Indonesia: Staff report for the 2013 Article IV consultation* (Report No. 13/362). Washington: IMF.
- International Monetary Fund (2013b). *Thailand: Staff report for the 2013 Article IV consultation* (Report No. 13/323). Washington: IMF.
- International Monetary Fund (2014). *Malaysia: Staff report for the 2013 Article IV consultation* (Report No. 14/80). Washington: IMF.
- International Monetary Fund (2015). *Indonesia: Staff report for the 2014 Article IV consultation* (Report No. 15/74). Washington: IMF.
- Khatri, Y., Leruth, L., & Piesse, J. (2002). *Corporate performance and governance in Malaysia*. IMF Working Paper (No. WP/02/152).
- Khoon, G. S., & Mah-Hui, M. L. (2010). *The impact of the global financial crisis: The case of Malaysia*. Malaysia: Jutaprint.
- Kim, H. (2002). *Has trade intensity in ASEAN+3 really increased? Evidence from a gravity analysis*. Korea Institute for International Economic Policy, KIEP Working Paper (No. 02-12).
- Kim, B. H., Kim, H., & Lee, B. S. (2015). Spillover effects of the US financial crisis on financial markets in emerging Asian countries. *International Review of Economics & Finance*, 39, 192-210.
- Lai, H. Y., Aziz, A. R. A., & Chan, T. K. (2014). Effect of the global financial crisis on the financial performance of public listed construction companies in Malaysia. *Journal of Financial Management of Property and Construction*, 19(3), 246 – 263.
- Leggett, R. J. (2014). *ASEAN 2015: Seeing around the corner in a new Asian landscape*. Australia: Nielson.
- Lin, C. H. (2012). The co-movement between exchange rates and stock prices in the Asian emerging markets. *International Review of Economics & Finance*, 22(1), 161-
- Mahadwartha, P. A. (2010). States of Nature and Indicators of Manager's Corruption in Indonesia. *Global Journal of Business Research*, 4(3), 25-45.
- Malik, Q. A. (2013). *Accounting based measures as determinants of corporate performance valuation*. (Unpublished PhD Dissertation). Foundation University, Pakistan.
- Mehmood, K. K., & Hilman, H. (2015). Should PLCs diversify into related or unrelated industries? Evidence from Malaysia. *Mediterranean Journal of Social Sciences*, 6(1), 517–528. <http://dx.doi.org/10.5901/mjss.2015.v6n1s1p517>
- Ministry of Industry Indonesia (2012). *Industry facts & figures*. Indonesia: Ministry of Industry.
- Ng, T. H. (2002). Should the Southeast Asian countries form a currency union? *The Developing Economies*, 40(2), 113-34.
- Nimtrakoon, S. (2015). The relationship between intellectual capital, firms' market value and financial performance: Empirical evidence from the ASEAN. *Journal of Intellectual Capital*, 16(3), 587 – 618.
- Nimtrakoon, S., & Tayles, M. (2015). Explaining management accounting practices and strategy in Thailand: A selection approach using cluster analysis. *Journal of Accounting in Emerging Economies*, 5(3), 269 – 298.
- Ollevent, N. A., Humphris, G., & Roe, B. (1999). How big is a drop? A volumetric assay of essential oils. *Journal of Clinical Nursing*, 8(3), 299-304.
- Ong, H-B., & Habibullah, M. S. (2012). Is China compatible with ASEAN-5? A gradual cointegration analysis, *Journal of Economic Studies*, 39(3), 356-367.
- Rahim, N., & Saad, N. (2014, March). *Sustainable growth of public listed companies (PLC) using capital structure choices and firm performance in an ASEAN market*. Proceeding of the Global Summit on Education 2014, 4-5 March 2014, Kuala Lumpur, MALAYSIA.
- Rao-Nicholson, R., Salaber, J., & Cao, T. H. (2015). Long-term performance of mergers and acquisitions in ASEAN countries, *Research in International Business and Finance*, 36, 373-387.
- Rumbaugh, M. T. (Ed.). (2012). *Indonesia: sustaining growth during global volatility*. Washington: IMF.
- Rusmin, R., Astami, E. W., & Hartadi, B. (2014). The impact

- of surplus free cash flow and audit quality on earnings management: The case of growth triangle countries. *Asian Review of Accounting*, 22(3), 217–232.
- Scotland, F. A. (2015). *Global Macro Outlook 2nd Quarter 2015*. Retrieved from <http://www.brandywineglobal.com/Webcasts/280974987/Slide.pdf>. (November 21, 2015).
- Thangavelu, S. M. (2008). *Global financial crisis: Impact on Singapore and ASEAN*. East Asian Bureau of Economic Research Working Paper (No. 21958), Australia. Retrieved from <http://www.eaber.org/node/21958> (October 16, 2015)
- Ting, I. W. K., Kweh, Q. L., & Chan, Y. C. (2014). Does Organizational Growth Contribute to Profitability? Evidence from Malaysian Public Listed Companies. *International Journal of Business and Society*, 15(2), 267.
- Vinayak, H. V., Thompson, F., & Tonby, O. (2014). *Understanding ASEAN: Seven things you need to know*. Retrieved from [http://www.mckinsey.com/insights/public\\_sector/understanding](http://www.mckinsey.com/insights/public_sector/understanding)
- Watanabe, A., Xu, Y., Yao, T., & Yu, T. (2013). The asset growth effect: Insights from international equity markets. *Journal of Financial Economics*, 2, 529-563. <http://dx.doi.org/10.1016/j.jfineco.2012.12.002>
- Waworuntu, S. R., Wantah, M. D., & Rusmanto, T. (2014). CSR and Financial Performance Analysis: Evidence from Top ASEAN Listed Companies. *Procedia-Social and Behavioral Sciences*, 164, 493-500.
- Wie, T. K. (2012). *The Indonesian economy after the global financial crisis*. Retrieved from [https://crawford.anu.edu.au/acde/ip/pdf/lpem/2012/2012\\_10\\_24\\_-\\_SEADI\\_Thee\\_Kian\\_Wie.pdf](https://crawford.anu.edu.au/acde/ip/pdf/lpem/2012/2012_10_24_-_SEADI_Thee_Kian_Wie.pdf) (November 2, 2015)
- Zhao, C. (2015). *Global reset*. Retrieved from <http://www.leggmasoninvestmentconference.com/london/downloads/presentations/Chen%20Zhao.pdf> (November 22, 2015).