Success Factor of Start-up Fund Raising in ASEAN

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Abstract

The objectives of this study aim to explore the factors determining the success in fund raising activities of startup companies in ASEAN in seed and early stage fund raising as well as creating the predictive model of probability of success in startup fund raising based on determined factors. The logistic regression model was applied to determine the success factors based on 11 factors of 23 parameters. Data collection includes 1,058 Seed Stage transactions and 656 Early Stage transactions of startup companies in six ASEAN countries during 2000-2017. We applied the publicly available measurement of parameters that able to access with up-to-date data in our studies in order to democratize the evaluation process aim to benefit the users in a fast-changing environment. The result of Seed model suggested Investor location, Education, Market Response, Firm location, Industry, Management Experience and Network are keys determining the success factor. On the other hand, the Early stage model suggested Education, Investor location, Market Response, Location, Industry, Management Experience and Firm Age are statistically significant to the fund-raising success. Seed model accuracy is 63% and Early stage model accuracy is 65%.
Keywords: Startup, New Venture, Predictive Model, Success Factor, Fund Raising, Funding, Venture Capital, Criteria of Investment

Introduction

ASEAN is one of the fastest-growing regions in terms of internet usage and number of internet user in the world with an internet user base projected to reach to 480 million users by 2020. In 2017, internet or digital economy was estimated to be worth $50 billion, or 2 per cent of the region's GDP in which the growth rate is at 27% in which the study from Google and Temasek indicated that the internet industry is expected to be worth $200 billion or 6% of the ASEAN economy by 2025. The major force that enabling the growth of internet economy in the region are the growth of online travel, E-commerce and online media (Temasek, 2018). Tech companies such as Grab, Traveloka, Gojek, SEA (Shopee), etc has transformed the way people live, the way of doing business and industry landscape in the great extent.

These tech companies once used to be startup companies, some do not even existed in the past decade. Startup company is the origin of those large tech corporate that transform many

people's live. Despite the importance of startup company to advance the technology development, the success rate of the new venture are only marginal. Leading the successful startup is not an easy task and entrepreneur have to deal with many challenges.

The study on 11,259 new technology venture found that there is only 36% of the companies survived after four years and the survival rate decrease to 21.9% after five year (Song, Podoynitsyna, Van Der Bij, & Halman, 2008). According to Global Business Monitor, lack of funding is one of the top three reason why business fail.

According to Crunchbase database, as of 2018, there are 358 unicorns (Startup valuation more than $1bn) all over the world, However, there are only 7 unicorn originated from ASEAN countries or less than 2% of the total unicorns tech companies.

According to South East Asian Venture Capital Association, 36% of Startup in ASEAN that raised seed financing over the period 2008-2014 are able to completed their Series-A financing, However, only 27% of that 36% Series A survivor able to successfully raised Series-B funding. This number remain below those number of US, and UK where about 50% of Series-A funded startups secured Series-B financing by the end of 2017. This indicate a possible gap in series-B financing (Doris Yee, 2018). It seems that there is a gap of successful startup case in ASEAN when compared to other developed market when it come to beyond Series A funding.

The objective of this research is to answer "What is the factor contributed to success of the follow-on fund-raising activities?", "Can we leverage on start-up's hard information disclose in the public domain to predict its likelihood of fund -raising success?". This is the preliminary research question for us to further develop the dynamic evaluation tools in the future. We therefore based our scope of research design on key parameters that based on public information available which would in the future become the input into our future dynamic model.

Literature Review

We perform the systematic literature review based on the keyword 'success factors', 'start-up', "startup", 'new venture', 'fundraising', 'firm performance', predictive model' in Science Direct, Scopus and Google Scholar database during 2000 - 2018. After screened the relevant paper, we found only a scare number of literatures in the field attempt to find the success factors contributed to start-up especially in ASEAN countries. However, we derived 47 literatures related to our topic using other countries data as show in Table 1 and Table 2. Based on Competitive Advantage Theory, we categories the factors effecting likelihood of fund-raising success based on two perspective: Market-based view draw from investor side and Resource-based view draw from entrepreneur side.

Table 1: Summary of Literature Review categorized by factor

No.	Year	Author	Market-Based View				Dynamic Resource-Based View						
			Industry: Market Size, Growth	Market Response	Firm Location	Investor Location	Team	Gender	Experience	Education	Network	Product	Firm Age
1	2000a	Gompers P. and Lerner J.				*							
2	2000b	Gompers P. and Lerner J.				*							*
3	2000	Schutjens, V. and Wever, E.					*		*				
4	2000	Hellmann, T. and Puri, M										*	
5	2000	Shepherd, D. et al	*							*		*	
6	2000	Bruton, G. et al										*	
7	2001	Lee, D. et al					*		*				
8	2001	Li, Haiyang		*									
9	2001	Li, H., and Atuahene-Gima, K.										*	
10	2001	Meseri, O. and Maital, S.					*						
11	2003	Davila, F. et al							*				*
12	2003	Kakati, M.		*					*			*	
13	2003	Shaker, et al										*	
14	2004	Le´vesque, M. and Shepherd, D.				*							
15	2004	Baum, J., Silverman, B.							*				
16	2005	Baum, J, Silverman, B.	*						*		*	*	
17	2005	Van Gelderen, M. et al					*	*	*	*			
18	2006	Chorev, S. and Anderson, A.					*						

Table 1: (Con.)

No.	Year	Author	Market-Based View				Dynamic Resource-Based View						
			Industry: Market Size, Growth	Market Response	Firm Location	Investor Location	Team	Gender	Experience	Education	Network	Product	Firm Age
19	2006	Armstrong, C. et al											*
20	2007	Hsu, D.					*		*	*			
21	2007	Valliere, D. and Peterson, R.							*				*
22	2008	Song, M. et al					*		*				*
23	2009	Nann, S.et al								*	*		
24	2009	Brush G. et al						*					
25	2010	Chen, H. and Gomper, P.				*			*				
26	2010	Gompers, P. et al							*				
27	2010	Chemmanur, T. et al				*							
28	2010	Paik, Y.							*				
30	2011	Hormiga, E. et al		*	*						*		
31	2011	Nofsinger, J. and Wang, W.							*		*		
32	2011	Petty, J., and Gruber, M									*	*	
33	2012	Miloud, T. et al	*				*		*	*	*		
34	2012	Mothilal, S. et al		*								*	
35	2012	Wang, H. et al											
36	2012	Yoo, C. et al.	*	*					*	*		*	
37	2013	Sievers, S. et al					*						
38	2014	Nahata, R. et al.				*							
39	2014	Paik, Y.							*				
40	2015	Bocken, N.									*		
41	2015	Onetti, A.					*		*				
42	2016	Falik, Y. et al.							*				
43	2016	Krishna, A. et al.										*	

Table 1: (Con.)

No.	Year	Author	Market-Based View				Dynamic Resource-Based View						
			Industry: Market Size, Growth	Market Response	Firm Location	Investor Location	Team	Gender	Experience	Education	Network	Product	Firm Age
44	2016	Spiegel, O. et al					*			*	*		
45	2017	Picken, J.					*						
46	2019	D Banerji, T.									*		
47	2018	Signori, A., and Vismara, S								*			
		Total	**4**	**5**	**2**	**6**	**12**	**2**	**19**	**8**	**8**	**11**	**5**

Industry

One of the key criteria screening the investor proposal is the industry that the startup is engaged business in. This including the factor such as size and growth of the industry in order to gauge the competitive advantage of the industry.

Shepherd 2000 proposed theoretical model explaining new venture survival that in order to increase survival likelihood, manager should seek three dimensions of information and disseminated process to mitigate risk incurred from these three dimension before making decision. The three dimension include Market that new venture engaged business as one dimension, apart from Technology and Management to increase chance of survival of new venture (Shepherd, Ettenson, & Crouch, 2000).

Later, Ge et al 2005 developed a framework to investigate how factors that are important to firm-level performance may affect valuation of a new venture when the new venture seeks equity financing from VCs. The integrative framework suggests that firm resources, external ties, and market opportunities are all influence firm profitability. The empirical results show that venture capitalists valuate a new venture higher if the new venture is in an industry with higher product differentiation and faster growth (Ge, Mahoney, & Mahoney, 2005).

This is also inline with later work of Miloud et al 2013 whose empirical results from the analyses of 184 rounds of early-stage venture capital investments in 102 new ventures support that that attractiveness of the industry, apart from the quality of the founder and top management team, as well as external relationships of a new venture, are significantly and positively affect its valuation by venture capitalists when it seeks venture capital financing in its early stages of development (Miloud, Aspelund, & Cabrol, 2012).

In Asia context, the empirical result based on the case of the online games industry in Korea showed that the market size, are one of the major key value drivers of startup companies in the Korean online games industry (Yoo, Yang, Kim, & Heo, 2012).

Market Response

Besides the characteristic of the market, how the market or customer response to the product that new venture offer also one of the key crucial consideration for VC and it is one of the major criteria adopted by investor. This include not only the good relationship with customer by also include how the company able to engage or connect its customer with its product in the market.

In USA, there are many researchers believe market response is the crucial criteria in selecting the investment in new venture. Kakati in 2003 using cluster analysis to distinguished 27 venture capital firm's criteria in investing in new high technology venture and concluded that it is not the unique products relative to competitors that brings success rather it is the firm's ability to meet the unique requirements of customers that bring success (Kakati, 2003).

The empirical studies of 130 firms in Spain and Portugal based on questionnaire send to the new venture conclude that the reputation of startup could have impact of short-term success but having customer loyalty, and by ensuring that these customers are prepared to recommend the firm and to repeat their purchases, has a positive impact on the success of the new organization in long-term. This consider as one of the intangible asset to the new venture (Hormiga, Batista-Canino, & Sánchez-Medina, 2011).

In India, the studies on the key success factors that are associated with performance in the Indian third-party logistics service providers (3PL) sector also suggested that relationship with customers is significantly influenced the operations measures of on-time delivery performance and customer satisfaction and the financial measure of profit growth (Mothilal, Gunasekaran, Nachiappan, & Jayaram, 2012).

In Korea, product development stage, market size, the ease of lock-in by customer, technological competency, and a key talent are the five major key value drivers of startup companies in the Korean online games industry (Yoo et al., 2012).

Firm Location

One of the key success factors of new venture is to have the location of the startup is the location of startup company is related to the success of the company in obtain funding. Hormiga (2011) use data from Spain and Portugal to conclude that location of their firm is positively correlated with value of firm by degree of accessibility for customer, and proximity to supplier.

In China, the studies on the new technology venture performance based on 300 new technology ventures from a sample frame of 500 firms in the Beijing Experimental Zone (BEZ) concluded that in China, the innovation-performance link was contingent on both environmental factors, and the relationship-based strategies of the ventures (Li, 2001).

Investor Location

Proximity of investor and the invested companies is one of the factors that could help mitigate the asymmetry information as the investor and entrepreneur having the similar background. Gompers's studies in 2000 concludes that the value of startup company has positive relationship with the maturity of venture capital in the area (Gompers & Lerner, 2000a). The same author used the data from 3,796 ventures in latter period to conclude that the startup company raised fund in East Coast in US received higher valuation that company raise fund in West Coast (Chen, Gompers, Kovner, & Lerner, 2010).

This also inline with Hazarika 2009 that syndicates of foreign and local VCs are associated with start-up success, and argue that cultural differences create incentives for better screening and due diligence. Within the context of syndication investment, the empirical studies from 45 countries from 30,071 venture suggested that distance of the international VCs is negatively correlated with success, but that the presence of a local syndication partner is positively correlated with success, thus mitigating the negative distance effect (Chemmanur, Hull, & Krishnan, 2010).

In US capital market context, the location where there is high capital inflow also indicate the higher valuation of fund raising of the new venture as location that has high investment demand of funding startup could raise valuation of startup (Gompers & Lerner, 2000b). The studies on the interfirm network of US VC suggests that information about potential investment opportunities generally circulates within geographic and industry spaces. This allow the flow of information within the area contributes to the geographic- and industry-localization of VC investments.

Le´vesque and Shepherd (2004) studies show that developed and developing environments have differential effects on an entrepreneur's timing of the entry decision. Entrepreneur in emerging countries attempt to following mimicking strategy in enter in to the business or strategy which some may deems as lacking competitive advantage, in order to acquire legitimacy and prestige but inconsistent with RBV in that the resource need to be valuable, rare, costly to imitate and non-substitutable. it appears cost/benefit ratio is lower for emerging countries vs developed countries where it followed RBV in that the resource has to be rare (Lévesque & Shepherd, 2004) With the different strategy in enter into business by entrepreneur, the implications for the way in which venture capital firms screen potential investments also different across countries.

However, some argument that recently emerged that the idea of local investor participation enhance chance of success do work only in developing market as local VC investors from emerging economies are relatively inexperienced and, hence, may not have the expertise to exploit their local informational to firm's success (Nahata, Hazarika, & Tandon, 2014).

Team

Majority of our studies are consisting stated that having the full set of management whose competency covered all area of work i.e. business, technical and technology, rather than solo entrepreneur is positively correlated with success of Startup (Schutjens & Wever, 2000) (Lee,

Lee, & Pennings, 2001) (Van Gelderen, Thurik, & Bosma, 2005) (Song et al., 2008) (Picken, 2017).

Apart from USA context, the team also importance in case of Israel startup context, (Meseri & Maital, 2001) (Chorev & Anderson, 2006), Italian startup context (Onetti, Pepponi, & Pisoni, 2015) as well as in relation to value of firm (Hsu, 2007; Miloud et al., 2012; Sievers, Mokwa, & Keienburg, 2013). This also consistent with the studies based on 340 early stage firm in US (excluding insurance and financial sector) which found that the team of founder rather than a solo founder and the completion of every function of management team is positively related to stock price (Ge et al., 2005).

However, there is also inconsistence studies regarding to the team such as prior studies of Spiegel work in 2016 that number of founder has no relationship with success (Spiegel et al., 2016).

Gender

In the 2000s, there is the proposed of "5Ms" model by Brush who extend the classic entrepreneur model of "3Ms" model (markets, money and management) required for entrepreneurs to launch and grow ventures that incorporated "motherhood" and "meso/macro environment". The new model of "5M" framework had called attention to woman entrepreneurship that female is making explicit social embeddedness and considers the multiple levels of influence on their entrepreneurial actions than previous perfection (Brush, De Bruin, & Welter, 2009). However, the theory seems to be inconsistence with longitudinal studies of 517 nascent entrepreneurs over a three-year period. The logistic regression results suggested that the individual characteristic such as gender is not the factor determine the success in pre-startup phase. (Van Gelderen et al., 2005).

Experience

It seems that experience is the factor that mentioned the most within the universe of our literature review since the early year of studies since 1974 until now. There are numerous empirical research supported that entrepreneur's prior experience and industry-specific know-how contributed to higher chance of survival, growth and performance of new venture (Kakati, 2003) (Gompers, Kovner, Lerner, & Scharfstein, 2010) (Schutjens & Wever, 2000) (Van Gelderen et al., 2005) (Song et al., 2008) (Baum & Silverman, 2004) which is in-line with context of startup firm value of Ge (2005) who suggested that the valuation of the new venture will be positively related to management experience, the previous top executive experience in the field and the previous venture (Ge et al., 2005). Later Hsu (2007) demonstrated that experienced entrepreneurs are more likely to obtain financing and also enabling the founded organization to obtain better valuations (Hsu, 2007) which consistent with estimation approximately 10% of all US VC-backed founders in 1990s were experienced entrepreneurs. However, they find no evidence that experienced entrepreneurs able to obtain better valuations for later on ventures (Gompers et al., 2010). The meta-analysis of empirical study of 11,259 New-Technology Ventures established between 1991 and 2000 in the United States suggested that within 24 possible success factors, management's marketing and industry experience are two of the eight significant success factors for New-Technology Venture NTVs (Song et al., 2008). The research were supported by data collected elsewhere such as a survey from Canada UK and US (Valliere & Peterson, 2007), data collected from 27 countries, (Nofsinger & Wang, 2011), in Italy (Onetti et al., 2015), and in France (Miloud et al., 2012).

However, the conclusion seems to be inconclusive given the studies from USA (Davila, Foster, & Gupta, 2003) (Chen et al., 2010) suggested vice versa despite the same geography which in-line with Paik work that observes new venture with VC-backed in the US semiconductor industry and suggests that prior firm-founding experience helps entrepreneurs acquire skills that are conducive to the survival of early-stage firms, but not

necessarily conducive to the financial success of the venture (Paik, 2010). Also, serial entrepreneurs have lower performance success rates than first-time entrepreneurs (Paik, 2014).

In other region, data collected from 56 transaction (Yoo et al., 2012) in Korea find no evidence of experience and firm's success rate which contradict to previous studies using structural equation modelling technique which indicates that experience, networking activities, and number of partners as well as internal locus of control and need for achievement all have positive impact on venture growth (Lee et al., 2001).

The survey by Falik et al in 2016 using the data collected from Israel entrepreneurs also supported that inexperienced Israel entrepreneur attach greater importance to valuation, arguing that their possible inferior bargaining position might cause them to be more concerned with valuation (Falik, Lahti, & Keinonen, 2016).

Education

This topic had been developed since 1990s until now that education show strong direct and indirect effects of business and financial success. This is consistent with the later empirical studies in the context of increase chance of success in US (Spiegel et al., 2016), Australia (Shepherd et al., 2000), and in Germany (Nann et al., 2010) as well as consistent in the context of education is positively correlated with the value of the firm (Hsu, 2007) (Miloud et al., 2012)

However, the study from the Western world seems to contrast with studies in Asian context which result showed that the competency of an entrepreneur does not affect the market value of startup companies in the new media industry (Yoo et al., 2012), which is also draw the same conclusion as empirical studies in international context (Van Gelderen et al., 2005).

The context of network do not only related to equity fund raising but also in equity-crowdfunding as well. The empirical result suggested that none of the companies initially backed by qualified investors subsequently failed (Signori & Vismara, 2018).

Network

There are many empirical studies on network in relation to fund raising success and firm performance range from the early age of the interview and mail questionnaire (Ge et al., 2005) to the cross-country comparison level (Nofsinger & Wang, 2011). This also have similar conclusion in valuation related context in that external relationships of a new venture significantly and positively affect its valuation by venture capitalists when it seeks venture capital financing in its early stages of development (Miloud et al., 2012).

The empirical studies in Germany suggested that university networks whose alumni have a stronger and larger share of their links with other alumni of their alma mater, are more successful as founders of startups. This could related to the support for both business and financial support among alumni (Nann et al., 2010).

This also consistence with finding from Spain that building a good reputation t on the rest of the stakeholders, including suppliers and financial entities have positive impact to new venture success rate (Hormiga et al., 2011)

It seems that the network factor is more important for Asian context rather than in other Western countries context based on Spiegel et al 2016 mixed-method study from 17 expert informant interviews. In his studies, all 17 Asian founders elaborate on the importance of status flows through their social network and underscored the high importance of these reputational benefits for startup. Conversely, for the Western founders, these were less central, and they generally attached less importance to status flows (Spiegel et al., 2016). However, this remain controversial with the finding in USA that founder connections is positively correlated with annual funds raised by a company (Bocken, 2015) (Banerji & Reimer, 2019).

In Korea, the empirical studies of 137 startup firm in Korea showed that among external networks, only the linkages to venture capital companies predicted the start-up's performance (Lee et al., 2001).

Product

According to Zahra et al (2003), new product launched reflects the transmission of information between firm reputation and customer. A reputation for technological excellence is the signal of organizational competence and attract business partners and customer. This will help the venture to establish its operation and enabling it to obtain higher revenue. The new product launch also reflects their R&D investment. The empirical studies from US software firm suggested that this technological reputation are positively related to sale revenue. (Zahra, Matherne, & Carleton, 2003).

According to our literature review of VC criteria, product factor is among one of the top five criteria mentioned in the research and it was mentioned since early year and valid until present in USA market (Hellmann & Puri, 2002) (Kakati, 2003) (Ge et al., 2005) (Krishna, Agrawal, & Choudhary, 2016).

Petty et al (2011) longitudinal qualitative research based on 11 years of studies of a European VC firms research based on 3,531 transactions found that Product factors is the key decision making for firm rather than Team of management that most of previous research suggested (Petty & Gruber, 2011). This is due to the VC normally has a list of management who they ready to replace (Bruton, Fried, & Hisrich, 2000).

In other region, product factor remain the core criteria in evaluating the investment criteria such as in Korea (Yoo et al., 2012). In Australia also found product criteria as main factors (Shepherd et al., 2000), including in India (Mothilal et al., 2012) and in China (Li & Atuahene-Gima, 2001).

In other cross countries studies also mentioned Product criteria is another important criteria (Shepherd et al., 2000) (Nofsinger & Wang, 2011).

Firm Age

Gomper and Lerner who studied on the 4,069 US based companies during 1990-1995 suggested that firm age is significantly positively associated with a change in equity value(Gompers & Lerner, 2000b). Three year later, Davila (2003) studied the relationship between firm age, size and growth by combined the 494 Startup database in San Francisco bay area with Personal Employer Organization (PEO) that startups subcontract with for their human resources management during the period of 1994 and 1999. The study suggested that the firm likelihood of receiving VC funding is associated with firm age, and firm size (Davila et al., 2003). This also consistent the meta-analysis of empirical study of 11,259 New-Technology Ventures established between 1991 and 2000 in the United States suggested that within 24 possible success factors, firm age is one of the 8 significant success factors for New-Technology Venture NTVs (Song et al., 2008).

However, these studies are inconsistent with the later study that collected data from 502 venture capital backed companies in US (Armstrong, Davila, & Foster, 2006) and the survey from 59 entrepreneurs based in three different industries over the 1993-2003 period (Valliere & Peterson, 2007). It indicated that firm's age is significant and negatively correlated with valuation among US startup. Hence, the empirical evidence in this area seems to be inconclusive.

Methodology

Data Collection

For the purpose of this study, we focus on the factors that we can measure with publicly available information in order to develop the tools that able to timely evaluate investment probability with low cost. We used hand-collected data from various public source include

CrunchBase, LinkedIn, Facebook and other news and article of the companies under public domain news article. We begin the data collection process as follow.

1) We search the transaction that the founded company headquarter is located in 6 ASEAN countries including 1) Singapore, 2) Thailand 3) Indonesia 4) Malaysia 5) Philippines 6) Vietnam that announced the transaction date from 2000-2017.

2) We screened to only the transaction that include only equity funding.

3) We then categorized into three stage of funding cycle of 'Seed', 'Early-stage' and 'Late-stage' funding based on definition that "seed" stage is any funding stage that is lower than series A. The definition for "Early Stage" was defined as funding stage from Series A and B and for "Late Stage" was defined as any fund raise beyond Series C. We able to derive our sample size of 1,058 for seed stage (777 companies) funding and 691 for early stage funding (290 companies).

Dependent variable

We assigned a binary variable into each case. We assigned 'success' or '1' for the case that company able to successfully progress the funding from seed to early stage funding or from early to late stage funding and assign 'not success' or '0' for the case that the company unable to progress to next round funding. Noted that in case of the companies was acquired by other or went to IPO process, we also assign '1' as this corporate action could demonstrate the exit strategy for VC.

Variable	Unit	Overall Mean / n =	Median / %	1,058 Min	100% Max	Stdev	Success Mean / n =	Median / %	523 Min	49% Max	Stdev	Not Success Mean / n =	Median / %	535 Min	51% Max	Stdev
A. Market-Based View																
1. Industry		n	%				n	%				n	%			
Media	case	117	11%				43	8%				74	14%			
IT_Infra	case	163	15%				82	16%				81	15%			
Tech_Specialist	case	88	8%				54	10%				34	6%			
Prof. Serv	case	110	10%				37	7%				73	14%			
Ecommerce	case	166	16%				78	15%				88	16%			
Leisure	case	106	10%				55	11%				51	10%			
Fintech	case	245	23%				135	26%				110	21%			
Transport	case	63	6%				39	7%				24	4%			
2. Market Response	Traffic in million/mth	0.02	0.00	0.00	1.62	0.10	0.03	0.00	0.00	1.62	0.12	0.01	0.00	0.00	0.73	0.06
		n	%				n	%				n	%			
Traffic > 20,000/mth	case	305	29%				183	35%				122	23%			
Traffic < 20,000/mth	case	753	71%				340	65%				413	77%			
3. Firm location		n	%				n	%				n	%			
Singapore	case	588	56%				303	58%				285	53%			
Thailand	case	72	7%				35	7%				37	7%			
Indonesia	case	112	11%				69	13%				43	8%			
Malaysia	case	160	15%				72	14%				88	16%			
Philippine	case	88	8%				29	6%				59	11%			
Vietnam	case	38	4%				15	3%				23	4%			
4. Investor Location		n	%				n	%				n	%			
In ASEAN	case	286	27%				116	22%				170	32%			
Not in ASEAN	case	772	73%				407	78%				365	68%			

Figure 3: Statistic Description of Seed Funding Data - Market based view parameters

Variable	Unit	Overall n = 1,058 100%					Success n = 523 49%					Not Success n = 535 51%				
		Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev
B. Resource-Based View																
5. Team	Person/Team	2.09	2.00	1.00	8.00	1.15	2.20	2.00	1.00	6.00	1.09	1.98	2.00	1.00	8.00	1.20
6. Gender	Female ratio/Team	0.11	0.00	0.00	1.00	0.24	0.10	0.00	0.00	1.00	0.23	0.11	0.00	0.00	1.00	0.26
7. Experience	Year/Team	2.73	2.00	1.00	20.00	2.07	2.96	2.00	1.00	20.00	2.16	2.51	2.00	1.00	19.00	1.95
8. Education		n	%				n	%				n	%			
Phd	case	48	5%				28	5%				20	4%			
Master	case	440	42%				231	44%				209	39%			
Bachelor's	case	654	62%				306	59%				348	65%			
Not attended university	case	57	5%				22	4%				35	7%			
9. Network	No. of connection	422	500	0	500	159	450	500	0	500	130	395	500	0	500	180
10. Product	No. of product launched	1.19	0.00	0.00	80.00	4.44	1.26	0.00	0.00	29.00	3.81	1.12	0.00	0.00	80.00	4.98
11. Firm Age	Year	1.45	1.02	0.00	32.47	1.96	1.44	1.06	0.00	32.47	2.01	1.46	0.97	0.00	24.02	1.91

Figure 4: Statistic Description of Seed Funding Data - Resource based view parameters

Variable	Unit	Overall n = 656 100%					Success n = 377 57%					Not Success n = 279 43%				
		Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev
A. Market-Based View																
1. Industry		n	%				n	%				n	%			
Media	case	76	12%				42	11%				34	12%			
IT_Infra	case	75	11%				34	9%				41	15%			
Tech_Specialist	case	62	9%				38	10%				24	9%			
Prof. Serv	case	47	7%				26	7%				21	8%			
Ecommerce	case	148	23%				96	25%				52	19%			
Leisure	case	63	10%				40	11%				23	8%			
Fintech	case	140	21%				75	20%				65	23%			
Transport	case	45	7%				26	7%				19	7%			
2. Market Response	Traffic in million/mth	0.70	0.01	0.00	64.00	3.78	1.01	0.02	0.00	64.00	4.73	0.28	0.00	0.00	20.00	1.74
		n	%				n	%				n	%			
Traffic > 700,000/mth	case	429	65%				243	64%				186	67%			
Traffic < 700,000/mth	case	227	35%				134	36%				93	33%			
3. Firm location		n	%				n	%				n	%			
Singapore	case	400	61%				240	64%				160	57%			
Thailand	case	55	8%				22	6%				33	12%			
Indonesia	case	95	14%				57	15%				38	14%			
Malaysia	case	51	8%				27	7%				24	9%			
Philippine	case	28	4%				15	4%				13	5%			
Vietnam	case	27	4%				16	4%				11	4%			
4. Investor Location																
In ASEAN	case	106	16%				58	15%				48	17%			
Not in ASEAN	case	550	84%				319	85%				231	83%			

Figure 5: Statistic Description of Earning Funding Data - Market based view parameters

Variable	Unit	Overall n = 656 100%					Success n = 377 57%					Not Success n = 279 43%				
		Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev	Mean	Median	Min	Max	Stdev
B. Resource-Based View																
3. Team	Person/Team	2.11	2.00	1.00	14.00	1.64	2.30	2.00	1.00	14.00	1.97	1.85	2.00	1.00	6.00	0.99
4. Gender	Female ratio/Team	0.10	0.00	0.00	1.00	0.25	0.10	0.00	0.00	1.00	0.25	0.09	0.00	0.00	1.00	0.24
5. Experience	Year/Team	3.17	2.00	1.00	29.00	3.67	3.60	2.00	1.00	29.00	4.38	2.59	2.00	1.00	20.00	2.28
6. Education		n	%				n	%				n	%			
Phd	case	25	4%				15	4%				10	4%			
Master	case	272	41%				166	44%				106	38%			
Bachelor's	case	332	51%				182	48%				150	54%			
Not attended university	case	27	4%				14	4%				13	5%			
7. Network	No. of connection	439	500	0	500	150	447	500	0	500	145	427	500	0	500	155
10. Product	No. of product launched	5.93	0.00	0.00	120.00	11.52	7.22	0.00	0.00	120.00	13.25	4.19	0.00	0.00	55.00	8.34
9. Firm Age	Year	4.01	3.22	0.00	34.42	3.50	4.18	3.26	0.00	34.42	3.72	3.77	3.19	0.01	30.72	3.15

Figure 6: Statistic Description of Early Funding Data - Resource based view parameters

Independent Variable

Industry: Crunchbase.com had already assigned 46 industry categories to each of the company in each transaction. We had categories into 8 major categories which are 1) Media, 2) IT Infrastructure, 3) E-Commerce, 4) Professional Service, 5) Technology Specialist, 6) Leisure, 7) Fintech, and 8) Transport. We assigned dummy variable to each of industry variable. We opt chose Media industry as the omitted variable in our analysis.

Market Response: The author measure market response on the basis of the customer response toward the new venture, specifically by using the Web Traffic on the month of transaction announcement as the key measure. The website employed the traffic data from Alexa (amazon.com) for the specific website which also include the web ranking according to Alexa as well as the channel of where the traffic was derived from i.e. search engine i.e. google, Bing or yahoo or from direct link of its own URL.

Location: We obtain data of startup headquarters' location from CrunchBase. We assigned dummy variable to each of startup that locate in each country which are 1) Singapore 2) Thailand 3) Indonesia 4) Malaysia 5) Vietnam and 6) Philippine. We opt chose Philippine as the omitted variable in our analysis.

Investor's Location: The proximity of the investors also be one of the factors help mitigate the asymmetric information. We obtain the data location of lead investor or major investor in each round of funding based on CrunchBase database. We assigned '1' for dummy variable in case the investor's office location is located in ASEAN countries while assigned '0' in case of investor's office location is outside ASEAN countries.

Team: We applied the number of team member as the measure to gauge on the team composition as from prior research, the team founder with higher mix and diversity of background of founder is outperform the solo founder. We obtain the number of team member data from CrunchBase.

Gender: We applied the ratio of female in management team as the proxy to gauge the impact of the gender. We obtain data from CrunchBase.

Experience: We applied the number of the founded organization by the team member as the proxy of the experience of management prior founder current venture. We obtain preliminary data from CrunchBase and cross-check with LinkedIn in case there is a discrepancy, we also validate data with Facebook and other publicly available source.

Education: We based our education information primarily on LinkedIn as this should reflect the most accurate publicly available source for education information as recruiter also rely on LinkedIn as their primary source to search for candidate. We also cross-check the accuracy of data with CrunchBase and Facebook. In case there is a discrepancy of data, we rely on LinkedIn. In case there are multiple founder, we select the highest education level among all member. We assigned dummy variable to each of startup level of education which are 1) PhD 2) Master Degree 3) Bachelor's Degree 4) Not attend university. We opt chose not attend university level as the omitted variable in our analysis.

Network: We using LinkedIn connection to represent the network that management has as it reflect the today' s modern world way of doing business. However, the limitation is LinkedIn no longer provide the information of the connection after the 500 connections. However, it can still able to distinguish between the connection the founder has.

Product Development: CrunchBase database also provide the timeline of product development of startup in its database. We applied the historical number of active products to be the proxy of gauging its product development activities.

Firm Age: We measure firm age at the date of transaction announcement date in year. The data available in CrunchBase on both announcement date and company founded date. In case of there is no data available, we opt use to cross check from other publicly available source. However, if that is not possible or founded data appear to be after the date that firm announce

to receive funding, we consider transaction announcement date as firm's first date of inception.

Model: Logistic Regression

We applied the logistic regression in this study to investigate the determinants of the success in the fund-raising process of startup as our depended variable is dichotomous and also be a predictive analysis.

The independent variables are all potentially relevant factors that we hypothesis to lead to the success in the fund-raising process. The logistic regression model defined as:

$$logit(p) = \log\left(\frac{p(y=1)}{1-(p=1)}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + .. \beta_i x_i$$

$$for\ i = 1 \dots i$$

When the corresponding probability is:

$$p = \frac{b^{\beta_0+\beta_1 x_1+\beta_2 x_2+\cdots\beta_i x_i}}{b^{\beta_0+\beta_1 x_1+\beta_2 x_2+\cdots\beta_i x_i} + 1}$$

$$= \frac{1}{1 + b^{-(\beta_0+\beta_1 x_1+\beta_2 x_2+\beta_i x_i)}}$$

Where The β_0 is the coefficient of the constant term… β_1 are the coefficients of the independent variable; $x_1, x_2 \dots x_1$ are the independent variables and ε_i is the error terms. The coefficient is estimated based on the maximum likelihood estimation. The model coefficient β_1 would be interpreted as the change in the log odds for a one unit increase in x_1, holding all the other dependent variable constants, or after adjusting other dependent variable. The following logistic regression model is estimated

$$\ln\left(\frac{probability\ of\ success}{1 - probability\ of\ success}\right) =$$

$$\beta_0 + \beta_1 Industry_{IT\_Infra}$$
$$+ \beta_2 Industry_{Ecommerce}$$
$$+ \beta_3 Industry_{Prof\_serv}$$
$$+ \beta_4 Industry_{tech\_spealist}$$
$$+ \beta_5 Industry_{Leisure} + \beta_6 Industry_{Fintech}$$
$$+ \beta_7 Industry_{Transport}$$
$$+ \beta_8 Market\ Response$$
$$+ \beta_9 Team + \beta_{10} Gender + \beta_{10} Experience$$
$$+ \beta_{11} Edu_{phd}$$
$$+ \beta_{12} Edu_{Master} + \beta_{13} Edu_{Bachelor}$$
$$+ \beta_{14} Product + \beta_{15} Network + \beta_{16} Age$$
$$+ \beta_{17} location_{SG} + \beta_{18} location_{TH}$$
$$+ \beta_{19} location_{ID} + \beta_{20} location_{MY}$$
$$+ \beta_{21} location_{VN} + \beta_{22} Investor\_location$$
$$+ \varepsilon_i$$

Result and Discussion

We applied logistic regression model to analyses the relationship between likelihood of success in fund raising activities in each stage (seed and early stage) and our 11 parameters of 23 independent variables. Table below illustrates the model used to test the hypothesis for both stage of fund raising. This table shows the coefficient estimates, standard error, the Wald statistic and the Chi-square value of the two models.

Parameters	Seed to Early Stage funding					
	Coeff. (B)	SD	Wald	Sig.	Odd Ratio	Note
Industry_IT_Infra	.262	.239	1.201	.273	1.300	
Industry_Media	-.519	.265	3.820	.051	.595	**
Industry_Tech_Specialist	.566	.292	3.768	.052	1.762	**
Industry_Prof.Serv	-.507	.274	3.414	.065	.602	**
Industry_Leisure	.162	.265	.373	.541	1.176	
Industry_Fintech	.388	.220	3.101	.078	1.474	**
Industry_Transport	.447	.319	1.959	.162	1.564	
Market Response	.626	.153	16.779	.000	1.870	***
Location_ID	.551	.229	5.767	.016	1.735	***
Location_TH	.170	.270	.394	.530	1.185	
Location_MY	-.058	.204	.082	.775	.943	
Location_PH	-.607	.259	5.499	.019	.545	***
Location_VN	-.393	.365	1.161	.281	.675	
Location_Investor	.648	.166	15.281	.000	1.911	***
Team	.111	.083	1.775	.183	1.117	
Gender	-.103	.283	.134	.714	.902	
Experience	.086	.047	3.387	.066	1.090	**
EDU_PhD	.661	.442	2.238	.135	1.936	
EDU_Master	.639	.320	4.003	.045	1.895	***
EDU_Bachelor	.551	.318	3.008	.083	1.735	**
Network	.002	.000	18.379	.000	1.002	***
Product	-.017	.015	1.285	.257	.983	
Firm Age	-.010	.035	.082	.775	.990	
Constant	-2.288	.440	27.035	.000	.101	***
n	1,058					
-2 Log likelihood	1336.336a					
Chi-square	130.227					
Sig.	.000					
%Accuracy: Overall	62.95					
%Accuracy: Failure Case	61.31					
%Accuracy: Success Case	64.63					

Note: P<0.05 ***, P<0.1 **

Figure 7: Logistic Regression Result of Seed Stage Model

Parameters	Seed to Early Stage funding Marginal Effect (%)	Rank ME	Coeff (B)	Sig.	Odds Ratio	Note
EDU_PhD	16.08%	1	.661	.135	1.936	
Location_Investor	15.96%	2	.648	.000	1.911	***
EDU_Master	15.85%	3	.639	.045	1.895	***
Market Response	15.49%	4	.626	.000	1.870	***
Location_PH	-14.76%	5	-.607	.019	.545	***
Industry_Tech_Spec	13.92%	6	.566	.052	1.762	**
EDU_Bachelor	13.68%	7	.551	.083	1.735	**
Location_ID	13.57%	8	.551	.016	1.735	***
Industry_Media	-12.72%	9	-.519	.051	.595	**
Industry_Prof.Serv	-12.43%	10	-.507	.065	.602	**
Industry_Transport	11.06%	11	.447	.162	1.564	
Location_VN	-9.68%	12	-.393	.281	.675	
Industry_Fintech	9.64%	13	.388	.078	1.474	**
Industry_IT_Infra	6.54%	14	.262	.273	1.300	
Location_TH	4.24%	15	.170	.530	1.185	
Industry_Leisure	4.04%	16	.162	.541	1.176	
Team	2.77%	17	.111	.183	1.117	
Gender	-2.59%	18	-.103	.714	.902	
Experience	2.15%	19	.086	.066	1.090	**
Location_MY	-1.45%	20	-.058	.775	.943	
Product	-0.43%	21	-.017	.257	.983	
Firm Age	-0.25%	22	-.010	.775	.990	
Network	0.05%	23	.002	.000	1.002	***
Constant			-2.288	.000	.101	***

Figure 8: Marginal Effect Analysis of Seed Stage Model

The Seed Stage Model: Overall model
The eleven parameters and twenty-three independent variables were included in the model with sample size of 1,058 transactions. The model chi-square (130.227) was statistically significant at p < 0.001. This suggested that the Seed Stage Model is a good estimator for predicting whether the startup would successfully raise their seed funding. The Seed Stage Model correctly predicted 62.9% of the result of the startup seed fund raising process with 64.6% correctly predicting failure case and 61.3% correctly predicting success case.

The Seed Stage Model: Statistically Significant of Parameters
The twelve variables that are statistically significant in Seed Stage Model that ranked based on coefficient impact are (1) Investor location with coefficient of +0.638 (2) Education in Master Degree with coefficient of +0.639 (3) Market Response with coefficient of +0.626 (4) Location in Philippine with coefficient of -0.607 (5) Technical Specialist Industry with coefficient of +0.566 (6) Location in Indonesia with coefficient of +0.551 (7) Education in Bachelor's Degree with coefficient of +0.551 (8) Media Industry with coefficient of -0.519 (9) Professional Service Industry with coefficient of -0.507 (10) Fintech Industry with coefficient of +0.388 (11) Management Experience with coefficient of +0.086 and (12) Network with coefficient of +0.002.

The Seed Stage Model: Implication
From the Seed Stage Model, the top five variables that has the highest impact and statistically significant are the Investor Location, followed by Education level in Master degree, Market Response, Location in Philippines, and Industry type in Technical Specialist field. Only

Location in Philippines resulted in negative coefficient while others parameters resulted in positive coefficient.

In our view, the reason that it is so crucial that the investor location has to be in ASEAN due to the proximity of the investor and startup help mitigating the information asymmetry in many area range from the familiarity of market and condition to the acquittance of the entrepreneur in which in case the investor do not acquittance with entrepreneur before, it will be less challenging to search for the endorsement or third parties reference of such entrepreneur if the investor and startup is in the same investment community. This is consistence with Gomper and Lerner (2000a) Chen et al (2010) studies in US.

The startup team with the education level of team member is Master' degree is one of the key factors determining success of fund raising. This is partially consistence with Cooper et al (1994) that the education as the indicator of human capital is the crucial factor determining the startup success. However, this is inconsistent with previous empirical studies of Stuart and Abetti (1990) which argued that advanced education beyond the bachelor's degree did not help but was negatively related to performance as the best way to learn about making a company successful is to run a new firm. We believe part of the conflict was due to the area specific of Stuart's sample size of 52 venture that focus mainly in New York area while Cooper's work is based on 1,053 new venture across USA. Also, we believe the context between US and ASEAN countries also difference. In addition, one of the explanations is from Nan et al (2009) that university network, provide a better environment for students to found more and more successful startups. Drilling into the database, the most popular Master' degree is in MBA or management degree in Ivy league university, the power of alumni or network would also play an important role.

Market Response also be another factor in reducing the asymmetric information as the customer are the best reference to endorse the product or the company. The negative coefficient of location base in Philippine is in-line with our expectation. According to Startup 2017 ranking, Philippine ranked 5th among largest startup economy in ASEAN, after Singapore, Thailand, Indonesia, and Malaysia as the market remain infant. According to 2017 Philippine Startup Survey by PwC revealed that only 11% of known startups today were established before 2012, and the year where most startups were founded was in 2016 which expected to flourish in 2018-2019 which are beyond our scope of study (Pascual, 2017).

The statistically significant of the Technical Specialist industry parameters indicated that the investor is investment demand the specialization or deep tech startup in the region while the supply of the investment case is limited. Within this region, the technical specialist industry startup captured for only 8% of the overall startup of our 1,058 seed sample size.

Another parameter worth mentioning is the high coefficient with statistically significant of the location in Indonesia. This indicated the investor are more willing to invest in the market with large market size as Indonesia is the largest economy with highest number of populations in the region.

The coefficient sign is mostly consistent with our hypothesis except for Gender, Product and Firm Age, with none of these inconsistent variables are statistically significant in our model. Despite statistically insignificant, the negative coefficient of gender implied that the lower the ratio of the female in the team, the higher chance to receive funding and vice versa. This is inconsistent with 5Ms model proposed by Brush (2000) but confirm Cooper et al (1994) that women-owned ventures being less likely to grow, but just as likely to survive as men. In addition, the negative coefficient sign of product development indicates the higher the number launch implied the lower chance of receive funding. This could have many arguments in interpretation such as the product launch might cause the investor decide not to grant funding or the launch of product might generate revenue necessary for startup able to bootstrap and the external funding seems unnecessary.

Firm Age also resulted in negative coefficient, implying that the shorter the age of the firm, the higher the chance to get funding. This could imply that speed of action might be one factors in increasing chance of startup being funded. The longer the age of the firm, there is less likely chance to receive funding.

Parameters	Early to Late Stage funding					
	Coefficient (B)	Standard Error	Wald	Sig.	Odd Ratio	Note
Industry_Media	.430	.894	.345		-.100	
Industry_IT_Infra	.444	.218	.641		.049	
Industry_Tech_Specialist	.193	26.977	.000	***	-.244	
Industry_Prof.Serv	.108	.068	.794		.007	
Industry_Leisure	.352	.114	.736		.029	
Industry_Fintech	.049	4.369	.037	***	.025	
Industry_Transport	.619	1.430	.232		.163	
Market Response	.486	4.627	.031	***	.245	
Location_ID	.481	1.661	.197		.148	
Location_TH	.001	.533	.465		.000	
Location_MY	.009	1.427	.232		.003	
Location_PH	.026	4.713	.030	***	.013	
Location_VN	.651	1.403	.236		.000	
Location_Investor	.000	.000	.000	.000	.000	***
Team	.000	.000	.000	.000	.000	***
Gender	.000	.000	.000	.000	.000	***
Experience	.000	.000	.000	.000	.000	***
EDU_PhD	.000	.000	.000	.000	.000	***
EDU_Master	.000	.000	.000	.000	.000	***
EDU_Bachelor	.000	.000	.000	.000	.000	***
Network	.000	.000	.000	.000	.000	***
Product	.000	.000	.000	.000	.000	***
Firm Age	.000	.000	.000	.000	.000	***
Constant	.000	.000	.000	.000	.000	***
n	0					
Constant	0.000					
0						
-1.001197977	0.103					
26.97736909	4.369					
Percentage Accuracy: Overall	1.14					
Percentage Accuracy: Failure Case	0.94					
Percentage Accuracy: Success Case	1.17					

Note: $P<0.05$ ***, $P<0.1$ **

Figure 9: Logistic Regression Result of Early Stage Model

Parameters	Early to Late Stage funding					
	Marginal Effect (%)	Ranking by absolute ME	Coefficient (B)	Sig.	Odds Ratio	Note
EDU_Master	24.54%	1	1.046	.031	2.845	***
Location_Investor	-24.35%	2	-1.001	.000	.367	***
Location_TH	-22.42%	3	-.912	.007	.402	***
Market Response	20.98%	4	.975	.004	2.650	***
Industry_IT_Infra	-18.08%	5	-.733	.020	.481	***
EDU_PhD	16.26%	6	.740	.232	2.097	
EDU_Bachelor	14.79%	7	.620	.197	1.859	
Industry_Fintech	-10.10%	8	-.412	.127	.662	
Location_PH	-10.04%	9	-.407	.345	.666	
Location_MY	-8.83%	10	-.358	.268	.699	
Industry_Media	-6.70%	11	-.273	.405	.761	
Location_VN	4.90%	12	.207	.641	1.230	
Industry_Transport	-3.85%	13	-.158	.688	.854	
Location_ID	-3.85%	14	-.158	.551	.854	
Industry_Prof.Serv	3.80%	15	.159	.675	1.173	
Industry_Leisure	3.19%	16	.133	.704	1.143	
Gender	2.87%	17	.119	.736	1.126	
Experience	2.48%	18	.103	.037	1.108	***
Industry_Tech_Specialist	-1.54%	19	-.064	.863	.938	
Firm Age	1.35%	20	.056	.030	1.057	***
Team	0.68%	21	.028	.794	1.029	
Product	0.27%	22	.011	.232	1.011	
Network	0.01%	23	.000	.465	1.000	
Constant			-.771	.236	.463	

Figure 10: Marginal Effect Analysis of Early Stage Model

The Early Stage Model: Overall model
The eleven parameters and twenty-three independent variables were included in the model with sample size of 656 transactions. The model chi-square (94.6) was statistically significant at p < 0.001. This suggested that the Early Stage Model is a good estimator for predicting whether the startup would successfully raise their seed funding. The Early Stage Model correctly predicted 65.1% of the result of the startup seed fund raising process with 46% correctly predicting failure case and 79% correctly predicting success case.

The Early Stage Model: Statistically Significant of Parameters
The seven variables out of twenty three variables are statistically significant in Early Stage Model that ranked based on coefficient impact are (1) education in Master degree with coefficient of +1.046 (2) Investor location with coefficient of -1.001 (3) Market Response with coefficient of +0.975 (4) Location in Thailand with coefficient of -0.912 (5) IT infrastructure Industry with coefficient of -0.733 (6) Management Experience with coefficient of +0.103 and (6) Firm Age with coefficient of +0.056.

The Early Stage Model: Implication
From the Early Stage Model, the top six variables that has the highest impact and statistically significant are education level in Master degree, followed by Investor location, Market Response, Location in Thailand, Industry type in IT infrastructure and Experience. Education in Master level, Market response and Experience have positive coefficient while the rest resulted in negative coefficient.

It seems that the list of variables that statistically significant is down from twelve variables to seven variables when startup advance to early stage funding. Three out of seven variables are reported to be statistically significant in Seed Stage Model (education level in Master degree, Market Response, Management Experience) with positive coefficient. Notwithstanding, the impact to the startup fundraising success is higher in a great extent for these three parameters. For instance, education level in Master degree coefficient impact increase from +0.639 of Seed Stage Model to +1.046 of Early Stage Model, Market Response coefficient impact increase from +0.626 of Seed Stage Model to +0.975 of Early Stage Model, and Experience coefficient impact increase from +0.086of Seed Stage Model to +0.103 of Early Stage Model indicate the consistent of the impact throughout the stage of funding lifecycle.

The result of consistence of education and experience factors for both seed and early stage has partially underline the resource based view that human capital is the crucial factor effecting the startup fund raising probability since seed to late stage funding cycle and it became more importance throughout the stage of funding cycle regardless of change in environment which in line with Burton's studies from Silicon Valley that Startup access to financing depend on the ability of individual team members to obtain these resources and accrued to entrepreneur based on prior employers. However, the fact that Network parameter in our model does not statistically significant nor resulted in positive or negative coefficient thought both stage of funding life cycle, we cannot conclude that this is also the case for Social capital based on resource-based view. We believe part of this are due to the limited access to network data in Linked that limited presentation after 500 connection which do not allow us to fully investigate the maximum reach of connection that entrepreneur possessed. This suggested the future research studies to further observe on the connection that able to gain full access to data.

The consistency of positive coefficient with statistically significant of Market Response variable throughout both stage of funding cycle also consistent with market-based view that the customer response is crucial factor effecting the startup funding success.

On the contrary, this is not the case of investor location impact as the coefficient turn from +0.648 of Seed Stage Model to -1.001of Early Stage Model, indicating that there is higher probability for startup raising fund with investor outside ASEAN in early stage funding vs seed stage funding. This is quite a novel finding of our studies. It seems that in case the startup would like to increase chance of obtain funding, the startup should seek to approach the investor who based elsewhere other than ASEAN countries.

On the location factor, Thailand is one of the parameters that resulted in statistically significant negative coefficient when compared to Singapore which is the omitted variable. Noted that all of other countries except Vietnam also resulted in negative coefficient despite statistically insignificant. According to our database, Thai startup market is only booming in 2015-2016. The average age of the company entering to early stage funding is approx. more than 4 years. Consequently, the newly setup company in 2015-2016 should reach early stage funding in 2019-2020 which is out or our reach in the studies. Hence, it come as no surprise that model resulted in lower chance of getting early stage funding in Thailand when compare to Singapore. This is similar to Philippine for seed stage model in which we believe when time past and the region become ready, the result will also be altered.

Unlike in Seed Stage Model, Firm Age coefficient is consistent with our hypothesis. This implied the longer the age of the firm, there is higher probabilities in obtain funding in early stage funding. It implied that the speed of doing business is less important at this stage than how to do it right to gain customer attraction.

Conclusion
Based on logistic regression result that in Seed stage, there are twelve factors that statistically significantly affect the likelihood in obtaining funding include (1) Investor location (2) Education in Master Degree (3) Market Response (4) Location in Philippine (5) Technical Specialist Industry (6) Location in Indonesia (7) Education in Bachelor's Degree (8) Media Industry (9) Professional Service Industry (10) Fintech Industry (11) Management Experience and (12) Network. However, the factors that statistically significantly affect the chance of obtain funding in Early Stage round are reduce to seven factors includes (1) education in Master degree (2) Investor location (3) Market Response (4) Location in Thailand (5) IT infrastructure Industry (6) Management Experience and (7) Firm Age. The model correctly predicting 63.5% in Seed Stage Model and 64.5% in Early Stage Model. This research should assist both entrepreneur and investor in making financing and investment decision.

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