A Conceptualised Approach towards Building a Growth Model for Venture Capitalists Financing of TBFs

Kamariah Ismail, Aslan Amat Senin, and Ajagbe Akintunde Musibau

Abstract—**The purpose of this study is to develop a conceptual framework towards building a model for venture capitalists to evaluate investments in technology based firms, considering them from their growth stage. Fast growth entrepreneurs need this model to determine the right investors to approach, since not all specialize in funding early stage high risk companies. Previous studies revealed that major problems TBF owners face is identifying financial institutions to approach for funding, and what criteria that financial institutions used to evaluate the technologies? And also, several capital are lying idle with retired and successful individuals who also encounter difficulty of identifying the right companies to fund, because they do not possess the requisite skills to evaluate businesses based on their proposals. Past research have failed to represent the growth stages of the TBFs in a model such as this, which makes it easier for interest parties to adopt when evaluating thousands of business proposals, though they all mentioned the various growth stages except the Death stage mentioned in this study. Literature review is from secondary sources such as journals, textbooks, e-journals, websites, newspaper articles, online materials, personal discussions with colleagues. The findings of this study are important because it contributes more insights to the academic research of financing technology based firms, and call for further research on presenting the growth stages using graphical approach. Furthermore, the result of this research will be useful to link theory to practice.**

Index Terms—**Technology Based Firms; Growth Cycle; Venture Capital Finance; Business Angels.**

I. Introduction

Given that technology oriented small and medium sized enterprises are a major force in rapid industrial growth of any nation [1]-[3]. Coupled with government encouragement of entrepreneurial development in several countries. Entrepreneurship is therefore, the capacity in an individual to innovate, to bear risks to foresee the prospects of a particular project, confidence and competence to meet unforeseen and adverse conditions [4].

It is very important we try to investigate those factors that influence the growth stages of small venture creations. The objectives of this study is to explore the life cycle of new venture creations with particular emphasis or preference to technology based firms which can be mirrored through their growth stages. High technology firms are however, those companies in which their sales revenue is generated through the use of at least 51 percent of technology based operations e.g. internet, telephone, fax companies etc. Meaning that the main trust of their business rely heavily on the use of high technology [5]. Stakeholders in this sector have agreed that investment in technology based businesses require a huge amount of working capital because the products of these companies are highly capital intensive and require several rounds of financing [6].

Because of the high burn rates of working capital, startups companies usually demand introduction of significantly numerous rounds of financing [7], [6], in particular in fast growth and new venture companies [8], [6]. It is very important to understand that financing technology businesses through loans from traditional money lenders such as commercial banks etc with considerable interest charges requires that the venture should be large enough and must have surmounted majority of the early staged problems. Indeed, it is a known fact that larger enterprises find it more easy securing reduced charges than their counterparts in the startups sector [9].

Most of them would rather be more comfortable in financing start ups companies already backed by reputable venture capital firms. Our attention and more emphasis on technology based organizations is not unconnected also with the fact that about 90 percent of all venture capital investors and those who sought investment in China specializes in funding businesses in this sector [10], [11]. Motivations for this study came from the fact that up to date researchers have acknowledged that there may be a difference in a venture capitalists decision policy for businesses in different stages of growth. For instance, one can say venture capitalists evaluation policy for a new venture searching for seed capital, start ups or development capital may be different from that of an established company looking for mezzanine capital [12]. Several researchers and authors [13]-[15], have written and made mentioned of these terminologies in their various works but none has attempted to depict it in a flowchart. And no research has indicated that the TBF can grow to the death stage.

II. Growth In Business Perspective

Growth is an unavoidable fact of successful businesses due to an increase in sales requires product; in turn, additional product requires inputs like labor, inventory, raw materials, plant, property and equipment. Financing the fast growing venture tends to be time consuming, complex task to the entrepreneur-who is most likely also to be working on the

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daily needs. Typically financing a new venture employs a combination of debt and equity financing; we shall not go into details of the former in this study. Due to the fast growth age we are now, technology based firm's products life cycle is very short compared to conventional product and service life cycle. New technology based products are being consistently spun off to replace old or improve on existing technology. Growth can therefore be defined in this context as the developmental cycle which occurs in a new venture which leads to the complete transformation of the firm from the pre-start up stage through all or some of the eight stages of the technology based firm model [16] Growth as we all know is not only limited or restricted to this subject alone but also applies to some other endeavor, for example in animals, humans, plants and economy of a nation. "Fig1" shows the perspectives in which growth can occur and be viewed in different context, and this is how the life cycle of an element can be construed.

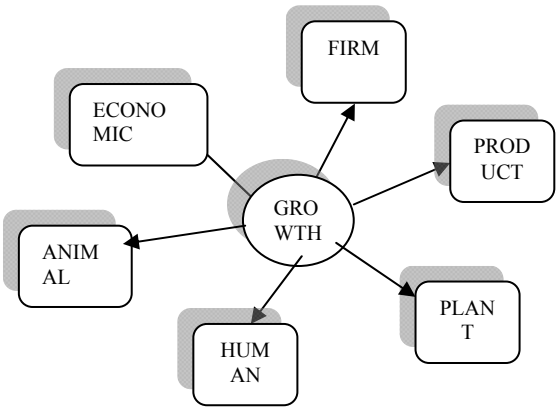

Fig 1. Growth from a variety of perspective

III. Venture Capital Companies

Venture capital firms generally are private partnerships or closely held corporations funded by private or public pension funds, endowment funds, foundations, corporations, wealthy individuals, foreign investors and venture capitalists themselves [17]. The venture capital market consist more than just the institutional venture capital industry, however, there is an informal venture capital market, an invincible market place comprising wealthy personalities referred to as "Business Angels" who provide risk capital directly to new and growing businesses in which they have no family connections[18]. A major study funded by the Economics and Social Research council indicates that this is a much more significant source of capital for the small business sector [19]. The most fascinating thing to note about this class of investors is that; their market is considerably larger than the institutional venture capital market; they fill the so-called equity gap by making investment exactly in those areas in which institutional venture capital providers are very reluctant to invest. Hence, and most significantly they finance TBFs in terms of more Dollars and number of ventures the fund especially in the USA [20].

Business Angels are value added investors. They do normally take a seat on the board and, in addition, will often provide consulting help and may even work part time or full time for the business [19], contributing their commercial skills, entrepreneurial experience, business know-how and contacts in a wide range of support, monitoring and strategic role. New venture owners view the active involvement of professional venture capitalists as a sounding board for the management team as their most valuable "hands on" contribution [21]. But despite this active participation, informal investors normally do not wish a controlling interest in their investee businesses. Similar to formal investors are the informal investors who are wealthy and retired professionals with lots of experience in entrepreneurial ventures because they are successful themselves, assist with knowledge, business contacts, learning curves, intelligence and development to the fledgling organizations that are funded. As board members and advisers, they act like coaches, confidants, mentors and cheer leaders [22] According to [23] venture capitalists in the developed countries do not only specializes in providing the required rounds of funding alone but also add value to the firm by taking up positions on the board of the investee firm to provide mentorship advice to the management team [24]. The classic expressions of technology based firm are the young entrepreneurial company, an inventive design which has been nurtured into a high technology organization. The most successful of these technology based companies become the popular and most talked about giants such as Microsoft, Netscape, Face book, Amazon.com, Sun Microsystems.

IV. Growth And New Venture Capital

The development of external equity financing has been found to be almost part and parcel of the American history and the advancement to companies in recent times is outstandingly American [22]. This private risk capital stimulates America's industrial growth. Common venture capitalists work like mentors and associates with technopreneurs and inventors during the initial growth to assist in accelerating the growth of the firm. The high technology most outstanding supported external fund managers are regarded as the "Who is Who in the industry" Staples, EBay, Cisco, YouTube, Google, Blackberry, Face book, Jupiter networks, Yahoo, Compact Computers etc and a thousand of others [25]. It is accepted for investors to add value to firms which they fund because majority of the new venture owners in high technology sector lack the necessary competencies and an active investor could be a way of acquiring it, majority of them do not possess an MBA or any professional degree. The right investor can offer a new firm a substantial competitive advantage, meaning that from whom you raise capital is often more important than the terms [26]. The established literature suggests that business angels attempt to address the problems of information asymmetry through the active management of their investment [27], [28]. As an owner of a new venture will view it, debt is seen as a liability as it invariably requires to be underwritten by a personal guarantee, bringing in external equity will help limit the extent to which TBF owners are required to mortgage their assets. With shortage of working capital a prime cause of business failure [29], equity capital provides long term funding without the negative impact of cash flow associated with debt financing. The amount of capital released for funding from angel investors are usually small and are mostly targeted at early stage TBF's otherwise known as startups.

Formal and informal financiers therefore are the most important sources for a lower amount of capital intensive new venture companies [30]. Another important advantage of obtaining financing from professional venture capitalists is that their expertise is highly valuable in preparing for the technology company for an Initial Public Offering (IPO).

V. Key Decisions

Literature review of venture capitalists decision making activities indicate that important criteria when considering investing in a company are the characteristics of the entrepreneurial team such as; qualifications and experience. It is important that the entrepreneur has motivation and ambition that aligned with the people behind a business proposal. However, there is confession that it is to certain extent also a matter of where the investment opportunities are on their growth cycle. In very early phases of high technology ventures, key individuals are important but somewhat less so if the activity has gone on for some time and is more established (growth stage). Several studies conclude that the most important issue when venture capitalist evaluates potential investments is the experience and competence of the management of the company in question [13], [31], [32]. However, some studies such as [33], [32] indicate that in the very early phase of screening, management qualifications may not be an important issue as in later phases of the screening.

VI. Vital Factors For Determining Fund Raising

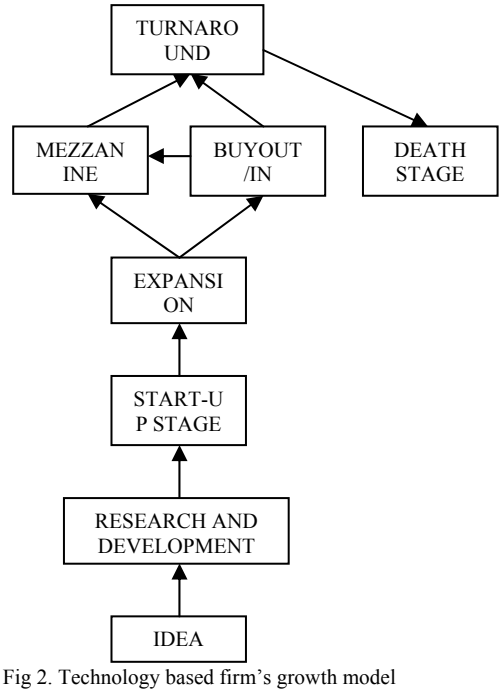

Fig 2. Technology based firm's growth model

The accessibility, appropriateness and cost of financing are crucial factor to be considered when choosing a particular type of funding from several sources [22].

1) Achievements and activities to date.
2) Investors anticipated risks.
3) Industry and technology.
4) Venture upside potential and anticipated exit timing.
5) Venture anticipated growth rate.
6) Venture age and stage of development.
7) Investors required rate of return or internal rate of return.
8) Amount of capital required and prior valuations of the venture.
9) Founders goals regarding growth, control, liquidity and harvesting.
10) Investors required terms and covenants.

In "Fig.2" the components are adapted from previous study of notable authors on growth stages of new venture firms such as [13]-[15] with slight modifications to come up with this model.

VII. Analysis Of Growth Stages In TBF'S

A. Stage 1 – Pre-Start Up

This period can also be called the idea stage that is when the conceptualization of the product idea is being made by the inventor. This stage belongs to that category of the early life of a product i.e. the concept state. When successful entrepreneurs start out with an idea, a concept or an urge and combine it with persistence. Sourcing of funding at this stage is mostly from personal savings. At this stage, you are convinced that you have a viable business idea, what you then need to do as an entrepreneur is go ahead and develop a comprehensive business plan that will be acceptable to venture capitalists. Herein, as much care need to be taken to avoid fundamental flaws in your business plan. However, your ability to be able to improve chances of securing financing and launching a successful venture is essential at this stage. The concept you start with initially should be looked at as a seed idea, a seed from which you hope to make something grow, even though you haven't the faintest idea of what that tree or flower will look like. However, it is most unlikely that the raw concept, in exactly its original form will end up being the final version which will find its place in the market and be manufactured on the production floor.

B. Stage 2 – Seeding

At this period the concept of research and development is being carried out on the new product or rather innovation. It is also an era of high risk taken by the venture capitalists. During this period a lot of capital is needed to be committed into the new venture, as was found out by previous researchers only few investors with big heart are willing to take that courageous risk. This they say is because, at this stage it is not certain whether the product will succeed or fail, they also ask the question of how the product will look like. Since the prototype has not been developed. At the seeding stage, innovators invest mostly their personal savings, selling off their properties or sourcing funds from their family and friends to experiment on the project.

C. Stage 3 – Start Up

A period of initial product development and marketing, it is also regarded as the late early stage of the product on the TBF growth cycle. At this stage, the innovation has found its way from the research and development laboratory into the wider organization where they can be commercialized as a new or improved product.

D. Stage 4 – Expansion

When there is a sustained growth witnessed on the TBF cycle by the new product, the company is said to experience growth and expansion in production capacity, market and product development. Technology based companies, especially in its expansion stage need sufficiently large financial base to support the research and development need, capital equipment purchase and marketing activities. During this period the company is witnessing steady growth in both sales and revenue because products are gaining market acceptability. Notwithstanding, there is need to inject more funding to expand by braking into new market, expand capacity to cater for new demand, carry out promotional and marketing activities to create product awareness and customer sensitization. In the event of this, customers are made to understand product content, product qualities and applicability.

E. Stage 5 - Mezzanine

This is financing required when a technology company as surmounted most of the initial problems that usually plaque high technology new ventures, at this point of growth there may be need to introduce this kind of funding [22]. Financing which falls between common stock and senior debt is also regarded as mezzanine capital. This is an interest paying debt loan which required that the interest and the main capital repayment is necessary if not changed to equity, it's also referred to as that stage when financing is required for a company to go public. However, the new venture has been established in terms of sales revenue and profitability and also is experiencing sustainable growth potentials.

F. Stage 6 – Buyout/In

This is classified as the venture capital financing provided to enable the existing management of the company or an outside investor to acquire a product line or the whole business [15].This is when a startup company decides to sell out to a larger organization because it could not gather enough capital to go public. Hence, its entire product line is sold out to a bigger firm with a much wider and established distribution structure and customer base. Researchers like Vivek Mehra found out the reasons most TBF's prefer been bought over by larger firms nowadays is due to:

1) The impatient to grow to IPO.
2) The difficulty of raising venture capital fund.
3) Mostly large firms have now discovered the need to buy into smaller start ups with product ideas relevant to their existing line of business and what customers need them to improve on.
4) Again, it was realized that most cost effective ways to bring in new talents and fund R & D is simply to buy up innovators and their ideas.

This strategy is an attempt to buy a company for the purpose of financial engineering, restructuring and selling it off in pieces or whole to the highest bidder and it is usually financed by over 90 percent of high yield debt. Finally, the major objective of MBO is to enable the current managers and employees have an opportunity to buy into the stake of the company.

G. Stage 7 – Turnaround

This is a very critical stage for the TBF's. The business owner is rallying round venture capitalists to help in providing funding to enable him restructure and reposition the company. This is basically because the firm is encountering performance difficulties [15] and if not properly managed at this stage may lead to extinction of the firm. The sales and revenue is noose diving, probably due to so many reasons. Dowdy and Nikolchev in their paper mentioned three basic factors that can lead to this problematic stage for the technology based firms; maturity symptoms, senility Evidence, measures. However, they also considered possible ways out of the problems which led to this inevitable growth stage as; (i) Acquisitions (ii) Internal research and development (iii) Joint ventures (iv)Venture Capital Investment and Nurturing (v) Strategic and Innovative Alliances. Lastly, however, considerations can be given to divestment, closure of unproductive activities otherwise known as death.

H. Stage 8 – Death

This is considered as a point of no remedy to the idea and or product of the company. At this point on the growth cycle, there is no other option to product revitalization, all effort to salvage the product from decline was unsuccessful and the entrepreneur has finally agreed to close down unprofitable activities. This stage is very crucial because as we all know even to the life of animals, plants and we human improper management of our health can lead to death [34] on mortality of innovation ideas). Although, this stage is very inevitable in the life of anything that has a growth cycle, because it can occur not only because of health, also due to old age i.e. when that element in question has exhausted its main purpose of existence. There are basically a few reasons here when products of Hi-tech companies can go into extinction:

1) Venture owner could not muster enough funds from investors to recapitalize.
2) Product has exhausted its life span on the life cycle curve.
3) Competition from new technology.

In conventional firms they talk of product life cycle, service life cycle, whereas in high technology industries we make use of the terminology TBF growth cycle. There is need for us to note at this point that a TBF can approach this 8th stage of the cycle at any point in time. It is never a rule of thumb that it has to go through all the stages before it can be phased-out. Likewise, as living things can die at any stage in its life too. We can conclude this by looking at this phrase from Associated Press--"the walkman dies at age 31" "The walkman, the Sony cassette device that forever changed music listening before becoming outdated by digital MP3 players, IPODS, has died. It was 31 years old. Sony announced that it has ceased the production of the classic cassette tape in Japan, effectively sounding the death Knell of the once iconic, now obsolete device"[35]. "Fig.3" indicates the potential nature of the growth behavior of high technology products or firms when plotted on a graph as analyzed in the growth model.

VIII. Perceived Importance Of The Model To TBF And Venture Capitalist

1) To venture capitalists and business angels to carry out

business evaluation and or due diligence. Some ventures are not companies, but rather products that are not sustainable as independent businesses [36]. What we are saying here is that using this model venture capitalists considering also what is embedded in the entrepreneurs business plan can easily determine what the end process of the venture will be. How will the investor eventually get his money back assuming the venture is successful even if only marginally so? This is because when investors invest they particularly like companies with a wide range of exit options.

2) Investors can determine the amount of capital required at each growth stage; it is not same amount of funding that is required at each growth stage of the TBF and not also same financing round is required. However, critical analysis of the model will help any interested business financier sourcing for investee firm to have an understanding of what is needed i.e. (cash) at a particular stage hence, enabling him take a decision of, at what stage to get involved.
3) An indebt understanding of this model helps venture capitalists determine if the company is IPO able [26], meaning can the new venture at some point in the future be taken public? Some businesses are inherently difficult to take public because doing so will reveal certain information that might eventually harm its competitive standing. 4. Since potential investor companies evaluate business funding proposals from a hundred of investee firms. They will be able to also understand the value added services that will be required from investee companies at a predetermined stage of the cycle. They can know if they have the expertise to provide those services from the current management team or employee.
4) By making use of this model you as a venture capitalist or professional investor can also be able to know the holding period that is required at each growth stage of the TBF. By "holding period" we mean the number of years or how long your money and or expertise will be required before thinking of an exit.
5) The model is not only useful to potential investor companies but also to investee companies because through the chart they can determine the percentage of equity to relinquish and the amount of control to retain.
6) The model gives professional investment companies and the academic researchers an understanding of the industry characteristics and trends, i.e. where the company is on the growth cycle and what is embedded in it.
7) Since venture capitalists are too particular about the word "risk". They model can help them evaluate the level of risk they would be involved in, considering the growth stage of the firm at that point in time. However, according to [37], venture capitalists devote greater effort to a tech company that is believed to be of higher risk to monitor his investment and hence, the higher the likelihood of greater profit.

IX. Conclusion

The challenge confronted by fast growth entrepreneurs and potential investors in seeking out for each other is enormous. Research has shown that the problem is not really of non availability of investible capital, but of how to match up suitable investors with investee companies. From literature review, it has been realized that lots of fund are bound both with financial and non financial institutions. This brings us to the essence of this study which helps to reveal through this model, growth stages well presented in a flowchart. The researcher has carried out a critical review of literature and come out with a concept which is helpful to interest parties to evaluate investment stages. Also, entrepreneurs of technology based firms have been warned in their urge and haste to seek out financing not to be carried away by just the cash alone but to evaluate and put into considerations other value added services the potential venture capitalist is bringing along. Through this study we have been able to discover that developmental stages of technology based firms can be presented using this model as described in this paper and also that TBF's or their products can grow to decline, death or extinction marking the end of that product/ firm in the manufacturing floor and the market place. The results of this research are relevant to decision makers, academics, consultants and venture capitalists. The researcher also call for further study on this model to enrich academic literature, particular focus should be on the area of graphing these eight stages of growth starting from the idea to decline.

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References

[1] D. J. Storey. Understanding the small business sector, Routledge, London.1994.
[2] OECD. Organization for Economic Corporation and Development. Fostering Entrepreneurship. Paris.1998.
[3] D. J. Denis. Entrepreneurial finance; an overview of the issues and evidence. Journal of corporate finance.Vol.10 pp.301-324.2004.
[4] G. Tamizharasi, and N. Panchanatham. Entrepreneurial Attitudes among Entrepreneurs in Small and Medium Enterprises. International Journal of Innovation, Management, and Technology.Vol.1 No.4 pp.353-356.2010.
[5] Y. Yip, Y. Su, and J. B. Ang. Effects of underwriters, venture capital and industry on long term IPO performance. Journal of Managerial Finance 35(8). 2009.
[6] P. Stuart, W. Geoff, and J. Wyper. The pecking order hypothesis; does it apply to start up firms? Journal of Small Business and Enterprise Development 14(1): 8-21.2007.
[7] H. J. Sapienza, and M. A. Korsgaard. Performance Feedback decision making process and venture capitalists support of new ventures. Frontiers of Entrepreneurship Research; Babson College, MA.1999.
[8] G. C. Hall, Hutchinson, P. J. and Michealas, N. Determinants of the capital structure of European SMEs. Journal of Business Finance and Accounting 31(5): 711-728.2004.
[9] Bank of England. Bank Lending to Small Businesses. Bank of England Quarterly Bulletin 33: 116-119.1993.
[10] People's Daily. Venture capital in China; People's Daily August 1.available at http;//English.people.com.cn 2000.
[11] K. Pukthuanthong, and T. Walker. Venture Capital in China; A culture shock for western investors. Management Decision. Vol.45 No.4 pp.708-731.2007.
[12] D. A. Shepherd. Venture capitalists assessment of new venture survival. Entrepreneurship. R. A. Price, McGraw Hill/Duskin Dubugue 2006: 102.1999.
[13] T. A. Tyebjee, and V. Bruno. A Model of venture capital investment activity. Management Science 30: 1051-1066.1984.

[14] K. McNally. Corporate Venture Capital; the financing of technology businesses. International Journal of Entrepreneurial Behaviour and Research 1(3).1995.
[15] J. Dauterive, and W. Fok. Venture Capital for China opportunities and challenges. A guide to venture capital in China 30(2).2004.
[16] Ismail, K., Aslan, A. S., and Ajagbe, A. M. (2011). A Model for venture capitalists to Evaluate Innovative Companies in Malaysia. Paper Presented at the International Conference on Human Resource Development (ICHRD), Johor, Malaysia. 22-23 June 2011.
[17] R. A. Price. Financing New Venture creation. McGraw-Hill/Duskin Dubugue, 5th edition.2006.
[18] C. M. Mason, and Harrison, R. T..The UK clearing banks and the informal venture capital market. International Journal of Bank Marketing, 14(1), 5-14.1996.
[19] C. M. Mason, and R. T. Harrison. The informal venture capital market in the UK.In Hughes, A. and Storey, D. J. (Eds). Financing small firms." Routledge, London: 64-111.1994.
[20] [20].W.E.Wetzel, and J. Freear . Promoting informal venture capital in the United States; reflections on the history of venture capital networks, in Harrison, R. T. and Mason, C. M. (Eds).Informal venture capital; Evaluating the impact of business introduction services. Woodhead-Faulkner, Hemal Hempstead: 61-74.1996.
[21] R. T. Harrison, and C. M. Mason. International perspectives on the supply of informal venture capital." journal of Business venturing 7: 459-475.1992.
[22] J. A. Timmon, and S. Spinelli. Note on free cash flow valuation model; in New venture creation, entrepreneurship for the 21st century. HBS 288-023 McGrawHill/Irwin companies Inc 7th edition. pp.395: 2-3.2007.
[23] B. Black and R. Gilson. Venture capital and the structure of capital markets; banks versus stock markets, Journal of Financial economics 47(3): 243-277.1998.
[24] W. Megginson, and K. Weiss. Venture capital certification in IPO. Journal of Finance 46: 879-904.1991.
[25] W. D. Bygrave, and J. A. Timmons. Venture capital at cross roads." Harvard Business School -Boston: chapter 1.1992.
[26] W. A. Sahlman. How to write a great business plan. , McGraw Hill/Dushkin Inc.1997.
[27] C. M. Mason, and R. T. Harrison. Influences on the supply of informal venture capital in the U.K.; an exploratory survey of investors attitudes." International Small Business Journal 18: 11-29.2000.
[28] S. Paul, G. Whittam, J. B. Johnson. The operation of the informal venture capital market in Scotland." Venture capital 5: 313-335.2003.
[29] G. Hall. Reasons for Insolvency amongst small firms-a review and fresh evidence." Small Business Economics.4; 54-63.1992.
[30] J. A. Timmons, and S. Spninelli, Eds. New venture creation. Entrepreneurship for the 21st century, McGraw Hill/Irwin companies Inc. 2009.
[31] R. D. Hisrich, and A. D. Jankowitz. Institutions in venture capital decisions; an explanatory study using a new technique, Journal of business venturing.Vol.5.pp.49-62.1990.
[32] A. G. Zakarakis, and .D. Meyer. A lack of insight; do venture capitalists really understand their own decision processes? Journal of business venturing .Vol.13 pp.57-76.1998.
[33] J. Hall, and C. W. Hofer. Venture capitalists evaluation criteria in new venture evaluation. Journal of business venturing.Vol.8 pp 25-42.1993.
[34] L. Bruce. Creating and managing new ventures. Entrepreneurship. Exeter, Pergamon Press Plc: 5.1989.
[35] StarDailyNewspapers. The walkman dies at age 31. Star Daily Newspaper-Malaysia News. Kuala Lumpur: T16.2010.
[36] H. Sapienza, S, Manigart, .and W, Vermeir, W. Venture Capitalists governance and value added in four countries. Journal of Business Venturing.Vol.11 pp.439-469.1996.
[37] G. Bruton, and. D. Ahlstrom, K. Yeh. Understanding venture capital in East Asia; the impact of institutions on the industry today and tomorrow. Journal of World Business 39(1): 72-88.2004.Motorola Semiconductor Data Manual, Motorola Semiconductor Products Inc., Phoenix, AZ, 1989.

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