**FIRM SURVIVAL BETWEEN MANUFACTURING AND NON-MANUFACTURING INDUSTRIES: CULTURAL DISTANCE, COUNTRY RISK, ENTRY MODE, MARKET SIZE, FIRM AGE AND LOCATION**

Chuang Wang and Evangelos Giouvris\*

ABSTRACT

Survival in a foreign market is not always the same as in the home market. This study examines interaction effects between cultural distance, country risk, entry mode, firm age, investment location and market size on firm survival. A distant culture is related to a lower survival rate but the greater the market size and the older the firm, the less severe the effect. Wholly owned subsidiaries have the highest survival rate. However, as market size and the age of the firm grow, the survival rate of equity joint ventures increases while that of wholly owned subsidiaries remains unaffected. Country risk is negatively related to survival rate. The negative impact of country risk in Eastern China is lower than any other region of China and manufacturing firms suffer less negative impact of country risk and cultural distance than non-manufacturing firms.

Keywords: survival rate, cultural distance, country risk, entry mode, firm location, market size, firm age, manufacturing, non-manufacturing industries.

Chuang Wang: School of Management, Royal Holloway, University of London, TW20 0EX, UK, [chuang.wang.2012@live.rhul.ac.uk](mailto:chuang.wang.2012@live.rhul.ac.uk)

\*corresponding author: School of Management, Royal Holloway, University of London, TW20 0EX, UK, [evangelos.giouvris@rhul.ac.uk](mailto:evangelos.giouvris@rhul.ac.uk)

# Introduction

Despite often repeated assertions about the death of the nation state and the birth of the “global village,” differences across nations continue to persist in terms of market preferences, economic growth rates, management and governance systems, and choice of organizational goals and strategies. All countries, either developed or developing, attract an enormous flow of inward investments. According to Click (2005), all investment decisions, individual or corporate, are driven by two fundamental factors: expectations about return and assessment of risk. International expansion is facing additional dimensions of risk, which are not applicable to domestic investment, although the same plan with the same rate of return and commercial risk may entail different risks for different countries (Vijayakumar et al., 2009). This component of risk is termed as the so-called “country risk”. Therefore, understanding what risks are faced by foreign firms when expanding to other countries, and how these risks affect their performance and survival in the host countries, will help multinationals gain a clear view of the obstacles they will face in the future. The country risks faced by multinationals in terms of international investment can be classified as follows: economic, political, and financial. There are various institutions that measure country risk. In this study, we use the country risk measures which comply with the International Country Risk Guide (ICRG).

Cultural distance is also a factor that needs to be taken into account when considering international expansion. Cultural distance has been used as a key variable in strategy, management, and organization behaviour research. The construct has been applied to a multitude of research questions, ranging from innovation and organizational transformation to foreign expansion and technology transfer (Gomez-Mejia & Palich, 1997) and from affiliate performance to expatriate adjustment (Black et al., 1991). It is in the area of foreign direct investment (FDI), however, that the construct has had its greatest impact. Makino and Neupert (2000) state the importance of cultural distance on the survival of foreign firms.

Despite country risk and cultural distance, entry mode, too, plays a significant role in the survival rate of multinationals. However, there is no agreement about which type of entry mode is the best choice for multinationals (Woodcock et al., 1994). In this study, there are three type of entry modes: wholly owned subsidiaries, contractual joint ventures, and equity joint ventures. We hypothesize that wholly owned subsidiaries have the highest survival rate among the entry modes mentioned above. Parent firms have complete control through wholly owned subsidiaries, which means they can reduce transaction costs and handle uncertainty better than joint ventures.

However, when evaluating the long-term potential of multinational’s business, many researchers tend to examine market share performance. Firm survival, on the other hand, is more and more widely recognized as a significant indicator of business performance because exit from a foreign market usually indicates a failure of the management’s original goal for the business (Bane and Neubauer, 1981). Thus, other than market share performance, firm survival is also a critical indicator that needs to be tested. The impact of country risk, cultural distance and entry mode on the survival of foreign firms has only been examined individually and not in a combined fashion. The objective of this study is to find the relationship between these factors and the survival of foreign firms, at both individual and combined levels.

To summarize, previous literature has solely focused on country-level factors or firm-level factors that have influenced the survival of multinationals in China, such as entry-timing (Murray et al., 2012), cultural distance (Gong, 2003; Meschi and Riccio, 2008; Harzing, 2003) and country risk (Fung et al., 2004; Zhang, 2015; Yap and Sufian, 2018). The motivation of this study can be summarized as follows. Given the fact that country-level factors such as country risk and cultural distance are important factors to be considered by multinationals, why do multinationals tend to invest in China (particularly if China is considered to be a risky country both politically and economically and its culture is quite distant from the US, Europe, Latin America, Africa, etc)? Specifically, if the country-level factors mentioned above (high risk, distant culture) have a negative effect on multinationals’ survival, what are those other factors that can moderate those negative effects that have made China an attractive destination for FDI? For example, is the sheer size of the Chinese market (in absolute terms) and its huge growth potential a mitigating factor that compensates for risk and/or cultural differences? Could it be that the sheer size of the Chinese market allows other modes of entry such as equity joint ventures which were deemed more troublesome to actually achieve a higher success rate when investing in China? This study tries to fill this gap by analysing not only country risk, cultural distance and entry mode but also market size, firm age, location and the combined influence of these factors on multinationals’ survival in China. This study also aims at identifying factors that can have a moderating effect on previously established negative relationships. In summary, this study aims at providing a convincing answer to the following questions:

1. What are the effects of country risk, cultural distance, entry mode, market size, firm age and location on foreign firm survival?
2. What is the joint effect of these factors on firm survival?
3. Which factor(s) have a moderating impact?

# Literature Review and Research Hypotheses formulation

## Cultural distance

Culture is defined by Hofstede (1998, 2001) as “collective mental programs” shared by a group of people. These programs differ from one group to another. Thus, culture is the factor that distinguishes one group from another. The cultural distance is embodied in the existing differences between two nations in terms of certain values, norms and behaviour rules (Shenkar, 2001).

Williamson (1985) states that there are three primary dimensions of cultural distance. The first one explains the location choice of foreign market investment. A theory of familiarity emerged, which argued that firms were less likely to invest in a culturally distant market country (Shenkar, 2012). Yoshino (1976) and Ozawa (1979) state that the cultural distance of Japan from Western countries is a constraint for Japanese FDI in foreign countries. Davidson (1980) also found similar results pertaining to firms from Western countries. However, Dunning (1988) argues that large cultural distance is an encouragement for foreign firms to overcome the transactional and market failure.

The second dimension predicts the entry mode of multinationals. The results of the impact of cultural distance on entry mode is mixed. Erramilli and Rao (1993), Pan (1996) and Boyacigiller (1990) found that the cultural distance is positively related to control. In other words, the greater the cultural distance, the greater the control multinationals want to have. However, Kim and Hwang (1992) and Kogut and Singh (1988) established a relationship between low control level and high cultural distance.

In this study, we only consider the third dimension of cultural distance, which analyses the success, failure and the performance of multinationals in the international market. According to Chang (1995), cultural distance limits the ability of a MNE to generate rent when entering new domains. Li and Guisinger (1991) found that US affiliates whose foreign partners hailed from culturally dissimilar countries were more likely to fail. Barkema et al. (1997) found that firms which have gradually ventured into more culturally distant locations were less likely to have their affiliates terminated prematurely. The more culturally distant two firms are, the greater the differences in their organizational and administrative practices, employee expectations, and interpretation of and response to strategic issues (Kogut & Singh, 1988; Schneider & De Meyer, 1991). Therefore, communication between culturally distant partners can be difficult, compounding the coordination problems that exist in any partnership, and leaving such joint ventures vulnerable to managerial conflicts and early dissolution (Camerer & Vepsalainen, 1988; Lane & Beamish, 1990). Moreover, environmental uncertainty aggravates the transactional difficulties in cross-border joint ventures (Kogut & Singh, 1988). Poor communication and mutual distrust can make the transfer of management practices and technologies very expensive (Clegg, 1990; Perlmutter & Hennan, 1986).

Moreover, Gong (2003, p. 729) states that ‘as cultural distance increases, complete and accurate information about subsidiary actions and performance becomes more difficult and expensive to obtain, and subsidiary activities thus become harder to interpret, making behavioural and outcome controls by the headquarters difficult.’ In addition, cultural distance has been recognized as a crucial factor in the management of transaction costs of subsidiaries (Buckley and Casson 2016; Gatignon and Anderson 1988; Harzing 2003). Cultural distance increases the uncertainty, risk and information asymmetry between the home country and the host country, thereby increasing the transaction costs of operating in that environment (Coase 1937; Buckley and Casson 2016).

## Country Risk

Country risk, on the other hand, is a factor relating to foreign firm destabilization. The overall country risk in an international market is considered to be a composite of political and economic risks. These risk factors are the most salient in a firm’s decision to enter a specific international market (Cosset & Roy, 1991). As part of the political environment of a country, legal effectiveness is related to contract enforcement and dispute settlement which is associated with a healthier market for foreign investment (Ju et al., 2013) Also, Zhang (2015) argues that government policy, which is related to the political risk of a country, is significantly related to the performance of firms in China. Similarly, Fung et al. (2004) argue that the precarious nature of Chinese government policy requires foreign firms to maintain flexibility and change their strategy. Furthermore, a country’s political risk indicates the likelihood that political forces, often a reflection of underlying societal tension and unrest, may cause drastic changes in a country’s business environment that, in turn, may prove detrimental to foreign business interests. At the extreme, such changes in the business climate can lead to the expropriation of foreign assets, like the ones experienced by US firms after the Iranian revolution in 1979. Similarly, an economic collapse in the host country, much like what occurred during the civil war following the breakup of the former Yugoslavia, can render a foreign firm’s assets worthless. In less extreme cases, changes in a country’s political regime may result in taxes increasing, limiting or prohibiting the repatriation of firm profits to the home country, or imposing exchange rate controls and restrictive technology licensing practices. All of these factors make a country less attractive with regard to international market entry. In a similar fashion, a country’s economic risk points to economic forces that may cause drastic changes in the business environment, which are detrimental to business interests. Here, economic mismanagement and corruption are chief among the causes of increased economic risk, often resulting in high inflation, capital flight, and debt defaulting.

When the time comes to reflect on the possibility of entering a foreign country, the firm must take into account that country’s social, legal, economic and political framework. In this context, we found target country risk to be one of the most influential variables affecting internationalisation decisions. In a broad sense, this risk can include various types of specific interrelated risks: those derived from uncertainty about the demand, competitors, costs, and other market conditions; those which jeopardize the country’s actual financial solvency; and the political risk (Quer et al., 2007). Yap and Sufian (2018) has investigated the effect of the level of fiscal freedom, monetary freedom and trade freedom on the banks’ profit efficiency by employing a sample including both domestic banks and foreign banks in China covering the period from 2007 to 2013. They conclude that these three types of freedom are all significantly related to the banks’ profit efficiency. Notwithstanding, if the country risk deteriorates, then foreign firms face increasing environmental uncertainty that can alter the subtle, often precarious balance of contributions, roles and benefits of the local and foreign partners. Similarly, Conklin (2002) states that country risk is a crucial factor that should be taken into account when choosing to expand to a foreign market. Oetzel et al. (2001) also points out the effectiveness of country risk measures. After testing the relationship between country risk and return on capital of US FDI, Click (2005) concluded that economic risk played a significant role in their relationship. Erb et al. (1996) also reported that country risk is related to the performance of multinationals. Diamonte et al. (1996) showed that the return of multinationals in a declining political risk emerging market is higher than those in increasing political risk emerging market. Habib and Zurawicki (2002) also, opined that there was a negative impact of political risk on FDI. In the end, the IJV’s very survival could be affected (Meschi and Riccio, 2008).

Thus, considering the literature on both cultural distance and country risk we set up the following two hypotheses:

H1: Survival rate is negatively related to country risk and cultural distance.

H2: Deterioration of country risk amplifies the negative impact of cultural distance on survival rate.

## Entry Mode

Multinationals can choose from a variety of entry modes when entering a foreign market, but there are mainly three entry modes: wholly owned subsidiaries, equity joint ventures and contractual joint ventures. Wholly owned subsidiaries and equity joint ventures consist of equity entry modes (Kumar and Subramaniam, 1997), while contractual joint ventures comprize non-equity entry modes in which local partner and multinationals enter a contractual partnership (Tallman and Shenkar, 1994). However, the performance, more specifically, the survival of foreign firms is dependent on the entry modes. Among these three entry modes, wholly owned subsidiaries enjoy the highest survival rate in comparison with the two other modes (Muarry et al., 2012). Also, Wang and Giouvris (2019) state that wholly-owned subsidiaries are the reason that some firms succeed in foreign market while others failed in the same context. First, wholly owned subsidiaries rely on the existing capabilities of their home market and simply copy and transfer what they have carried out successfully in other overseas markets (Penner-Hahn and Shaver, 2005). Equity joint ventures and contractual joint ventures, on the other hand, are faced with higher transaction costs in the hosting countries compared with wholly owned subsidiaries. Nitsch et al. (1996) states that wholly owned subsidiaries can avoid the costs involved in looking for a suitable partner. Second, wholly owned subsidiaries have complete control of the subsidiaries. Thus, the parent firm can fully control the system, method and decision of subsidiaries in foreign markets (Anderson and Gatignon, 1986). Furthermore, complete control can lead to less conflict and faster and more efficient decision-making (Anderson & Gatignon, 1986; Gomes-Casseres, 1990; Hennart, 1991). Killing (1983) also points out that complete control reduces the transaction cost arising from coordination problems. This reduction in coordination cost will, in turn, enhance the survival rate of foreign firms. Taken together, wholly owned subsidiaries are likely to possess a higher survival rate than the two other entry modes. Therefore, we set up the following hypothesis.

H3: Wholly owned subsidiaries have a higher survival rate than equity joint ventures and contractual ventures.

## Market Size and Firm Age

Market size mitigates the negative effect of country risk and cultural distance on the survival of foreign firms (Rothaermel et al., 2006). Zhao (2006) quoted in Ju et al. (2013) states that market size and development can reduce the negative effect of government intervention on business operations. Also, Zhang (2015) concludes that the huge and growing domestic market of China is an advantage for firms’ performance in China. Managers of multinationals are more willing to accept uncertainty stemming from country risk and cultural distance in larger markets than small markets. Larger markets offer more opportunities and, therefore, more incentives for firms to invest. Moreover, larger markets generally provide a more open environment that allows more companies to coexist (Dollinger & Golden, 1992). Computer and telecommunications company, Motorola, chose to enter China in 1991 by establishing a wholly owned subsidiary. Clearly, the opportunities available in China, including low labour costs for a skilled workforce and the size of the potential market (i.e. a large emerging middle class with sufficient purchasing power), outweighed the costs inherent in the uncertainty stemming from country risk and cultural distance when Motorola’s managers made this strategic entry decision.

However, firm age also has an effect on the relationship between firm survival and cultural distance and country risk. Stinchcombe (1965) underlines the role of firm age. He identified “four aspects of new organizations that make them more prone to failure than older, more established organizations: (a) new organizations must get by with general knowledge until members learn new, specific roles, and functions; (b) during the role identification and formation process, there may be conflict, worry, and inefficiency; (c) relations with outside individuals and organizations must be forged, and an initial lack of trust may be a liability; and (d) new organizations lack stable ties with the customers they wish to serve” (Stinchcombe,1965, p.148). Furthermore, Fichman and Levinthal (1991) point out that there is an initial “honeymoon” period when the initial assets buffer the new organization. As noted by Aldrich and Auster, “the major problem facing smaller and younger organizations is survival, whereas larger and older organizations face the problem of strategic transformation” (1986, p. 193). Thornhill and Amit (2003) also state that firm age plays a significant role in the performance and survival of a foreign firm in a host country. Therefore, we set up the following hypotheses:

H4: Firm age and the growth of market size moderate the relationship between survival rate and entry mode.

H5: Firm age and the growth of market size moderate the negative effect of cultural distance and country risk on survival.

Firm location and the impact of cultural distance and risk on different industries

After 1979, China decided to open its market to investors coming from all over the world. The opening-up policy had its own process. Firstly, the Chinese government chose to develop Eastern China (Wang and Giouvris, 2019). From 1979 to 1992, the greatest number of parts of the country, which were opened to foreign firms, were located in eastern China. More specifically, special economic zones were set up in 1979, coastal open cities and Economic & Technological Development Zones were set up in 1984, Shanghai Pudong in 1990, and tax-protected zones in 1991. After 1992, the opening-up policy included inner China. Thus, FDI in China first took place in the eastern part of the country and then expanded to other regions (Jiang, 2002). Zhang (2008) states that the total amount of FDI in eastern China accounted for 70.73% of total FDI in China. In summary, Eastern China is a pioneer in reform and opening-up has allowed Eastern China to enjoy extensive economic growth (Wang et al, 2016). Therefore, the huge gap between different regions in China could have a crucial impact on the survival rate of foreign firms. However, in 2000, the Central Development Strategy has been implemented. Middle and northeast China started to offer low-cost labour force, cheap and rich raw materials, rapidly developing infrastructure and attractive investment policy to foreign firms (Wang and Giouvris, 2019). Thus, the degree of development of the market will affect the survival rate of the firms in different regions.

On the other hand, different industries have their own characteristics. The impact of cultural distance and country risk on foreign firms will vary in relation to the industries (manufacturing vs non-manufacturing) those firms belong to. Drogendijk and Slangen (2006) conclude that cultural distance and country risk has a lesser impact on manufacturing firms than non-manufacturing firms. Tihanyi et al. (2005) also argue that non-manufacturing firms are more sensitive to cultural distance and country risk when compared to manufacturing firms. Thus, we set up the following hypotheses:

H6: The negative impact of cultural distance on survival rate is lesser in eastern China than other parts of China.

H7: The negative impact of cultural distance and country risk on survival rate is lesser among manufacturing industries than non-manufacturing industries.

# Hypotheses grouping

The first two hypotheses (H1 and H2) form their own group which is concerned with the impact of cultural distance, country risk and their interaction on survival. H3 is concerned with entry modes and survival. H4 and H5 form another group and are concerned with moderating effects of firm age and growth of market size on entry mode, cultural distance and risk in relation to survival. H6 looks at location effects interacting with cultural distance and H7 looks at types of industries (manufacturing vs non-manufacturing) and how they are affected by cultural distance and country risk. Analytically:

H1: Survival rate is negatively related to country risk and cultural distance.

H2: Deterioration of country risk amplifies the negative impact of cultural distance on survival rate.

H3: Wholly owned subsidiaries have a higher survival rate than equity joint ventures and contractual ventures.

H4: Firm age and the growth of market size moderate the relationship between survival rate and entry mode.

H5: Firm age and the growth of market size moderate the negative effect of cultural distance and country risk on survival.

H6: The negative impact of cultural distance on survival rate is lesser in eastern China than other parts of China.

H7: The negative impact of cultural distance and country risk on survival rate is lesser among manufacturing industries than non-manufacturing industries.

# Methodology

## Data

Data is obtained from different sources namely the Chinese Industrial Census data and the State Administration for Industry and Commerce of the People’s Republic of China. Country risk data is obtained from [Political](https://login.ezproxy01.rhul.ac.uk/loggedin/icrg.htm) Risk Services (PRS) and is available from 1984 to 2016. Culture distance can be calculated using the Hofstede index and Globe index. GNP per capita can be obtained from China Statistical Yearbook, which is published by the State Statistical Bureau of China. Regarding the number of multinationals in China, the total number of all types of foreign companies is 2,166 in 1984 and it rises to 27,900 in 2016. In 2016, among all foreign companies, the top 10 countries/regions represented are Hong-Kong, British Virgin Islands, Singapore, Cayman Islands, Korea, Japan, Germany, United States, Taiwan and Luxembourg. They represent 60.93%, 5.04%, 4.52%, 3.85%, 3.55%, 2.32%, 2.03%, 1.78%, 1.47%, and 1.04% of foreign investment respectively. The regions which present the highest growth rate of foreign investment are the European Union and North America. The foreign investment from EU has risen 40.44% and from North America 19.47% (Ministry of Commerce of the People's Republic of China, 1984, 2016).

Finally, to avoid multi-collinearity, Variance Inflation Factor (VIF) tests are used. The VIF result of each independent variable and control variable is less than 10. Thus, multi-collinearity is not a problem. Table 1 presents the correlation matrix.

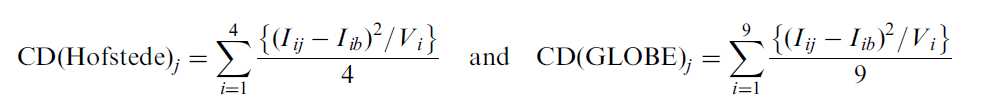
## Dependent Variables

Firm survival is measured with the help of binary coding (0,1). Firms that are still active at the end of period are assigned the value 0, while firms that are delisted are assigned the value 1.

## Independent Variables

There are three types of entry modes: wholly owned subsidiaries, equity joint ventures and contractual joint ventures. In this study, there are two dummy variables (wholly owned subsidiaries and equity joint ventures). Contractual joint ventures are used as baseline in the analysis.

Country risk is measured with the help of scores of economic risk and political risk obtained from PRS. In practice, economic risk score is measured on a scale of 0 to 100%, while political risk score is measured on a scale of 0 to 100. In this study, both the scores have been modified to a single scale, ranging from 0 (no risk) to 1 (maximum risk). Economic risk score corresponds to a weighted average of five main dimensions (GDP per head, real GDP growth, inflation rate, budget balance as a percentage of GDP, and current account as a percentage of GDP). Political risk score is correlated to the weighted average of four main dimensions (government and institutional stability, the socio-economic situation, the level of internal and external conflict and investment profile).

Culture distance is calculated using the Hofstede index and Globe index. Hofstede index uses four dimensions of national culture: power distance, uncertainty avoidance, masculinity/femininity, and individualism. Globe index includes nine dimensions: assertiveness, institutional collectivism, in-group collectivism, future orientation, gender egalitarianism, human orientation, performance orientation, power distance and uncertainty avoidance. Culture distance can be calculated as follows: 

Where is the distance index forith cultural dimension and jth country, is the variance of the index of ith cultural dimension, b stands for China, is the cultural distance between jth country and China. Both Hofstede and Globe indices provide the calculated culture distance on their respective websites.

Market size is measured as GNP per capita. To test the moderating effect of market size growth, the annual variation of market size is used.

Firm age is measured as the number of years between the date of establishment of a firm and the end of the dataset period.

Firm location: There are three primary regions in China. The first region is eastern China (Location 1), the second is western China (Location 2), and the third is middle and northeast China (Location 3). In this research, there are two dummy variables (Location 1 and Location 3). Location 2 (western China) is used as baseline in the analysis.

# Control Variable

Investment size has been used as the control variable and is also considered as the initial investment at the time of establishment of a firm.

## Model

A simple survival function, such as the one mentioned below (without specifying its parametric form), will be used to estimate the hazard rate. (Allison, 1984; Kalbfleisch and Prentice, 1980)

h(t)= , where t=1, 2, 3,….., T and 0<<1

Where is the hazard rate for time interval t within the period of risk. Hazard rate is the converse of survival rate. Hazard rate is defined as ‘‘the probability that an individual would experience an event in an interval from time t to t + s, given that the individual is at risk from time t” (Allison, 1984, p. 23)

The impact of the independent variables and the control variable on survival rate will be tested using the Cox regression.

Models 1 to 5 present 5 Cox regressions associating distance variables, entry mode variables and the control variable with the hazard rate. Models 6 to 10 present 5 Cox regressions associating country risk, cultural distance and the control variable with the hazard rate.

# Model expectations

Models 1 and 3 test the impact of culture distance and entry mode on hazard rate. We expect wholly owned subsidiaries to have a significant negative effect on hazard rate. We also expect that there will be a significant positive effect on hazard rate due to culture distance and equity joint ventures mode. The impact of firm location and industries difference on the relationship between hazard and cultural distance are also tested in Model 1 and 3. It is expected that the impact of cultural distance on hazard rate in Location 1 will be greater than the hazard rate in Location 3.

Models 2 and 4 consider the interaction effect of culture distance, firm age and market size. Significant negative coefficients of interaction variables are expected to be found in Models 2 and 4.

Model 5 tests how entry mode, interaction effects of entry mode with firm age, and market size affect the hazard rate. The impact of entry mode is expected to be similar to the results of Models 1-4, while firm age and market size are expected to moderate the relationship between entry mode and hazard rate. The interaction effect of firm age with entry mode and market size with entry mode are expected to be significant.

Model 6 tests the impact of country risk on hazard rate. The coefficient of country risk is expected to be significantly positive, and the coefficient of ‘variation of country risk’ is expected to be significantly negative.

Models 7 and 9 test the impact of country risk, variation of country risk and cultural distance on hazard rate. The coefficients of all variables are expected to be significantly positive.

Models 8 and 10 consider the interaction variables of variation of country risk and cultural distance and the interaction variables of variation of country risk and market size. The results of interaction variables are expected to be significantly negative.

# Results

In the model, we use the hazard rate to test our hypotheses. The hazard rate is the converse of survival rate. If the p-value of the variable is less than 0.01, then the effect of this variable is significant.

H1 states that the survival rate is negatively related to cultural distance and country risk. Models 1 and 3 (Table 2) indicate a significant and positive impact on hazard rate due to cultural distance. Thus, the survival rate of a foreign firm with a high level of cultural distance from the host country will be lower than that of a firm with a low level of cultural distance.

The result of Model 6 (Table 2) indicates that economic risk has a significant and positive impact on hazard rate, while political risk does not have a significant impact. In other words, survival rate is negatively related to economic risk. Thus, H1 is only partially supported.

However, the coefficient of variation in country risk and interactions with cultural distance, market size growth and firm age through Models 7 to 10 are not significant. Thus, high- or low-level of country risk, as well as positive or negative variation of country risk, do not affect the survival rate of firms. Therefore, hypothesis 2 is not supported.

The results of Model 5 (Table 2) illustrate the relationship between survival rate and entry mode. The coefficient of wholly owned subsidiaries is significantly negative, while the coefficient of equity joint ventures is significantly positive. Therefore, the survival rate of wholly owned subsidiaries is higher than equity joint ventures and contractual joint ventures. Hypothesis 3 is thus supported.

In Model 5, the interaction effects of ‘entry mode and market size’ and ‘entry mode and firm age’ are tested. The results indicate that the coefficient of wholly owned subsidiaries and market size growth is not significant, and the coefficient of equity joint ventures and market size growth is significantly negative. Similarly, the interaction effect of firm age and wholly owned subsidiaries is not significant, while the interaction effect of firm age and equity joint ventures is significantly negative. In other words, as market size grows, the survival rate of equity joint ventures rises, while the survival rate of wholly owned subsidiaries is not affected. As the firm grows older, the survival rate of equity joint ventures increases, while that of wholly owned subsidiaries is not affected by the firm’s age. Moreover, Figures 1 and 2 show the relationship between survival rate and firm age. These figures show that the negative impact of cultural distance does not become functional immediately. After about 18 years, the survival rate turns constant. Thus, H4 is partially supported.

In Models 2 and 4, the coefficients of the interaction effect of firm age and cultural distance and the interaction effect of market size growth and cultural distance are significantly negative. This result highlights that firm age and growth of market size moderate the impact of cultural distance on survival rate. The greater the age of the firms and the larger the market size, it is less likely that firms will be affected and destabilized by cultural distance. The interaction effect of growth of market size and country risk is tested in Model 6. The results show that for both political risk and economic risk, the interaction effects are not significant. Thus, H5 is partially supported.

In Models 1 and 3, the coefficient of interaction effect of firm location with cultural distance is significantly positive. More specifically, the coefficient of Location 1 with cultural distance is lower than that of Location 3 with cultural distance. In other words, the impact of cultural distance on survival rate of multinationals in Location 1 (eastern China) is lower than that of Location 3 (middle and north-eastern China). Thus, H6 is supported.

Table 3 and 4 show results of the impact of cultural distance in different industries. The coefficient of cultural distance is lower among manufacturing industries than non-manufacturing industries. That means, the impact of cultural distance on the survival rate of manufacturing firms is lower than that of non-manufacturing firms. Similarly, the impact of country risk on the survival rate of manufacturing firms is lower than that of non-manufacturing firms. Thus, H7 is supported.

# Discussion

As mentioned in the methodology section, Models 1 and 3 were expected to demonstrate a significant effect of cultural distance on hazard rate. The results supported the expectations. In forming a foreign subsidiary, whether a joint venture or a wholly owned subsidiary, the parent company will transfer financial, technological and commercial resources to it. In addition, other intangible contributions, such as national habits, beliefs and values, will be instilled in the foreign subsidiary. These national habits, beliefs and values constitute the software of the mind (Hofstede, 1980) and the “invisible force behind the tangible and observable in any organization” (Kilmann et al, 1985, p. 2). Therefore, any foreign subsidiary is made up of “national cultural differences whose intensity depends on the degree of congruence or divergence between the partners’ national cultures” (Meschi & Riccio, 2008, p. 253). Depending on whether the national culture involved in the operation of the foreign subsidiary is congruent, different levels of cultural collision will result, which may be detrimental to the foreign subsidiary. In other words, the survival of a foreign subsidiary is highly associated with the intensity of cultural distance (Buono & Bowditch, 1989; Nahavandi &Malekzadeh, 1988; Slangen, 2006; Barkema &Vermeulen, 1997; Fey & Beamish, 2001; Hennart & Zeng, 2002; Li & Guisinger, 1991; Meschi, 1997; Park & Ungson, 1997; Pothukuchi et al., 2002). Thus, the results are supported by the earlier results as well as the literature.

Models 2 and 4 consider the impact of firm age and market size growth on survival rate. The results also support the fact that firm age and market size growth moderate the negative effect of cultural distance on survival rate. This is mainly caused by the theory of liability of newness (Carroll & Delacroix, 1982; Freeman et al., 1983; Hannan and Freeman, 1977). The theory argues that the survival rate of a foreign subsidiary is high immediately after its creation and then decreases over time. Furthermore, when large cultural distance is combined with the liability of newness, young subsidiaries are even more unstable. During its early years, a firm will face the lack of ready-made procedures and routines for resolving culture conflicts. When the firm grows older, it will have a complete set of procedures and routines to deal with cultural conflicts. Thus, as the firm grows older, the likelihood of negative impact of culture distance decreases. However, as shown in Figures 1 and 2, the survival rate of young foreign subsidiaries in the first 5 years is high. This is mainly because of the honeymoon effect, which is defined by Park and Russo (1996) and Hennart et al (1998). This compensates for the negative effect of cultural distance on survival rate.

This study also seeks to test how entry mode affects the survival rate. The results match the expectations of Model 5, with a significant effect of entry mode being detected. More specifically, wholly owned subsidiaries achieve a higher survival rate than equity joint ventures and contractual joint ventures. There are several reasons for this result. First, to set up wholly owned subsidiaries, foreign firms tend to rely on their home market experience and copy and transfer what they have successfully carried out in the home market to the host market (Penner-Hahn & Shaver, 2005). Further, as per Papyrina (2007) cited in Murray (2012), the problems caused by divergent strategic viewpoints, dissimilar management philosophies, incompatible administrative routines, and different corporate philosophies can be avoided by choosing the wholly owned subsidiaries mode. Thus, wholly owned subsidiaries will achieve a higher survival rate compared with joint ventures. However, the results also suggest that firm age and market size have a moderating effect on the relationship between entry mode and survival rate. This can be explained using a similar reason, which illustrates the moderating effect of firm age and market size on the relationship between culture distance and survival rate. As the firm grows older, it learns to deal with the problems of divergent strategic viewpoints, dissimilar management philosophies, incompatible administrative routines, and different corporate philosophies. Thus, the gap between different modes of entry will decrease.

A previous study conducted by Meschi and Riccio (2008), which investigates the survival rate of international joint ventures in Brazil, found that neither high- or low-level of country risk nor positive or negative variation of the same risk affects the survival rate of international joint ventures in the country. However, in the current study, the results suggest that country risk has a significant effect on the survival rate of foreign firms, while the variation of country risk does not. From an economic point of view, China is the second largest market in the world, which offers foreign investors a great opportunity to make a fortune. Therefore, any environmental uncertainty caused by government default on payments, devaluation of the local currency, and/or an increase in interest rates will have a negative impact on local demand and consumption, which, in turn, will determine the outcome of a foreign firm (Meschi and Riccio, 2008). In other words, the economic risk will significantly influence the survival rate of multinationals in China, as opposed to political risk. Even though several indicators of political risk such as government stability, law and order, quality of the bureaucracy, investment profile, internal and external conflict, ethnic tensions, and democratic accountability have been found to be closely associated with a foreign firm’s survival (Busse and Hefeker, 2005), since the Chinese government has published the “Law of the People's Republic of China on Foreign-Capital Enterprises” in 1986, the Chinese government keeps working on perfecting the Chinese market with regard to the political dimension. After joining the WTO in 2001, the Chinese government has published and revised a series of laws and policies to keep the political risk for multinationals at a low level. For example, foreign-funded enterprises enjoy preferential tax policy in house property tax, urban maintenance and construction taxes, and stamp tax. Thus, the political risk, when compared with economic risk, is not a primary one, should a multinational be concerned about it when investing in China.

In 1979, the Chinese government set up five economic special areas as part of the opening-up policy. These five, special economic areas are all in eastern China. In other words, eastern China is the first region which opened its doors to investors from all over the world. As a result, cultures from other countries first influenced the customers of eastern China, and the market in Eastern China was the first to face the cultural shock. Thus, nearly 30 years since 1979, the market in eastern China has developed into the most mature in the country. The cultural distance between eastern China and foreign countries will be less compared to the distance between other parts of China and foreign countries. In a good investment environment, such as Eastern China, multinationals could make full use of the resources available to them to achieve better performance, and the better performance will in turn increase the survival rate of multinationals (Wang and Giouvris, 2019). Therefore, the negative impact of cultural distance on the survival rate will be lesser in eastern China than any other part of China.

# Conclusion

The main objective of this study is to answer three questions: i) what are the effects of country risk, cultural distance, entry mode, market size, firm age and location on foreign firm survival? ii) what is the joint effect of these factors on firm survival rate? iii) which factor(s) have a moderating impact? This study provides evidence that cultural distance is significantly negatively related to the survival of multinationals in China. In terms of country risk, economic risk has a significant downward influence on multinationals’ survival. Facing these negative pressures (distant culture and economic risk), foreign firms can make decisions with reference to entry mode and investment location, to counter balance the negative effect of these obstacles. Furthermore, the size of the Chinese market moderates the negative effects brought about by cultural distance.

This study provides suggestions for both multinationals’ managers and policy-makers. For the multinationals’ managers, the results show that by entering the Chinese market as ‘wholly owned subsidiaries’ and investing in Eastern China would help their companies to overcome the obstacles of cultural distance and country risk. In addition, multinationals should not dwell on the negative effect of cultural distance because the size and fast growth of the Chinese market does have a moderating effect. In addition, the size of the Chinese market allows other forms of entry such as equity joint ventures which are considered troublesome to achieve high success rates which may not be the case in other countries. This in itself provides more flexibility to multinationals as far as entry mode is concerned and makes the Chinese market more attractive to FDI. From the policy-makers perspective, this study suggests that the Chinese government should do their best the minimize the economic risk in the market in order to build up a stable economic environment for foreign investors. Also, the Chinese government needs to seriously consider the present imbalance between different areas in the country to attract investment. They need to use their political and economic power to close the gap identified by this study.

There are also limitations in this study. The exit types of multinationals could not be inferred from numerical data. For example, firm closure and capital divestiture, are not distinguished. Also, every emerging country is different, and the results obtained from China cannot be easily generalized to other countries. Future research could employ a dataset (if available) that makes a distinction between exit types and includes more countries so that universal conclusions can be reached.

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**Table 1 Correlation Table**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variables | Survival rate | Firm age | Wholly Owned subsidiaries | Equity Joint Ventures | Hofstede's cultural distance | Globe's cultural distance | Economic risk | Political risk | Variation in economic risk | Variation in political risk | Variation in Market Size | Investment Size | Firm Location |
| Survival rate | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Firm age | -0.18\*  (0.007) | 1 |  |  |  |  |  |  |  |  |  |  |  |
| Wholly owned subsidiaries | 0.15\*  (0.003) | -0.23\*  (0.006) | 1 |  |  |  |  |  |  |  |  |  |  |
| Equity Joint Ventures | -0.08\*  (0.001) | 0.27  (0.012) | 0.03  (0.017) | 1 |  |  |  |  |  |  |  |  |  |
| Hofstede's cultural distance | -0.21\*  (0.006) | 0.01\*  (0.001) | 0.31  (0.014) | 0.13  (0.019) | 1 |  |  |  |  |  |  |  |  |
| Globe's cultural distance | -0.16\*  (0.005) | 0.12\*  (0.009) | 0.02  (0.011) | 0.09  (0.016) | 0.47\*  (0.002) | 1 |  |  |  |  |  |  |  |
| Economic risk | -0.38\*  (0.002) | -0.3\*  (0.007) | -0.21\*  (0.005) | 0.11\*  (0.002) | -0.03  (0.013) | -0.09\*  (0.002) | 1 |  |  |  |  |  |  |
| Political risk | -0.26\*  (0.009) | -0.06\*  (0.002) | -0.12\*  (0.003) | 0.08  (0.021) | -0.08  (0.017) | 0.02\*  (0.007) | 0.29\*  (0.002) | 1 |  |  |  |  |  |
| Variation in economic risk | 0.23  (0.012) | -0.05  (0.018) | 0.02  (0.017) | 0.04(0.012) | 0.2  (0.013) | 0.19  (0.014) | 0.16  (0.011) | -0.07  (0.019) | 1 |  |  |  |  |
| Variation in political risk | 0.14  (0.013) | -0.08  (0.014) | 0.01  (0.013) | 0.03  (0.011) | 0.12  (0.011) | 0.14\*  (0.004) | -0.01  (0.012) | 0.23  (0.013) | 0.41  (0.016) | 1 |  |  |  |
| Variation in Market Size | 0.37\*  (0.004) | 0.24  (0.016) | 0.13  (0.013) | 0.21  (0.013) | 0.16  (0.012) | 0.08  (0.018) | -0.17  (0.019) | 0.21  (0.017) | 0.18\*  (0.005) | 0.19\*  (0.002) | 1 |  |  |
| Investment size | -0.13\*  (0.005) | 0.14  (0.017) | 0.17  (0.012) | 0.09\*  (0.007) | 0.12\*  (0.008) | 0.13\*  (0.009) | 0.24  (0.012) | 0.08  (0.021) | 0.02\*  (0.007) | 0.07\*  (0.006) | 0.12  (0.018) | 1 |  |
| Firm location | 0.08\*  (0.007) | 0.03  (0.011) | 0.15  (0.011) | 0.27  (0.017) | 0.09\*  (0.006) | 0.17\*  (0.002) | 0.26  (0.019) | 0.31  (0.027) | 0.16  (0.017) | 0.09  (0.016) | 0.11  (0.014) | 0.10  (0.01) | 1 |

Notes: 1. p-value in brackets. 2. \* indicates significance at level 0.01.

**Table 2 Cox Regression Results**

| **Independent Variables** | Model  1 | Model  2 | Model  3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 | Model 10 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hofstede's cultural distance | 0.24\*  (0.003) | 1.4\*  (0.002) |  |  |  |  | 0.25\*  (0.001) | 0.27\*  (0.009) |  |  |
| Globe's cultural distance |  |  | 0.18\*  (0.002) | 1.85\*  (0.000) |  |  |  |  | 0.21\*  (0.007) | 0.26\*  (0.006) \* |
| Economic risk |  |  |  |  |  | 0.02\*  (0.004) | 0.05\*  (0.002) | 0.03\*  (0.007) | 0.06\*  (0.005) | 0.03\*  (0.009) |
| Political risk |  |  |  |  |  | 0.27  (0.15) | 0.31  (0.14) | 0.45  (0.31) | 0.42  (0.24) | 0.44  (0.009) |
| Variation in economic risk |  |  |  |  |  | 0.04  (0.16) | 0.06  (0.12) | -0.12  (0.007) | 0.05  (0.005) | 0.02  (0.015) |
| Variation in political risk |  |  |  |  |  | 0.13  (0.002) | 0.09  (0.145) | -0.18  (0.16) | 0.04  (0.41) | -0.16  (0.28) |
| Wholly owned subsidiaries | -0.13\*  (0.005) | -0.15\*  (0.000) | -0.16\*  (0.0002) | -0.12\*  (0.009) | -0.19\*  (0.007) | -0.11\*  (0.005) | -0.13\*  (0.003) | -0.11\*  (0.009) | -0.15\*  (0.001) | -0.14\*  (0.000) |
| Equity joint ventures | 0.92\*  (0.007) | 0.87\*  (0.002) | 1.03\*  (0.008) | -0.75\*  (0.000) | 0.23\*  (0.007) | 0.31\*  (0.000) | 0.76\*  (0.001) | 0.68\*  (0.005) | 0.92\*  (0.003) | 0.82\*  (0.002) |
| **Interaction effects** |  |  |  |  |  |  |  |  |  |  |
| Hofstede's cultural distance\*firm age |  | -0.34\*  (0.001) |  |  |  |  |  |  |  |  |
| Hofstede's cultural distance\*market size |  | -0.12\*  (0.009) |  |  |  |  |  |  |  |  |
| Globe's cultural distance \*firm age |  |  |  | -0.52\*  (0.000) |  |  |  |  |  |  |
| Globe's cultural distance\*market size |  |  |  | -0.25\*  (0.001) |  |  |  |  |  |  |
| Economic risk\*Variation in Market size |  |  |  |  |  | 0.24  (0.014) |  |  |  |  |
| Political risk\*Variation in Market size |  |  |  |  |  | 0.17  (0.014) |  |  |  |  |
| Variation in economic risk\*Hofstede's cultural distance |  |  |  |  |  |  |  | 0.09  (0.09) |  |  |
| Variation in economic risk\*Globe's cultural distance |  |  |  |  |  |  |  |  |  | -0.05  (0.17) |
| Variation in economic risk\*Variation in Market size |  |  |  |  |  |  |  | 0.12  (0.08) |  |  |
| Variation in political risk\*Hofstede's cultural distance |  |  |  |  |  |  |  | 0.17  (0.09) |  |  |
| Variation in political risk\*Globe's cultural distance |  |  |  |  |  |  |  |  |  | 0.13  (0.15) |
| Variation in political risk\*Variation in Market size |  |  |  |  |  |  |  |  |  | 0.07  (0.27) |
| Wholly owned subsidiaries\*Variation in Market size |  |  |  |  | 0.15  (0.17) |  |  |  |  |  |
| Equity Joint Ventures\*Variation in market size |  |  |  |  | -0.12\*  (0.004) |  |  |  |  |  |
| Wholly owned subsidiaries\*firm age |  |  |  |  | 0.03  (0.11) |  |  |  |  |  |
| Equity joint Ventures\*firm age |  |  |  |  | -0.08\*  (0.002) |  |  |  |  |  |
| Location 1\* Hofstede's cultural distance | 0.18\*  (0.001) |  |  |  |  |  |  |  |  |  |
| Location 3\* Hofstede's cultural distance | 0.25\*  (0.001) |  |  |  |  |  |  |  |  |  |
| Location 1\* Globe's cultural distance |  |  | 0.13\*  (0.003) |  |  |  |  |  |  |  |
| Location 3\* Globe's cultural distance |  |  | 0.19\*  (0.001) |  |  |  |  |  |  |  |
| **Control Variable** |  |  |  |  |  |  |  |  |  |  |
| Investment size | 0.13  (0.12) | 0.15  (0.22) | 0.09  (0.07) | 0.12  (0.18) | 0.12  (0.27) | 0.71  (0.13) | 0.85  (0.11) | 0.87  (0.21) | 0.82  (0.31) | 0.82  (0.35) |
| **Model Indices** |  |  |  |  |  |  |  |  |  |  |
| Log-likelihood | -567.65 | -503.24 | -382.17 | -310.24 | -256.31 | -570.35 | -568.34 | -584.21 | -563.45 | -562.38 |
| Model Chi-square | 9.24 | 236.27 | 10.35 | 210.38 | 13.54 | 9.35 | 10.21 | 11.38 | 11.27 | 13.68 |

Note: p-values in parentheses, \*Significance level at 0.01

**Table 3 Non-manufacturing Industries**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Independent variables** |  |  |  |  |
| Hofstede's cultural distance |  |  | 0.18\*  (0.001) |  |
| Globe's cultural distance |  |  |  | 0.16\*  (0.003) |
| Economic risk | | | 0.07\*  (0.009) | 0.09\*  (0.005) |
| Political risk | | | 0.06  (0.17) | 0.03  (0.20) |
| Variation of economic risk | | | 0.02  (0.18) | 0.01  (0.35) |
| Variation of political risk | | | 0.05  (0.14) | 0.03  (0.27) |
| **Control variable** | | |  |  |
| Investment size | | | 0.12  (0.12) | 0.12  (0.32) |
| **Model Indices** | | |  |  |
| Log-likelihood | | | -318.57 | -297.12 |
| Model Chi-square | | | 9.37 | 10.32 |

Note: p-values in parentheses, \*Significance level at 0.01

**Table 4 Manufacturing Industries**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Independent variables** |  |  |  |  |
| Hofstede's cultural distance |  |  | 0.12\*  (0.003) |  |
| Globe's cultural distance |  |  |  | 0.09\*  (0.001) |
| Economic risk | | | 0.04\*  (0.005) | 0.06\*  (0.002) |
| Political risk | | | 0.02  (0.14) | 0.01  (0.15) |
| Variation of economic risk | | | 0.05  (0.28) | 0.04  (0.19) |
| Variation of political risk | | | 0.04  (0.18) | 0.03  (0.21) |
| **Control variable** | | |  |  |
| Investment size | | | 0.12  (0.14) | 0.12  (0.18) |
| **Model Indices** | | |  |  |
| Log-likelihood | | | -309.27 | -285.16 |
| Model Chi-square | | | 9.13 | 9.46 |

Note: p-values in parentheses, \*Significance level at 0.01

**Figure 1 Survival rate according to level of Hofstede’s index**

**Figure 2 Survival rate according to level of Globe’s index**