AN ARGUMENT ON THE EXISTING FRAMEWORK OF ENTREPRENEURSHIP SHANZHAI: AN EMERGING ENTREPRENEURIAL MODEL

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Abstract

This paper comprehensively and extensively scrutinizes the theoretical and empirical evidences, factors and characteristics adopted in the existing literature on the construct of entrepreneurship framework. And, examines horizontally and vertically the implications and indications derived from previous researches, and interprets logically the mechanisms and patterns of evolutionary path of entrepreneurship framework; proposes and discusses analytically, a revised definition of entrepreneurship, which stipulates that entrepreneurship is an opportunity-and-capability oriented management system supported by three principles necessary for the sustainability of entrepreneurship. This paper establishes and delineates systematically, a trilogy framework to anatomize and demonstrate the five fatal factors that help explain the common causes of why so many entrepreneurial failures (linear thinking, discontinued entrepreneurial commitment, inability of effective knowledge management, internal erosion of inertia, and external erosion of imitation activities). Additionally, this paper highlights the dynamic and contextual relationship between entrepreneurship and business environment; emphasizes the role of government in promoting and incubating the development of entrepreneurship; maps out the trajectory path from imitation to innovation; rationalizes the inevitability of imitation as an entrepreneurial approach, especially when a firm's technological capability and resources are limited; hence, theorizes an indisputable argument that Shanzhai is an emerging entrepreneurial model, or, a Chinese way of entrepreneurial model featured by the evolutionary path from imitation to innovation, and that the framework of Shanzhai model may serve to bridge the divides between the West-Dominated-Management-Framework and the newly emerged East-Way-of-Doing-Business. Lastly, this paper presents three case studies, confirming and emphasizing the decisive role of entrepreneurial capabilities in identifying, capturing and transforming opportunities into business operations and values. Recommendations and suggestions for future research are accordingly provided.

Keywords: Entrepreneurship, Entrepreneurial Capability, Entrepreneurial Commitment, Erosion of Inertia, Erosion of Imitation, Shanzhai Entrepreneurial Model.



INTRODUCTION

The word 'Shanzhai (山寨 in Chinese)', despite its original meaning (anti-government), is referred as a synonym of those privately owned enterprises (POEs), emerged in China during its economical reformation (Zhao, 2013). Due to its phenomenal imitation activities, Shanzhai has been indirectly described as imitators, knock-offs, and copycats (Luo, et al., 2011). More broadly, 'Shanzhai' was ranked as one of the hot words frequently searched via Google during the period from 2008 to 2009, unanimously and sarcastically criticized as a slang for anything and/or anybody that is not original¹, unprofessional, unauthorized or homemade, or, as a term for illegal activity of imitating those leading brands and infringing their intellectual property right (IPR). Although derogative in tone, these scholars have incisively given their insights on the roles of business imitators (emerging economy copycats) in promoting the development of emerging economies. How on earth, such business activities could make Shanzhai a trillion dollars and competitive industry in global market, has barely discussed - this is one of the research questions motivating the present study. A few scholars proposed an evolutionary theory, delineating the three stages of Shanzhai development, namely faking, imitating (duplicating) and innovating stages (Zhao, 2013, p. 143). This theory argued that, those imitators, knock-offs and/or copycats had been filtered out after the first and second stages, by the mechanism of market competition. Put differently, Shanzhai has evolved and/or transmuted, from imitators quasi-innovators (developing and manufacturing innovation-like to products/services). Otherwise, Shanzhai would not be able to play such a competitive role in global market, and reputed as the provider of affordable products for the low end market segments (Luo, et al., 2011; Zhao, 2013). This is the term 'Shanzhai' discussed in this paper.

Some scholars assert that continuing the argument on imitation is meaningless, as far as that imitation is executed in an innovative manner (Allworth, 2012). Imitation has been used as a business technology for developing country firms to catch-up, evolve and leapfrog from imitation to innovation, and eventually outperform those market leaders such as multi-national corporations (MNCs), and become market winners (Kim, 1997, Zhao, 2013). Today, the word 'Shanzhai' has evolved from a synonym of 'imitation' to a synonym of 'Entrepreneurship', widely used as a byword or a catch-all concept to describe changes of social and cultural behaviors in China. The emergence of Shanzhai and its successful business model have already imposed a non-negligible impact, both theoretically and practically, on the existing framework of entrepreneurship.

Despite the popularity of the word 'Entrepreneurship', what qualifies an individual/firm an entrepreneur, is still a globally debated theoretical topic. Capability-based vs. resource-based views have been the two main schools of thoughts in defining and constructing the framework of

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¹ http://www.globaltimes.cn/Language/2009-05/429473.html accessed on 10//20/2012.

entrepreneurship. Although divergent, they share a common ground that, knowledge and technology are strategic assets critical to the development of entrepreneurship. Resource-based view argues that, availability of resource determines entrepreneurial capability (Flew, Donald, & Wang, 2006; Madhok, 1996; Zack, 2002). In response, capability-based view contends that, without entrepreneurial capability, entrepreneurs would not be able to attain and retain resources required to identify, capture and transform opportunities into business operations and market values (Audretsch, et al., 2005; Audretsch, et al., 2007; Gruber, et al., 2008; Hill & Birkinshaw, 2010; Howkins, 2004; McMullen & Shepherd, 2006; Nickerson & Zenger, 2004). More constructive evidences show that knowledge management is the key to gain and sustain entrepreneurial capabilities, and it is the richness and relatedness of knowledge development. that determines entrepreneurs' capabilities of pursuing opportunities and making effective decisions (Audretsch & Keilbach, 2007; Audretsch & Lehmann, 2006; Huang, 2009; Wood & Pearson, 2009). However, this paper argues that, the scarcity of resources exists impartially. The competition over the resources depends on the competitors' capabilities of identifying, absorbing, organizing, utilizing and allocating the resources. The chances of one party with limited resources to win the competition against the ones with sufficient resources, is odd, but not impossible. But, it is hardly to find a winner who succeeds a competition without possessing capabilities. Shanzhai is composed of POEs with zero resources comparing with those MNCs and SOEs, the result of competition shows that, neither those MNCs, nor those SOEs, is the winner in China.

Some scholars wonder why entrepreneurship is so popularly and publically addictive (Reynolds, 2010), even though it is difficult to predict the potential impacts of the extant entrepreneurial activities on current and future economic development (Short, et al., 2010). However, in order to absorb the marrow of entrepreneurship and make it sustainable, more scholars endeavor to seek answers to a legendary question: "why so many entrepreneurial failures" (Burmeister & Schade, 2007; Dutt & Gonzalez, 2012; Fauchart & Gruber, 2011; Ries, 2011; Tito, 2011; Wood & Pearson, 2009). In response, this study proposes a trilogy framework delineating entrepreneurial lifecycle (See Figure 6), which is a path-dependent process, influenced by five fatal factors: cognitive flaws (linear thinking), capability of knowledge management, capability of decision making, capability of maintaining entrepreneurial commitment in order to overcome the internal erosion of inertia, and the capability of innovation in order to defend against external erosion of imitations (See Table 10). The rationale of this trilogy framework is that: if these five fatal factors pervade in the process of entrepreneurial development, then, a fatal path: from Entering into a market, through a process of Adjustment in order to fit with the market, to Transmuting from an entrepreneur to an incumbent, is inevitable –



EATing away entrepreneurs' commitment and momentum from inside out. However, if these five fatal factors are under control, then, the entrepreneurial lifecycle is sustainable.

In order to bridge the gap (both theoretical and practical) between East and West in the development of entrepreneurship (Chen & Miller, 2010), this paper aims at examining and benchmarking the existing entrepreneurial theories with the perceived characteristics of Shanzhai, and evaluating (qualify/disqualify) Shanzhai as an Emerging Entrepreneurial Model. One of the arguments proposed in this paper is that, entrepreneurs, incumbents and imitators are predators along the industrial food chain, competing over their capabilities and speed of innovation and imitation. Put differently, both innovation and imitation are entrepreneurial technologies, which one should be selected, is determined by entrepreneurs' technological capabilities, attainable resources and their respective position in a particular marketplace. The principle of selecting entrepreneurial technology is to pick the one that ensures: Do it Right in the Beginning; Do Less but Gain More; and Win (business) - Win (Society) - Win (Consumers) Situation.

RESEARCH METHOD

The combination of extensive literature review and in-depth data analysis is the methodological approach adopted in this paper. Data collection has been conducted from 2008 to 2012. Information collected from open-ended and scheduled, formal and informal interviews, is counted as first-hand data. The second-hand data is collected from variety of sources relative to the topics of Shanzhai and entrepreneurship. Data analysis is conducted by comparing Shanzhai characteristics with the existing frameworks. This research design is to reach three purposes: first is to evaluate whether Shanzhai can be conceptualized as an Entrepreneurial Model; second is to distill key evidences that may help explain why Shanzhai, rather than those MNCs and SOEs, prevailed in China; and the third purpose is to rationalize the trilogy framework proposed in this paper, in order to rationalize the vital impacts of the five fatal factors on the lifecycle of entrepreneurial development, and to explain why so many entrepreneurial failures.

Data Collection

302 research papers published in Western journals have been examined and categorized based upon their respective disciplinary subjects and theoretical focuses. Data collection on Shanzhai was initiated in September 2008 and continued to November 2012. Of the 1642 collected documents (mostly in Chinese), 19 master theses and one doctorate dissertation are collected from different universities in China. The rest of the documents include: research papers from Academic and Industrial Journals, and Articles from Internet, Newspapers and Company Web Portals (See Table 1 and Figure 1).



Year Papers	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total	%
Newspaper Articles	0	0	3	9	23	11	22	39	114	172	31	3	427	26
Research Papers	0	0	1	0	0	2	4	73	117	113	27	6	343	21
Internet Articles	0	0	3	2	24	33	21	51	67	35	43	27	306	19
Company Web Posts	0	0	0	0	0	3	5	12	166	79	22	0	287	17.5
Industrial Articles	4	7	5	22	15	9	14	27	71	52	34	19	279	17
Total Papers by Year	4	7	12	33	62	58	66	202	535	451	157	55	1642	100

Table 1: Documents Relevant to Shanzhai



Data Description

After two rounds of data categorization: stripping, grouping and organizing, 776 documents are selected out of 1642 according to their contents. The leftovers are either irrelevant or plagiarized, or, one paper repeatedly published by multiple publications. Content analysis is applied through the process of coding and cross-checking procedures. The result shows two patterns based upon data sources and contents.

The Pattern of Data Sources: Shanzhai was a hot topic during the period of 2008-2010, in which, the number of document accounts for 72% of the total documents across the twelveyear data period. Newspaper articles (26%), Research papers (21%), Internet articles (19%), Company Web-posted articles (17.5%), Industrial articles (17%) and are the main sources of collected documents (See Table 1). This pattern of source distribution reflects that, Shanzhai, as a collection of POEs for the first time in the history of PRC (People's Republic of China), has drawn public attention, especially during the period of 2008-2010, and then, declined afterward.

The Pattern of Data Contents: after coding and cross-checking procedures, the selected 776 documents have been categorized, organized and regrouped into 13 subjects concentrating on three topics (See Table 2): Shanzhai Manufacturing (coded as '104'), Shanzhai Mobile Phone (coded as '103'), and Shanzhai Culture (coded as '109'). This pattern of content



distribution indicates that, Shanzhai has grown and played an influential role in both manufacturing sectors (especially the mobile phones) and in public cultural aspect.

Year	2000	2000	2000 2010		2012	% of the Total	
Contents Code	2000	2009	2010	2011	2012		
100 (山寨战略 Strategies)	2	3	5	5	5	20/776 = 2.58%	
101 (山寨汽车 Automobiles)	2	3	13	17	3	38/776 = 4.90%	
102 (山寨起因 Origin)	1	14	2	1	0	18/776 = 2.32%	
103 (山寨手机 Mobile Phone	25	44	20	22	E	123/776 =	
Market)	20	41	29	23	J	15.85%	
104 (山寨制浩 Manufacturing)	5	54	54	31	٥	153/776 =	
104 (山來耐迫 Manufacturing)	5	54	54	31	9	19.72%	
105 (山寨模式 Shanzhai Model)	11	27	10	4	2	54/776 = 6.96%	
106 (山寨概念Concept)	1	15	25	1	0	42/776 = 5.41%	
107 (山寨现象 Phenomena)	1	16	25	1	0	43/776 = 5.54%	
108 (山寨市场 Marketing)	1	7	1	12	3	24/776 = 3.09%	
100 (山客文化 Culture)	1	55	10	14	4	116/776 =	
	1	55	42	14	4	14.95%	
111 (山寨社会观 Social Attitude)	0	13	19	2	0	34/776 = 4.38%	
112 (山寨甘京 Miscollapoous)	0	າາ	77	2	1	102/776 =	
TTZ (田來其已 Wiscellarieous)	0	22		2	1	13.14%	
115 (山寨与法律 Legal Issues)	0	3	3	2	1	9/776 = 1.16%	
Total Papers by Year:	50	273	305	115	33	776/776 - 100%	
Percentage of Papers by Year:	6.44%	35.18%	39.30%	14.82%	4.25%		

Table 2: The Concentration of Public Interests on Shanzhai from 2008 to 2012

A Research Detour Resulted from the Two Issues Identified from the Collected Data

Two important issues stand out from the collected data, drawing attention of, and enforcing this study to make a detour from empirical research to conceptual exploration. First issue is the mistranslation of the concept of entrepreneurship (企业家精神 translated in Chinese), which literally refers to the leadership of enterprises, rather than the creation of businesses. Although, translation does not concern with the interest of this study, however, since most of the existing management frameworks currently applied in China are introduced from the West, therefore, conceptual and theoretical misunderstandings resulted from mistranslations, although understandable considering the short history of introducing West dominated management theories into China (Zhao, 2010), but not acceptable if this situation continues to create confusions, especially in today's rapidly globalized business environment.

The second issue revolves the poverty of entrepreneurship framework in China. Of the 1642 collected documents, none of them can be categorized as relevant to the subject of entrepreneurship. Only few of those research papers made a tentative approach to the framework of the bottom of the pyramid (Prahalad & Hart, 2002) in explaining Shanzhai



innovative market strategy targeting at the low end market; and the framework of disruptive technology (Christensen, 1997; Christensen & Raynor, 2003) in explaining the cost saving advantage successfully achieved by the means of imitation. From management perspective, how and why such a popular business phenomenon still remains conceptually unknown, is one of the motivations of the present study. Given these conceptual weakness in the existing framework, this study delves into an extensive literature review to examine the concept of entrepreneurship, and compare it with emerging entrepreneurial phenomenon in China such as Shanzhai, in an attempt to redefine the concept of entrepreneurship.

RESEARCH OBJECTIVE

Why Shanzhai, such an emerging and successful business model has not yet been defined as an entrepreneurial model, is the research question motivating this study. Possible explanations might be twofold: Firstly, scholars especially those from China, are not theoretically familiar with the framework of entrepreneurship. Therefore, rather than risking their reputation by making a conceptual mistake, they chose not to do so for the sake of face-saving. Secondly, the existing framework introduced from the West does not fit or match the profile of Shanzhai. In either situation, it exposes and confirms the gap between Western theory and Eastern way of doing business (Chen & Miller, 2010). To bridge this gap, this study launched a blanket search of literature, chronologically piece by piece, focusing on: How is the existing concept of entrepreneurship defined and evolved? What are those key factors and characteristics used in defining the concept? Stated simply, the objective of this study is to examine and compare/benchmark the existing framework of entrepreneurship with the perceived characteristics of Shanzhai, in order to qualify or disqualify Shanzhai as an entrepreneurial model.

ORGANIZATION OF THIS PAPER

Given the research objective, this paper is organized to firstly present an analytical review on the existing literature, in an attempt to identifying those key factors in developing the concept of entrepreneurship. Literature review conducted in this paper exposes some weaknesses affecting the validity and reliability of existing definition. Drawn upon this finding, this paper proposes an upgraded definition, which is expected to serve merely as a modest spur to allure future researches to verify. Then, a framework of entrepreneurial fatal path is proposed in response to the billion dollars' question: 'why so many entrepreneurial failures?' Another purpose of proposing this fatal path framework is to highlight the critical role of entrepreneurial capabilities required to create and sustain entrepreneurship. Lastly, this paper proposes a sustainable entrepreneurial model supported by three principles, namely, (1) do it right in the



beginning, (2) do less but gain more (maximum output with minimum input) and (3) a win-winwin outcome. To make sense of this model, this paper presents three business cases followed by a rationalized conclusion that: entrepreneurship is capability oriented, and Shanzhai is qualified as an entrepreneurial model. This conclusion is complementary to the existing framework of entrepreneurship.

THEORETICAL DEVELOPMENT OF ENTREPRENEURSHIP

The review of entrepreneurial literature reveals a strong chronological pattern, which may be characterized as an evolutionary process of contents in parallel with specific time period. This pattern itself reflects the creative destruction nature of entrepreneurship through the process of replacing old by new ones - an evolving process from a technological innovation oriented entrepreneurship (Schumpeter, 1934), to an environmentally sensitive and contextual entrepreneurship, influencing and being influenced by a particular social-political, economical and cultural system (Cole, 1959); - an evolving process from a business model oriented entrepreneurship (Kirzner, 1973), to an opportunity centered entrepreneurship (Stevenson, 1983), and finally, to a capability oriented entrepreneurship (Flew, Donald, & Wang, 2006; Zack, 2002).

The Evolutionary Pattern of Entrepreneurial Theory

The theoretical development of entrepreneurship may be described a path-dependent evolutionary process of replacing old paradigms by new ones in parallel with the evolution of social, political, economical and technological development across time and space. Chronologically, it may be divided into five stages, from the stage of path-finders (landmark pre-1980s) with a focus on the force of technological innovation; through the stage of path-finding (during the 1980s) with an emphasis on the vital role of pursuing business opportunities; to the stage of path-shifting (during the 1990s) shifting from opportunity oriented framework to psychological quality and resources-based view of entrepreneurship; then, to the stage of factsfinding (during the 2000s) with a hodgepodge approach emphasizing the contextual and dynamic nature of entrepreneurship, establishing a knowledge-based view of managerial skills and abilities as entrepreneurial capabilities required to identify, create and transform entrepreneurial opportunities into business operations and values; and finally, to the current stage of path-integrating (post-2010) focusing on the constructs of entrepreneurial business model that is not only practically applicable and sustainable, but also economically profitable (See Figure 2).



The Pro	cess of Replacing (Old Technologies b	y New Ones	
Path- Finders Landmark. The Proce	Path-Finding <u>During 1980s</u> ess of Replacing Ol	Path-Shifting <u>During 1990s</u> d Business Models	Facts- Finding by New Ones	Path- Integrating Post 2010s

Figure 2: Evolutionary Path of Entrepreneurial Management Framework

The Landmark Definition of Entrepreneurship and Its Theoretical Impact

The theory of Creative Destruction (Schumpeter, 1934), is the motherboard of entrepreneurial framework, which defines entrepreneurship as a process of Replacing-Old-by-New. Schumpeterian idea emphasizes that, entrepreneurs must remain in a constant state of searching for new opportunities and/or technologies that can be used to destruct or replace the old ones, in order to speed up production process at low cost and to provide cheaper products for consumers, so that a new market pattern can be established, and the old ones become obsolete in the course of market competition.

The impact of Creative Destruction theory on the development of entrepreneurial framework is monumental. Following Schumpeterian footprint, the theoretical domain of creative destruction has been upgraded and expanded. Entrepreneurship is sensitive and contextual to a particular social-political, economical and cultural system (Cole, 1959); entrepreneurship is a goal oriented business approach (McClelland, 1965), genetically linked with strategic management, aiming at pursuing opportunities, technologies and/or new managerial techniques, which enable entrepreneurs to become capable of doing new business, or doing business in new ways, so that replacing old by new become feasible and achievable (Kirzner, 1973). Until recently, the concept of creative destruction has been re-termed as a big-bangforce, propelling the process of business competition and driving the global economic development (Downes & Nunes, 2013). Simply stated, evolution of the theoretical framework of entrepreneurship is deeply rooted in the prototype of landmark definition (See Table 3).

Time	Definitions and Descriptions of Entrepreneurship During the Past 40 Years						
Landmark Pre-1980s	 k s The force of creative destruction and/or the force of economical competition, through the process of replacing old by new, both technologically and managerially, in the context of social economical, cultural and political system. 						
In the 1980s	A business technique focusing on the capabilities of pursuing and capturing business opportunities						
In the 1990s	A business technique focusing on the capabilities of organizing and allocating resources needed to make decisions for capitalizing and transforming the value of perceived opportunities						
Post-2000s	A managerial discipline centered on the dynamic capabilities of continuously innovating/ imitating, absorbing & assimilating knowledge and technologies required to create or identify and capture business opportunities, allocate and organize resources, and transform opportunities and resources into business operations and commercialize them into market values; It is a continuing process of replacing old by new in the context of social-political, economical & cultural systems.						

Table 3: The Evolution of Entrepreneurial Definition During the Past 40 Years



Although inspiring and instructional, the landmark definition (See Table 3) lacks information on how an individual/firm can gain the technological or managerial capabilities required to establish the creative force needed for entrepreneurs to capture and transform the opportunities and resources into marketplaces (Arthur & Sheffrin, 2003). In order for entrepreneurship to function as a booster of economical growth (Pol & Carroll, 2006), entrepreneurs must possess entrepreneurial capabilities to overcome the resource constraints and other barriers (Chiles, et al., 2007). Despite the drawbacks, the landmark definition still functions as a lighting tower, providing directions for the theoretical evolution of entrepreneurship.

The Evolution of Entrepreneurial Definition and the Need for Revision

Figure 2 and Table 3 illustrate and explain the cognitive path of entrepreneurship evolved throughout the five stages. The landmark definition (pre-1980s) is birth-marked as the creative force of replacing old by new in a particular context of social-political, economical and cultural system (Cole, 1959; Kirzner, 1973; McClelland, 1965; Schumpeter, 1934). These path-finders paved a ground and provided a direction for followers to continue their journey of path-finding during the period of 1980s, leading toward a cognitive progress that defines entrepreneurship as the capability of continuously pursuing opportunities (Cooper, et al., 1988; Nelson & Winter, 1982; Stevenson, 1983; Stevenson & Gumpert, 1985; Wernerfelt, 1984).

There appears a conceptual split diverged from opportunity oriented entrepreneurship during the 1980s, to resources and entrepreneurial behaviors (i.e. risk taking, decision making) oriented entrepreneurship during the period of 1990s. This shift of paradigm indicates that, resource is identified as an important element in the process of capturing and transforming the value of perceived opportunities (Bird, 1992; Conner & Prahalad, 1996; Jegede & Aikenhead, 1999; Kerin, et al., 1992; Kirzner, 1997; Kogut & Zander, 1992; Lieberman & Montgomery, 1998; Madhok, 1996). It also indicates that the question of what is entrepreneurship during the 1980s seemed to be replaced by the question of what capabilities are relevant to the constructs of entrepreneurship during the 1990s. Capabilities of capturing opportunities and transforming resources into market values dominate the framework of entrepreneurship during the 1990s. The need to shift from the 1980s' fanaticism of opportunity oriented entrepreneurship to the 1990s' capability oriented entrepreneurship seems to be inevitable (Kogut & Zander, 1992; Madhok, 1996).

To the new millennium (post-2000), a dynamic, contextual and continuous process of capturing, transforming/commercializing opportunities and resources into business operations and market values, forms the mainstream of entrepreneurial framework (Acs & Audretsch, 2005; Eisenmann, 2009; Flew, Donald, & Wang, 2006; Ireland & Webb, 2007; Reynolds, 2010; Shane & Venkataraman, 2000; Short, et al., 2010; Song, 2008; Ucbasaran, et al., 2001; Zack, 2002; Zahra, et al., 2009). Majority of researchers during this period concentrate on the capabilities of



gaining know-how skills required to create, identify and capitalize opportunities, and allocate or organize resources needed to transform opportunities into business operations and market values (Arend, 2013; Dutt & Gonzalez, 2012; Fauchart & Gruber, 2011; Grégoire & Shepherd, 2012; Kisfalvi & Maguire, 2011; Kornish & Ulrich, 2011; Koellinger, et al., 2013; Ramoglou, 2011; Rynes, et al., 2012; Sardeshmukh & Smith-Nelson, 2011; Schurenberg, 2012). Theoretically, there appears a breakthrough paradigm shift in the course of entrepreneurial path-finding, from 'know-what capabilities' during the period of pre-2000 to 'know-how to gain capabilities' during the period of post-2000. In other words, the year-2000 may be viewed as a demarcation of theoretical leapfrog, from conceptual 'know-what' (pre-2000) to practical 'knowhow' (post-2000). This theoretical breakthrough represents a congruent challenge or de-facto proof that the framework that deifies entrepreneurs' mysterious power of pursuing opportunity beyond resource controlled (Stevenson, 1983), is groundless. Similarly, entrepreneurs are those who are capable of making 'Do' without the support of resources and, entrepreneurs are those to whom, opportunities are the only resources they have (Schurenberg, 2012), are incomprehensible.

What seems to be difficult to explain is the driving force that pushes this overall paradigm shift (from pre-2000 to post-2000). One explanation may be conjectured from the cognitive gaps between the roles of entrepreneurs and managers. For example, entrepreneurs and managers were treated separately during the period of pre-2000. Some scholars claimed that entrepreneurs are susceptible to decision biases due to their opportunistic mindset; therefore, it is managers' responsibility to avoid making biased decisions (Busenitz & Barney, 1997). However, the bounded rationality may be a systematic challenge for both entrepreneurs and managers in decision processes, especially when information and other resources are limited. To this end, some scholars argued that entrepreneurs must be able to gain or absorb not only the capabilities and resources required to transform/commercialize opportunities into market values (Song, 2008; Ucbasaran, et al., 2001; Venkataraman, et al., 2012), but most importantly, the information that will ensure entrepreneurs to make the informed decisions. Another explanation on the overall paradigm shift may be interpreted as the impacts of increasingly intensified imitation activity. Since imitation forfeits or dilutes entrepreneurial advantages, therefore, it is broadly considered as a major barrier obstructing to the development of entrepreneurial process (Kerin, et al., 1992; Kim, 1997; Kogut & Zander, 1992), and resulting in so many entrepreneurial failures (Burmeister & Schade, 2007; Chen & Miller, 2010; Dutt & Gonzalez, 2012; Fauchart & Gruber, 2011; Ries, 2011; Tito, 2011; Wood & Pearson, 2009). In other words, imitation incurs and intensifies entrepreneurs' cognitive transition, from pre-2000' know-what, to post-2000' know-how, so that entrepreneurs may stay ahead of those imitators. It is suggested that the threat of imitation can be harnessed or



controlled by integrating and institutionalizing entrepreneurship into organizational development (Kisfalvi & Maguire, 2011; Miller, et al., 2012; Rynes, et al., 2012).

Despite arguments or debates, pros and cons are always the opposite forces in driving the development of knowledge. One heuristic finding from literature review is that, there are five key words: 'Capability, Opportunity, Resource, Process and Contextual' - being commonly and repeatedly emphasized regardless of their respective theoretical stance (See Table 3). This finding indicates that, integrating these five key words into one definition may be synthetically insightful and theoretically constructional to the rationalization of entrepreneurial framework. After all, science is a process of puzzling. From Chinese Confucius perspective, the unified field of opposites provides a more holistic view than any independent one of the opposites, separately. Or, the whole is always greater than the sum of pieces. Driven by this motivation, this paper proposes a revised definition, which is expected to serve as a modest spur for future researches to refine and polish the concept of entrepreneurship, and to guide practitioners (both entrepreneurs and managers) to learn, gain and sustain the know-how skills and capabilities required to overcome resource constraints, and to cope with risks and uncertainties inherent in the process of entrepreneurial development (Eisenmann, 2013).

The Revised Definition and the Three Principles of Entrepreneurship

Entrepreneurship is a continued process of doing new business, or, doing business in new ways. It requires the CAP-ability (capability) of Creating and capturing the right opportunity (do it right in the beginning), Allocating and organizing necessary resource, and Performing efficiently and effectively through the process of transforming the opportunity and resource into business operations and market values (maximizing output and minimizing input, or do less but gain more). Ultimately, entrepreneurship would not be succeeded if it does not meet the contextual need of a particular social-political and economical system. Following this line of logic, entrepreneurship would not be sustained, if its goal is not set as the combination of business success, consumers' satisfaction and social benefits (win-win-win-outcome). Simply put, to make it feasible, actionable and sustainable, the concept of entrepreneurship must be defined from the perspective of strategic and tactical levels, mutually fitted and leveraged by the predefined objectives, measurable and controllable.

On the Strategic Level: Entrepreneurship is an Opportunity-Driven and Project-Oriented Management System, Targeting at Pre-Specified Goals and Objectives. It is a continued PROCESS of IDENTIFYING the Right Opportunities that must be within the entrepreneurs' capabilities of capturing them, and simultaneously Shifting Risks, through the applications of NEW technologies or NEW business models that fit in the context of political-social, economical and cultural systems, in order to Maximize outputs and Minimize inputs.



On the Tactic Level: Entrepreneurship is a series of Timely-Sensitive Cap-abilities of Creating and capturing business opportunities that must be incentive and motivating, so that an entrepreneurial process can kick off with an initial momentum; Cap-abilities of allocating and organizing necessary resources; Cap-abilities of absorbing, digesting and assimilating knowledge and technologies; so that an entrepreneurial process can become capable of maximally transforming opportunities and resources into business operations and market values, with minimum inputs.

To distinguish this definition from previous (See Table 3), the key words 'Capability of Capturing the right Opportunities and Shifting Risks', need to be elaborated, in order to understand the indispensible relationship between entrepreneurial Capabilities and Opportunities in the process of entrepreneurial development (See Table 4):

CAP-abilities:	Capturing-, Allocating-, Performing-, abilities							
Capture:	Capitalizing Accessible Profits & Transferring Unnecessary Risk Elements							
Opportunity: Opportunities:	Optimizing Project Performance On Risk Transfer Until Net Income To Yield. Optimizing Project Performance On Risk Transfer Until Net Income To Incur Efficiently and Sustainably							
Shift:	Splitting (or Sharing) Heavy Inputs & Fostering Tradeoffs							
Risks:	Reducing Involved Stakeholders' Key Sunk-costs (or Stakes)							
DEFINITION:	Entrepreneurship is: a synergy of Capabilities of capturing opportunities, allocating resources, and performing the transformational process from opportunities and resources into business values, simultaneously, sharing and transferring risks.							
Note:	Entrepreneurial Approaches include: NEW technologies and/or NEW business models (new ways of dong business). The Degree of Newness determines the chances of success. Generally, the higher degree of newness, the higher chance of entrepreneurial success.							

Table 4: Key Components in the Definition of Entrepreneurship

Defining entrepreneurship as a Project-Oriented management system (See Table 4) makes it an Opportunity-Oriented rather than Risk-Oriented. Therefore, it is plausible that entrepreneurship is constrained by scope, schedule and budget. To this end, entrepreneurship is not solely capability-determined, but also resource-dependent. In other words, entrepreneurship is a continued project that identifies, captures and transforms opportunities and resources into maximum output. Entrepreneurship is a project-Oriented management system that is economically incentive and technologically or managerially new, in the context of a particular business environment.



The revised definition characterized with those key components (See Table 4), makes entrepreneurship a management system that is less abstractive and less confusing; meanwhile, more actionable and more controllable. Such a definition makes entrepreneurship a management system that is strategically capable of acting or functioning as a business vanguard in a constant state of creating ideas and business concepts, and operationally capable of identifying and capturing opportunities and allocating resources required to perform the process of transforming ideas, concepts and opportunities into business operations and market values. Such a definition requires entrepreneurs to make and execute the right decisions, which must be innovative and rebellious against the conventional ways of doing business. Such a definition converts the concept of entrepreneurship into an explicit process of selecting the right opportunities (feasible, actionable, profitable), maximizing the chance of success and minimizing the chance of risk. Such a definition provides and ensures the measurability and controllability of entrepreneurship by following the three principles: (1) Selecting the right opportunity (Do it right in the beginning), (2) Maximizing the output and minimizing the input in the process of transforming opportunities (Do less but gain more), (3) Targeting at objectives beyond short-term financial gains (win-win-win-outcome). Having these three principles integrated into entrepreneurial process helps rationalize the needs to enforce entrepreneurs to constantly gain and accumulate the capabilities of doing new business (technologically) and/or doing business in new ways (managerially). Only when such capabilities are maintained, can entrepreneurship become sustainable. Otherwise, it is just a flash in the pan, or, a short-lived opportunist.

The revised definition makes the concept of entrepreneurship essentially different from previous ones (See Table 3 and Table 4) by emphasizing the newness (either technological or managerial), which is the key to sustain entrepreneurial momentum and advantages. The revised definition provides entrepreneurs a solution against the erosive impact of imitation, by enforcing a faster rhythm of developing newness (i.e. innovations) than the pace of imitations. The revised definition provides criteria that can be used to qualify/disqualify whether an individual/firm is an entrepreneur (See Figure 3):





Figure 3: Measures and Determinants of an Entrepreneurial Process

- If an individual/firm is able to create or identify an opportunity/project, but Unable to shift/transfer the inherent risks, resulting in failure (ex: suspension or termination of the project), then, the individual/firm is considered not able to capitalize the opportunity/project, hence, not an entrepreneur;
- If an individual/firm is able to create or identify an opportunity/project, and shift/transfer the inherent risks, but unable to transform that opportunity/project into business operations and market values, resulting in failure of project (ex: cost greater than profit), then, the individual/firm is considered not able to capitalize the opportunity, hence, not an entrepreneur;
- ONLY if an individual/firm is able to create or identify an opportunity/project, shift/transfer the inherent risks, and transform that opportunity/project into business operations and market values, then, the individual/firm is qualified as an entrepreneur.

Evidences Found in Literature in Support of the Revised Definition

Of the five key words (Capability, Opportunity, Resource, Process and Contextual) in defining entrepreneurship, CAP-ability is the key of the keys, in pursuing an entrepreneurial possess that is inherently composed of opportunities, risks and uncertainties. In other words, an entrepreneurial process is contingent upon entrepreneurs' capabilities of maximizing the value of resources and minimizing the impact of risks and uncertainties. Therefore, an entrepreneur must remain vigilant and sensitive to the dynamically changing business environment (Acs & Audretsch, 2005; Ireland & Webb, 2007) in order to make informed decisions against risks and uncertainties involved in a particular context of social-political, economical and cultural systems. This is why scholars suggested that the domain of entrepreneurship outreaches the boundary of conventional business management. It is required to put on a hodgepodge lens to examine the richness of entrepreneurship (Gartner, 2001; Shane & Venkataraman, 2000).

An increasingly concentrated topic in the literature of entrepreneurship is the sustainability of entrepreneurship, which, once built, must be institutionalized as a continuing process in order to sustain the achieved entrepreneurial advantages in competing for business opportunities (Brown, et al., 2001; Downes & Nunes, 2013; Kisfalvi & Maguire, 2011; Miller, et



al., 2012; Nickerson, et al., 2007; Rynes, et al., 2012; Shane, 2003; Stevenson, 2000; Tito, 2011). Only by sustaining entrepreneurship, can entrepreneurs become enabled to absorb the marrow of entrepreneurship, to function as a social engine (Eisenmann, 2009), and consequently to motivate, stimulate and transform societies into entrepreneurial incubators (Reynolds, 2010; Short, et al., 2010; Zahra, et al., 2009). Given these literature findings, this study suggests that, entrepreneurship is a management system that is centered on the construction of entrepreneurial capabilities, which can be mapped out as shown in Figure 4:





Capability of Constructing Psychological Readiness for Entrepreneurship

Psychological readiness determines the capabilities of developing and continuing an entrepreneurial process, on both individual and organizational levels. Empirical evidences have confirmed that, psychological factors such as passions, preparedness, feelings, desires, attitudes and modes, are related to entrepreneurial performances and outcomes (See Table 5). Prior experiences and expertise (Knowledge, Skills and Abilities) are found to be related with entrepreneurs' confidence/overconfidence, self-efficacy and self-esteem (See Table 5). These factors influence entrepreneurs' readiness and propensity of decision behaviors, which in turn, affect the quality of entrepreneurial outcomes (See Table 5). Psychological inertia is defined as the root cause of decision bias and, interestingly, gender is found to have an impact on entrepreneurs' decision behaviors (See Table 5).



Psychological Factors	Impacts on Entrepreneurial Performances and Outcomes
Passions:	Entrepreneurs' Vision, Decision Behaviors, Performances and Outcomes
Compassion:	• Passions, feelings, desires, attitudes and modes are coherently associated with entrepreneurs' decision behaviors over the perceived opportunities (Baron, 2008; Bird, 1992; Cardon et al. 2009)
Feelings:	 Passion and compassion are related to entrepreneurial vision, and together, they are valid attributes, instrumental in fostering entrepreneurs' capabilities of motivating and institution in the second secon
Desires:	2011; Miller, et al., 2012; Rynes, et al., 2012).
Attitudes:	 It is the psychological preparedness, rather than passion that positively affects entrepreneurs' decision behaviors (Chen, et al., 2009), since overly enthusiastic and optimistic in passion for entrepreneurial opportunities, may cause entrepreneurs to
Modes:	make biased decisions.
	Prior Experience, Expertise and Knowledge in Relation to Entrepreneurs' Capabilities of Organizing Resources, Risk-Propensities, Making Decisions and Performances
Confidences: Self-Efficacy: Self-Esteem: Propensities: Desires:	 The more prior experience and expertise, the more sensitive and confident the entrepreneurs are, the more likely they are capable of making decisions over the perceived opportunities (Baron & Ensley, 2006). Prior experience and expertise can be used to predict the patterns of decision behaviors between novice and experienced entrepreneurs (Cornelissen & Clarke, 2010). Prior experience and expertise are related with entrepreneurs' confidence, self-efficacy, self-esteem, and capabilities of organizing and allocating resources (Grégoire, et al., 2010). Prior experience and expertise support self-efficacy and self-esteem, which may lead to enhanced self-determination and likelihood or propensities of Risk taking and decision-making behaviors in the face of opportunities (Culbertson, et al., 2011; Nicolaou & Shane, 2009; Toma, et al., 2011). Prior knowledge and expertise is the most important organizational strength in supporting decision behaviors, and must be continuously developed and accumulated, in order to internally generate ideas and create opportunities, and externally examine, identify and capture those unexploited opportunities (Ramoglou, 2011). Prior knowledge and experience enable entrepreneurs to attract and convince investors to invest in the necessary resources, without which, the informed decisions would not be possibly made in response to the perceived opportunities (Grégoire, et al., 2010; Zott & Huy, 2007). The similarity between entrepreneurs' prior knowledge and opportunity ideas is positively related to entrepreneurs of similar ideas, the higher probability of making a decision from these ideas with similarity (Kornish & Ulrich, 2011).
	 Prior expertise and experience may lead to entrepreneurs' self-centered and irrational passion, over-optimism, "I think I can" kind of over-optimism and overconfidence (Koellinger, et al., 2007), which may cause entrepreneurs to make biased decisions (Fauchart & Gruber, 2011; Hmieleski & Baron, 2009), or even entrepreneurial failures (Burmeister & Schade, 2007). It is the firms' existing capabilities and resources availability, rather than firms' prior knowledge or experiences that help firms make their decisions (Hill & Birkinshaw, 2010). It is the availability and the reliability of the sources of ideas that imposes strong impact on entrepreneurs' decision behaviors, rather than their prior knowledge or experiences (Gruber, et al., 2013), Therefore, it is critical for entrepreneurs to be able to shake off or escape from the shadow of prior knowledge or experiences, in order to make effective decisions, and to sustain their entrepreneurship (Gruber, et al., 2013). It is the degree of similarity, not the entrepreneurs' prior knowledge, among opportunity ideas that are positively related to entrepreneurs' confidence and propensity of decision behavior (Grégoire & Shepherd, 2012).

Table 5: The Impacts of Psychological Factors on Entrepreneurial Performances & Outcomes



Table 5: The Impacts of Psychological Factors on Entrepreneurial Performances & Outcomes

	Inertia in Relation to Entrepreneurs' Decision Behaviors, Performances and Outcomes
Inertia:	 Psychological inertia is used to explain the tendency of those individuals relying exclusively on their familiar assumptions and/or solutions that fall within their past experiences – even when the evidences supporting their assumptions are no longer valid or when new evidences might question the accuracy of their assumptions. Hence, psychological inertia is referred as the source of psychological biases, which is the direct cause of biased choices or biased decisions in the processes of innovations (Fey & Rivin, 2005). Evidences show that entrepreneurs with prior knowledge, prior experience and prior expertise, are inclined to the inertia propensities, such as complacence, overconfidence and irrational passion in the face of business opportunities, and resultantly, making irrational or biased decisions (Burmeister & Schade, 2007; Hmieleski & Baron, 2009: Koellinger, et al., 2007). More evidences suggest that when entrepreneurs hold strong self-centered personalities such as strong sense of pride, and/or, strong sense of esteem, they might be prone to psychological inertia, leading to biased decisions (Fauchart & Gruber, 2011). Psychological inertia is the root cause of entrepreneurial decision failures (Dutt & Gonzalez, 2012; Kerin, et al., 1992; Ries, 2011). Psychological inertia is noder to overcome or offset the weakness inherited from traditional way of business thinking, especially in entrepreneurial decision making processes (Arend, 2013; Gumpert, 2003; Ries, 2011). Psychological inertia is the root cause of ignoring the random nature of entrepreneurial opportunities, resulting in the mitigation of entrepreneurs to integrate their heart and mind, and follow their intuitive senses without compromising their intelligence and rationality required to develop and sustain their entrepreneurial capabilities (Arend, 2013).
Others	Gender in Relation to Entrepreneurial Decision Behaviors
011613.	Entrepreneurs' genders (male/female) may affect their decision behaviors due to their psychological differences respectively (Koellinger, et al., 2013).

Capability of Adapting and Integrating Entrepreneurship into Environmental Context

The impact of environmental dynamism on the development of entrepreneurship has not been fully explained yet in the existing literature, deserving more attention in future research. The rapidly globalized business environment in conjunction with the explosively immersed application of worldwide web information system facilitates the information flow at anywhere and anytime. This information system not only promotes and enhances the chances of learning and sharing knowledge and technology, but also increases the chances of knowledge spillovers and leakages of technological information and business ideas. Additionally, the emerging economies such as BRICS, Asia Tigers and African Lions, have restructured the pattern of global economy, by playing vigorous roles especially in the process of rapidly diversified entrepreneurial activities. Put differently, the globalized business environment has been instilled with new concepts, new theories and new ways of doing business, challenging the century-long business framework dominated by the West, insinuating an irresistible and imperative need for management scholars and practitioners to upgrade or transform their business mindset, and to



eclectically re-examine the existing framework of entrepreneurial management (Barkema, et al., 2011; Chen & Miller, 2010). Entrepreneurship would be rootless, if the business environment does not support it.

Given these emerging features of global business environment, it is plausible why some scholars have described entrepreneurship as a social-economical engine (Eisenmann, 2009; Zahra, et al., 2009), driving the development of social well-being (Mitchell, et al., 2011). The concept of entrepreneurial capability must be addressed in a particular context of business environment (Knight, 2012; Zahra & Wright, 2011), in order to explain why entrepreneurs (both start-ups and incumbents such as MNCs) must be capable of adapting, adjusting and integrating their entrepreneurial activities into a particular business environment. Table 6 is a summary of the mainstream of these arguments:

Table 6: Adapting, Adjusting and Integrating Entrepreneurial Capabilities into Environmental Context

Arguments	Main Points and Descriptions
	The Mutual Impacts of Business Environment and Entrepreneurial Capabilities
Impacts:	 Entrepreneurial capability must be interpreted in an environmental context (social-political, economical and cultural), in order to explain the impacts of entrepreneurship (Bailetti, 2012). Entrepreneurial capability is described as the Big-Bang Force of replacing conventional way of doing business by new ones, which can only be cultivated and nurtured in a particular business environment (Downes & Nunes, 2013).
	Policies and Regulations in Relation to Entrepreneurial Capabilities
Government:	• Not many scholars and administrators who understand the vital roles of policies and regulations in the development of entrepreneurship (Audretsch, et al., 2007). Understanding and making use of the influences of ex-post-ante policy-related factors on entrepreneurship is the first and foremost step in the development of entrepreneurial process (Grégoire, et al., 2010).
Policies:	Despite the varied political, social, and cultural systems, the success of entrepreneurship in many developing countries is indispensable from the support of their respective governments.
Folicies.	(Barkema, et al., 2011; Lin, 2011), Government, especially in those developing countries, is the
Regulations:	engine driving the development of knowledge, technology and creativity, which are the main components of entrepreneurial capabilities (Morris & Leung, 2011). Special Economic Zones in the city of Shenzhen, Industrial and Cultural Complex such as Dashanzi 978 Genesis Art Zone in Beijing (Kim, 2012), are examples of creative business clusters developed by the government of China, indicating the function and impact of government in developing creative industries (Keane, 2007).
	Entrepreneurial Capabilities Must be Adaptable, Adjustable and Process Oriented
	• Since the source of entrepreneurial opportunities is deeply rooted in a socially, politically, economically and culturally unique system, therefore, entrepreneurs must be able to develop capabilities, adaptable and adjustable to that system (Ucbasaran, et al., 2001).
Adaptable	Since entrepreneurship by nature is inherently heterogeneous in forms, structures, performances and outcomes (Eiconmann, 2000; Song, 2008; Zahra, et al., 2009) therefore
and	 entrepreneurs must be capable of gaining and accumulating market-driven capabilities. Since entrepreneurship is an exploratory and continuing process of activities in pursuing
Adjustable:	 business opportunities, rather than a single point of action (Ucbasaran, et al., 2001; Venkataraman, et al., 2012), therefore, only by establishing a process oriented framework, can entrepreneurship becomes sustainable (Song, 2008). Social network is defined as entrepreneurs' social capital, a key component of entrepreneurial capabilities in identifying and capturing opportunities, and simultaneously reducing the degree of risks, which vary from one society to another (Miller, 2012).



Given the contextual nature of entrepreneurship (See Table 6), it is plausible that entrepreneurial opportunities are inherently and heterogeneously rooted in a particular environment composed of dynamic and changing factors (i.e. social, political, economical and cultural systems). Evidence shows that, only when a society becomes able to function as an entrepreneurial incubator, can that society become able to nurture the development of entrepreneurship (Shane, 2004). Complementary to this theoretical finding, some scholars suggest that, if entrepreneurs in developing economies, do not possess the capabilities of taking advantage of local (host countries) policies and regulations, then, they may not be able to identify, capture and transform the perceived opportunities into business operations and values corresponding to the stakeholders' benefits in a particular environmental context - this is one of the reasons explaining why those MNCs in China during the past two decades, have not been as competitive as those Shanzhai firms (Zhao, 2013). What has been argued is that, entrepreneurs must remain sensitive and vigilant to business environment in order to timely identify and capture emerging business opportunities and, entrepreneurial capabilities must be contextually adaptable and adjustable in order to sustain entrepreneurship.

Capability of Making Informed Decisions in Entrepreneurial Processes

There exists an urgent need to differentiate between entrepreneurial decisions and strategic entry decisions, in order to rectify the misconceptions or confusions in the existing literature (Klein, 2013; Manral, 2013). Differentiating the two types of decisions may help explain the inherent relationship between entrepreneurial management and strategic management. From trade-offs perspective, a strategic entry decision deals with the complex situations with diversified alternatives or trade-offs that influence decision-makers to make an optimal choice that facilitates a long-term position in a marketplace. In contrast, an entrepreneurial decision is to select the best choice that help entrepreneurs to either capture a timely-sensitive opportunity, or miss it at all. In addition, this paper proposes a contextual situation, in which, the two types of entry decisions seem to be intermingled - a mixed entry decision that bears the common characteristics, but different from each other:

- when an entrepreneur as an incumbent market leader with strong R&D and innovation capabilities for breakthrough products (like Apple' i-phone and i-pad), attempts to enter an emerging market, then, the goal of this entrepreneur is identical to the goal of a strategic first-mover – a preemptive strategy for capturing, securing and sustaining leadership position in the marketplace.
- when an entrepreneur as a market follower, or say, a startup firm, attempts to enter a market by imitated products, or complementary substitutes of existing products (ex.: Shanzhai, penetrating into the low-end market by imitating and providing cheaper



substitutes), in this case, the goal of this entrepreneur is firstly to follow, secondly to catch up, and then to compete with those incumbents.

Regardless of the typological form of entry decisions (entrepreneurial, strategic or mixed), any entry decision must be goal-driven. This is why an entrepreneur is defined as a goal-getter (Burmeister-Lamp, et al., 2012), and the goal must go beyond monetary incentives in order to sustain entrepreneurship (Cao, et al., 2012). What being pursued by entrepreneurs is their visions and goals of transforming opportunities into business values, therefore, their goals must be prioritized and institutionalized into organizational strategy in order to sustain organizational entrepreneurship (Tito, 2011). Despite these commonalities, the disparities between entrepreneurial and strategic decisions may be examined from their respective visions, missions, tactical approaches, available alternatives or trade-offs, benefits and advantages (See Table 7).

	Entrep (Selec	oreneurial Decisions ting the Best Choice)	Strategic Entry Decisions (Selecting the Optimal Choice)
Vision & Mission	•	Targeting at a short-term financial gains in order to create or motivate momentum (Luo, 2001; Sassenburg, 2006) Catching up and/or competing with existing incumbents, and establishing a position in the marketplace (Eisenmann, et al., 2011).	• Selecting and entering a market (or market segments) by taking organizational advantages of resource strengths (i.e. R&Ds in innovation; financial availability for investment), and aiming at establishing and sustaining a long-term market leadership position (Eisenmann, 2006; 2009).
Tactical Goal	•	Using innovations to motivate potential investors (Ordanini, et al., 2011), and to reduce the degree of risks and increase the chances of successful entries (Burmeister- Lamp, et al., 2012). Building network resources to catalyze the process of entrepreneurial decision processes (Eisenmann, et al., 2011; Ordanini, et al., 2011).	 Implementing a systematically pre-designed business plan in order to gain what is so- called strategic advantages (ex.: first- movers' advantages) that cannot be matched by those market followers or imitators (Grant, 2010). Aiming at maintaining a monopoly-like leading position in the marketplace (Grant, 2010).
Alternatives or Tradeoffs	•	What if an opportunity has been identified, but not been captured due to lack of confidence, available resources, and/or willingness and readiness of risk-taking, then, the opportunity is completely meaningless. What if an opportunity has been identified and captured but with a time delay due to entrepreneurs' hesitation, indecisiveness, and/or incomplete information, then, the entrepreneurial momentum is at least crippled, if not completely canceled by other competitors.	 What if a pre-matured product is released into a market too early, then, it may likely result in market failures due to the poor quality (ex.: easily outperformed by competitors); What if a product is released too late, then, it may incur additional costs of products improvement, and perhaps, opportunity costs of missing a market window (ex.: a release of similar products from competitors); The consequence of both situations could be substantially harmful to the organization.

Table 7: Characteristics of Entrepreneurial Decisions and Strategic Entry Decisions



Table 7: Characteristics of Entrepreneurial Decisions and Strategic Entry Decisions

Consequences of Wrong Decisions	•	A wrong or delayed entrepreneurial decision may severely or mortally block the way for entrepreneurs to survive. Worse comes to worst, when a start-up's failure being used as an entrepreneurial idea by others who then turn it into a profit making opportunity – a situation of weaving a wedding dress for others.	• A wrong or delayed strategic entry decision may cause those incumbent firms to miss an emerging market opportunity, resulting in severe damages to their already achieved competitive advantages such as market shares in the marketplace.
& Advantages of J Entrepreneurship	•	Integrating and institutionalizing entrepreneurs to gain strategic advantages in business vent 2007; Shane, 2003); and enforces a corpor partnerships allies), which in return, enhances and sustaining competitive advantages (Alvare Integrating and institutionalizing entreprene facilitates a corporate to develop or expand channels (Eisenmann, et al., 2006). Howeve strategically more efficient and effective than along the process of pursuing and capturing therefore	ship into organizational strategy enables a corporate ures such as organization spinoff (Nickerson, et al., rate to continue its network system (ex.: strategic the corporate entrepreneurial capabilities in gaining z & Barney, 2001); urship into organizational strategy motivates and its market platforms, or to extend entrepreneurial er, it is argued that, proprietary market platform is a shared platform in reducing entrepreneurial risks g entrepreneurial opportunities (Eisenmann, 2008);
3enefits ntegrating	•	First Mover's Advantage should be viewed as sustain its entrepreneurship, to enhance t (Eisenmann, 2006), and to prevent the dilut (Eisenmann & Bower 2000)	a strategic or preemptive option for a corporate to he chance of being a long-term market leader ion of First Mover's or Entrepreneurs' Advantages

Capability of Gaining and Accumulating Knowledge, Technology and Other Resources

Knowledge and technology are widely referred as strategic and critical assets/resources in entrepreneurial development. Knowledge, either created endogenously (from within the organization) or absorbed exogenously (from outside of the organization), is the fountain of entrepreneurial and innovative ideas, therefore, the continuity of knowledge development is decisive to sustain entrepreneurial capabilities of creating/identifying, capturing and transforming opportunities into business values (Audretsch, et al., 2005; Flew, Donald, & Wang, 2006; Nickerson & Zenger, 2004). On the individual level, it is knowledge development that makes entrepreneurs more creative, innovative, consequently, more proactive and competitive in pursuing entrepreneurial ideas and opportunities, than those individuals who purely depend on external opportunities such as knowledge leakages and spillovers from other firms, or depend on imitating others' technologies (Kogut & Zander, 1992). On the organizational level, it is the development of organizational proprietary knowledge that provides a firm with competitive capabilities necessary to outperform those firms that heavily rely on external opportunities in business competition (Conner & Prahalad, 1996). Put simply, the process of developing, managing and prioritizing knowledge is tantamount to the process of developing and sustaining entrepreneurial capabilities and advantages.

The available sources of knowledge and technology determine entrepreneurs' overall capabilities. Some scholars argue that capability of identifying and capturing opportunities is endogenously determined by entrepreneurs' capability of gaining knowledge and technology



even when an opportunity is from external environment (Flew, Donald, & Wang, 2006). Other scholars complement that organizational network development is, not only an efficient but also an effective approach to advancing organizational capability of knowledge development and risk management, such as sharing with or outsourcing risks to those partners, who possess specialties or expertise, in coping with the specific risks (Nickerson, et al., 2007; Shane, 2003). Given these theoretical findings, it is logically reasonable to state that knowledge and network are strategic resources, crucially decisive to the development and sustainability of entrepreneurial capability. This is why examining entrepreneurial capabilities through strategic lens is more informative, since entrepreneurship is intrinsically inter-disciplined with strategic management, which further explains why knowledge-based and resource-based approaches are the two main schools of thoughts in developing the framework of entrepreneurship (See Table 8):

Schools of Thoughts	Main Points
View:	Knowledge is the Most Important Strategic Asset and Source of Entrepreneurial Opportunities
Resource-Based	 Knowledge, technologies and information are strategic and competitive resources or organizational assets, critical, necessary and decisive for entrepreneurs to gain strategic advantages (Zack, 2002), by fostering and facilitating entrepreneurial capabilities needed to create or identify, capture and transform the value of business opportunities (Madhok, 1996). Entrepreneurial opportunities are endogenously, rather than exogenously, developed through investments in knowledge and technologies as competitive resources (Flew, Donald, & Wang, 2006).
	Knowledge \rightarrow Ideas \rightarrow Entrepreneurial Opportunities \rightarrow Entrepreneurial Capabilities
Knowledge-Based View:	 Knowledge development and entrepreneurial opportunity are positively linear, the more knowledge is development more entrepreneurial ideas and more entrepreneurial opportunities can be created (Flew, Donald, & Wang, 2006). Therefore, Knowledge development must be prioritized and institutionalized, in order for entrepreneurs or managers to be able to persistently learn and accumulate knowledge, to sustain their entrepreneurial capabilities of identifying or creating entrepreneurial ideas (Nickerson & Zenger, 2004). Knowledge and ideas are the most dynamic and influential factors that determine entrepreneurial capabilities in pursuing opportunities, managing risks and uncertainties, and making decisions (McMullen & Shepherd, 2006). The novelty and uncertainty of ideas associated with the opportunities determine the value of entrepreneurial opportunities; the variation of ideas may lead to differentiated outcomes in transforming ideas into profit making opportunities (Hill & Birkinshaw, 2010). Therefore, entrepreneurs must follow the principle of "Look before Leap" – to evaluate the ideas and opportunities in conjunction with risks and uncertainties prior to making an entrepreneurial decision (entry decision); the more ideas available, the more opportunities, consequently, the better decisions and better outcomes of entrepreneurial performances (Gruber, et al., 2008, p. 1652). To this end, it is vital for entrepreneurs to remain vigilant and sensitive to the dynamically changing business environment (i.e.: policies and regulations), in order to continuously generate and transform ideas into profit making opportunities (Audretsch, et al., 2005; Audretsch, et al., 2007; Howkins, 2004).

Table 8: Knowledge-Based View & Resource-Based View in Relation to Entrepreneurial Capabilities



The Relatedness and Richness of Knowledge in Relation to Entrepreneurial Opportunities

- The scope and content of knowledge development determine the relatedness and richness • of knowledge associated with entrepreneurial ideas, which in turn, are positively related to entrepreneurial opportunities - the broader scope and the richer content of knowledge development, the better chance of entrepreneurial ideas and opportunities (Audretsch & Keilbach, 2007; Audretsch & Lehmann, 2006).
- Knowledge networking and knowledge sharing are positively related to the relatedness and • richness of the knowledge, which in turn, positively impacts on the process of decision making (Huang, 2009). Further, the relatedness and richness of knowledge are valid variables in assessing the qualities of entrepreneurial decisions, and in explaining the causes of entrepreneurial failures (Wood & Pearson, 2009).

Challenging Factors in Defining Entrepreneurial Capability

Scholars have devoted their great efforts in defining entrepreneurial capabilities of identifying and capturing entrepreneurial opportunities (see earlier discussions). However, the capability of transforming opportunities into business values seems to be a weakness in the existing literature. What qualifies individuals/firms to be entrepreneurs is determined by their capabilities of pursuing opportunities (Stevenson & Gumpert, 1985; Wernerfelt, 1984). What enables entrepreneurs to capture the opportunities is determined by their capabilities of organizing and allocating resources (Cooper, et al., 1988). As argued earlier in this paper that, what makes an individual/firm an entrepreneur is not only determined by their capabilities of pursuing opportunities, but most importantly determined by their capabilities of transforming opportunities into business values. Put differently, capabilities of identifying, capturing and transforming ideas, opportunities and resources into business operations and market values, is more holistic to the conceptual construction of entrepreneurial capability, which should be defined as a synergy of knowledge, technology and know-how skills – all-in-one capability required for entrepreneurs to fulfill their objectives and goals. From operations management perspective, when knowledge or technology is created (invented), but not commercialized, it is tantamount to inefficiency or waste of resources, because after all, the process of developing knowledge or technology is a process of consuming resources (i.e. R&Ds, Organizational Intelligence). Given this rationale, this paper proposes the definition of entrepreneurial capability as:

Entrepreneurial Capability is the synergetic abilities of creating, developing, absorbing and accumulating knowledge and technologies required to create and capture business ideas and opportunities, and the know-how skills required to organize/allocate resources, and ultimately, to transform ideas, opportunities and resources into business operations, market values and stakeholders' benefits, in a particular context of business environment.

There are six major factors challenging the development and sustainability of entrepreneurial capabilities. The first factor is entrepreneurial commitment; the second is the internal erosion of inertia. These two factors discount entrepreneurial capabilities of knowledge development and decision-making. The third factor is knowledge management required to



control/prevent knowledge from leakages or spillovers; the fourth is resources organization and allocation; the fifth is know-how skills of transforming opportunities and resources into business values; and the sixth factor is the external erosion of imitation. Of these six factors, the first five are internal factors, and the sixth is an external factor (See Table 9) - together, they are the challenges to the development and sustainability of entrepreneurial capabilities.

Table O: Challenges	in Doveloping	. 0	Suctoining	Entrop	ropourial	Conchilition
Table 3. Challenges	III Developing	jα	Sustaining	LINCP	reneunar	Capabilities

Challenges	Characteristics and Descriptions						
Commitment	Capabilities of Establishing and Sustaining Entrepreneurial Commitment						
&	• Commitment must be prioritized and institutionalized in order for organizations to						
Entrepreneurial	gain the momentum in pursuing and sustaining entrepreneurial capabilities, which						
Capabilities:	otherwise, would be crippled or discounted (Lieberman & Montgomery, 1998).						
Inertia	The Impacts of Inertia on Entrepreneurial Capabilities						
	 Inertia is defined as an obstacle that hinders entrepreneurs to continue or sustain 						
(Internal	their entrepreneurial commitment (Grégoire & Shepherd, 2012; Gruber, et al.,						
Erosion on	2013: Kornish & Ulrich 2011: Ramodou 2011) and exercise their intelligence						
Entrepreneurial	and resultantly leading them to biased decisions (Samuel & Jablokow, 2010:						
Capabilities):	Sandri, et al., 2010).						
	Knowledge Management and Entrepreneurial Canabilities						
	• The diffusion of knowledge and technologies from those developed country firms is						
	an important source for the developing country firms to develop their						
	entrepreneurial canabilities (legede & Aikenhead 1999) to stimulate						
	entrepreneurial activities and to boost economic growths (Flew Donald & Wang						
Knowledge	2006: Mueller 2006: Zack 2002):						
Management &	 Information technology (IT) has been the major channel for expediting the diffusion 						
Entrepreneurial	of knowledge and technologies, which in turn, provide sources for those imitators to						
Capabilities:	gain technological capabilities (Allworth, 2012; Barkema, et al., 2011; Cayusoglu, et						
	al., 2010). Therefore.						
	• Entrepreneurs, in order to sustain their entrepreneurial advantages, must be able to						
	control and prevent their proprietary knowledge and technologies from leakages or						
	spillovers (Audretsch & Lehmann, 2005).						
	spillovers (Audretsch & Lehmann, 2005). Capabilities of Organizing & Allocating and Transforming Resources and						
	spillovers (Audretsch & Lehmann, 2005). Capabilities of Organizing & Allocating and Transforming Resources and Opportunities						
	spillovers (Audretsch & Lehmann, 2005). Capabilities of Organizing & Allocating and Transforming Resources and Opportunities • Knowledge, technologies and information are resources that critically and decisively						
Capabilities of	 spillovers (Audretsch & Lehmann, 2005). Capabilities of Organizing & Allocating and Transforming Resources and Opportunities Knowledge, technologies and information are resources that critically and decisively determine entrepreneurs' capabilities and advantages, in creating, identifying, 						
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In summary, the existing literature has chronologically demonstrated an evolutionary path in cognizing the framework of entrepreneurship, which can be viewed as an overarching result of conceptual revolution by a paradigm shift, from a theoretical know-what (pre-2000), to a practical know-how (post-2000). This paradigm shift represents a revolutionary turning point in unfolding the critical role of obtaining capability in the process of entrepreneurial development (See Table 3). The evolutionary path of cognizing the framework of entrepreneurship may also be viewed as a theoretical process of developing an entrepreneurial management system - an integrated cross-disciplinary subject evolved from psychological-based view, resource-based view and knowledge-based view (See Table 5, and Table 8), to the capability-based view, focusing on the capabilities of transforming opportunities and resources into business operations and values in a context of particular business environment (See Table 6, Table 7 and Table 9).

Evidences found from literature review supports the revised definition proposed in this study that, entrepreneurship is a capability oriented management system (See Table 4). Despite that knowledge-based view and resource-based view are seemingly divergent; they are mutually complementary if not congruent. Evidences from literature review conclusively explain that knowledge is the strategic asset that determines the synergy of entrepreneurial capabilities required to transform business opportunities into business values. However, many puzzles still remain unexplained pending for further exploration in order to turn entrepreneurship into a management system that is theoretically instructional and practically applicable. The concept of entrepreneurship is still elusive and questionable: "why entrepreneurship is so popular and so addictive" (Reynolds, 2010), "why so many entrepreneurs have failed" (Tito, 2011), and "why Shanzhai prevail and those MNCs not in China" (Zhao, 2013) - discussions on these issues are addressed in the rest of this paper, adding another piece of puzzle for future scholars and practitioners.

THEORETICAL ASSUMPTIONS, SUGGESTIONS AND RECOMMENDATIONS

Discussion on entrepreneurship would be incomplete if the question: "why so many entrepreneurial failures?" is not discussed. This question triggers 495,000,000.00 results instantaneously popped out from Google search in 0.29 seconds,² indicating that, entrepreneurship as a management system, is still elusive in theory and confusing in practice. Although promising, the theoretical development of entrepreneurship is far from mature. Many challenges remain to be resolved. For example, inertia and imitation as predators of entrepreneurial capabilities need to be ecologically optimized, in order for researchers to theoretically explain why so many entrepreneurial failures (Burmeister & Schade, 2007; Dutt &

² http://www.naijapreneur.com/why-entrepreneurs-fail/ accessed on 05/29/2013

Gonzalez, 2012; Fauchart & Gruber, 2011; Ries, 2011; Tito, 2011; Wood & Pearson, 2009), and for practitioners to managerially tackle those challenging factors influencing the development of entrepreneurial capabilities (See Table 9).

Technological Capabilities vs. Managerial Capabilities

There exists a need in the existing literature to position the roles of technological capability and managerial capability in the development of entrepreneurial lifecycle, which by essence reflects a process of replacing or outperforming the existing products/services by new ones (ex. technological innovation); alternatively, it reflects a process of replacing or outperforming existing ways of doing business by new ones (ex. managerial innovation). Put differently, replacing or outperforming the incumbent business by new ones represents the irresistible and genetic force of entrepreneurship, which has been recently termed as a big-bang-force (Downes & Nunes, 2013), and a solution for the dilemma of innovations (Christensen, 1997; Christensen & Raynor, 2003; Christensen, et al., 2004). What really being argued is that, technologies themselves are not disrupting, nor sustaining. Rather, it is the disruptive forces of business management model that drives the process of replacing or outperforming incumbents by new ones (Christensen & Raynor, 2003).

Given the superior role of managerial capability in developing entrepreneurship, it is plausible that, technological capabilities might be auxiliary and supplementary in helping and facilitating entrepreneurs to create or capture emerging opportunities; however, transforming opportunities into business operations and market values is determined by entrepreneurs' managerial capabilities. Put differently, lacking managerial capability is the root cause of entrepreneurial failures in developing and sustaining entrepreneurship. To elaborate this theoretical assumption, the next section is to firstly, presents the five fatal managerial factors influencing the development of entrepreneurial capabilities; secondly, proposes a trilogy framework to explain the transformational mechanism of entrepreneurial fatal path; and thirdly, proposes solutions to tackle these five fatal factors, and to sustain entrepreneurship.

Five Fatal Managerial Factors to the Development of Entrepreneurial Lifecycle

From the six challenging factors (See Table 9) identified by previous researchers, one conclusion can be drawn that, it is entrepreneurial capability that determines the development and sustainability of entrepreneurial lifecycle. These previous findings, although, captured the factorial relationship, for example, the capability of maintaining entrepreneurial commitment is related to the internal erosion of inertia; and the capability of knowledge management is related to the external erosion of imitations. However, there exists a long existing cognitive flaw or barrier in business mindset, confining and restricting researchers and practitioners from



recognizing the random nature of entrepreneurship (Arend, 2013; Gumpert, 2003; Ries, 2011) following what have been done in the past, checking/benchmarking with what have been said/written in the books, and linking the past with the books and extending the line to the future, so that the past, the present and the future is connected in such a linear pattern, which has been used as a pre-formatted thinking model in constructing entrepreneurial roadmaps. Given this linearly structured cognitive flaw or mindset barrier in the existing literature, some scholars pointed out that, linear mindset or linear think is the root cause of systematic bias, misleading the development of entrepreneurship. These scholars argued that, in order to identify and capture the randomly emerging opportunities from the dynamically changing business environment, entrepreneurs must liberate themselves from the restriction of conventional box. by establishing a nonlinear or counter-intuitive mindset (Arend, 2013; Gumpert, 2003; Ries, 2011; Sardeshmukh & Smith-Nelson, 2011). Inspired and motivated by these scholars' criticism, this paper proposes five fatal managerial factors that influence the development and sustainability of entrepreneurial capabilities and advantages (See Table 10).

Table 10: Five Fatal	Factors Influencing the	Development and S	Sustainability of	Entrepreneurship
	0			

Causes \rightarrow F	orfeiting, Dilut	ing and Eroding Entre	preneurs' Capabili	ties and Advantages		
lset e of ilaws)	 Knowled capabiliti Decision make inf environm Commitin 	ge Management (KM): es required to develop k s: Inefficient and ineffect ormed decisions that e nent, and capture opport nent: Inability of p	Inefficient and ine mowledge proficien ctive KM result in the nable entrepreneur funities. rioritizing and in	ffective KM result in the lack of cy in pursuing opportunities. he lack of capabilities required to s to take advantage of business institutionalizing entrepreneurial		
Linear Minc (Root Caus ¢ ↓	 commitment, resulting in the lack of capabilities required to overcome the internal erosion of inertia. 4. Imitations: Inability of establishing a managerial system that supports the protection of knowledge from spillovers or leakages, resulting in the lack of capabilities required to overcome the external erosion of imitations. 					
Inefficien Knowled	t and Ineffective	Decision Bias Unable to Capture Opportunities	Erosion of Imitations	Fa		
Cognitive Flaws Erosive Effect Erosive Effect Iearnt from (Linear Mindset) (Internal (External Failures?						
Insuf Commi	ficient tment to	Unable to Prioritize	Erosion of Inertia	U e S		

Linear Mindset as the Root Cause of Entrepreneurial Fatal Path

Table 10 illustrates that linear mindset is the root cause of entrepreneurial fatal path, which may be the consequences derived from the erosions of internal inertia and/or external imitations. Linear mindset mitigates or cripples entrepreneurs' capabilities of gaining complete information



and knowledge, which are necessary for entrepreneurs: (1) to identify and capture opportunities and to make informed decisions that fit with environmental context; (2) to recognize the coexisting, interweaving and interacting relationships among endogenous and exogenous factors and risks randomly structured in the context of business environment; and (3) to enhance their confidence and strengthen their commitment to prioritizing and institutionalizing entrepreneurship, and consequently, preventing the erosions of internal inertia and external imitation. To further explain 'why so many entrepreneurial failures', future research may examine the mechanism of how linear mindset imposes those fatal impacts impeding the development of entrepreneurial capabilities.

The Internal Erosion of Inertia on the Capability of Entrepreneurial Commitment

Commitment and inertia are coexisting but opposite forces in the development of entrepreneurship (See Table 9). Entrepreneurial commitment needs to be established, prioritized and institutionalized consistently, persistently and perseveringly, in order to sustain organizational entrepreneurship (Brown, et al., 2001; Downes & Nunes, 2013; Kisfalvi & Maguire, 2011; Miller, et al., 2012; Nickerson, et al., 2007; Rynes, et al., 2012; Shane, 2003; Stevenson, 2000; Tito, 2011). Otherwise, organizational inertia takes place with no mercy, resulting in diluted or eroded entrepreneurial advantages. It is suggested that, entrepreneurial commitment in conjunction with entrepreneurs' social capitals (networks) is decisive in developing and sustaining entrepreneurs' advantages (Cao, et al., 2012).

Inertia is the risky factor that impedes entrepreneurs from continuing their entrepreneurial commitment (See Table 5). Organizational inertia (aka: incumbents' inertia) is referred as entrepreneurs' psychological barrier that, after entering a market, they become hesitant or reluctant to continue their commitment to business ventures (Kerin, et al., 1992). From the organizational behavior perspective, inertia is defined as a compound or composite phenomena, including but not limited to: (1) organizational stickiness to their past experiences, which may become outdated or obsolete, and no longer a fit in the contemporary business environment (Fey & Rivin, 2005; Hodgkinson, 1997); (2) organizational reliance on prior knowledge, which may block organizations from absorbing new knowledge required for entrepreneurs to continuously develop capabilities of identifying, capturing and transforming opportunities (Grégoire & Shepherd, 2012; Gruber, et al., 2013; Kornish & Ulrich, 2011; Ramoglou, 2011); (3) organizational complacency and arrogance, which may be derived from successful entry in a marketplace (Kerin, et al., 1992); and (4) organizational resistance to changes, which may lead to biased or lagged decisions, consequently, missing the opportunities (Samuel & Jablokow, 2010; Sandri, et al., 2010). The overall argument of these scholars may be summarized as that, commitment and inertia are internally coexisting and mutually



constraining and/or restraining in the lifecycle of entrepreneurship. Therefore, this study proposes that, if other constraints remain constant, then, only those who continue their commitment remain as entrepreneurs, otherwise, transform to market followers (See Figure 5).

Entrepreneuria	+ Commitment No Inertia Assuming Equal Resource Constraints	Strong Knowledge Development → Entrepreneurs
I Entry/Start	- Commitment Inertia	Weak Knowledge Development → Market Followers

Figure 5: Determinants of Entrepreneurship

The External Erosion of Imitation on the Capability of Entrepreneurial Advantages

Many entrepreneurial failures may be attributed to the lack of capabilities of knowledge management (KM), not only the capability of developing, absorbing and accumulating knowledge, but also the capability of preventing knowledge from leakages and/or spillovers (Tito, 2011; Wood & Pearson, 2009). As discussed earlier in this paper, the capability of KM determines the efficiency and effectiveness in preventing the external erosion of imitation on entrepreneurial advantages (See Table 5, Table 8, and Table 9). The erosion of imitation is the fatal cause of entrepreneurial failures, arousing an increasing attention in recent literature (Burmeister & Schade, 2007; Dutt & Gonzalez, 2012; Fauchart & Gruber, 2011; Ries, 2011; Tito, 2011; Wood & Pearson, 2009). Companies take the lead in innovation, invest in R&Ds and marketing operations, and expect to receive a long-term return – This is the conventional format of linear logic thinking prevailed in the existing business framework. Consequently, managers are over-shadowed by these well-orchestrated business principles, and linearly worshiping the glory of innovation; meanwhile, they often unknowingly ignore the fact that, imitation is a natural predator of innovation, a threat to the innovators' capabilities and advantages, and a short-cut or a catch-up technique, widely used by small firms and/or start-ups, especially those developing countries firms, due to their lack of innovation capability (Allworth, 2012; Kim, 1997). This is why the need to re-evaluate and re-position imitation as an entrepreneurial technology, is imperative (Minniti & Lévesque, 2010).

The debate on whether imitation is right or wrong is over. Despite their opposite position, imitators and innovators represent the two forces competing against each other, in the process of entrepreneurship (Minniti & Lévesque, 2010; Schade, et al., 2010). Both are entrepreneurs, propelling the evolution of industrial ecology, which is determined by their capability of KM. The predatory relationship between innovation and imitation will continue, as far as business competition exists (Barney, 1984; 2011; Christensen, 1997; Christensen & Raynor, 2003, Kim, 1997). The competition between imitators and innovators is leveraged by their respective



capability of KM. Following this line of reasoning, this paper proposes an interesting hypothesis that: the higher degree of newness and/or proprietary the knowledge is created by entrepreneurs, then, the longer time it takes for copycats to imitate: accordingly, the faster pace that entrepreneurs can create new knowledge, then, the lower chance that imitators can erode entrepreneurs' advantages. Future research may validate/verify this theoretical assumption.

In summary, the five fatal managerial factors may be used to explain the causes of 'why so many entrepreneurial failures'. On the cognitive level, the linear-mindset misleads entrepreneurs' cognitive behaviors. Since after all, entrepreneurial opportunities only exist in a particular context of dynamically changing environment, nonlinearly and stochastically. On the managerial level, the internal erosion of inertia destroys entrepreneurs' capability of maintaining their commitment, which in turn, cripples/mitigates their capabilities of KM, their capabilities of innovations, and consequently, their capabilities of preventing the external erosion of imitations. Together, the combined erosions of internal inertia and external imitations compel entrepreneurs to cannibalize or EAT away their entrepreneurial capabilities and advantages from inside-out – This, perhaps, explains the mechanism of entrepreneurial fatal path, and the root cause of why so many entrepreneurial failures.

A TRILOGY FRAMEWORK TO RATIONALIZE ENTREPRENEURIAL

FATAL PATH AND ITS SOLUTIONS

To elaborate the mechanism of how these five fatal factors exert their impacts on entrepreneurial lifecycle, this paper proposes a Trilogy Framework to explain the transitional trajectory of entrepreneurial fatal path, from entry point, through the erosive processes of internal inertia and external imitation, and then, to the exit point – a path of transmutation from an entrepreneur to a market follower.

The Trilogy Framework of Entrepreneurial Fatal Path

The Trilogy Framework demonstrates the transformational path of entrepreneurs, from Entering a market with an entrepreneurial momentum, through a process of Adjusting business strategies and operations in order to stabilize and strengthen their newly established market positions, and gradually, reaching the point of entrepreneurs' Transmutation that is forced by the combinative erosions of internal inertia and external imitations, EATing away (Enter, Adjust, and Transmute) entrepreneurs capabilities from inside-out, resulting in the forfeited, diluted and eroded entrepreneurial advantages (See Figure 6).





The Trilogy Framework proposed in this paper, although hypothetical, may help not only rationalize the reasons of why so many entrepreneurial failures, but also provide some hints or solutions for future entrepreneurs or managers to revitalize and/or sustain their entrepreneurial lifecycle. Understanding the Trilogy Framework may admonish entrepreneurs or managers of those five fatal factors, and enable them to proactively prevent from cannibalizing their own achieved capabilities, or at least postpone the dilution or erosion of entrepreneurial advantages. Future research is expected to empirically validate and verify this theoretical framework.

Solutions for Entrepreneurial Fatal Path: The Three Principles of Entrepreneurial Model

Given the definition and its three principles (delineated earlier in this paper), assuming the validity of trilogy framework, this paper further proposes a successful entrepreneurial model, which may serve as a solution, to avoid or bypass the fatal path of entrepreneurial lifecycle (See Figure 7).







The Principle of 'Do it Right in the Begining' requires entrepreneurs to gain the entrepreneurial capabilities of firstly identifying an opportunity; secondly organizing resources; and thirdly selecting an entry mode that enables entrepreneurs to capture the opportunity and resources with minimum costs and risks. This principle accentuates that, an entrepreneurial model, once built, should enable entrepreneurs to generate incentives that enforce the continuity of entrepreneurial commitment and Principle 1: momentum, meanwhile, enable entrepreneurs to generate solutions for risks (Schade, 2010), including but not limited to (1) strategic risks solutions: such as merger/acquisition, diversifications, divestitures, strategic allies and partnership networks (Drucker, 2010; Eisenmann, 2002; Huang, 2009); (2) financial risks solutions: such as bootstrapping in dealing with investment related risks (Ebben & Johnson, 2006), and (3) marketing risks solutions: such as two-/multi- sided platforms (Eisenmann, et al., 2006).

The Principle of 'Do Less but Gain More' requires entrepreneurial capability of transforming opportunities and resources into business values with maximum inputs. Knowledge and technologies are the sources of developing this capability. This principle emphasize that, an entrepreneurial model, once built, should function as a gale of Creative Force, Destructing the existing way of doing business (Schumpeter, 2008), through the process of transforming the innovations (technological and managerial) into market values (Eisenmann, 2009), without exhausting excessive organizational Principle 2: resources, and without involving unreasonable risks. For example, technologically, reversed engineering technology in conjunction with computer aided design (CAD) techniques is the most phenomenal technological approach for developing country firms to learn, imitate and catch up with those industrial leaders (Zhao, 2012); managerially, clustered and collaborative supply chain operations is a widely used entrepreneurial technique by many developing country firms for risk sharing, expertise sharing, and cost saving in developing, pricing and marketing products and/or services (Zhao, 2013).

The Principle of 'Win-Win-Win' requires a pre-designed entrepreneurial goal that goes beyond financial returns (Cao, et al., 2012; Eisenmann, 2009; Tito, 2011). This principle emphasize that, an entrepreneurial model, once built, must be goal oriented (Burmeister-Lamp, et al., 2012), acting as a **Principle 3:** social engine to incubate entrepreneurship, and benefit not only entrepreneurs themselves, but also benefit consumers, communities and societies as a whole (Mitchell, et al., 2011; Reynolds, 2010; Short, et al., 2010; Zahra, et al., 2009).

To rationalize the three principles as solutions for the fatal path of entrepreneurial lifecycle, this paper argues that entrepreneurs must be able to transform their mindset from linear to nonlinear, in order for entrepreneurs to jump outside of linear box, to avoid isolated or singlesided way of thinking and hence, to establish and maintain a mindset that is agile, vigilant, flexible, change-oriented and sensitive, to those entrepreneurial opportunities, which exist in and emerge from the context of a particular environment in a random or stochastic pattern (See Table 6, Table 7). The relationship between the three principles and mindset transformation may be summarized from the following three perspectives: (1) Transforming mindset from linear to nonlinear, can provide entrepreneurs the capabilities of shifting risks and tackling with those challenging factors (See Table 9, Table 10). Only if an entrepreneur establishes a nonlinear mindset, can that entrepreneur become able to follow the first principle of entrepreneurship: Do



it the right way in the beginning, by gaining the capabilities necessary for entrepreneurs to identify and capture opportunities, making timely decisions, and simultaneously, shaking off those risks and/or uncertainties that may incur. (2) Transforming mindset from linear to nonlinear, can enhance entrepreneurs' capabilities of absorbing and accumulating knowledge, skills and abilities (KSAs) at the right time; organizing, allocating and transforming resources into the right marketplace, by implementing a right operations process guided by the second principle of entrepreneurship: Minimizing inputs and risks, and simultaneously maximizing the value of outputs, or simply, Do less but gain more. (3) Transforming mindset from linear to nonlinear, can foster and enforce entrepreneurs' capabilities of prioritizing and institutionalizing entrepreneurship as a strategic routine, so that knowledge development and innovations become their business routines, which in turn, ensure faster rhythms of innovations than the paces of imitations; resultantly, keep doing new business and/or keep doing business in new ways become practically actionable. Ultimately, a sustainable entrepreneurial lifecycle becomes achievable, providing new products and/or services to consumers, promoting industrial advancement, and hence, the third principle of entrepreneurship, namely, a Win-Win-Win situation (business, consumers, society), becomes achievable (See Figure 7).

In summary, the combination of the three principles serves as a successful and sustainable entrepreneurial model, cultivating and nurturing entrepreneurs' capabilities of: (1) creating/identifying the right opportunity (do it right in the beginning); (2) developing, absorbing and accumulating knowledge and technologies necessary for entrepreneurs to minimize inputs and maximize outputs (do less but gain more), and fortifying the strength of knowledge management necessary for entrepreneurs to prevent the of erosions of internal inertia and external imitations; and (3) generating values beyond the pure financial returns (win-win-win situation) – business, customer and social well-being (See Table 11).

	Table 11: Solutions for Sustaining the Development of Entrepreneurial Lifecycle						
Solutions	Capability of entrepreneurial Management						
Transforming Mindset from Linear to Nonlinear	1. 2. 3.	Ensures an entrepreneurial entry: <i>Do it the right way in the beginning</i> . Ensures an entrepreneurial process: Minimizing inputs and risks and simultaneously maximizing the value of opportunities, or, <i>Do less but gain more</i> . Ensures a sustainable entrepreneurial lifecycle supported by achieving a <i>Win-Win-Win situation</i> .					
↓ ↓	\$	$\uparrow \qquad \uparrow \qquad \uparrow \qquad \uparrow \qquad \uparrow$					
Knowledge Oriented Capabilities	1.	Enforces entrepreneurs to <u>institutionalize and prioritize entrepreneurship as their strategic</u> <u>routines</u> , so that knowledge management (knowledge development) is enforced, and the <u>rhythm of innovations outpacing the speed of imitations become actionable</u> , and a sustainable entrepreneurial lifecycle (keep doing new businesses or keep doing business in new ways), become feasible. Therefore, entrepreneurial <u>momentum</u> and <u>commitment</u> of pursuing opportunities are enforced and maintained; \rightarrow the internal erosion of <u>inertia</u> is controlled. Enforces entrepreneurs to strengthen knowledge management (knowledge protection) in order to prevent knowledge leakages/ spillovers; \rightarrow external erosion of imitation is controlled.					



\uparrow \uparrow	€		\$	\$	\$	\$	\$				
Skills Oriented Capabilities		1.	Foresters strengths resources Foresters knowledge perceived that 'Do L Win-Win'	and facilita (i.e. knowle and compe and facilita e, technolog opportunitie ess but Ga s ensured.	tes entrepi edge and titions), so ates entrep jies, social es into busi <i>in More</i> ' is	reneurs to technologi that ' <i>Do it</i> preneurs to capitals, a ness opera ensured;	select an es) and Right in ti o organiz and netwo ations and and ultim	n <u>entry m</u> external <i>he Beginn</i> ze and ac orking abi d market nately, an	ode that fits opportunities ing' is ensur ccumulate r lities, in ord values with entrepreneu	s with bot s (timing, red. resources ler to trans minimum urial outco	h internal location, including sform the inputs, so ome ' <i>Win</i> -

Table 11: Solutions for Sustaining the Development of Entrepreneurial Lifecycle

Note that, opportunities, risks and/or uncertainties are homological factors that, contextually and stochastically co-existing but mutually restraining in the process of entrepreneurial development. The debate over the role of an entrepreneur in risk management still remains as one of the most controversial topics prevailing in the existing literature. A "Great Man" theory accentuates the leadership role in risk taking, and stipulates that an entrepreneur is a man who is always willing to take risks and act as a role model imposing significant impacts on others (Grinin, 2010, p. 116-117). However, an opposite theory argues that, the priority of entrepreneurs is to make informed decisions, in order to minimize risks and simultaneously maximize the entrepreneurial benefits (Schade, 2010). This paper argues that, to the majority of entrepreneurs, especially to those start-ups or small-medium-enterprises, any risk might vitally jeopardize the survival of their business, due to their limited capabilities and resources. To this end, it is reasonable to argue that, the capability of risk-reducing seems to make more sense than the capability of risktaking does to the sustainable development of entrepreneurial lifecycle. Future research is expected to empirically verify this theoretical assumption.

To further rationalize the definition and the three principles of a successful entrepreneurial model proposed in this paper, the next section is to present three business cases, namely, Blue Skies: Cable TV Business Model; MTK: Turn-Key Solution Model; and Shanzhai Model, to showcase how a well-established entrepreneurial model can help/facilitate entrepreneurs to gain capabilities instrumental to maintaining entrepreneurial momentum, achieving competitive advantages, and generating benefits for social-economical growth.

CASE STUDIES

Of the three business cases, the first two (Cable TV Business Model and MTK Turn Key Solution Model) showcase the technological innovation approaches to creating and transforming entrepreneurial opportunities into business operations and market values. The third case explains technological imitation approach to identifying, capturing and transforming business opportunities with minimum investment. Despite the differences, these three entrepreneurial cases share one commonality that, their entrepreneurial processes match with the roadmap of the three entrepreneurial principles: Do it right in the beginning \rightarrow Do less but gain more \rightarrow Win-



win-win situation. The outcome of these cases proves that, a successful entrepreneurial model, once built, acts as an incubator of social-economical growth.

Case 1: Cable TV Entrepreneurial Model

Cable TV (Community Antenna Television) Business Model (CATV), one of the successful and sustainable entrepreneurial models so far in the history of entrepreneurship³, is a typical business case on how an entrepreneurial opportunity can be created by the capability of transforming a technological innovation into business operations and marketplaces, and gradually evolved as a new industry firstly in the United States, and then sprouted into the rest of the world (Eisenmann, 2009). The most impressive aspect of CATV, comparing with those transitory short-lived entrepreneurs, is its business model that is not only efficient in market expansion and effective in attracting public interests, but also creative in permeating the cable TV into citizens' life, without consuming excessive business resources.

Using Subscribing System to Develop an Open Market Platform: Do it Right in the Beginning

Cable TV idea was initially launched into the market of United States in 1948. Only a year after, the idea of using subscribing system to promote its market was created and implemented in 1949. By the year 2006, about 58.4% of total American homeowners have subscribed to basic cable television services, and most of these subscribers tended to be from the middle class⁴. CATV subscribing system, at that time, was a revolutionary management innovation, designed to support the collaboration between cable channel providers and cable service distributors, who collect their charges (the fees of subscriptions) from customers (subscribers), and then, pay a service fee to the cable channel providers. The fees of subscriptions vary flexibly, depending on the type (basic or premium) and the popularity of subscribed channels respectively. Cable service distributors are not obligated to carry all the cable channels. Instead, they have a freedom to negotiate with channel providers, so that subscription price becomes adjustable – a win-win-win situation is seeded in the very beginning.

Innovations Lead to Maximum Outputs with Minimum Inputs:

Do Less but Gain More

The success of CATV Model must be attributed to the combination of managerial and technological capabilities. It is the managerial capability that transforms the CATV technology into business operations and market values. It is the managerial skills that enable CATV to take



http://en.wikipedia.org/wiki/Cable television in the United States accessed on 08/21/2012

⁴ http://en.wikipedia.org/wiki/Cable television in the United States accessed on 08/21/2012

advantage of governmental policies and regulations, which in turn provide an environment that supports the sustainability of CATV market expansion during the past sixty-five years. In addition to promoting market expansion by the implementation of subscribing system, CATV adopts and carries out a licensing system to collaborate with distributors, so that the major risks and costs of market distribution have been outsourced, ensuring an efficient business operations with minimum inputs, even though the subscribing demand for service has kept increasing. Put differently, the success of CATV is indispensable from launching and implementing its managerial innovations (subscribing system and licensing system), which function as an open platform that fosters and facilitates its collaborative supply chain operations and market distribution channels, both horizontally and vertically.

Technologically, CATV has been strategically and incrementally upgrading its infrastructures, products and services, such as adding channels (both basics and premiums). By adopting programming technology into cable service delivery, CATV has leapfrogged from analog to digital technology, which enables CATV to exponentially increase its signal coverage and speed of delivery, and to flexibly provide diversified service options catering for various demands of subscribers. For example, by the application of programmed encryptions, CATV becomes able to technically scramble those encrypted signals, so that only those subscribers who have paid their monthly fees can legally view the pre-selected TV programs sponsored by various partners, such as Home Box Office (HBO), Cinemax, Showtime, and Disney Channel (together, they are referred as CATV networks for Premium cable services). By the late of 1990s, the cable-modem has been integrated into bandwidth technology, providing customers with a bundled package of television, phone and internet access, an all-in-one service with reasonable fee.

Creative Destruction: A Win-Win-Win Situation

Although, CATV initially imposed a severe impact on Hollywood movie industry, however, by establishing a strategic partnership, both of them became winners of CATV business. On the one hand, this strategic partnership provides Hollywood with an extra outlet to distribute its products without extra costs. On the other hand, this strategic partnership expedites the expansion of CATV services (both scope and scale). As a result, customers' satisfaction has increased, due to the increased choices of products and services (TV channels and contents). Additionally, an extra multi-million-dollars profit has been created for both CATV and Hollywood without extra costs. Eventually, CATV as an industry has been created, advancing and enriching the civilization and lifestyle of mankind. From any point of view, CATV represents a successful entrepreneurial model: managerially transforming technological innovations into



business operations and values, without exhausting extra resources of involved parties – a Win-Win-Win situation (business, customers, and society).

Case 2: MTK Turn-Key Solution Model

MTK (MediaTek Inc.), initially a Taiwan based small fables semiconductor manufacturer, established in 1997, and became a global leader of chipset solution in less than five years after entering China market in 2005⁵, by launching its proprietary technology 'Turn-Key Solution' (a modularly designed chipset), which at that time, like shooting a fireball at a pile of snow, met the desperate need of millions of those mobile phone manufacturers and other electronics producers (both SOEs and POEs, large or small), due to their lack of capabilities in core technology. For that reason, MTK Turn-Key Solution is nationwide known as One-Stop-Integrated-Solution (OSIS, 一站式解决方案 in Chinese). The significance of launching OSIS is historical. On the one hand, it provided such an entrepreneurial capability that enabled MTK to capture this emerging market opportunity (huge market demand), which made MTK a successful entrepreneur, rapidly growing from a small firm to an industrial leader. On the other hand, it was like giving a lifesaving shot in the arm for those Chinese manufactures to survive. Most intriguingly and unexpectedly, the launch of OSIS put an end for those copycats (Shanzhai) to continue their chipset imitation, since the cost of adopting OSIS is cheaper than the cost of imitating market brands. For this reason, MTK is reputed in China as the Father of Shanzhai, across electronics manufacturing industries.

Creating an Open Platform by Clustering the Supply Chain: Do it Right in the Beginning

In China, chip solution was the technological barrier in the electronics manufacturing industry. Considering the size of China market, this was an unprecedented entrepreneurial opportunity, indentified and captured by MTK, through the provision of its modularly designed plug-and-play OSIS Turn-Key solution, which not only allows users (firms) to technologically add features, modify functions, and change appearances, but also fosters and facilitates users to managerially organize and establish a clustered supply chain in order to collectively digest and take advantage of OSIS solution. In addition to capturing this market opportunity, the initial success of MTK market penetration in China may be attributed to three other reasons: (1) entrepreneur's vision and decision-making capability is indispensable from the success of MTK. In his own words, Mr. Tsai Ming-Kai (蔡明介in Chinese, the CEO of MTK), explained that: "… Entrepreneurial entry decision is a life or death decision. … no second chance …, especially for

⁵ <u>http://en.wikipedia.org/wiki/MediaTek</u>, accessed on 11/02/2012

a start-up firm, ... "6; (2) MTK adopted and provided an open platform operation, which does not require its users (firms) to fulfill any obligations, except for purchasing its chipset. Such an operation platform enabled users (firms) to horizontally cluster and collaborate with each other. rather than vertically follow a chain of command along the supply chain. Such a platform ensured an efficient operation; and (3) MTK entered China by providing OSIS solution at a price that is lower than the cost of imitation – an irresistible incentive forcing Shanzhai to abandon its imitation activities – a win-win-win situation is seeded in the very beginning.

Innovations Lead to Maximum Outputs with Minimum Inputs:

Do Less but Gain More

The modular design of OSIS Turn-Key solution liberated Chinese electronics manufacturers from a long-term technological barrier, and enabled them to voluntarily give up imitating those leading brands, since the costs of imitation exceeded the costs of adopting the OSIS Turn-Key solution. Due to its plug-and-play modular design, the OSIS Turn-Key solution allowed and encourage its users to stretch their freedom in developing their own technological capabilities required to add innovation-like features, modify accessories and functions to mobile phones, such as greater volume speakers, long lasting batteries, appealing appearances and multimedia applications – all has been achieved at cheaper prices (roughly about '1/5 to 1/3' prices of those leading brands). Attracted by these technological advantages and marketing incentives, most of those SOEs were allured to switch from their previous chipset suppliers to MTK (Zhao, 2013). As a result by the year 2008, MTK has become the dominant provider of chipset solution for mobile phone producers in China, without costs of physical assets and marketing expenses. According to Professor Guo⁷: "it is MTK's glory for controlling over 90% of mobile phone chipset market ... meanwhile, it has triggered an industrial concern for potential homogeneity of products technologically monopolized by MTK ..." Indisputably, MTK has set an unprecedented entrepreneurial example of: do less but gain more (maximum outputs with minimum inputs), using technological innovation to penetrate market and managerial innovations to outsource risks and motivate partners.

Creative Destruction: A Win-Win-Win Situation

Before the entry of MTK in 2005, the domestic mobile phone manufacturing business in China was composed of POEs of those Shanzhai manufacturers (at their faking stage), and those OEMs jointly ventured by SOEs and foreign companies. Correspondingly, the market was mainly occupied by either those fake phones from Shanzhai, or, those expensive foreign brands



⁶ A speech made by Mr. Tsai during an annual meeting of mobile phone supply chain, on 12/17/2009 in Shenzhen.

⁷ Interview on 02/15/2010 with Professor Guo at the School of Information and Communication Engineering, Beijing University of Posts and Telecommunications.

from OEMs, including, Nokia, Ericsson, Motorola, Simons and Sonny. After the entry of MTK in 2005, domestic brands have mushroomed rapidly, at an affordable price that is only a fraction of those foreign brands (Zhao, 2013). In other words, it is the capability of innovations (technological and managerial) that has enabled MTK to become one of the top five chipset solution providers in the world. It is the capability of innovations that has enabled MTK to destroy and replace the existing but unhealthy market pattern, by establishing a new one to stimulate the mechanism of market competition. It is the capability of innovations that has enabled MTK to destroy and force Shanzhai to evolve from imitation activities to innovation activities, by establishing an open platform to foster a clustered supply chain that is efficient and effective in risk sharing and cost saving operations among the clustered firms, which became able of provide affordable and good enough quality products appealing to the mass population at the low-end market of China – a win-win-win situation.

Case 3: Shanzhai – An Emerging Entrepreneurial Model

One way to rationalize Shanzhai as an entrepreneurial model is to benchmark the characteristics of Shanzhai with the definitions of entrepreneurship presented early in this paper (See Table 3). Shanzhai is, managerially, an opportunity-driven and project-oriented business model; and technologically, an imitation-to-innovation model, using reverse-engineering technique to firstly imitate those existing brands, and then, modify them, one step at a time (do it right in the beginning). Operationally, Shanzhai has adopted and taken advantage of the open platform together with the clustered supply chain model created by MTK in China. As a result, Shanzhai has gained and accumulated the capabilities of IDENTIFYING, Capturing and TRANSFORMING the emerging Opportunities into business operations and values with minimum costs (do less but gain more). It is these capabilities that enabled Shanzhai to achieve its three competitive advantages, namely, cost saving, speed of products, and cheaper but good enough products (Zhao, 2013). It is these capabilities that enabled Shanzhai to have survived from small margin of profits, grown into a major market competitor, and eventually, become an emerging industry that functions as a booster for the development of Chinese economy (winwin-win outcome).

Using Imitation to Disrupt the Existing Market:

Do it Right in the Beginning

Making the existing products cheaper and targeting at the low-end market desperate for affordable products may be summarized as Shanzhai model – an entrepreneurial model, which enabled Shanzhai to timely and successfully identify and capture the emerging opportunities, and transform them into business values. Mobile phone for example, - a consuming product, once was a luxury symbol of wealthy and political power in China in the late 1980s, has been



transformed and commercialized by Shanzhai, as the most popular communication products affordable to the majority of Chinese population. To this end, Shanzhai is a visionary entrepreneur, who although lacking technological and financial capabilities, identified and captured this once-in-a-lifetime opportunity by the means of imitation, which is risky, but better than missing the opportunity at all – a win-win-win situation is seeded in the very beginning.

Clustered Supply Chain Leads to Cost Savings Operations:

Do Less but Gain More

Technologically, it is the imitation technique rather than innovation that enabled Shanzhai to achieve its competitive advantages at the expense of those incumbents' sunk costs. Managerially, it is the clustered supply chain operations that enabled Shanzhai to achieve the three competitive advantages (cost saving, speed of products, and cheaper but good enough products). On the firm level, Shanzhai is organized by a collection of small firms, which are composed of multi-skilled individuals, sharing their respective expertise. On the supply chain level, Shanzhai adopts an open (voluntary) and flat, rather than vertically hierarchical, clustered organizational structure that facilitates the clustered firms to share resources, to develop their group technology, and to take advantage of collective capabilities, such as skills and expertise complementary to those clustered firms. Bear in mind, the clustered relationship among Shanzhai firms are project oriented. The completion of a project is the completion of a temporarily clustered relationship. In other words, the clustered firms are purely based on their respective needs, which are free from obligations of any kind. Therefore, it is the combination of intra- and inter- clustered operations that makes Shanzhai firms capable of achieving the aforementioned three advantages, especially the cost saving operations, which would be otherwise hardly achievable, considering their limited technological and financial capabilities (Zhao, 2013).

The open, flat, and clustered supply chain operations provides clustered firms with freedom of choosing, changing and switching partners as needed. Such clustered operations enforce the share of information, technology and other resources including but not limited to skilled labors, equipment, workspaces, logistics and market distribution channels, just to name a few (Zhao, 2013). To this end, sharing is the most phenomenal technique that provides Shanzhai an outlet to outsource risks to the clustered partners specialized in handling the risks, especially those technological risks encountered from time to time. Put differently, it is the open, flat and clustered supply chain operations that enable Shanzhai to absorb resources and share risks; it is the open, flat and clustered supply chain operations that enable Shanzhai to collectively nourish, cultivate, foster and facilitate the capability of transforming opportunities into



business operations and market values, without consuming extra costs to each of those clustered firms respectively (*do less but gain more*).

Creative Destruction: A Win-Win-Win Situation

By the end of 2008, Shanzhai mobile phone products have occupied 40% of domestic market share, outperformed those SOEs, and become capable of competing with those MNCs in China. Some Shanzhai firms such as Tianyu Co. (天语) and G'Five International Limited (基伍国际有限公), have become major competitors in the global market, especially in those developing markets such as Africa, Middle East, Southeast Asia, and South America (Zhao, 2013). The success of Shanzhai proves itself as an emerging entrepreneurial model created from scratch with zero financial resources and zero technological capabilities. The success of Shanzhai proves itself as a successful catching-up business model especially effective for developing country firms, or perhaps, those start-ups in developed countries, to survive first, and then to catch up, and eventually compete with market leaders.

Today, the word 'Shanzhai' is worldwide known as a synonym of imitator, producing/providing affordable products, and targeting at the low-end market. The success of Shanzhai proves that imitation deserve to be qualified as an entrepreneurial technique, which is phrased as a disruptive technology (Bower & Christensen, 1995; Christensen & Raynor, 2003), or the source of innovators' dilemma (Christensen, 1997). This explains why entrepreneurship is described as a big-bang force with destructive power (Downes & Nunes, 2013), pushing and enforcing the process of replacing old (or existing) business by new ones (Kirzner, 1973; Schumpeter, 1934; 2008). Ultimately, the success of Shanzhai model has been proved and widely recognized as a contributor to the steady growth of China GDP; Shanzhai products have become a popular choice of mass population both domestically and internationally. The win-win-win outcome created by Shanzhai model has enriched the conventional theorem of entrepreneurship.

Why Shanzhai, rather than Those MNCs, Succeeded and Prevailed in China?

The question 'Why it is Shanzhai rather than those MNCs, succeeded and prevailed in China?' has recently drawn an increasing attention. Given their respective size of investment, comparing those MNCs with Shanzhai firms, by measuring their year-to-year rate of growth in product shipping volume during the past seventeen years (1996-2012), the result shows that Shanzhai has consistently and coherently outperformed those MNCs⁸. Some scholars argue that the success of Shanzhai is a lucky chance, resulted from the naiveness or unpreparedness of those MNCs when encountering the rampant activities of imitations (Chin, 2013). Other scholars

⁸ National Bureau of Statistics of China from the year 1996 to the year 2012: <u>http://www.stats.gov.cn/tjsj/ndsj/</u>

contend that, it is the inability/weakness of knowledge management that impedes or even erode the sustainability of entrepreneurs' or innovators' advantages (Tito, 2011; Wood & Pearson, 2009). Evidences show that the inability/weakness of knowledge management of MNCs is the source of knowledge spillovers/leakages through their OEMs (Original Equipment Manufacturers) to those local firms such as Shanzhai (Liu, 2010).

Knowledge spillover is defined as a process, in which, new knowledge or ideas are created/invented but not yet commercialized by the original inventors. Instead, these new knowledge or ideas are used by others as the sources of entrepreneurial opportunities (Audretsch & Lehmann, 2005; Kogut & Zander, 1992). This is why the effectiveness of knowledge management has been one of the central arguments debated in the existing literature. Given the constraints of technologies and other resources, it would be otherwise difficult to explain the success that Shanzhai has achieved, if those MNCs had not been unknowingly spilling/leaking their knowledge and technologies, which have been used by Shanzhai as the source of imitations. Following this line of reasoning, the success of Shanzhai may be attributed to those MNCs' inability/weakness in knowledge control combined with Shanzhai clustered supply chain operations, which enabled Shanzhai to achieve cost-savings advantages and risk sharing solutions. In addition, the low-end market strategy is decisive for Shanzhai to survive and grow from pennies-and-dimes profit margin, which is far below the financial tolerance of those MNCs, given their financial investment (Liu, 2010).

Taking advantage of policies and regulations might be used as an environmental factor to explain why Shanzhai rather than MNCs has prevailed in China. For example, among many others, 'learning the advanced knowledge and technologies from the West' and 'regardless of the white or black cats, the one catching the mouse is a good cat' - are the two phenomenal economic policies initiated by Mr. Deng, Xiaoping (the father of China economical reformation since 1978), which have been the monumental principles, guiding the social-economical reformation and transition from a centralized economic system to a decentralized economic system during the past three decades (Lin, 2011). In other words, the de facto role of government was to insinuate a green light, or encourage the imitation activities. Unfortunately, this role of government was only understood and taken advantage of, by Shanzhai (indigenous) rather than MNCs (foreigners). For example, the cancelation of mobile phone manufacturing certificate program in 2007, triggered the emergence of thousands of Shanzhai mobile phone manufacturers, resulting in mushroomed Shanzhai mobile phone products (imitations of those leading brands) in just a few months (Zhao, 2013).

Additionally, the weak legal system in protecting IPR may be another environmental factor, fostering the rampant sprout of imitation as a shortcut for myriad of local firms (Shanzhai firms) to survive first, and then to catch-up (Luo, 2001). To some scholars, this type of business



environment functions as a legal warranty that connives or even abets the unbridled imitation activities of Shanzhai, at the costs of those MNCs' R&D and Marketing expenses.⁹ As for those MNCs, they entered China market so arrogantly that they had a little knowledge on how this type of politically oriented social-economical system can severely affect market competitions. An analogy might be used to describe the situation of those MNCs in China – swimming in a pool without knowing its depth, or, weaving a wedding dress for others.

In summary, the three business cases help explain the key role of the three principles of a successful entrepreneurship. If Blue Skies: Cable TV Business Model has created a history of entrepreneurship in the last century, then, MTK and Shanzhai entrepreneurial models re-write that history, only in a better format. To explain 'why MNCs failed, and Shanzhai prevailed in China', three reasons must be considered: (1) the weakness/inabilities of those MNCs in knowledge management, (2) Shanzhai clustered supply chain operations, and (3) environmental support (policies, regulations and legal system) for Shanzhai imitation activities (See Table 12).

	Managerial Capabilities	Environmental Conditions			
	(Internal)	(External)			
MNCs	 Inability or Weakness in Knowledge Management: Unable to Prevent Knowledge Leakages and Spillovers Organizational Arrogance and Complacencies Resulting in Overlooking or Underestimating the Impact of Shanzhai Imitations Unable to Proactively and Responsively Act against the Shanzhai Imitations 	 Little or No Knowledge on: Do Not Understand the Impacts of Policies, Regulations, and Government on the Business Environment in China Do Not Understand the Impacts of Loopholes of Legal System to Protect IPR Do Not Understand the Low-end Market, which is Composed of Mass Population in China 			
Shanzhai	 Shanzhai Model: Clustered Supply Chain Operations Cost Saving Strategy Low-end Marketing Strategy Low profit Margin Strategy 	 Understand and Take Advantage of: Take advantage of Policies, Regulations, and the Unique Role of Government Intervention and Manipulation. Take advantage of Weak Legal System (IPR). 			

Table 12: Four Reasons to Explain Why Shanzhai, not MNCs, Prevailed in China

Table 12 explains why Shanzhai, rather than MNCs, prevailed in China, from both internal perspective (management capabilities) and external perspective (business environment). In a sense, it may also help explain why imitation can be used as an entrepreneurial technology, especially when innovation and other entrepreneurial capabilities are not attainable. 'Imitation' is glorified as 'Simulative Innovation (模拟创新)' registered at Chinese Wiki-Management Library¹⁰ by Qing Hua University, one of the most prestigious universities in China. In such a market like China, in which, imitation has been worshiped as a magic weapon or talisman, the failure of those MNCs is, therefore, inevitable and understandable.



⁹ Professor Yu, Interviewed on 07/23/2010 at City University of Hong Kong.

¹⁰ http://wiki.mbalib.com/wiki/模加)新, accessed on 07/21/2013

It is worth mentioning that the cognitive bias resulted from linear thinking (See Table 10), might be the root cause to explain why MNCs had failed in competing with Shanzhai in China. When encountered the unbridled imitation, those MNCs became frustrated, panic, and perhaps, cynical; they forgot that the essence of their long-worshipped Western management framework is to actively adapt and change in line with the dynamics of business environment.¹¹ Instead. those MNCs invaded into China market, holding a linear mindset that is so arrogant and rigid that, they believe, their past experiences from other developing countries, plus their financial resources and technological capabilities, will make them succeed in China. It may be an interesting topic for future research that, what would be the outcome if those MNCs entered China market innovatively, like what MTK did? Alternatively, what would be the outcome if those MNCs were proactive, preemptive, agile, adaptive and flexible, when facing the unexpected Shanzhai Imitations? Another interesting topic for future research may be that, why it was Shanzhai, rather than those SOEs, that captured the opportunities.

CONCLUSIONS

The cognitive path of entrepreneurship has been evolving from the stage of know-what (pre-1980s), through the stage of know-how (1980s-1990s), to the stage of establishing an independent management theory (post-2000s) that is a capability-oriented entrepreneurial process of replacing old by new – a process of pursuing opportunities, doing new business or doing business in new ways and, transforming opportunities into business operations and values (See Figure 2, Table 3 and Table 4). This paper proposes a revised definition stipulating that entrepreneurship is a continuing process of developing, absorbing and accumulating capabilities of (1) identifying/creating and capturing entrepreneurial opportunities; (2) organizing, allocating and transforming resources and simultaneously shifting and transferring risks and (3) institutionalizing entrepreneurship into organizational strategy. Tactically, a successful and sustainable entrepreneurship must be guided by the three principles proposed in this paper: (1) do it right in the beginning (2) do less but gain more and (3) create a win-win-win. These three principles not only make entrepreneurship feasible and measurable, but also explicitly explain the superior role of managerial capability in the process of entrepreneurship, since technology itself does not create value, if it is not being commercialized into business operations.

The trilogy framework proposed in this paper, although hypothetical, is inferred from the existing literature and, may serve as a preliminary spur to allure future researchers to examine the mechanism of how those five fatal factors (depicted in this paper), can influence the sustainable development of entrepreneurial capabilities. The trilogy framework may also serve to reconcile the theoretical disagreement between the capability-based view and the resource-



¹¹ Professor Yu, Interviewed on 07/23/2010 at City University of Hong Kong.

based view. Since after all, resource attainability is determined by entrepreneurs' capability of organizing, allocating and transforming resources. The trilogy framework helps explain why those MNCs have failed in competing with Shanzhai - an emerging entrepreneurial model, to some extent, expands the domain and enriches the content of existing entrepreneurial framework.

This paper concludes that the capability of knowledge management determines the sustainability of entrepreneurship. The commitment to knowledge development and knowledge control determines entrepreneurs' capabilities of avoiding internal erosion (inertia) and external erosion (imitation). Risk is an inherent factor in entrepreneurial process (Sobel, 2000). Therefore, the capability of sharing or transferring risks determines the sustainability of entrepreneurship (Eisenmann, 2002; Schade, 2010). This paper suggests that Shanzhai clustered supply chain operation may be a recommendable approach to the effective control of risks, which can be shared/handled with minimum cost, by those clustered partners with expertise and resources. This approach may be practically useful especially for those start-ups with limited capabilities.

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