Relationship of entrepreneurship, innovation and creativity

Business, Entrepreneurship

With the rapid development of dynamic global economy, increasingly countries are seeking breakthroughs of their economy development. Stimulated by these ever-increasing competition pressures, exploitation of new ideas and businesses which are of great potential to thrive economies, accordingly, is gainning widespread attention (Mansfield, 1972; Wong et al. , 2005).

In consequence, on a global scale, not only some developed countries with strong capability to absorb and implement new ideas, but also some emerging developing countries, are taking measures to inspire entrepreneurship and innovation with purposes of benefiting economic development from these competitive advantages (Stoneman, 1995; Zhao, 2001). It is universally held that entrepreneurship and innovation are complementary and their combination can efficiently contribute to economy performance (Grupp, 2001; Stoneman, 1995).

During the transfer from idea creation to eventually economy development, innovation is supposed to be a necessary condition, but it also demonstrates great insufficiency which can be completed by entrepreneurship’s mediating effects (Audretsch, 1995; Camp, 2005). This essay will primarily conduct a brief definition of entrepreneurship and innovation while introduce the role of problem solving and creativity, and thereby observe the synergy between entrepreneurship and innovation. Then theoretical and practical analysis will be made in their repective relationship with economy development.

Ultimately, the holistic realtionship between entrepreneurship, in conjunction with innovation, and economy development will be discussed.

Entrepreneurship and innovation are inclined to be misinterpreted identical since they both indicate creation and new development, but meanings they rootly represent are distinctive. Innovation is an instrument that intergrates, disperses and upgrades extant techniques and knowledge, then acts as a " conduit" for achieveing knowledge spillovers and technique invention, and consequently endows existing materials with a new capacity (Drucker, 1985; Drucker, 1994).

Creativity, which represents generating new ideas, is the foundation of innovation, since innovation originates from creaticity (Amabile, 1996; Lumsdaine and Binks, 2007). In the initial stage of development, creativity is implemented to generate a wide range of ideas, and in a later period, innovation will rest on these creative ideas and further develop their potential. Entrepreneurship, however, is a type of organizational behavior focusing on opportunities rather than materials (Miller, 1983; Stevenson and Gumpert, 1991).

It primarily consists of exploiting opportunities from various innovations, converting them into service or products, thereby commercializing it into market (Johnson, 2001). Problem solving spreads through their relationship and is connected with entrepreneurship in even every situation. It is the basis of generating ideas and then choosing the best for initiating and operating a prosperous business (Lumsdaine and Binks, 2007). In its definition stage, time is spent on searching for root causes and how the problem is inside correlated.

Then in the discovery stage, energy will be concentrated on seeking plenty of ideas. In the following determination phrase, possible consequences will be considered by using criteria for success, and convert possibilities into practical application (Kirkham, Mosey and Binks, 2009). Arising from studies dealing with relationship between entrepreneurship and innovation, the synerty between them is generally accepted (Zhao, 2005). Firstly, entrepreneurship and innovation complement with each other (Zhao, 2001; Michael, 2005).

On one hand, as Legge and Hindle (1997) have observed, innovation is the special-purpose tool of entrepreneurship. Entrepreneurs exploit opportunities and seek commercial success resting on creative ideas selected and provided by innovation (Zhao, 2001). Herbig and his colleagues (1994) take similar view and hold that entrepreneurship is one of three primary components of innovation, and presence of entrepreneurship can to some extent guarantee successful manipulation of another two.

Entrepreneurship, on the other hand, enables innovation to flourish (Zhao, 2001; Michael, 2005). Schumpeter (1934) originally endeavors to associate innovation with entrepreneurship by identifying innovators as entrepreneurs. Entrepreneurship enables innovation to realise further value by marketing them as products or services. Second, the development of entrepreneurship and innovation, and mutual effect between them for the successful practicality of innovation, demand support of innovativecultureand management (Drucker, 1985; Zhao, 2001).

The success of McDonald’s can be taken to confirm this point. Products sold in McDonald’s are not originally invented, virtually, they are just what had been produced in respectable restaurants many years ago. Nevertheless, by adopting a set of innovative management techniques and concepts, McDonald’s has standalized its products and designed specific working process based on which production can be analysed (Drucker, 1985). In consequence, McDonalds opened up a new area and substantially raised revenues.

Before considering the relationship between entrepreneurship together with innovation and economy development, it is essential to respectively observe their relationship with economy development. Firstly, innovation is a vital contributor to economic development albeit with its insufficient nature (Grupp, 2001; Stoneman, 1995; Camp, 2005). In the perspective of necessity, Lichtenberg (1993) and Engelbrecht (1997) recognise this by pointing out that inovation can be regarded as a vital source of economy development.

Another scholar, Porter (1979), confirms the view in terms of promoting the concept of value-based competitiveness, where innovation initially results in improved productivity, then the enhanced productivity creats higher competitiveness which eventually leads to better economy. For instance, 3M Company is famous for its characteristic of gaining growth through innovation. The company stimulates innovation by setting up the 15% rule-employers are encouraged to utilize 15% of working time to research their own ideas which may convert into new products in the future.

As a consequence, a quarter of incomes of the Company are generated by products no more than six years old (Burns, 2005). In addition to the study supporting the necessity of innovation to foster economy development, there are some investigations demonstrating that innovation is not sufficient for continuously economy development (Grupp, 2001; Stoneman, 1995; Camp, 2005). Some scholars criticise that the role of innovation is overlooked and state that staying only in the sphere of innovation can not bring qualitative leap to economy (Allen, 1988; Audretsch, 1995).

Camp (2005) approves of the view and he maintains that many organisations are learning this lesson by experience. Their copious investment paid for innovation does not convert into property and can not continuously sustain economic development. Secondly, entrepreneurship is broadly accepted as a prominent driver of economy development (Schumpeter, 1912; Camp, 2005). As United Kindom Her Majesty's Treasury (2005) declared, entrepreneurship and its profound impact on entreprises have been one of five driving forces of the Nation’s remarkable strategy to promote economy development for the last ten years.

Drucker (1985) also accepts the major role of entrepreneurship and he even indicated that present businesses could hardly survive if they do not secure entrepreneurial capacity. In addition, a positive relationship between economic development and entrepreneurship is captured by Braunerhjelm et al. (2009). They examed 20 countries in Organisation for Economic Co-operation and Development for 21 years and eventually came to the conclusion that entrepreneurship could positively affect economic

development, with remarkable improvement in the perspective of competitiveness and new firms establishment.

Wennekers and Thurik (1999) are in the same line with Braunerhjelm and state that entrepreneurship makes contribution to economy development by some process such as enhancing competitiveness, creating new firms and new jobs, and improving productivity. Besides, with increasingly practice, Schumpeter’s notion (1912), where economic growth and employment are provided and motivated by new businesses and existing firms which result from entrepreneurship, is widely accepted (Reynolds, 1999; Fritsch and Muller, 2004).

In addition, statistical research of manufacturing sector by United Kindom Her Majesty's Treasury (2005) demonstrated the essential role of innovation for British economy. As their research result shows, 1. 2 million employments were provided by newly established businesses from 1997 to 2005. However, according to Hoffmann and Junge’s research (2006), UK has still approximately 18 percent less businesses than America, and he maintains that much higher entrepreneurial activity rates in America may interpret this to some extent.

Having considered entrepreneurship and innovation’s separate relationship with economy development, it comes to conceive entrepreneurship and innovation as a whole and discuss their holistic relationship with economy development. As have been discussed, innovation and entrepreneurship are complementary. This can also apply to economy development. With the insuffiency of innovation, entrepreneurship plays a mediate role between

innovation and ecocnomic development, which will more fully realize the commercial value of innovation and enhance the overall impact (Camp, 2005).

Some scholars such as Allen (1988) approve that entrepreneurship should be reagrded as the pricinpal mechanism to convert preliminary-phase innovation into economic development. For example, in the 1980s, in the printing industry, a potential market gap existed between conventional printing and office photocopiers. A famous German company, Bayer, responsed to the problem with the development of an innovativetechnologywhich can provide quality, price-efficient and small-quantities colour printing for office uses.

Nevertheless, the traditional chemical company did not plan to expand into printing area, so no material measures were taken to fill in the gap. But a few years later, the market gap expanded to a large scale which finally attracted Bayer's attention. In 1988, based on the innovation mentioned above, Bayer established a new enterprise, Xeikon, to produce printers especially for office. Consenquently, by the end of 1998, 160 jobs had been created and the company had captured profits of 45 million pounds (Burns, 2005). Entrepreneurship's mediating role is apparent in this case.

If Xeikon were not founded, the innovative technology might stay in the innovation stage for much longer time and the printing industry might not be able to experience the revolution in that age (Burns, 2005). With the necessary yet insufficient nature of innovation and postitive impact of entrepreneurship on economic development, many regions which have

invested a large amount ofmoneyin innovation begin to learn the indispensable role of entrepreneurship and find that they need entrepreneurship to further thrive economies and these investments' ecomoic return (Camp, 2005).

Innovation alone can only yield limited economic influence (Camp, 2005). Through the generative process of entrepreneurship, however, more significant economic gains can be captured. For instance, in an investigation by Camp (2005), a rise of approximately 60 percent in average wages was acturalized in the most innovative regions among 382 regions they researched, by enhancing innovation capability through entrepreneurship. The Table 1 below, extracted from Camp's (2005) another research, also indicates entrepreneurship's mediating effects on innovation.

Table 1: Tesing the Mediating Effiects of Entrepreneurship on Innovation and Regional Employment (Camp, 2005). Regression Models| Correlation| Coefficient| t-stat| R2| Model1: Total Employment| 0. 723| 512. 8| 4. 67| 81. 1%| Innovation| | | | | Entrepreneurship| 0. 716| 121. 1| 26. 03| | Model2: Entrepreneurship| 0. 611| 16. 4| 18. 95| 48. 0%| Innovation| | | | | Model3: Total Employment| 0. 723| 2, 494. 6| 19. 02| 48. 2%| Innovation| | | | |

The difference between Model 1 and Model 2, especially the value of R2 which represents impact on employment, indicates that the direct effect of innovation alone (48%) is much lower than the combined effect with the mediating process of entrepreneurship (81. 1%). In other words, the mediating effect of entrepreneurship can provide extra profits for businesses as well as covering the investment on innovation capability (Camp, 2005). In

conclusion, this essay has disscussed the relationship between entrepreneurship, in conjunction with innovation, and economy development, utilizing theories and examples in business.

Attention is devoted to the positive relationship between the three issues. Innovation originates from creativity and endows materials with new capacity. Entrepreneurship utilizes innovation as a special tool, and it explores innovation’s potential economic value by selecting and commercialising innovation into market. Entrepreneurship and innovation are thus complementary and the synergy between them significantly benefits each other. Problem solving exists throughout the process from ideas generation to business estabilishment converting possibilities into practical application.

In addition, innovation and entrepreneurship are respectively vital contributors to economy development, whereas the insufficient nature of innovation calls for mediating effect of entrepreneurship. Many theories and examples have illustrated this mediating effect which will more comprehensively realize the commercial value of innovation. With good combination of entrepreneurship and innovation, in consequence, economy can be effectively thrived and overall economy development will be achieved. Word Count: 1904