

VENTURE CAPITAL PRE-INVESTMENT DECISION MAKING PROCESS: AN EXPLORATORY STUDY IN MALAYSIA

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ABSTRACT

Venture capital is an alternative source of funding for SMEs in Malaysia. Recognizing the importance of this industry toward economic growth, the Malaysian government has initiated various strategic plans. Despite promising growth of the venture capital market, past empirical findings reveal that the performance of venture capital backed companies (investee companies) over long run has been relatively poor, especially after venture capitalist exit. Thus, there is a need to understand the decision-making process practiced by Malaysian venture capitalists. Most decision making processes evolve from classical decision-making models. The current study purports to find disparity between the current practice and the classical venture capital decision-making model. The current study incorporates an exploratory research survey of 16 venture capitalists. Findings reveal significant similarities in the decision making procedure and investment criteria used to select investment with the classical model. As for investment criteria, greater importance is given to management integrity and exit opportunity rather than to the business idea. Findings also reveal that VCs experience does not correspond to expertise in decision -making.

JEL: G24, M13, D81, L20

KEYWORDS: Venture capital decision making process, investment criteria, investment stage, investment sector, investment timing.

INTRODUCTION

Venture capitalists (VCs) are professionals who pool funds from high net worth investors and invests these funds into promising young business enterprises (Jain, 1999). Traditionally, companies that have yet to meet listing requirements or qualify for bank loans (Florin, 2005) recognize VC as providers of financial support and value added services. However, over the years, the VCs role has become more challenging. They rely on new business ideas, which can withstand the competitive environment (Kaplan, Sensoy & Stromberg, 2009).

Due to the nature of uncertainties in the small business environment, VCs are very selective with their investments deals. Schweinbacher (2007) documented that VC specialize in financing large amounts of capital in small businesses that they find relatively attractive. Thus, not all-small business can attract VC investment. Jain (1999) documents VCs have the expertise to separate high quality firms from marginal ones. However, empirical findings in developing nations reveal that lack of experience and improper decisions on the part of VCs lead to adverse selection over the long run (Wang, Wang & Lu, 2003). Thus, it is interesting to note how VCs make decisions in an environment of high uncertainties. Do they have a structured decision making process? Can the VC decision-making process apply across different nations? Most of the study from 1970s – 2000s documents the influence of investment stages on venture capital decision making process (Wells, 1974; Tyejee & Bruno, 1984; Hall, 1989; Fried & Hisrich, 1994; Boocock & Woods, 1997; Bliss, 1999; Larsson & Roosvall, 2000). These stages include “seed capital” characterized by small investment which enables young business enterprises to test their innovation (of product and services), “start up capital” characterized by investment pumped into actual

business operations, “expansion capital” supports continuation of business operations and growth and “later stage capital” invested to facilitate takeover, acquisition, divestiture or management buyout process. These studies also reveal that investment criteria (management capabilities, uniqueness of product, market acceptance, & degree of competition) influence the decision-making stages. Some later studies (2000 – 2008) explored the importance of investment criteria and the influence of cultural differences across nations on the venture capital decision-making process (Bruton & Ahlstrom, 2003; Bruton, Ahlstrom & Yeh, 2004; Naqi & Hettihewa 2007). Another issue discussed in these studies is the difference between the concept of venture capital investment practiced in developing nations and the traditional concept of venture capital investment practiced in developed nations. Recent studies, however address the importance of understanding the physiological trait of venture capitalists and the oversimplification of investment criteria in the decision making process (Dmitry, 2006; Blair, 2008).

Development of Venture Capital Market in Asia

The phenomena of venture capital investment originated from United States in late 1940s (Mueller, 1972). Venture capital investment (VC) entered the Asian market in the late 1960s with Japan being the first to attract foreign venture capital investment followed by China and Singapore (Mueller, 1972; Bruton *et al.* 2004; Naqi & Hettihewa, 2007). By 1980s, venture capital activity started to grow at an impressive rate in Asia. The Asian VC market reports an annual average growth rate of 15% over the last 15 years compared to 6% in Europe and 4% in United States (Naqi & Hettihewa, 2007). This growth mainly attributed to the major economic development within the region during this period.

Despite the growth, empirical evidence reveals that the performance of venture capital backed companies in Asia has been mixed (da Silva, Velayuthen & Walter, 2003; Wang *et al.* 2003; Brau, Brown & Osteryoung, 2004). Unfortunately, this evidence has not been successful in revealing the significant economic contribution of VC as compared to developed nations (Megginson & Weiss, 1991; Gompers, 1995; Chemmnuar & Loutskina, 2006). The observed performance between the two regions can be associated to several factors. One is the difference between the practice of venture capital activities in Asia from those practiced in developed nations. Naqi and Hettihewa (2007) documents that venture capitalists in Asia were private equities investors.

Past literature attributes the differences to the unique business culture, economic and regulative environment in Asia (Bruton *et al.* 2004; Naqi & Hettihewa, 2007). These studies claim that most small businesses in Asia are family owned across generations. Venture capital and any other form of external funding are given least importance by small business owners (Michaelas, Chittenden, & Poutziouris, 1998). Third party involvement is seen as a threat of expropriation to their business (Ueda, 2004). Moreover, the main source of Asian venture capital funding comes from government and financial institutions. Thus, the venture capital activities and decisions are highly influenced by these institutions (Pandey, 1998).

The venture capital industry set foot in Malaysia in late 1980s with four VC firms and US\$20m funds (Boocock & Presley, 1993). Business ventures however, were very pessimistic about the traditional venture capital activity resulting in poor responses in the early days (Naqi & Hettihewa, 2007). Wang *et al.* (2003) reveal that companies backed by venture capital perform poorly over long run especially after VCs exit their investee companies. The study claims that there are adverse selection and grand standing effects in the Malaysian venture capital market. As a result the Malaysian government initiated joint venture programs with the private sectors and foreign investors in 2004. The Government remained the largest contributor of venture capital funds attributing to almost 40% of VC funds here. Venture capital continued to gain popularity under the 9th Malaysian plan where government played a prominent role in promoting the industry (Malaysian Venture Capital Development Council). Islamic venture capital market came into place in 2008. By year 2011, the total number of venture capital firms in Malaysia raised to 109

firms, of which 53 are venture capital management corporations and 56 are venture capital corporations (Securities Commission). The relaxation of regulative policies (such as allowing listing of technology incubators, granting 10 years of exempt dealer status for venture capital companies which provides seed capital funding) has been very supportive in promoting the growth of VC industry in Malaysia (Malaysian Venture Capital Development Council). Unlike in developed nations venture capital decisions in Malaysia are not only dependent on venture capitalists activities but also on the perception of investees (small business owners) and investors (mainly government).

The current paper investigates VC decision-making process and investment criteria practiced in Malaysia as an exploratory study. It is particularly interested in addressing issues of: Do Malaysian VCs have sufficient experience in the industry? What is the time frame taken to evaluate investment deals? Which sector is most preferred by Malaysia VCs? Which investment stage is most preferred by Malaysian VCs? Are Malaysian VC decision-making procedures and investment criteria similar to the classical decision making model? The remainder of this paper is structured as follows; past literature on VC decision-making process and method of soliciting survey response are narrated in literature review, followed in methodology an introduction of survey method and analysis of current study. The forth section presents the findings of current study and final section presents the conclusion and recommendation for future study.

LITERATURE REVIEW

Evolution of the investment decision-making process practiced by venture capitalists since 1970 is shown in Table 1. VCs in the early days face less doubts on the prospect of their investment companies, thus less criteria/procedures were set in their decision making process. As competition in the business environment starts to grow, more innovative and high-risk businesses seek venture capital funding (Larsson & Roosvall, 2000). Hence, VCs face greater uncertainties in their investment and more criteria added in selecting their investment companies. They believe that a good decision model helps them to separate best investments candidate from marginal ones (Jain, 1999). Later studies however attribute the differences in decision-making process to cultural, institutional, and regulative environment in different nations (Bruton *et al.* 2004).

Table 1: Venture Capital Decision-Making Process

Author	Decision model	Decision process
Wells (1974)	3-step decision model	investment search; proposal screening; proposal evaluation
Tyebjee and Bruno (1984)	4- step decision model	deal origination; proposal screening; proposal evaluation; deal structuring
Hall (1989)	6- step decision model	Generate a deal flow; proposal screening; proposal assessment; proposal evaluation; due diligence and deal structuring.
Fried and Hisrich (1994)	6- step decision model	Deal origination; firm specific screen; generic screen; first phase evaluation; second phase evaluation and closing.
Boocock and Woods (1997)	7-step decision model	generating a deal flow; initial screening; first meeting; second meeting; board presentation; due diligence and deal structuring.
Gluer (2003)	4-step decision model	Generating deal flow; initial screening; due diligence and preparation of the term sheet

Note: Source of information compiled by author of current paper.

Among all the proposed models, Fried and Hisrich (1994) model was widely accepted and tested in different regions (Silva, 2004). Fried and Hisrich (1994)’s study involves personal interviews with VCs from 18 venture capital firms. VCs were asked to describe their investment process, select their investment criteria, time taken to make decisions and whether any reference checking was involved in the decision process. Base on the responses Fried and Hisrich developed a six stage venture capital decision making model (shown in Table 1) and three investment criteria (shown in Table 2). The findings also reveal that VC firms not only provide supply-side benefits to their business ventures (business can raise

fund without financial track record and collateral) but they also provide demand-side (alternative source of capital) benefits to their business ventures.

Fried and Hisrich (1994) model was adapted by Bliss (1999) to investigate decision making process for transition economies. He used interviews and follow-up questionnaires with a sample of six VC firms in Poland. VCs were required to describe their investment process base on actual investment deals. Similar questions to the earlier model were raised. Bliss (1999)'s finding reveals the venture capital decision making model for transition economies diverges from past research in two areas. First, it was seen that privatization of state-owned enterprises are considered important in deal origination and most of the VCs were active to solicit deals from targeted industries. Second, the study revealed that firm-specific screens were rarely used in the venture capital investment process as industry segmentation was not well defined and due to a lack of firm specific knowledge on the part of VCs. His study also showed that two important evaluation criteria in VC decision making process are government influence and legal system. Bliss (1999) asserts that a short track record in a free market like Poland makes it difficult for VCs to evaluate managerial skills of their investee companies. However, Kaplan *et al.* (2009) recently documented that VCs concern should be the business (horse) they are investing not the management (jockey). This study claims that the uniqueness of the business idea can avoid imitation or a sudden failure of the small business in the competitive market. Since VCs are known for their own expertise, the investees' management criteria (jockey) should be considered secondary.

Some recent studies on decision making processes use comparative case study approaches. They use existing decision making models in different contexts and also make comparisons between existing models and classical ones (Larsson & Roosvall, 2000; Dmitry, 2006). Larsson and Roosvall (2000) explored VC decision making process and investment criteria used by Sweden venture capitalists. They interviewed a total of 30 VCs via e-mail enquiry. They tested past theories with empirical results and find that classical theory do not totally explain decision making process but it can explain why the decision making model is conducted as it is. The study claims decision making processes proposed in the past cannot be the most suitable way of finding the optimal investments for VC. Larsson and Roosvall (2000) expanded Fried and Hisrich (1994) model by incorporating the contingency theory in the investment criteria. The contingency theory is based on VCs negotiation, inspection, computation and judgemental strategy.

Hence, various efforts to introduce a new venture capital decision making model came into place. Emphasis was given on the influence of investee's management in decision making process. Gluer (2003) explored VCs decision making capabilities for sequential investments. He interviewed 30 professionals from 21 VC firms and 3 investee companies. His findings suggested a four step decision making process (Table 1). Silva (2004) documents how VCs select early stage investments in small equity market (Portugal). This study uses three approaches, first was a pilot study using participant observation. This technique requires researcher to participate in the context that he observes. Researchers observed the daily routines and carried out informal discussion with analyst and executives of VC firms (include observation of meetings between VCs and business owners). The second approach requires researchers to participate in the decision process by analyzing external and internal information provided by the investee (contractual agreement, internal reports, press release). The third approach was an interview with executives and investment analysts of VC firms. The study reveals that decision making process and criteria used by VCs in small equity markets differ from those used in developed markets. Silva's (2004) findings reveal VCs place greater importance on the business idea, sustainable advantage and growth potential than to financial projections.

Some studies reveal management competency, firm specific criteria and VC factors have more influence on VC decision making process. Mann (2001) documents three such factors, which are strong management team, market opportunity (technology) and business concept of investee companies. Strong

management team include those with industry experience, knowledge and technical expertise. Market opportunities include size of the company’s product and service commercialization, barriers to entry, competitive advantage, profit margin and customer perception. Business concepts include the uniqueness of the product or services, product development risk and proprietary rights. Shepherd, Zacharakis & Baron (2003) highlighted the importance of VCs experience in decision making. The researchers conducted a survey of 66 VCs from 47 VC firms in Australia. The findings reveal that inexperience and highly experienced VCs make less reliable decisions than moderately experience VCs. Therefore they conclude that greater VCs experience may not always result in better decisions. Dimov, Shepherd & Sutcliffe (2007) suggest that investment choices are influenced by investee company’s management expertise and VCs relationship with management team of investee companies.

Fried and Hisrich (1994) document that business concept, expectation of management capabilities and expected outcome plays a significant role in the formulation of decision making model (Table 2). Reid, Terry & Smith (1997) studied the risk management arrangements between venture capital investors and investees as investment criteria in decision making. They interviewed 20 VCs and their corresponding investees in United Kingdom. The findings reveal that both parties are exposed to a significant level of risk. VCs avoid investing in a single sector investment to offset good outcomes from poor ones. Thus they limit any adverse selection, by practicing due diligence and rigorous screening. Findings show only 3% proposal secures VC backing out of 30% being reviewed.

Table 2: Investment Criteria in Classical Venture Capital Decision Making Process

Concept	Management	Returns
Potential for earning growth	Personal integrity	Exit opportunity
Brought to market within two or three years	Strong track record	Potential for high rate of return (%)
Significant competitive advantage	Realistic	Potential for high absolute return (\$)
Reasonable capital requirements	Ability to identify risk	
	Thorough understanding of business	
	Flexibility	
	Leadership	
	General management experience	

Note: Sourced from Fried & Hisrich (1994).

Brander, Amit & Antweiler (2002) suggest the use of risk sharing through syndicated VC investment in the Canadian market. Their findings reveal syndicated investments have higher return compared to stand alone investments. Gupta, Chevalier & Dutta (2003) investigated the importance of risk assessment in decision making. They reviewed the risk assessment process practiced by two VC firms and four investee companies in India. Findings reveal VC firms simultaneously invest in a wide variety of business. Hence risk assessment becomes unique for each case. Their study identified five problems encountered in risk assessment of a project; weak management, poor understanding of market, overpaying, circumstances beyond control, and financial matters. Gupta et al. (2003) also highlighted that decision process for a venture proposals must include four conditions; total score for a proposed venture, ranking of risk factors, expected rate of return and environmental factors. The relationship build between VCs and the investee companies has been noted in past literature as an element which reduces the risk in VC investment (Jones, 2004)

Following the prior research a more recent study explored investment criteria identified earlier and reclassified the criteria into a more meaningful context (Dmitry, 2006). The study suggests the use of 13 different criteria in investment decision making process. However the current study attempts to only replicate the decision making process proposed by Fried & Hisrich (1994) in local a market. We believe this model is the foundation for current decision making processes practiced in other countries. It investigates the importance of each investment stage and criteria in current business environment. The

study also expects to explore new criteria and procedures practiced by Malaysian venture capitalist, using an exploratory case study approach.

METHODOLOGY

The current study adopts a mixed method (quantitative and qualitative approach) by constructing a set of structured and unstructured questionnaires. Researcher uses three approaches of data collection, first is the distribution of structured questionnaires through e-mail to all 56 venture capital management firms registered with Malaysian Securities Commission (SC) as at 31st December 2010. A total of 16 responses were received and they were used to address the issues underlying the current study. The questionnaire consists of four sections. The first section is the VCs profile and the other sections cover the 6-stage decision making process followed by the three investment criteria proposed. The last section covers a set of unstructured question of VCs opinion on decision making. The questionnaire aims to analyse the disparity between Malaysian VCs decision making process and models proposed in past literature (Fried & Hisrich, 1994). The second approach, involves a face to face interview with a former venture capitalist. The third approach, involves gathering information from Malaysian VC blog, Malaysian Venture Capital Association and Private equity (MVCAP) website and Malaysian Venture Capital Development Council (MVCDC) website.

The data compiled via survey is analyzed using descriptive statistics and a non parametric chi square inferential test. The descriptive test, answers the first three issues address in the introduction and the results are presented in the first two sub-sections of findings. The results in these sections are supported with past studies and interview responses. A non parametric chi square test is used in the subsequent sub-sections to answer the last two issues addressed in the introduction. A parametric test is not appropriate for the current study as the sample size is relatively small (Anderson, Sweeney & Williams, 2010).

FINDINGS

Malaysian VCs Experience and Time Frame in Decision-Making Process

The result in table 3 shows the survey response from 16 VCs, on experience and time for making investment decisions. Based on the findings most of VCs have more than 10 years of experience. Past studies claim that reputable VCs should have more than 8 years of experience as in the case of Singapore (Wang *et al.* 2003).

Table 3: VCs Experience and Time Involved in Decision-Making

		No. VCs	Percent (%)
Experience	Less than 3 year	1	6.2
	3-5 year	3	18.8
	6-10 year	4	25
	More than 10 year	8	50
Time Involved in Decision Making Process	Less than 30 days	0	0
	30-80 days	6	37.5
	81-130 days	5	31.2
	131-180 days	3	18.8
	181-280 days	2	12.5

Survey response to single answer questions from 16 VCs indicate that most of the respondents have more than 10 years of experience and they spend more than 30 days to vet an investment deal.

The current findings suggest that Malaysian VCs have sufficient experience and ability to make good decisions. A former VCs asked to explain how experience helps him to make a good decision. He claims the longer the experience the more information and knowledge one could acquire in their field of work.

“...years of service facilitates us with sufficient experience to execute strategies, build extensive networking, and develop critical and tactful mind...” (Source: Interview)

However compared to developed nations, Malaysian VCs lack expertise to pursue value added activities in their investee companies. VCs made the following statement in their blog:

“...unless you find a venture capitalists who wants to work hands and take an active role in building successful companies, you would have just an investor, not a builder.... we are banking on the investee’s owned skills to stay competitive” (Source: VC blog)

Thus, current study summarizes that experience alone is not sufficient in the Malaysian venture capital industry. VCs networking with the investee plays a bigger role in shaping the venture capital decision. Current findings also reveal that despite wide experience, most Malaysian VCs spend considerable time evaluating an investment proposal (between 30 – 130 days). This finding is in contrast to traditional VCs decision-making time, which correlates negatively with their experience. Past studies reveal that VCs spend less than 6 minutes during the initial screening of the business plan (Hall & Hofer, 1993). The former VC asked why more time is required in vetting the business proposal.

“.... most of the business deal received via online without referrals. VCs need time to make decision and to practice due diligence” (Source: interview)

Since most proposals in Malaysia are non-referred unlike the developed countries, Malaysian VCs require more time for information search and reference checking. They also need to practice due diligence in their decision making process, which imposes greater time in vetting an investment proposal.

VCs Preferred Investment Stages and Sectors

The findings in Table 4 reveal that most preferred investment stages among Malaysian VCs are expansion, pre-IPO, and early stages. Investment in seed, management buy in and buyouts are not very popular. These findings are consistent with studies conducted in other Asian countries. Past studies claim that the business climate and culture does not support seed financing in Asia (Naqi & Hettihewa, 2007).

Table 4 also reveals that the most preferred VC investment sector in Malaysia are ICT, life sciences (medical health and biotechnology) and manufacturing. These three sectors arise from adopted technology and not by innovation consistent with the practice in other Asian countries (Naqi & Hettihewa, 2007). Thus, less research and development funding is needed in the seed stage. VCs in Malaysia are attracted to entrepreneur talent and creative ideas in either improving or localizing product, processes, or services.

“..... particularly interested in management/owners with superiority of owned skill sets and/or technology to bring the company through adding value and securing me the exit, so it’s best to have a strategy based on the realities of the environment.....” (Source: VC blog)

A cross tabulation is conducted (Appendix A) to observe the influence of the four elements (experience, fund size, sector and timing) on investment stages. The observations of the experience and investment stage seems to be inconsistent with past studies, where past studies reveal that experience VCs usually undertakes investment at the seed stage (Dmitry, 2006). The current study summarizes that experience does not play an important role in decision making for Malaysian VCs. However, fund size corresponds well with the investment stages where greater fund size is required to support higher investment stage.

Table 4: VCs Preferred Investment Stages and Sectors

		No. Preference	Percent (%)
Investment Stages	Seed Capital	7	12.3
	Start-up Capital	8	14
	Early Stage	10	17.5
	Expansion Growth	14	24.6
	Bridge, Mezzanine, Pre-IPO	11	19.3
	Management Buy-Out	5	8.8
	Management Buy-In	2	3.5
Investment Sectors	ICT	14	27.5
	Manufacturing	7	13.7
	Life Science	8	15.7
	Education	3	5.9
	Agriculture	4	7.8
	Electricity, Power Generation, Gas and Water	4	7.8
	Wholesale, Retail Trade, Restaurants and Hotels	3	5.9
	Financing, Insurance, Real Estate and Business Services	3	5.9
	Transportation, Storage And Communication	5	9.8

Survey response on multiple answer questions from 16 VCs. Results shows that both start up and seed stage are not popular in Malaysia. As compared to later stages and the most appealing investment sector for Malaysian VCs at the time of survey are ICT, Manufacturing, and Life Sciences.

Similarities between Malaysian VCs Decision Making Process and Past Decision Model

Survey responses in Table 5 reveal that Malaysian VCs have their own decision-making procedures. These procedures have similarities to the proposed classical model (Fried & Hisrich, 1994; Larsson & Roosvall, 2000).

Table 5: Descriptive Statistics of Venture Capital Decision Making Stages

Stages	N	Minimum	Maximum	Mean	Std. Deviation
Origination	16	2.20	4.40	3.5375	0.6010
Firm specific	16	3.00	5.00	3.9583	0.5947
Generic	16	2.33	5.00	3.3750	0.8154
1stevaluation	16	3.73	5.00	4.1510	0.3233
2ndevaluation	16	3.00	5.00	4.0625	0.5737
Closing	16	3.00	5.00	4.1875	0.6021

Measured on a scale of least (1) to most important (5) decision making stage. Results shows the last three stage has a mean greater than 4.00 indicating most respondents find this stage to be important in their decision making process.

Evaluation stage and closing stage with a mean greater than 4.00 shows VCs agree their decision making is similar to past practices in developed nations. The origination, firm specific screening and generic (investment criteria) screening stage has a mean below 4.00 shows there are some dissimilarity with past practices in developed nations. Malaysian VCs receive most deals via online access without the need for referral therefore, origination stage is not necessary. Developed nations emphasize the need for origination as most funding comes from private sectors. Unlike in developed nations, in Malaysia almost 40%, funding comes from government sources and 70% expertise comes from foreign stake, thus there is less need for referred deals. The regulative environment of Malaysia requires all VCs to register with Securities Commission, which strengthens VCs credibility and reputation.

Respondents mention that instead of firm specific screening, Malaysian VCs screen business deals for new product, processes (cutting, semi conductors, specialize skills) and services. Though the term “new” is used, most of the processes and products in the deal are already developed. However, the development was not on a large scale, giving room for expansion of ideas in new business deals. Thus, Malaysian VCs focus more on talent driven ideas rather than innovative driven ideas. VCs also skim business deals for

environmental friendly projects. Deals that do not meet the VCs specification or criteria are rejected at this stage.

Investment deals that pass through screening are evaluated further for business plan and management competency. Additional information is compiled from investee companies and external consultants (technical, financial, legal information) to substantiate the business plan. Circumstances where unfavourable estimates are quoted in the business plan the VCs can provide suggestions:

“.....say at times if estimate of financial records are unfavourable “i.e. buy a factory is quoted very high”; we suggest buying from our own networking.” (Source: Interview)

The researchers find that at evaluation stage VCs conduct legal checking on the investee’s profile. Several meetings are held with the management to gather more information. VCs may require management to present and communicate their business plan to learn more about the business and the manager’s talent (Source: VC blog).

We find that due diligence is an important step in the venture capital decision making process. Once they identify their potential investment the due diligence, process takes place. Due diligence is the process of analyzing a business plan in detail. In this process, VCs compile reports from external panels on technical, financial, and legal information. For technical information, VCs obtain reports from scientific consultants (or foreign experts) to access the technology used by their prospects. VCs obtain reports from auditors to check the financial status of their prospect. For legal information, VCs obtain reports from lawyers to review legal agreements and obligations and assess the strength of proprietary (patents) right (if any) of their prospect. The researchers conclude that the decision making process among Malaysia VCs have similarities with classical model proposed in past studies.

Table 6: Comparison of Decision-Making Stages with Classical Model

	Origination	Firm-specific Screen	Generic Screen	First Evaluation	Second Evaluation	Closing
Chi-Square	18.286 ^a	12.742 ^b	8.764 ^c	17.636 ^d	15.420 ^e	29.333 ^f
df	9	6	6	7	4	4
Asymp. Sig.	0.052	0.057	0.187	0.014**	0.004**	0.000**

**Observed and expected frequency tested at 5% significance level.

- a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.6
- b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.9
- c. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 7.9.
- d. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.3.
- e. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.8.
- f. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.8.

Results show that the criteria of assessing the an investment deal in the last three stages of decision making significantly similar with past practices as the expected frequency is less than the minimum expected frequency in this stages.

The arguments are further supported by chi-square test results which have p-values less than 0.05 for evaluation stage and closing stage (refer to Table 6). Therefore, it can be concluded that Malaysian VCs have significantly similar decision making stage within the last three stages compared to classical model. There is no significant difference in the criteria for the first three stages (origination, firm specific screening and generic screening).

Preplanned Investment Criteria for Decision Making

We further tested similarity among three main investment criteria (concept, management, outcome) used in classical decision-making process. Survey results in Table 7 shows there are similarities. The

respondents agree that all three criteria are important in their decision making process as shown by a mean of 3 and above.

Table 7: Descriptive Statistics of Venture Capital Investment Criteria

	N	Minimum	Maximum	Mean	Std. Deviation
Concept	16	2.75	4.00	3.3125	0.3594
Management	16	2.88	4.00	3.5078	0.3520
Outcome	16	3.00	4.00	3.6875	0.4298

Note: Measured on a scale of disagree (1) to agree (4) for each criteria. Result shows mean greater than 3 indicating most respondent agree that concept, management, and outcome are important criteria in an investment deal.

Next, we conduct a chi square test to identify the similarity of three investment criteria proposed in classical studies with current practice. Table 8 shows that items under each investment criteria are significantly similar ($p < 0.05$) with VCs practice in Malaysia.

Table 8: Comparison of Venture Capital Investment Criteria

	Concept	Management	Outcome
Chi-Square	25.000 ^a	19.579 ^a	33.138 ^a
Df	5	8	2
Asymp. Sig.	.000**	.012**	.000**

Note: **Observed and expected frequency tested at 5% significance level.
 a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.8.
 b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.3.
 c. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.3
 Result shows that the each investment criteria as proposed in classical model is significantly similar with current practice.

We tested the importance of specific criteria for each of the three categories as presented in Table 9. The specific observation reveals that Malaysian VCs rank investees management integrity (mean 3.94), leadership (mean 3.81), preplanned exit opportunity (3.75) and high return (3.69) as most crucial criteria in their decision making process. Malaysian VCs consider all the four specific criteria as important however; the degree of importance may differ. For exit criteria, the findings are consistent with past studies. Past finding reveal that preplanned exits is important in investment decisions as it provides several benefits, which include reduce uncertainties in the investment and lead a direction for post investment decisions (Cumming & Johan, 2008). VCs in Malaysia look for clear exit and creation of wealth at the time of exit as their pre investment outcome criteria.

“..... we are looking for a clear exit such as IPO (initial public offer) listing or buy back at par plus interest.” (Source: Interview)

Management integrity scores the highest mean, which supports our earlier contention that Malaysian VCs lack technical expertise, and they rely heavily on investee management integrity, talent, and expertise for the success of their business deal.

“... we expect that owners understand realities of the business environments. Without in-depth knowledge and skills, small business can be taken by surprise. Owner’s skill (talent) is something the VCs can nurture and build on..... many small business fail due to self imposed constrains and resistance to adapt changing business environment”

“..... sometimes owners with good ideas fail to secure venture capital funding due to the “choice of words” used, they must ensure all the groundwork has been done before approaching us” (Source: VC blog)

Table 9: Descriptive Statistic for Specific Investment Criteria

Specific Investment Criteria	Mean
Panel A. Concept	
Potential for earning growth	3.62
Brought to market within 3 to 5 years	3.25
Significant competitive advantage	3.12
Reasonable capital requirement	3.25
Panel B. Management	
Personal integrity	3.94
Strong track record	3.31
Realistic	3.62
Ability to identify risk	3.50
Through understanding of business	3.62
Flexibility	2.94
Leadership	3.81
General management	3.31
Panel C. Outcome	
Exit opportunity	3.75
Potential for high rate of return (%)	3.69
Potential for high absolute return (\$)	3.62

Measured on a scale of disagree (1) to agree (4) for each criteria. Result shows that the most crucial criteria are management integrity, leadership, exit opportunity, and high return. Malaysian VCs consider all criteria as important, but the degree of importance may differ.

From the responses, we conclude that the VCs in Malaysia are more of an investors rather than builders. They lack the abilities to add value to their investee companies. They place higher reliance to outcome criteria (early exit and high return) instead of nurturing the investee company toward continued success even after their exit period. VCs concern is on the ability of business venture meeting VCs desired risk and return during the investment duration.

“.....management should mitigate risk by manoeuvring through tough times, adding value to the company and providing me the planned exit. However, I want to point out that my risk appetite is tapered by how much money I would invest into the company and how I condition the investment structure and terms’ (Source: VC blog).

CONCLUSION

Findings reveal that the practice of classical venture capital decision-making model (Fried & Hisrich, 1994; Larsson & Roosvall, 2000) has some significant similarities with Malaysian VCs decision-making process, however not always visible. The VCs decision-making model is similar at evaluation and closing stage. Origination, firm specific screening, and generic screening are not significantly similar in Malaysian context. The differences are due to the type of investment stage undertaken, motivation to invest, and VCs risk appetite. The origination stage may not be required, as Malaysian VCs claim their reputation in the market is established. New product and process screening replace the firm specific screening stage. Generic criteria (investment criteria) screening coexist with the later stages (evaluation stages).

When VCs receive a proposal, screening for new product/process idea takes place. Uniqueness of product (or technology) and product market becomes important investment criteria at this stage. Next, the due diligence process takes place, where VCs compile more information on proposals that pass through screening stage. VCs agree that they need more time in the due diligence process. All investment criteria proposed in the classical model is significantly similar to the criteria used by VCs in Malaysia. Four most crucial investment criteria at the evaluation stage are management integrity, leadership, early exit, and high return. Results reveal that despite having sufficient experience VCs in Malaysia lack expertise. Therefore, they require management of investee companies to have their own talent. We find that Malaysian VCs are more of an investor rather than a builder in the Malaysian VC market. They place

greater importance to preplanned exit (and return) which mitigates uncertainties (risk), and less importance to business idea.

The current study did not attempt to investigate the effect of decision making on the performance of VC backed firms. Furthermore, the VCs who participated in the survey were not segregated by their characteristics (i.e. Islamic and non-Islamic). Hence, the current study recommends that this area is explored in future research. The current authors identified addition criteria used by VCs in Malaysian context which include management talent (owned skill), uniqueness of product, market acceptability, scalability, ownership of intellectual properties, identifiable divestment strategy, sustainability, potential to be patented. The authors suggest these criteria are included in future research to develop a pre-investment decision-making model that suits local VC market. The overall findings of current study are limited to medium-scaled VC management firms in Malaysia.

APPENDIX

Appendix A: Cross Tabulation of Investment Stage with Experience and Fund Size

Investment Stage	Working Experience (years)				Total	Fund Size (million)				Total	Time Involved In Decision (days)					Total
	<3	3-5	6-10	>10		<10	10-30	31-50	>50		30-80	81-130	131-180	181-230	231-280	
Seed Capital	0	2	1	4	7	1	1	1	4	7	2	3	1	0	1	7
Start up Capital	0	1	3	4	8	0	1	2	5	8	2	2	2	1	1	8
Early Stage	0	2	4	4	10	1	1	2	6	10	3	3	2	1	1	10
Expansion Growth	1	2	4	7	14	2	2	2	8	14	6	4	2	1	1	14
Bridge, Mezzanine, Pre-IPO	0	2	3	6	11	1	2	2	6	11	4	3	2	1	1	11
Management Buy-Out	0	1	1	3	5	0	1	1	3	5	3	0	1	1	0	5
Management Buy-In	0	0	1	1	2	0	0	1	1	2	1	0	0	1	0	2
Total	1	3	4	8	16	3	2	2	9	16	6	5	3	1	1	16

Appendix B: Cross Tabulation of Investment Stage and Sectors

Investment Stage	ICT			Life Science			Manufacturing			Others		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Seed Capital	7	0	7	3	4	7	1	6	7	1	6	7
Start-up Capital	8	0	8	4	4	8	2	6	8	3	5	8
Early Stage	10	0	10	5	5	10	2	8	10	3	7	10
Expansion Growth	12	2	14	6	8	14	6	8	14	7	7	14
Bridge, Mezzanine, Pre-IPO	9	2	11	5	6	11	6	6	11	7	4	11
Management Buy-Out	3	2	5	2	3	5	5	0	5	5	0	5
Management Buy-In	1	1	2	0	2	2	2	0	2	2	0	2
Total	14	2	16	8	8	16	7	9	16	8	8	16

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