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## **A Preliminary Study of Entrepreneurial Development in Singapore and Australia**

### **Abstract**

Our study attempts to examine differences in the entrepreneurial development between Singapore and Australia. We focus on both external social-cultural environment for entrepreneurs and internal entrepreneurial characteristics of individuals in these two countries. The results of our study show that from the external perspective, there is a relatively less favorable social-cultural climate to encourage people to have their own businesses in Singapore, which is reflected by the lower social status of entrepreneurs, and the less desirability of creating ventures as a career choice in Singapore than in Australia. However, there is more media publicity for successful entrepreneur stories in Singapore. From the internal perspective, Singaporeans generally have lower self-evaluated skills related to starting new businesses than Australians, as well as a lower sense of entrepreneurial opportunities and lower tolerance for failure.

**Keywords:** entrepreneurship, comparative study, Singapore, Australia

## **Introduction**

As entrepreneurial activities have permeated countries all around the world, cross-country comparison of the international differences in entrepreneurship has recently become a popular trend in the research arena of international entrepreneurship (Iversen, Jørgensen and Malchow-Møller, 2008; Oviatt and McDougall, 2005).

We conduct a comparative research on differences in the entrepreneurship characteristics between Singapore and Australia. They are both Pacific Rim countries, both are geographically located in Asia-Pacific region and members in Asia-Pacific Economic Cooperation (APEC). According to GEM 2005 Executive Report, they currently both belong to the high-income, low-growth cluster of countries (Minnit, Bygrave and Autio, 2006). In recent years there are close and comprehensive bilateral relationships between these two countries based on long-standing commonwealth, defense, education, political, trade and tourism links, e.g. Singapore-Australia Free Trade Agreement (SAFTA) (Australian Government Department of Foreign Affairs and Trade).

Governments of both countries are also emphasizing the importance of entrepreneurship. Local innovative and entrepreneurial culture has been recognized as an increasingly essential ingredient for Singapore's continued growth (Hobday, 1995; Koh, 2006; Tan, 2003). The innovation-oriented strategy is supported by the establishment of entrepreneurship infrastructure (e.g. SME Master Plan and SME21) and comprehensive programs that aim to encourage start-ups and provide assistance and resources to entrepreneurs (Singapore Productivity and Standards Board, 2000; Tan, Tan & Young, 2000). Meanwhile great efforts to promote entrepreneurship have been also made by the Australian

government, such as policy incentives and program initiatives to help start-ups and SMEs and to create a supportive environment for fostering an entrepreneurial culture (Dana, 1990; Parker, 2006).

One the other hand, these two countries have different levels and characteristics of entrepreneurship development. Australia is typically regarded as a country with high level of entrepreneurship (Lundström and Stevenson, 2001). It is also usually used as one example of the countries with strong entrepreneurship level in cross-national comparative studies (e.g. Dana, 1990; Parker, 2006). In contrast, an evident lack of entrepreneurship in Singapore has been observed (Lee and Low, 1990; Low, 2006). As a pair of examples characterized by strong and weak entrepreneurship respectively, Australia and Singapore also have different political, economic, and social environment, particularly in terms of distinct social culture. Coviello and Jones (2004) asserted that establishing equivalence at a number of levels is a critical issue in cross-cultural research, such as sample equivalence through which countries should be chosen to ensure variance in cultural values. Australia is a typical example of Western countries while Singapore possesses a mixture of sub-cultures and also tends to be influenced by some common traditional values embedded in Southeast Asia. Based on the similarities and differences in entrepreneurial-related factors, the focus of our study is on the environment for and the characteristics of Singaporean entrepreneurs in comparison with their counterparts in Australia. This preliminary research seeks to address a gap in the extant literature in terms of a lack of empirical studies to compare the entrepreneurial practices between these two countries.

### **Literature Review and Hypotheses**

The external entrepreneurial climate and internal personal circumstances jointly contribute to

individual engagement in entrepreneurial activities (Bird, 1988; Tajeddini and Mueller, 2009). This study will first center on the social-cultural facet of the external entrepreneurial climate. Social-cultural influence could be largely interpreted by the societal values and perceptions of entrepreneurship as these perceptions can flourish or retard the entrepreneurial spirit of the general population in the society (Dana, 1990, Iversen, Jørgensen and Malchow-Møller, 2008). Four main aspects (i.e. a potential entrepreneur's opportunity perception, tolerance for failure, entrepreneurial related abilities, and social networks) of internal entrepreneurial characteristics will be also considered.

As mentioned earlier, Singapore and Australia are at a similar level of economic development and both governments have provided substantial support to catalyze the local entrepreneurship in their own countries. Despite these similarities, the levels of individual entrepreneurship between these two countries differ to a large extent. One of the most frequently cited indicators of individual entrepreneurial activities is the GEM Total Entrepreneurial Activity (TEA) index which is calculated as the prevalence rate of the adult population who is engaged in the process of starting up a business or has owned a business less than 42 months old (Iversen, Jørgensen and Malchow-Møller, 2008). According to the GEM 2005 and 2006 Reports (Bosma and Harding, 2007; Minniti, Bygrave and Autio, 2006), the TEA index for Singapore was 7.2, much lower than 10.9 for Australia in 2005, and this pattern continued in 2006 when the TEA index for Singapore was 4.9% compared with 12.0% for Australia (Australia didn't participate in the GEM project in the following three years 2007-2009 and Singapore didn't participate from 2007 to 2010).

Both external and internal factors based on our theoretical framework are used to explain the local entrepreneurial development in Singapore and Australia. As culture plays an important role in influencing entrepreneurial values and attitudes, and in turn entrepreneurial behaviors (Mueller and Thomas, 2000; Mueller, Thomas and Jaeger, 2002), we will firstly analyze the general entrepreneurial culture in these two countries, it is related to the social-cultural facet proposed in our theoretical framework.

Australia is a country with much support for the entrepreneurial activities, and the entrepreneurial strength of Australia mainly comes from its favorable entrepreneurial environment which largely encourages the birth of new business and the development of SMEs. Australia was once a country with little recognition of successful entrepreneurs and with great fear of failure. However, the spirit of entrepreneurship was significantly promoted and the enterprise culture has been created in today's Australia (Dana, 1990).

On the other hand, despite some research that has stressed the high desirability of starting new businesses in Singapore (e.g. Tan, 2003), most of other studies maintain that Singapore is still staying at the preliminary stage of entrepreneurship where the successful entrepreneurs would not gain more respect from others but should take the risk of being mocked if they fail. There is no strongly favorable social-cultural climate to encourage people to have their own businesses. Evidence for this phenomenon can be also found in the study of Low (2006) who suggests Singaporeans should attempt to change their mindset and break the status quo to boost the local entrepreneurial spirit (Carney and Zheng, 2009).

One of the commonly used tools in the international comparison of cultural values is Hofstede's studies. Singapore and Australia were both included in the 40 countries in Hofstede's (1984) initial study. Dimensions in Hofstede's model that are most relevant to the cross-national entrepreneurship differences are Individualism, Masculinity, and Uncertainty Avoidance. The high individualism would be related to high requirement of autonomy that is an important motivator for entrepreneurial behaviors (Tajeddini and Mueller, 2009). It is also suggested by research that people from more individualistic and masculine cultures are more inclined towards entrepreneurial actions (Mueller, Thomas and Jaeger, 2002; Van Deusen and Mueller, 2006). According to the results of Hofstede's studies (1984, 2001), the Individualism Index value for Australia was 90 compared with 20 for Singapore. The Masculinity Index value for Australia was 61 while for Singapore it was 48.

Moreover, the extent of uncertainty avoidance is directly related to the intention to start a new business despite the high uncertainty about its prospect. Uncertainty avoidance is also correlated with risk-taking propensity which is also a significant dimension to explain entrepreneurial potential. While for this dimension, Hofstede's study revealed findings contradictory to some recent studies. The Uncertainty Avoidance Index value for Australia was 51 in contrast to 8 for Singapore which indicated Australians once had much stronger tendency to avoid uncertainty than Singaporeans.

However, recent literature shows that this situation might have changed. In Australia, it is evident that a once non-entrepreneurial society has evolved into a new society with high entrepreneurial spirit. And this turnaround is mostly reflected by much more positive attitudes towards risks and failures than before (Dana, 1990); while in today's Singapore it has been observed that most Singaporeans are

rather unwillingness to take risks (Chew and Chew, 2008; Low, 2006). The entrepreneurial culture of a country is aggregately shaped by personal values which are also characterized by risk aversion (Carney and Zheng, 2009). This common profile among Singaporeans mainly results from their fixed mindset and long-time preference for stable, secure and comfortable jobs and life styles (Low, 2006). The low inclination towards risks is also largely linked to a strong shame of failure (Low, 2006). More or less influenced by Confucian cultural principles (The Confucian dynamism index value was 15 for Singapore and 9-10 for Australia reported by Michael Bond's study), many Singaporeans might view the failure in businesses particularly bankruptcy is a risk of losing face thus hold themselves back from creating their own businesses to avoid this kind of risks (Begley and Tan, 2001).

Another important dimension for entrepreneurship issues which was not included in Hofstede national culture model is in relation to the social networking that potential entrepreneurs have possessed. However, it may be still relevant to Hofstede's (1984) individualism-collectivism spectrum to some extent. Social network actually provides useful social capital which will help individuals to obtain experience from veterans, and also provide them with resources and connections essential for starting a new business. Social capital is regarded particularly important and useful in some Asian countries, and Singapore is also among these countries which highly emphasize inter-personal ties and networks (Low, 2006). Based on the above discussion, hypotheses can be stated as follows:

***H1:** From the external perspective, Australians perceive a more supportive social-cultural environment for individual entrepreneurs than Singaporeans.*

***H2:** From the internal perspective, the level of entrepreneurial opportunity perception, failure tolerance, self-evaluated skills will be higher among Australian entrepreneurs than among*

*Singaporean counterparts, while personal networks related to entrepreneurial activities will be a more important motivator for Singaporeans than for Australians.*

## **Methods**

### **Data and Sample**

The data source for our study is the 2005 Adult Population Survey, a major part of the Global Entrepreneurship Monitor (GEM) project. As a standard international comparative research project, GEM is frequently used in the cross-national studies of entrepreneurial issues. There were 35 countries participating in GEM 2005 project and the respondents involved in the sample included 3,876 adult Singaporeans and 2,465 Adult Australians (Minniti, Bygrave and Autio, 2006).

### **Measures**

Grounded on our theoretical framework, our measures are derived from both external and internal perspectives. Externally, we use four measures for the construct of social-cultural entrepreneurial climate which is mainly reflected by the society's attitudes towards entrepreneurship and entrepreneurs. These four variables are drawn from four survey questions — “In your country, most people consider starting a new business a desirable career choice” (Variable 1-1 CAREERCHOICE), “In your country, those successful at starting a new business have a high level of status and respect” (Variable 1-2 SOCIALSTATUS), “In your country, you will often see stories in the public media about successful new businesses” (Variable 1-3 MEDIACOVERAGE), and “In your country, most people would prefer that everyone had a similar standard of living”(Variable 1-4 LIVINGSTANDARD). The responses to these questions took the value of 1 for the answer “Yes” and 0 for “No”. The first three measures

jointly depict the general social attitudes towards entrepreneurship in terms of the desirability of entrepreneurs as a career, the social status of entrepreneurs, and the media publicity for successful new businesses. The last measure is not directly related to the first three, but a social culture which does not favor a uniform living standard is also the foundation to underpin the social spirit encouraging entrepreneurial activities.

Four variables are built from the internal perspective on individual characteristics of entrepreneurs. First, the possession of social networks is measured by the survey question “You know people personally who started a business in the past 2 years” (Variable 2-1 SOCIALNETWORK), the propensity to opportunity taking is measured by the questions “in the next six months there will be good opportunities for starting a business in the area where you live” (Variable 2-2 OPPORTUNITYPERCEPTION) and the attitude towards failure is constructed by the question “Fear of failure would prevent you from starting a business” (Variable 2-3 FAILUREFEAR). Finally the self-evaluated entrepreneurial skill is measured by the question “You have the knowledge, skill and experience required to start a new business” (Variable 2-4 SKILL). All these four variables take the binary value of 1 for yes and 0 for no. We then negatively recoded the initial responses to the third variable FAILUREFEAR, so that the value 1 means respondents would not stop starting a business because of the fear of failure, and 0 otherwise.

### **Statistical Methods**

As all of our variables are dummy variables which are not normally distributed, the traditionally independent-samples t-test does not apply given its assumption of the normal distribution of the data

(Field, 2005). Alternatively the non-parametric test on two independent samples is employed here. For the non-parametric two-independent-samples test, Asymptotic Method is used by SPSS by default to calculate the significance of the Mann-Whitney test. Asymptotic Method is particularly accurate with large samples (Field, 2005).

## **Results**

The results of the Mann-Whitney test with the Asymptotic Method are presented in Table 1. The underlying null hypothesis for the comparison of means between two independent samples is the means of these two samples are equal. As for the external social-cultural aspect, it is shown that all these four variables are significantly different across these two samples ( $p < .001$  for Variables 1-2, Variable 1-3, and Variable 1-4 and  $p < .01$  for Variable 1-1). And as we expected, Singaporeans have significantly lower levels regarding considering entrepreneurship a desirable career choice, social status of successful entrepreneurs and preference of uniform living standards than Australians. These findings are indicated by the respective values of variables for these two samples, for Variable 1-1, the average mean rank is lower in the sample of Singaporeans (1777.92) than in Australians (1881.49). For Variable 1-2 and 1-4, Australians also have relatively higher scores of mean rank (1979.00 compared with 1780.85 and 2131.35 compared with 1769.48 respectively). However, Singapore has more media publicity for successful entrepreneurial stories than Australia (2070.70 compared with 1728.65). This means Singaporeans can more often see and hear stories from public media about successful new businesses and entrepreneurs than Australians.

As for the internal aspect, it is reported that Singaporeans have significantly lower values of Variable

2-2, Variable 2-3 and Variable 2-4 ( $p < .001$  for Variables 2-2, Variable 2-4, and  $p < .01$  for Variable 2-3), namely the averagely lower levels of the sense of entrepreneurial opportunities, failure tolerance and the possession of skills associated with entrepreneurial activities. Contrary to our expectation, Singaporeans don't place more importance on the role of social networks in starting new ventures, and the average mean rank for the sample of Australians is even a little higher than that for Singaporeans (2145.40 compared with 2065.74,  $p < .05$  for Variable 2-1).

<< Insert Table 1 about here >>

### **Discussion and Conclusion**

Through the comparison, we find that Singapore lags behind Australia in terms of both general entrepreneurial climate and individual entrepreneur characteristics. Singapore still faces challenges associated with fostering local entrepreneurial spirit (Carney and Zheng, 2009; Low, 2006). It should be noted that Australia is not a country originally with high entrepreneurial spirit. Australians were portrayed as risk averse and afraid of failures in 1980s (Dana, 1990). Australia's successful turnaround demonstrates the potential to encourage a society with non-entrepreneurial traditions like Singapore to become an economy in which entrepreneurship has become an influential ingredient (Dana, 1990).

Compared with Australia, Singapore has two evident obstacles to the development of entrepreneurship. First might be attributed to its small and export-led economy with heavy reliance on MNCs and strong state intervention (Haley and Low, 1998; Low, 2006). As a result, the lower level of Singaporeans' self-evaluated skills related to starting new businesses than Australian counterparts, as well as their

lower sense of entrepreneurial opportunities was observed. Another main obstacle might be the deeply embedded social culture in Singapore with more risk and failure aversion compared with in Australia. Other than addressing these two obstacles, it is noted in the results of our study that Singaporeans can more often see and hear stories from the public media about successful new businesses than Australians. The role of public media in advocating entrepreneurial activities could continue to be emphasized. In order to stimulate young people, the tool of internet and online entrepreneur communities can be also utilized, particularly through their roles in facilitating communication, information exchange, and experience sharing among potential entrepreneurs.

#### **Limitations and Future Research**

Our study is subject to some limitations. GEM is mainly a self-report and largely perceptual database and given the limited years of GEM data that can be used for the comparative study of both Singapore and Australia, we could only capture a snapshot of the differences in the entrepreneurial development between these two countries

Nevertheless, this study is important as a preliminary research project for future research purpose in terms of providing valuable insights into our following quantitative and qualitative research design. Future research aims to generate more recent empirical evidence to support the findings and provide an updated view of entrepreneurial development in the two countries.

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**Table 1: Mann-Whitney Test with the Asymptotic Method**

Variables	Mean Rank		Z	Asymp. Sig. (2-tailed)
	Singaporean	Australian		
Variable 1-1 CAREERCHOICE	1777.92	1881.49	-3.314	0.001
Variable 1-2 SOCIALSTATUS	1780.85	1979.00	-6.513	0.000
Variable 1-3 MEDIACOVERAGE	2070.70	1728.65	-11.159	0.000
Variable 1-4 LIVINGSTANDARD	1769.48	2131.35	-11.570	0.000
Variable 2-1 SOCIALNETWORK	2065.74	2145.40	-2.512	0.012
Variable 2-2 OPPORTUNITYPERCEPTION	1660.29	2237.86	-19.704	0.000
Variable 2-3 FAILUREFEAR	2017.03	2124.02	-3.422	0.001
Variable 2-4 SKILL	1873.10	2361.11	-14.958	0.000

## **A Preliminary Study of Entrepreneurial Development in Singapore and Australia**

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### **Abstract**

Our study attempts to examine differences in the entrepreneurial development between Singapore and Australia. We focus on both external social-cultural environment for entrepreneurs and internal entrepreneurial characteristics of individuals. The results of our study show that from the external perspective, there is a relatively less favorable social-cultural climate to encourage people to have their own businesses in Singapore, which is reflected by the lower social status of entrepreneurs, and the less desirability of creating ventures as a career choice. However, there is more media publicity for successful entrepreneur stories in Singapore. From the internal perspective, Singaporeans generally have lower self-evaluated skills related to starting new businesses, as well as a lower sense of entrepreneurial opportunities and lower tolerance for failure.

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