Psychic Distance and FDI Location Choice: Empirical Examination of Taiwanese Firms in China

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Accepted 18 June 2008

Abstract

Around the world, China fever has replaced China fear. Multi-national enterprises (MNEs) are doing more than just talking about foreign direct investment (FDI) in China. Differences in local thing in their broadest senses, including policy barriers at the borders, nature and geography, and economic differences, contribute to its distinctiveness. Thus, this study reviews, discusses and re-conceptualizes the psychic distance concept through the CAGE distance framework and empirically assesses its validity for three economic regions within China each of which have unique characteristics. The investigation concluded that psychic, administrative, and geographic distances were negatively related to location choice, owing to smaller perceived uncertainty. Thus, numerous Taiwanese have invested in China after considering the complex political situation across the straits. Even if the theoretical psychic distance (using cultural distance as a proxy variable) cannot consistently explain the phenomenon of the location choice in a large country, this investigation identifies the CAGE framework as potentially useful. Moreover, this study uses a cross-sectional survey of 258 Taiwanese firms investing in China across industries and received result to support the hypothesis. Additionally, the influence of psychic distance on location choice reduces with increasing experience of top management.

Keywords: Psychic distance, location choice, CAGE framework

1. Introduction

Recently, numerous MNEs have been talking about China Fever. Moreover, the influence of China is only going to strengthen as their economy and purchasing power grows. It is uncertain just how much direct-investment money has flooded into China. However, for MNEs from Europe or America, China represents a totally different market which may require special approaches to business operations. Thus some European and American MNEs have invested in China directly, while others have done so indirectly, for example by cooperating with Hong Kong partners. Let’s give this phenomena an explanation: China Fever attracts MNEs, but then China Fear keep then away.

In almost all theories, scholars assume that people are rational, but “fear” is irrational. Logically, rational decision makers should analyze opportunities and treats, in addition to internal resources and capabilities, to determine whether to invest, and particularly for selecting location and entry mode. There is no need for fear. In fact, according to our
observation, selection decisions in foreign markets are beyond rationality, and are influenced by psychological factors which influence top management decision behavior, including home country bias and representative bias.

Foreign firm selection of its location in a host country is critical to its success. Therefore, location choice is a key decision in determining international expansion. Additionally, scholars of economic geography provide alternative perspectives. Such scholars assert that firm clustering (proximity) at a unique location will generate positive externalities that attract the firm to a specific location (Nachum, 2000). Furthermore, Porter (1998) proposed the diamond model as a means of determining this local advantage. As Porter put it, ‘local thing’ is an important factor to compete globally, and industrial clusters provide the best evidence of that concept. If host country location does indeed still matters, then so too does the distance between the home and the host. Restated, local thing matters local advantages.

Regardless of the location chosen, the uncertainty of foreign market (O’Grady and Lane, 1996), the factors that prevent or disturb the flow of information (Vahlne and Wiedersheim-Paul, 1973), and factors preventing or disturbing firm’s learning about and understanding of a foreign environment (Nordstrom and Vahlne, 1994) cause the risky sense. In these circumstances, China is difficult to understand, difficult to learn about and is characterized by restricted information flows. So, what cause these western firms feel risky in entrancing China? We can say, extremely different culture, such as Confucianism, Tao and Buddhism, from the western MNEs’ think ways and this makes the feel of unknown or uncertainty. Meanwhile, language distortion and local information “decoding” requires experienced managers. If so, will experienced executives fear less? Moreover, the nature of their interaction is also interesting. This study focuses on these two issues.

Traditionally, international business scholars have stressed the unique factor endowments of individual locations, and the concept of distance in international business can be traced all the way back to Adam Smith. Beckerman (1956) later empirically assessed location sensitivity for international business transactions. Dunning proposed his OIL paradigm which stresses location advantage. In short, monitoring trade and investment among different locations can determine the sensitivity of distance in the internationalization process.

Psychic distance is the specific term used by international business researchers to express the perceived distance of a specific location and represent the ease or difficulty of conducting global business operations, such as, Child et al. (2002), Clark and Pugh (2000), Evans and Mavondo (2002), Johanson and Wiedersheim-Paul (1975), Nordstrom and Vahlne (1994), Sousa and Bradley (2005) argued that psychic distance significantly impacts the firm international marketing strategy, particularly the degree of marketing program adaptation.

Meanwhile, numerous researchers have challenged the psychic distance. The most controversial in external distance presently is the dimensional approach. Hofesteds’ psychic distance referred to “cultural distance”. Moreover, Evans and Mavodo (2002) defined psychic distance as the composition of cultural and business distance. Welch and Luostarinen (1988) applied a three dimensional approach to conceptualize and examine business distance. Ghemawat (2001) encompassed geographic, cultural, economic and administrative dimensions in redefining psychic distance. The most noteworthy of these dimensions was the dimension of administration, there are not obviously highlight before. I believe the distance between the people of Taiwan and China is the result of different administrative systems. The framework, proposed by Ghemawat(2001), maybe possesses specific and additional explanatory power for foreign direct investment (FDI) studies of Taiwanese firms in China.

This study addresses the role played by psychic distance in location choice by top management. This study reviews, discusses, and re-conceptualizes the concept of psychic distance utilizing the CAGE distance framework, and then empirically assesses its validity in three economic regions of China that presents with different characteristics. This study
contends that distance remains an important concept; thus, this study aims to obtain a clearer understanding of the potential importance of distance for design and management of firms. More specifically, this study focuses on how different distances—cultural, administrative, geographic, and economic—can affect the process of the determination of psychic distance by top-management. This model was proposed by Ghemawat (2001).

The discussion concludes that the psychic distance and administrative and geographic distance were negatively related to location choice owing to smaller perceived uncertainty across the strait. Thus, many Taiwanese firms invested in China following considering the complex political situation across the straits. This study also proposes that even if the theoretical psychic distance (using cultural distance as a proxy variable) cannot explain the phenomenon of location choice in a large country, the CAGE framework may be useful for compiling an explanation.

The remainder of this paper is organized as follows. The next section describes the research model, presents theoretical justifications, and develops hypotheses. What follows are the details of operationalization of the construct, the survey instrument, and the data collection. This section is followed by data analysis, discussion of the results, as well as a summary of the limitations of this study, and concluding remarks.

Figure 1 shows the conceptual model of psychic distance and location choice. The Table 1 summarizes the definitions of various model constructs.

<table>
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<tr>
<th>Construct</th>
<th>Definition</th>
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<tr>
<td>Psychic distance</td>
<td>The extent to which top-management perceives the degree to which a set of factors prevents or disturbs information flow between firms and foreign markets.</td>
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<tr>
<td>Cultural distance</td>
<td>Differences in religious beliefs, races, social norms, and languages.</td>
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<tr>
<td>Administrative distance</td>
<td>Differences in a set of factors, including absence of colonial ties, absence of shared monetary or political association, political hostility, government policies, and institutional weakness.</td>
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<tr>
<td>Geographic distance</td>
<td>Differences in a set of factors, including physical distance, lack of common borders, lack of sea or river access, weakness of transportation, and communication links and climate.</td>
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<tr>
<td>Economic distance</td>
<td>Differences in consumer incomes and the cost and quality of infrastructures and natural, financial, and human resources.</td>
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<td>Location choice</td>
<td>Firm decision to either invest or not invest in a particular location for specialized activities.</td>
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2.1 Location choice—the FDI attraction

Managers of MNEs are increasingly able to segment their activities and seek the optimal location for specialized activities. This ability to separate and relocate stages of production has driven a manufacturing boom in China and a service industry boom (for example, call centers) in India.

Scholars in international business have argued that location decisions are influenced primarily by agglomeration economies and location advantages. Other factors, such as public incentives (namely, tax, tariffs) and other forms of barriers, are represent complementary factors. Classical FDI theorists argue that money flows away from areas with abundant capital, which offer a low rate of return, and flows towards capital poor areas, which offer a high rate. Firms also adjust their locations to move away from locations with high inefficiency and thus low performance, and towards those with good efficiency and high performance. The so-called OLI paradigm proposed by Dunning summarizes Ownership advantages, Location-specific advantages and Internalization as three drivers of firm internationalization. Consequently, the location choice should be further classified based on three motivations for FDI.

FDI is rational or efficiency-seeking when firms can benefit from the common governance of geographically dispersed activities in the presence of economies of scale and scope. Conceptually, location can affect costs in several ways. Locations differ in terms of the prevailing costs of labor, management, scientific personnel, raw materials, energy, and other changing factors. Location can also affect firm infrastructure cost owing to differences in local infrastructure availability. Climate, cultural norms, and tastes also differ with location. Finally, location frequently impacts logistical costs. Location thus should be considered a separate cost driver (Porter, 1990).

When firms invest abroad to gain access to resources unavailable in their home country, their investment is termed resource- or asset-seeking FDI. The resources involved may include natural resources, raw materials, or low-cost inputs such as labor.

Market-seeking FDI is performed to sustain existing markets or exploit new markets. This type of investment is designed to better serve a local market via local production, market size and market growth of the host economy, which are the main factors encouraging market-seeking FDI. Impediments to serving the market, such as tariffs and transport costs, also encourage such FDI.

Many studies have demonstrated that FDI is disproportionately concentrated in states with agglomeration economies. The so-called industrial clusters are receiving more attention from certain scholars, such as Nohria (1991), McEvily and Zaheer (1999), and Porter (2003). Location seems more important, and the enduring competitive advantage in a global economy is increasingly important in local terms. World-class mutual-fund companies in Boston, textile-related companies in North Carolina and South Carolina, high-performance auto companies in southern Germany, and fashion shoe companies in northern Italy, are examples of such enduring competitive advantage (Porter, 1998).

Previous empirical studies examining firm location choice include Coughlin et al. (1991) and Levinson (1996). Coughlin et al. (1991) examined how the characteristics of individual states influence the location choices of foreign firms investing in manufacturing facilities in the United States. Using data from 1981-1983, they found that states with higher per capita incomes and more intensive manufacturing activity attracted relatively more FDI.

In short, regardless of the reasons for market-seeking, resources-seeking, efficiency seeking, or externality of agglomeration economies, location choice should closely fit the motives of FDI. This investigation focuses on the perceived location-specific advantages at
the intra-country level as determinants of location choice to explain the geographical distribution of FDI inflows across intra-country in China. Large market size, proximity to home market, low-cost labor and favorable tax treatment in the host country are all considered to be the same at the intra-country level.

2.2 Psychic distance

The concept of distance in international business has been identified as a key explanatory factor (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975; Nordstrom and Vahlne, 1994; Vahlne and Wiedersheim-Paul, 1977). In 1956, Beckerman first used the term “psychic distance” to highlight the need for a broader definition of distance in international business research. The concept of psychic distance implies that companies perform best in foreign markets that closely resemble their domestic market. (Johanson and Wiedersheim-Paul, 1975; Nordstrom and Vahlne, 1994). Since the 1970s most scholars have taken this concept to represent the psychological distance between the home country and the trading or investing country or countries.

Technology has reduced the costs associated with distance, and developments in transportation technology and distance-spanning information and communication technology, including e-mail and video conferencing, have led numerous researchers and practitioners to believe that the traditional distance sensitive internationalization process no longer makes sense in a rapidly globalizing world. Much has been made recently of the “death of distance” (Cairncross, 1997); restated, the current belief is that “distance does not matter”.

Although, there no doubt exists the diminishing of distance, the truth is that distance is still distances, still there ,never changes, and just need some modification. Since Hofstede (1983) presented the construct of culture distance and scale, many scholars have commonly used cultural distance as a proxy for psychic distance. Using this review of the psychic distance construct, Evans and Movando (2002) proposed defining psychic distance as the distance between the home market and a foreign market, determined by perceptions of both cultural and business differences, while business distance is created by legal, political, economy, business practice and language differences. Luostarinen (1980) defined economic and geographic distance as business distance. This study avoided using economic and geographic distance as proxies for business distance because most of those costs and risks result from business barriers created by distance. Distance describes not just geographic separation, although that is also important. Distance also has cultural, administrative, political, and economic dimensions that can make foreign markets considerably more or less attractive (Ghemawat, 2001). Additionally, intra-country studies rely heavily on the administrative, geographic, and economic factors of local system. Thus, the concept of psychic distance must be renewed. Ghemawat (2001) incorporated geographic, cultural, economic and administrative dimensions in redefining psychic distance, renaming the concept the CAGE distance framework. However, the literature to date has not examined the effect of psychic distance on location choice using the redefined concept of the CAGE framework.
<table>
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<tr>
<td>Vahlne and Wiedersheim-Paul (1973)</td>
<td>The authors defined psychic distance in terms of factors that prevent or disturb the flow of information between suppliers and customers.</td>
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<td>Lee (1998) and Swift (1999)</td>
<td>Lee (1998) and Swift’s (1999) definitions of cultural distance are often treated as synonymous with psychic distance. Cultural distance is defined as “...the perceptions of international marketers regarding the socio-cultural between the home and target countries in terms of language, business practices, legal and political systems and marketing infrastructure” (p. 9).</td>
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<tr>
<td>Nordstrom and Vahlne (1994,)</td>
<td>Nordstrom and Vahlne (p.42) subsequently redefined psychic distance as “factors preventing or disturbing firm learning about and understanding of a foreign environment”.</td>
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<td>O’Grady and Lane (1996, )</td>
<td>O’Grady and Lane (p.330) defined psychic distance as “...a firm’s degree of uncertainty about a foreign market resulting from cultural differences and other business difficulties that present barriers to learning about the market and operating there.”</td>
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<td>Swift (1999)</td>
<td>Argues that “...(P)sychic distance is a consequence of a number of inter-related factors, of which, perception is a major determinant.” (p. 182)</td>
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<tr>
<td>Evans and Mavondo (2002)</td>
<td>Proposed defining psychic distance as “the distance between the home market and a foreign market, resulting from the perception of both cultural and business differences.” (p.517). This definition helps to clarify inconsistencies in the previous research by specifically incorporating the elements of perception and distance and by referring to both cultural and business differences.</td>
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2.3 CAGE framework

Location advantages describe immobile factor endowments and inputs that are unique to specific locations, including infrastructure, institution and other productive resources. By exclusively emphasizing potential sales, the costs and risks of doing business in a new market can be ignored. Most of those costs and risks result from barriers created by distance. Distance describes not simply geographic separation, although that is also important, but also has cultural, administrative, political, and economic dimensions that can significantly
influence the attractiveness of foreign markets (Ghemawat, 2001). Each of these distance dimensions encompasses many different factors, some of which are readily apparent while others are quite subtle.

Intra-country differences go beyond simply being cultural, and differences in infrastructure and input factors are vital for this kind of studies. (Gong, 1995; Wei et al., 1999; Head et al., 1995; Head and Ries, 1996; Shaver, 1998). Following this logic, it can be argued that (psychic) CAGE distance affects firm choice of location in four broad ways: (a) by understanding the cultural distance based in the area; (b) by scaling administrative aspects between governments, which underpin political constraints; (c) by measuring the geographic distance, which created physical limitations for the cluster; and (d) by examining the economic difference.

Ghemawat (2001) argued that the distance between two countries can manifest itself along four basic dimensions: Cultural, administrative, geographic, and economic. Distance types influence different businesses differently. For example, geographic distance affects the costs of transportation and communications, and thus is particularly important to companies dealing in heavy or bulk products or whose operations require high coordination among highly dispersed people or activities. The cultural, administrative, geographic, and economic (CAGE) distance frameworks help managers identify and assess the impact of distance on various industries. Thus distance still matters.

Psychic distance influences market selection decisions during the internationalization process, since companies are likely to select countries generating low psychic distance as the companies begin their internationalization process. Firms appear to start by exporting to neighboring/culturally close markets, before entering more physically distant ones (Bilkey and Tesar, 1977). Therefore, based on the arguments supporting attractiveness of a location with a psychic distance concept, it is hypothesized that:

\[ H1: \text{A positive association exists between reducing psychic distance and location attractiveness.} \]

2.3.1 Cultural distance

National cultural attributes determine how individuals interact with one another and with companies and institutions. Differences in religious beliefs, race, social norms, and languages can all create distance between two countries. Since Hofstede (1983) argued the construct of culture distance and its scale, many scholars have used culture distance as a proxy of psychic distance. Using this review of the psychic distance construct, Evans and Movando (2002) proposed that psychic distance should be defined as the distance between the home market and a foreign market, determined by the perception of both cultural and business differences.

Certain cultural attributes, such as language, are easily perceived and understood, while others are much more subtle. Social norms, the deeply rooted system of unspoken principles that guide individuals in their everyday choices and interactions, are often nearly invisible, even to those who abide by them.

Most frequently, cultural attributes create distance by influencing consumer choices between substitute products owing to their preferences for specific features. Religions, color tastes, and sizes are all examples. Sometimes products can touch an even deeper nerve, triggering associations that relate to consumer identity as a community member.

Constructs, such as cultural distance, are rooted in the construct of Hofstede (1980). Hofstede argued that the national level of culture comprises four cultural dimensions: Individualism, uncertainty avoidance, power distance, and masculinity. Moreover, in his later research, Hofstede proposed the fifth dimension- long-term orientation. Most psychic distance studies are based on the cultural dimensions of Hofstede (1983; 1991; 2001).
Therefore, based on the arguments supporting the construction of cultural distance based on language, social norms and religions, this study hypothesizes that:

\[ H1a: \text{A positive association exists between cultural distance and location attractiveness.} \]

### 2.3.2 Administrative distance or political distance

Historical and political associations shared by countries, preferential trading arrangements, a common currency, and political union greatly affect trade among the associations. The integration of the European Union is probably the most notable example of a deliberate effort to diminish administrative and political distance among trading partners. (Ghemawat, 2001)

Countries can also create administrative and political distance through unilateral measures designed to protect domestic industries or natural resources or to ensure national security. Individual government policies create the most common barriers to cross-border competition, and include: tariffs, trade quotas, restrictions on foreign direct investment, and preferences for domestic competitors in the form of subsidies and favoritism in regulation and procurement.

Finally, weak institutional infrastructure of a target country can serve to dampen cross-border economic activity. Companies typically are reluctant to do business in countries with corruption or social conflict problems. Eriksson et al. (1997) and Shrader et al. (2000) argued that institutional differences increase the risk of international expansion.

Indeed, some studies suggest that conditions such as these depress trade and investment far more than any explicit administrative policies or restrictions. However, countries with a strong institutional infrastructure, for example a properly functioning legal system, are much more attractive to outsiders.

More recently, researchers have argued in favor of the importance of considering institutional distance between countries (Kostova, 1999; Kostova and Roth, 2002; Kostova and Zaheer, 1999; Xu and Shenkar, 2002). Institutional distance is defined as the difference in regulatory, cognitive, and normative aspects between the home and host countries (Kostova, 1999). Subramanian and Lawrence (1999) found that national locations remained distinctive. Policy barriers at the borders, local cultural differences, and natural and geographical features contribute to distinctiveness. This range of difference, together with incumbent ability to maintain an advantage relative to outsiders (Buckley et al., 2002) and the first entrant benefits enjoyed by local firms reinforced the differentiation of national economies. Thus hypothesis H1b is presented below:

\[ H1b: \text{Attractiveness of the location increases with reducing administrative distance.} \]

### 2.3.3 Geographic distance

Generally, the difficulty of conducting business in a country increases with geographic distance from that country. However, geographic distance is not simply a matter of physical distance. Other attributes that must be considered include the physical size of the country in question, average within-country distances to borders, access to waterways and the ocean, and topography. Man-made geographic attributes also must be considered, particularly transportation and communications infrastructure.

Geographic attributes clearly influence transportation costs. Products with low value-to-weight or bulk ratios, such as steel and cement, incur especially high costs with increasing geographic distance. Likewise, the costs of transporting fragile or perishable products across large distances are significant.

Besides physical products, intangible goods and services are also affected by geographic distance. The level of information infrastructure, measured by telephone traffic and the number of branches of multinational banks, explains much of the impact of physical distance.
on cross-border equity flows. Major disparities in supply chains and distribution channels represent a significant barrier to business. A recent study concluded that margins on distribution within the United States—the costs of domestic transportation, wholesaling, and retailing—on average act as a larger barrier to imports into the United States than international transportation costs and tariffs combined.

In short, it is important to consider both information networks and transportation infrastructures when assessing geographic influences on cross-border economic activity. Similar to the arguments regarding differences in culture, administration, the above arguments lead to the following hypothesis H1c:

\[ H1c: \text{A positive association exists between close geographic distance and location attractiveness.} \]

2.3.4 Economic distance

Economic distance indicates the difference between the economic conditions of the individual foreign markets. Consumer wealth or income is the key economic attribute that creates distance between countries, and exerts a significant effect on levels of trade and choice of trading partners. Research suggests that rich countries, engage in more cross-border economic activities relative to their economic size than do their poorer cousins. Most of these activities involve other rich countries, as the positive correlation between per capita GDP and trade flows obviously implies. However, poor countries also trade more with rich countries than with other poor ones.

Of course, these patterns mask variations in the effects of economic disparities and in the cost and quality of financial, human, and other resources. Evidence supporting the importance of differences in economic conditions between the home market and host market can be found in the literature on marketing and strategy. For example, in an export context Armine and Cavusgil (1986) found that economic differences between markets positively influence the degree of customization of marketing program elements. Moreover, Roth (1995) also found that socioeconomic conditions in foreign markets influence the degree to pursuit of a common brand image.

Observation of the importance of the economic differences between markets also exists in companies that rely on economies of similarity to replicate their existing business models to exploit their existing competitive advantages, and those companies whose competitive advantage comes from economic arbitrage—the exploitation of cost and price differentials from markets. Jain (1989) found that the economic similarity of market can reflect common incomes and lifestyles. For example, similarities in income can influence strategies for launching new products, setting price as well as marketing communication strategies (Baalbaki and Malhirtra, 1992).

Whether they expand abroad for purposes of replication or arbitrage, we expect that, the possibility of FDI should reduce with increasing economic differences between two markets. Thus this study develops the following hypothesis:

\[ H1d: \text{A positive association exists between closer economic distance and (attractiveness of location OR location attractiveness).} \]

2.4 Top management background

Managers from top management teams can impact firm strategic direction (Hambrick and Finkelstein, 1995; Hambrick et al., 2005) and owing to their background (such as attributes and experiences). Herrmann, and Datta (2005) argued that more internationally diversified firms are likely to have top managers characterized with higher educational levels (Wiersema and Bantel, 1992), shorter organizational tenures (Hambrick and Finkelstein, 1995; Datta and Guthrie, 1994), younger executives (Datta and Rajagopalan, 1998), and more international
experience (Sambharya, 1996). Top executives with a “strong” background that is, international experience) possess a better idea of how to operate in different nations (or areas), as well as a “global mindset” that gives them more confidence in foreign environments and a better ability to handle global competition (Tung and Miller, 1990; Melin, 1992; Kedia and Mukherji, 1999).

Besides, many empirical studies on executive demographic characteristics and strategic choice have been based on the upper echelon theory devised by Hambrick and Mason (1984). Psychological factors and location choice have rarely been studied directly in studies of top management. The background characteristics and experiences of managers shape their cognitive perspective and knowledge bases, reflecting their underlying psychological orientation (Kiesler and Sproull, 1982).

In theory, psychic distance is a combination of national, organizational and individual level factors. Moreover, experience mainly exerts an influence at the individual level, and thus experience can be a powerful determinant of psychic distance. As operations come to encompass more distant countries and international experience grows, psychic distance is predicted to reduce (Gripsrud, 1990; Benito and Gripsrud, 1992; Johanson and Vahlne, 1977). Knowledge of foreign markets is important in overcoming the “psychic distance” of doing business overseas (Melin, 1992). Sambharya (1996) also argued that international experience among top management is associated with reduced uncertainty regarding international operations. This involvement in increasingly distant markets requires considerable learning efforts, which increase with growing psychic distance to the target market.

Differences in the cognitive perspectives of managers influence all aspects of the strategic decision-making process. Location choice is definitely a crucial strategic choice in internationalization. Thus, this study expected to find a moderator effect on the relationship between psychic distance and location selection decision for three reasons: First, contemporary multinational enterprises (MNEs) frequently yield the most complex managerial decision-making environment (Bartlett and Ghoshal, 1992; Sanders and Carpenter, 1998). This global complexity is likely to make managers with international assignment experience invaluable for many MNCs (Daily et al., 2000; Gregersen et al., 1998; Maruca, 1994). Second, managers of MNEs are more aware of cultural differences today than they were 20 years ago. Owing to their education and increased knowledge obtained from the media and communication technologies, modern managers may be more comfortable than their predecessors with diversifying into countries with dissimilar cultures (Tihanyi et al., 2005). Third, Brouthers and Brouthers (2003) argued that US MNE managers are more risk averse in making their entry mode decisions than their counterparts in other developed countries. This implies that managerial characteristics create the difference. Manager background thus matters (Carpenter et al., 2000).

From the above, it can be concluded that the impact on the relationship between psychic distance and location choices reduces with managerial experience. Furthermore, due to changing individual experience, particularly foreign experience, psychic distance has gradually reduced. From this perspective, hypothesis 2 can also be proposed:

**H2: The influence of psychic distance affect on location attractiveness reduces with top management background in FDI.**

### 3. Research design

Hofstede’s national culture distance scale was obtained for each country for the period from 1968 to 1972. Given the sociological and political changes during these three decades it is inconceivable for the scores to have remained stable, whilst Ghemawat (2001) argued distance still matter and the factors beyond culture.
Moreover, the cultural component of psychic distance generally utilizes national boundaries, when there are the substantial regional or industry cultural variations (namely, retail). ‘True distance’ for a particular location (namely, industrial cluster) must take into account the perceptions, understanding, and experience of firm management team.

China is a large and diverse enough country to have subnational-level differences, and has enjoyed high, sustained growth rates for the past two decades. China has average annual economic growth of around 10 percent since 1978. Meanwhile, in the coastal regions the average growth rate has been about 12 percent. The growth of China is widely believed to be at least partly due to heavy foreign direct investment (FDI). In fact, among developing countries, China is now the largest recipient of FDI in the world. Given the important role of FDI in China’s growth, it is critical to examine further the characteristics of FDI in China. This study uses the example of FDI in China by Taiwanese firms to demonstrate the CAGE model because of the close links between Taiwan and China. Specifically, it is believed that Taiwanese have a good understanding of regional differences within China (including, language, social norms, beliefs, government systems, and so on). Thus the Taiwanese example is helpful in distinguishing cultural, administrative, geographic and economic differences at the subnational-level. This study focused on subnational-level location choice because of its increasing quantitative and competitive performance for business strategies.

3.1 Data collection

To test the seven hypotheses proposed in this study, the approach of collecting firm-level data and then performing empirical analysis using factor analysis and logistic regression was applied. The data was gathered using mail surveys and personal interviews.

From the List of Taiwanese Companies in China (Digitimes, 2004), issued by the Chinese National Federation of Industries, 1,200 industrial manufacturing firms were selected as targets for mailing a survey. These firms were selected on the basis of size ($20-200 million in sales), and ownership (wholly owned). Questionnaires were mailed directly to top management (Chairman, CEO, President, Vice President; cf. Michel and Hambrick, 1992).

A total of 286 of 1200 (23.9%) questionnaires were returned, of which 18 were eliminated owing to incomplete questionnaires and data problems. The effective sample size thus was 258, representing a final response rate of 21.5% (258/1200).

3.2 Measures

Based on a review of the previous academic and psychology literature, this study designed measures for the constructs being studied. Certain measures were adapted from previous research, whereas other measures were developed especially for this investigation. The initial questionnaire was based upon a pre-test of 50 top management personnel from international businesses in Taiwan.

3.3 Independent variables

Psychic Distance. Psychic distance is generally measured by measuring cultural distance based on Hofstede’s (1983, 2001) definitions and descriptions of the five dimensions. This study used new measures, inspired by Pankaj Ghemawat (2001) for cultural attributes, administrative attributes (e.g. legal and political environments), geographic differences, and economic environment. Since no scale for CAGE distance framework was available in the literature, an attempt was made to generate items that tapped the domain of each construct recommended by Churchill (1979). Accordingly, a battery of 17 items was developed and categorized into four types. Notably, during the development of the research instrument, questions on colonial ties, monetary or political association and social norms were avoided due to the reality of the cross-strait situation and to avoid emotional responses for defending a
political stand. This investigation also found cost and quality of information and knowledge was not a good determinant for distinguishing economic distance, and thus these two items were deleted too. Respondents were asked to indicate the degree to which the foreign market was similar to or different from the home market using a 6-point Likert scale, ranging from (1) identical to (6) totally different.

A composite index of cultural, administrative, geographic, and economic distance was designed and served as the basis for the psychic distance construct. This index was based on Kogut and Singh's (1988) formula for cultural distance. The index is represented algebraically as:

$$CD_j = \sum_{i=1}^{n}(I_{ij} - 1)^2 / V_i^n$$

where $CD_j$, $AD_j$, $GD_j$ or $ED_j$ are the cultural, administrative, geographic, or economic differences of the $j$th foreign market from the home market; $I_{ij}$ denotes the index of the $i$th cultural, administrative, geographic, or economic dimensions and the $j$th market, 1 represents the home market and $V_i$ is the variance of the index of the $i$th dimension (Kogut and Singh's, 1988). These two indices were then averaged to provide a composite index of psychic distance, which was calculated for both close and distant markets.

3.4 Moderating Variable

**Top management background.** Three items were applied for the measurement: foreign experience, local operation experience (business practice), and sufficiency of information. These three items were measured using a 6-point Likert scale ranging from (1) strongly disagree to (6) strongly agree.

3.5 Control variables

This study also included two control variables (age and company size) that might affect the hypothesized relationships. International business scholars have identified age and firm size as important control variables (Burgel and Murray, 2000; Zahra et al., 2000; Shrader et al., 2000)

**Tenure.** Older top management are likely to have more network relationships, providing more exposure to strategic decisions and greater ability to accumulate resources. Age of management is a positive force to internationalization (Burgel and Murray, 2000). Tenure was used as a proxy for actual age.

**Firm size.** Larger firms enjoy access to more resources. Since the coordination of home base and foreign sub-unit can be highly demanding and require a critical mass of employees and managers, larger firms should be better equipped to handle this contingency, and thus have provided significant funding for other studies of internationalization (Bloodgood et al., 1996; Steensma et al., 2000). Firm size is typically operationalized either through number of employees or total sales. Since the two aspects must be scaled carefully, this study use the firm size recognized by the respondent] as the control for company size.

3.6 Dependent variables

**Location choice.** This work selected 30 locations (cities in China) for respondents to choose from. Respondents were asked to identify the most favorable location for measuring their psychic distance and they were also asked to mark the locations where their firm had already invested (multiple). The measurement for Location choice is a dichotomous variable
used to indicate whether the firm has been investing in the location. The hypothetical factors were related] using the following logistic model:

\[ P(Y_i = 1) = \frac{1}{1 + \exp(-\alpha - X_i\beta)} \]

The dependent variable is:

\[ Y_i = \begin{cases} 1 , & \text{if a firm had been investing in the location} \\ 0 , & \text{otherwise} \end{cases} \]

Those firms that had invested in the location were assigned the code 1, while other firms were assigned the code 0.

4. Analysis and results

The analysis begins by calculating descriptive statistics for the summed scales. Person correlations between each summed scale also were calculated and are listed in Table 3.

Table 3. Descriptive statistics and correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>CAGE</th>
<th>CD</th>
<th>AD</th>
<th>GD</th>
<th>ED</th>
<th>TM_B</th>
<th>LI</th>
<th>FE</th>
<th>LWE</th>
<th>Tenure</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.D.</td>
<td>0.670</td>
<td>1.006</td>
<td>1.005</td>
<td>1.050</td>
<td>0.796</td>
<td>0.916</td>
<td>0.570</td>
<td>0.630</td>
<td>0.684</td>
<td>1.388</td>
<td>0.500</td>
</tr>
<tr>
<td>CAGE</td>
<td>--</td>
<td>0.732**</td>
<td>0.646**</td>
<td>0.737**</td>
<td>0.653**</td>
<td>-0.050</td>
<td>-0.115</td>
<td>0.035</td>
<td>0.005</td>
<td>-0.126*</td>
<td>-0.006</td>
</tr>
<tr>
<td>CA</td>
<td>--</td>
<td>0.284**</td>
<td>0.425**</td>
<td>0.281**</td>
<td>0.040</td>
<td>-0.011</td>
<td>0.034</td>
<td>0.078</td>
<td>-0.111</td>
<td>0.073</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>--</td>
<td>0.205**</td>
<td>0.284**</td>
<td>-0.035</td>
<td>-0.110</td>
<td>0.097</td>
<td>-0.030</td>
<td>-0.009</td>
<td>-0.037</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GD</td>
<td>--</td>
<td>0.366**</td>
<td>-0.119</td>
<td>-0.138*</td>
<td>-0.040</td>
<td>-0.057</td>
<td>-0.137*</td>
<td>-0.034</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED</td>
<td>--</td>
<td></td>
<td>-0.020</td>
<td>-0.052</td>
<td>0.005</td>
<td>0.030</td>
<td>-0.091</td>
<td>-0.020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TM_B</td>
<td>--</td>
<td></td>
<td></td>
<td>0.681**</td>
<td>0.698**</td>
<td>0.746**</td>
<td>0.204**</td>
<td>0.189*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Li</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td>0.346**</td>
<td>0.438**</td>
<td>0.079</td>
<td>0.197*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td>0.432**</td>
<td>0.160**</td>
<td>0.130*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LWE</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.156*</td>
<td>0.126*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:  
CAGE = CAGE distance ; CD = Cultural distance ; AD = administrative distance ; GD = geographic distance ;
ED = economic distance ; TM_B = top management background ; LI = local information ; FE = foreign perspective ;
LWE = local working experience ; SIZE = firm size

4.1 Reliabilities and validation

The scale reliability met the recommendation of Nunally (1978) since the Cronbach exceeded 0.7 for all of the constructs except administrative distance. Discriminant validity addresses the degree to which measures of different variables are unique (Bagozzi, 1982). This is achieved when correlations between any two latent variables are found to be significantly different from unity, i.e. significantly less than 1.00 (Bagozzi, 1982; Segars and Grover, 1998). Correlations among CD, AD, GD and ED are listed in Table 3. The confidence intervals of the correlations show that the values were significantly less than unity (1.00), thus confirming discriminant validity.
4.2 Factor analysis

Table 4 lists factor analysis for psychic distance. The four factors that were loaded corresponded to cultural, administrative, geographic, and economic distances. Although not perfect, this result is almost identical to the concept of Ghemawat (KMO = 0.851; Bartlett’s Test of Sphericity = 1255.053, p < 0.000).

Exploratory and confirmatory factor analyses were performed, and all items were significantly loaded onto the hypothesized constructs. All survey measures were based on a six-point scale, and both semantic differential and agree-disagree scales were used.

<table>
<thead>
<tr>
<th>Table 4. Factor analysis of psychic distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>factor1</td>
</tr>
<tr>
<td>Language</td>
</tr>
<tr>
<td>Religions</td>
</tr>
<tr>
<td>Political hostility</td>
</tr>
<tr>
<td>Government policies</td>
</tr>
<tr>
<td>Common border</td>
</tr>
<tr>
<td>Sea or river access</td>
</tr>
<tr>
<td>Transportation and communication</td>
</tr>
<tr>
<td>Climate</td>
</tr>
<tr>
<td>Consumer income</td>
</tr>
<tr>
<td>Cost and quality of natural resources</td>
</tr>
<tr>
<td>Cost and quality of financial resources</td>
</tr>
<tr>
<td>Cost and quality of human resources</td>
</tr>
<tr>
<td>Cost and quality of infrastructure</td>
</tr>
<tr>
<td>Eigen value</td>
</tr>
<tr>
<td>Accumulated explained variation</td>
</tr>
<tr>
<td>Accumulated explained variation (%)</td>
</tr>
</tbody>
</table>

This investigation contained a single dichotomous dependent variable (Location Choice), with Psychic Distance comprising four different distances (Cultural Distance, Administrative distance, Geographic Distance, and Economic Distance). This study thus used multinomial logistic regression for the hypothesis testing (Sharma, 1981).

Table 5 lists the regression model results, using the Top Management responses on measures of Location choice as dependent variables. The average difference in responses to Psychic Distance measures is a significant and negative (-0.558, p < 0.01) beta parameter in the CAGE model. Thus, H1 is accepted. The average difference in responses to cultural distance measures is an insignificant beta parameter in the CAGE model, as does the economic distance. Thus, H1a and H1d are rejected.

Administrative Distance and Geographic Distance have a significant and negative parameter (-0.403, p < 0.001; -0.272, p < 0.05) in the Logit regression model. Thus, H1b and H1c are accepted.
To further improve understanding, this study used three hypothesized independent variables (foreign experience, local information, and local working experience) and four control variables (firm size, industry, party, and tenure). This study thus used a t-test, the results of which are listed in Table 6.

Table 6. Logistic regression results

<table>
<thead>
<tr>
<th>Dependent variable: Location choice (dichotomous)</th>
<th>model 1</th>
<th>model 2</th>
<th>model 3</th>
<th>model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAGE distance</td>
<td>-0.647**</td>
<td>-0.643*</td>
<td>1.658</td>
<td></td>
</tr>
<tr>
<td>(0.265)</td>
<td>(0.269)</td>
<td>(1.150)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management background</td>
<td>0.236</td>
<td>2.337*</td>
<td></td>
<td>-0.554*</td>
</tr>
<tr>
<td>(0.162)</td>
<td>(1.049)</td>
<td></td>
<td>(0.271)</td>
<td></td>
</tr>
<tr>
<td>CAGE*top management background</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.709*</td>
<td>-0.793*</td>
<td>-0.735*</td>
<td>0.709*</td>
</tr>
<tr>
<td>(0.331)</td>
<td>(0.339)</td>
<td>(0.343)</td>
<td>(0.347)</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>0.106</td>
<td>0.072</td>
<td>0.084</td>
<td>0.056</td>
</tr>
<tr>
<td>(0.069)</td>
<td>(0.071)</td>
<td>(0.072)</td>
<td>(0.074)</td>
<td></td>
</tr>
<tr>
<td>Political party</td>
<td>-0.362*</td>
<td>-0.351*</td>
<td>-0.343*</td>
<td>-0.286</td>
</tr>
<tr>
<td>(0.181)</td>
<td>(0.182)</td>
<td>(0.182)</td>
<td>(0.184)</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.076</td>
<td>0.034</td>
<td>0.009</td>
<td>-0.001</td>
</tr>
<tr>
<td>(0.093)</td>
<td>(0.096)</td>
<td>(0.098)</td>
<td>(0.099)</td>
<td></td>
</tr>
<tr>
<td>-2 (log-likelihood)</td>
<td>244.7</td>
<td>238.5</td>
<td>236.4</td>
<td>232.0</td>
</tr>
<tr>
<td>Cox &amp; Snell R²</td>
<td>0.082</td>
<td>0.107</td>
<td>0.116</td>
<td>0.133</td>
</tr>
</tbody>
</table>

Notes: * p < 0.05, **p < 0.01, *** p < 0.001

5. Discussion of results

The findings of this investigation have broadened and deepened our understanding of how perceived distance affects top management location choice, and top management background can moderate the relationships between psychic distance and location choice. This
investigation introduced a detailed model of Psychic Distance and Location Choice that differs from previous research in several ways.

First, this investigation proposed that location choice is influenced by the psychic distance as conceived by top management. Often an ideal condition for a firm’s location choice is to increase firm productivity by utilizing the presents of location advantages related to substantial spatial concentrations (agglomerations). These substantial spatial concentrations are variously called, depending on geographic scale, clusters, industrial districts, or regions. However, location choice is not rational, and is affected by the mind, behavior, and experience of the one making the decision. Additionally, firms must be able to interact effectively within a locale to learn, connect, and leverage local resources. Thus, factors that affect these interactions are critical in understanding the suitability of location choice.

Consistent with the literature, this study focused on differences in Psychic Distance as factors that affect on such interaction. Previous measures of psychic distance were based on Hofstede's (1983) definitions and descriptions of the five dimensions of national culture. The measurement items captured general aspects of national values and attitudes, and were adapted to capture perceived differences between the home country of the respondent and a foreign country. New measures were developed, based on a review of the literature on international business and new economics geography, for the culture, legal and political environment, geographic environment, and economic environment. Building on the findings of Ghemawat (2001), this study argued that the potential disruptiveness of differences in Psychic Distance on location choice increases with their relevance to that choice. Thus differences in culture, administrative, geographic and economic distance, and not merely differences in cultural distance must be assessed. The empirical results indicate that CAGE distance is negatively related to the tendency of particular location choice.

Second, using Taiwanese firms in China as an example provides insight into the subnational-level. The special links between Taiwan and China make the observation of administrative, and geographic distance easier, the findings regarding administrative distance are consistent with the argument of Subramanian and Lawrence (1999), and the meaningful findings regarding geographic difference suggest that geography still matters (Ghemawat, 2001). Moreover, the importance of new geographic factors was attested to by the concern regarding ‘the new geography of competition’ in mobile investment (Raines, 2003). The observations of this study found no evidence that cultural difference affects location decision. O’Grady and Lane (1996) also found that many Canadian retail companies did not succeed in the culturally close environment of the USA. They concluded that a ‘psychic distance paradox’ exists] because assumptions of cultural similarity can prevent managers from learning about critical differences. This study believes that this phenomenon is consistent with the findings of O’Grady and Lane (1996). An alternative explanation may be that Taiwanese are familiar with China Culture since that is the source of most Taiwanese culture), and thus also have a good understanding of regional variations in Chinese culture. There are possibilities of feeling no difference in local culture.

Confirming the findings of Hewett et al. (2003), the hypothetical relationship of economic distance and location choice is not supported. Regarding economic conditions, findings from other studies appear to differ according to the manner in which individual market conditions were considered. For example, Ghemawat (2001) argued that MNEs expand overseas for purposes of replication or arbitrage. When arbitrage is the driver, the greater the difference the better, while when replication is the driver, the smaller the difference the better. Therefore, this study speculated that the relationship curve may comprise a “U” shape. However, this study was unsure about whether longer economic distance would increase firm satisfaction with the location due to more economic benefits, or whether shorter economic distance would provide greater location satisfaction because of similarities in the business practices and
economic status quo of the countries involved (Linder, 1961). Various interpretations are possible. This ambiguity may be the main reason that not all hypotheses were supported. However, this study believes that the proposed model offers valuable new insights for international businesses regarding location choice. Meanwhile, we also felt that the proposed model presents implications for other contexts in which differences in psychic distance were believed to be strongly and negatively impact firm satisfaction with location.

Third, the observation that top management background moderates the relationship between perceived distance and location choice is particularly noteworthy. Considering the interaction with top management background, the perceived distance was observed to be “contingent” meaning that the CAGE distance maintains some degree of negative relationship with location choice. However, cage distance develops a positive relationship with location choice when top management background exceeds some degree. In practice, managers with abundant experience of international processes or rich in local things (system, working experience, network, information) would be more “respect” local difference. The contingency of cage distance provides a new method of treating the role of top management background as local things.

Fourth, foreign firms located in the host country may attract other foreign firms participating in the same supply chain. For instance, Florida and Kenney (1994) found that Japanese investment in research and development in the U.S. tended to be clustered in the Midwest automotive region and around technologically advanced areas. FDI provides not only capital but also technology and management know-how necessary host economy firms. Evidence also exists of a positive correlation between FDI inflows and host country economic growth via the spillover effects from advanced technology (Borenzstein et al., 1998). It remains uncertain whether supply chain attractiveness or technology spillover affect or interact with the location decision from the psychic distance perspective.

6. Limitations and conclusions

The scores of Hofstede’s cultural dimensions were obtained for each country for the period 1968 to 1972. Given the major social and political changes during this period it is inconceivable that the scores could have remained stable. The key question examined in this study is whether psychic distances influence CEO decision on location choice. This study proposes that psychic distance does matter to CEOs.

Aspects of the strategy of MNEs can also be enhanced by a deeper understanding of spatial issues. Geographical models can illuminate strategic decisions both through the use of models (Storper, 2001) and also empirically (Wrigley, 2000; Wrigley and Coe, 2005). Local labor markets, which are a key attraction for efficiency-seeking FDI, are also geographically configured; and the analysis presented here] benefits from the insights associated with economic geography (Hanson, 2000). As noted above, MNE strategy cannot be fully comprehended without understanding the role played by psychic distance in choice of location.

However, the model generalizability is limited to situations involving group decision making. Thus, the model cannot also be applied to team leadership in situation focused on compromise or to more rational decision making processes.

When entering an under-developed market, a different set of mindset is required, compared to when entering a developed or developing markets. Cho et al., (2005) suggested three selecting mechanisms that are needed to enter an under-developed market for FDI while seeking competitive advantages which bring us the awareness of different country development may alert different result of this study. Besides, Along with the concept of network theory, Tseng (2005) argued the interaction among members of the industrial
network and the modes of foreign direct investment may impact the psychic distance which did not debate with this study.

Clearly, an important subsequent step in this line of research is to investigate the organizational culture of the model developed in this study. Despite significant progress in research on the economic geography of globalization, enormous opportunity still exists for further development and innovation. One such area is the geography of culture (Thrift, 2000) where international business scholars drawing on their long tradition of work in this area (Hofstede, 1980; Ronen and Shenkar, 1985) and potentially have an enormous amount to contribute. These organizational cultures are of enormous practical and theoretical interest, particularly in relation to their alignment or non-alignment with national, linguistic, and other frontiers (Shenkar, 2001).

References


Vahlne, J.E., Wiedersheim-Paul, F. (1977) Psychic distance – An inhibiting factor in international trade, Department of Business Administration, University of Uppsala.


