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# Effects of Internationalization Scope on the Performance of Chinese MNEs

Master thesis

*Name:* Daan Bastiaan Tibbe  
*Student no:* S4784294

*E-mail:* d.tibbe@student.ru.nl

*Supervisor:* M (Marleen). Wierenga  
*2<sup>nd</sup> examiner:* A (Ayse). Saka-Helmhout

## **Abstract**

This study explores the effect that internationalization scope has on the performance of multinational enterprises from the people's republic of China. Also, It examines if cultural and geographical distance has an interaction effect on these factors. Multiple regression analyses were performed on 1256 Chinese MNE's. The analyses showed that there is a positive relation between internationalization scope and the performance of Chinese MNE's. No significant effect was, however, found for the interaction effects.

### **Keywords:**

Internationalization Scope, Cultural Distance, Geographical Distance, Chinese MNE, Performance, Emerging markets.

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# **1. Introduction**

## **1.1 Background**

With the rise of new technologies, the world around us is becoming more connected. Innovations in communication and infrastructure technologies make it far easier for corporations to do business across the globe (Filipescu, Rialp, & Rialp, 2009). The internationalization of firms is not only happening with firms locating in developed countries, but in recent years, there has been a substantial growth of firms in emerging markets investing internationally (Amal, Awuah, Raboch, & Andersson, 2013). China, The world's second-largest economy, has seen a dramatic increase in outward foreign direct investment (OFDI) from 2,85 billion USD in 2003 to 107 billion USD in 2013 (You & Solomon, 2015). This is partly due to the Chinese government, which actively promotes domestic businesses to explore foreign markets. The Chinese economic development plan is also based on this idea of internationalization with their one belt, one road initiative (BRI). The initiative was brought to life to "construct a large unified market and make full use of both international and domestic markets" (Koenig, 2019).

The internationalization of firms spiked interest among scholars to research the effects of internationalisation on firm performance. In the literature, the research about the internationalization process is mainly split into three pillars. The first pillar is internationalization speed meaning, how fast are firms expanding their business abroad. The second pillar is internationalization rhythm, where researchers look if the business expands according to a specific pattern. The last pillar is internationalization scope, where scholars look at how many countries (geographic scope) and/or markets (product scope) a firm expands to abroad (Chen, Li, Zeng, Ma, & Lin, 2016).

## **1.2 Problem Statement**

Existing research about the relation between geographic internationalization scope and performance found that firms with a high degree of geographic internationalization scope would perform better because they can exploit competitive advantages from subsidiaries located worldwide, creating economies of scope and thus lowering their average cost (Schwens et al., 2018). Companies are also less affected by economic downturns or reductions in demand if

there have a high degree of geographic internationalization scope. The idea of not putting all your eggs in the same basket reduces the operational risks of firms (Kim, Hwang, & Burgers, 1993). Contrary, researchers also found adverse effects of geographic scope on performance. For example, Hashai (2011) found that a high geographic scope increased the liability of foreignness. This increase is at the expense of performance because firms are more exposed to additional costs due to operating in an unfamiliar location. The liability of foreignness can best be defined as “the additional tacit and social costs that foreign firms face when entering a particular host market—costs that are not incurred by well-embedded indigenous companies” (Denk, Kaufmann, & Roesch, 2012).

Traditional international business literature has made significant contributions to understanding why multinational enterprises internationalize and how they can survive in market environments where they are tied to liability of foreignness (Dunning, 1980). The research found that companies could overcome their liability of foreignness by having competitive advantages. These competitive advantages (e.g. superior technologies or greater logistics) would compensate for the additional costs associated with liability of foreignness. These contributions, however, were made mainly by focusing on multinational enterprises from developed countries (Ramanurti, 2012). With the rise of emerging economies in recent years, IB research found an obscure work field focusing on emerging multinational enterprises (EMNEs).

Scholars found that EMNEs behaved in an unexpected way that traditional IB theories could not explain (Khanna, 2000). More EMNE's, for example, were successfully internationalizing even though this could not be the case according to traditional IB theory because they did not possess competitive advantages. This made many scholars question the usability of the traditional IB theories for EMNEs. Scholars thus promoted that international business research should focus on emerging economies to complement existing theories and expand our knowledge about international business theories.

Additionally to the liability of foreignness, some researchers argued that the relation between internationalization scope and performance could also be explained by incorporating a distance variable that moderates the effect of geographic scope on performance. With distance, they mean geographical distance as well as cultural distance. As Freixanet & Renart (2020) state, “dissimilarities in the conditions between the domestic and foreign markets affect the organization of these relationships and generally involve additional costs”. They also argue that differences in countries profiles and purchasing behaviour makes it harder to understand and

respond to local demands. Even though scholars claim that it can explain the relation between internationalization scope and performance, empirical research on this topic is still limited.

### **1.3 Objective**

Scholars have researched how geographical internationalization scope is related to the performance of developed multinational enterprises. However, research about the same relation for emerging multinational enterprises is still limited. As previously explained, emerging multinational enterprises behave differently from their developed counterparts (Wright, Filatotchev, Hoskisson, & Peng, 2005). Researching emerging multinational enterprises can help acquire new insights towards internationalization scope. Therefore the objective of this master thesis is to complement existing knowledge by researching the relation between geographical internationalization scope and performance from the standpoint of emerging multinational enterprises.

Additionally, to explain the relation between internationalization scope and performance, this master thesis will also examine if there is a moderating effect of cultural and geographical distance.

### **1.4 Research Question**

The purpose of this master thesis is to examine the relation that geographic internationalization scope has on the performance of emerging multinational enterprises. Additionally, it will look if geographical and cultural distance has a moderating effect on geographic internationalization scope and performance. Therefore the research question is:

*What is the effect of internationalization scope on the performance of Chinese multinational enterprises, and how does cultural and geographical distance moderates this effect?*

To make a proper comparison, firms are controlled for size and industry. The relation that that geographic internationalization scope has on performance will be measured by using multiple regression analysis.

## **1.5 Relevance**

As is indicated in section 1.2, traditional international business theories cannot explain the influence that internationalization scope has on the performance of EMNEs. It is, therefore, theoretical relevant to find out what the motives of EMNE's are to internationalize. It is also relevant to know if and how EMNE's can increase their performance by internationalizing. By incorporating two moderating variables of distance (geographic and cultural), I hope to further explain the relation between internationalization scope and performance and, with this, respond to researchers asking to provide empirical data on this moderating effect.

This thesis is also of practical relevance since it shows emerging multinational enterprises how to shape their internationalization scope effectively. This can help EMNEs understand how many and which countries they should internationalize to gain competitive advantages successfully. This thesis also shows EMNEs the importance of distance in choosing an internationalization scope that improves their performance.

## **1.6 Outline**

This paper is structured into five chapters. The next chapter will overview the existing literature about emerging markets, multinational enterprises, and geographic internationalization scope. Chapter 3 presents the used research method, along with how key indicators are operationalized and data is collected. Chapter 4 consists of the analysis of the data using SPSS. In the last chapter, a conclusion will be drawn based on the data, and limitations along with research proposals for follow-up research will be discussed.

## **2. Theoretical Background**

This chapter focus on giving comprehensive background information on the concepts of distance, geographical internationalization scope and emerging markets. It will do this by discussing recent literature by scholars in the field of international business and economics. The focus will be on why multinational enterprises are internationalizing and how cultural/geographical distance impacts the relation between internationalization scope and performance. This chapter also states three hypotheses that will be tested in this thesis. The hypotheses are visualized in a conceptual model at the end of this chapter.

### **2.1 (Emerging) Multinational Enterprises**

This thesis researches the effects of geographic internationalization scope on the performance of Chinese emerging multinational enterprises. For a definition of what is called an (emerging) multinational enterprise, this thesis uses the definition by Dunning as one that "owns and controls income-generating assets in more than one country" (Dunning, 2000). The emerging part reverses multinational organizations that have their origins in a country classified as an emerging market. More about emerging markets will be elucidated in detail down below.

### **2.2 Emerging Markets**

A characterization of emerging market/economy was first given by Ashoka Mody, an economist from the International Financial Corporation (IFC), in 1981. She argued that an emerging market consists of four features. The first feature is market volatility; This feature refers to political instability and high-risk exchange rates in a country. The second feature is that an emerging market has high growth potential and attracts lots of foreign investment due to its significant return on investments. The third feature is about the considerable economic growth that happens in these countries. The governments of emerging markets implement rules and regulation that stimulates industrialization and high economic growth. The last feature of emerging markets is that it typically has a low-middle income per capita. The low income per capita is also an incentive to attract foreign investment and stimulate high economic growth (Mody, 2004)

Nowadays, some questions can be raised about the characterization of emerging markets/economies from Ashoka Mody. For example, China is generally considered to be

defined as an emerging market/economy, but it does not possess all the features described above. There are also significant differences in poverty between several emerging markets. It can thus be argued that the characteristics of an emerging market characterized by Mody are outdated. In the paper by Arnold & Quelch (1998, p8), a different aspect of emerging markets is given. They state that the “extent and stability of a free market system” plays a role in defining a country as an emerging market. However, the inconsistency between scholars on the characteristics of an emerging market means that there is no consensus on a theoretical or operational definition. Which countries are classified as emerging markets is somewhat vague. Therefore, it is constantly under review by a range of international financial institutions, which are all using different methodologies like the financial stock exchange or Bloomberg's Morgan Stanley capital international emerging markets index (Kearney, 2012).

### **2.3 Internationalization**

Internationalization has only started to flourish in the last four decades (Saraçi, 2014). This has all to do with the fact that the world around us has become more integrated due to technological innovations in communication, liberalization of markets, and the lowering of worldwide tariffs. The integration of the financial market, otherwise known as globalization, causes many enterprises to venture out and explore foreign markets. Foreign direct investment plays a key role for multinational enterprises (MNEs) in exploring foreign markets. Internationalization has the advantage that it can create sustainable relations between two economies. It can increase the competitiveness of a market and the financial market's efficiency as a whole (Melitz & Trefler, 2012).

One of the most mainstream international business theories comes from Dunning, who in 1979 wrote about the OLI framework or eclectic paradigm. According to Dunning, corporations choose to internationalize via foreign direct investment (FDI) if they have; an ownership advantage, meaning that the corporation possesses a competitive advantage that other corporations in the market do not have, a location advantage where the corporation gain from being active in the specific location they want to invest in and an internalization advantage where the corporations gain from internalizing the activity rather than outsourcing it on the market (Dunning, 1979 & 1977).

### *Motives for internationalization*

There are also several reasons for multinational enterprises to venture out and invest in foreign markets. The literature identifies four reasons for multinational enterprises to pursue foreign direct investment. These reasons are market-seeking, resource-seeking, knowledge-seeking, and efficiency-seeking FDI (Dunning, 2000).

- Market seeking foreign direct investment or otherwise known as asset exploiting FDI. States that enterprises will pursue FDI to be active and have the possibility to sell their products or services in a foreign market. This is the most common motive for corporations who are investing abroad.
- The second motive for enterprises to invest abroad is for (natural) resource seeking foreign direct investment. There are three reasons for this type of FDI; firstly, enterprises try to gain some sort of (natural) resource that is not available to them in their home country. Secondly, the quality is not high enough, or thirdly, the enterprise can access these resources at a much lower price. An example is the motivation for many fashion brands to invest in Bangladesh for their cheap labour cost or Chinese FDI into Africa to gain mineral resources.
- The third motivation is strategic asset or knowledge-seeking foreign direct investment. These investments are motivated by the idea that enterprises have a long-term vision to survive. A crucial part of enterprises' survival is innovations into the products/ services they offer over the entire enterprise itself. Therefore enterprises need to gain knowledge about how they can innovate. Enterprises that are active in a specific industry want to be close to areas with specific knowledge about their industry. If this knowledge is not available in their home country, then enterprises venture out to what is called knowledge hubs to gain this knowledge. Think, for example, about silicon valley in the USA.
- The last motivation for enterprises to pursue foreign direct investment is efficiency-seeking foreign direct investment. This type of motivation is somewhat closely related to that of (natural) resource-seeking FDI. Efficiency seeking FDI is "designed to promote a more efficient organization of the firm's value-added activities including its access to resources and its serving of foreign markets." An example of efficiency-seeking FDI is investing in a country within the European Union to access perks and benefits that apply to European companies like open borders and free trade.

## **2.4 Internationalization Scope**

The literature about Internationalization scope distinguishes product internationalization scope and geographical internationalization scope (Hitt, Tahanyi, Miller, & Connelly, 2006). geographical internationalization scope looks at the number of foreign countries a firm operates in. geographical internationalization scope can create liabilities for a firm due to cultural differences and issues with managing and controlling a firm from a distance. With product internationalization scope, a firm is expanding abroad while also expanding to different markets. As with geographical scope, product scope can create liabilities for a firm. The firm has to deal with two kinds of uncertainty. First, they face uncertainty in the new host market because the host countries profile and preferences may differ from their home country. Secondly, they face the uncertainty of entering a new product market where they may lack market-specific information to operate efficiently. In this thesis, I will only focus on the geographical internationalization scope.

The research about the effects of geographical internationalization scope on performance founded mixed results (Freixanet & Renart, 2020). Some positive effects that scholars found were that a high degree of geographic diversification helped the organisation to spread the operational risk they face. Receiving revenue from countries worldwide decreases risks of economic downturns and demand (Hwang, Kim, & Burgers, 1993). Furthermore, a high degree of geographic diversification provides companies with the ability to exploit their competitive advantage through more markets, resulting in economies of scope and lower average costs (Schwens, et al., 2018). This can be seen in the clothing industry, where big firms produce their clothes abroad because of the lower labour prices.

However, other scholars claim that geographical internationalization scope has a negative effect on performance. They argue that there are many drawbacks to managing a company as it grows and becomes more complicated. Firms that are more geographic diverse also face more liability of foreignness. Some examples of liability of foreignness costs are costs that occur due to the firm's unfamiliarity in the new market or the cost that arises from foreign subsidiaries being discriminated against by local stakeholders. For example, suppliers that do not want to do business with foreign companies or the government subsidizing local companies (Eden & Miller, 2001).

Furthermore, Freixanet & Renart (2020) state that geographical internationalization scope negatively affects performance due to increased transaction costs. According to the transaction cost theory, internationalization raises costs due to increased complexity (Goerzen & Beamish, 2003). These expenses are driven by higher costs for coordinating, monitoring, and managing the corporation. Also, different regulations and currency fluctuations between countries and regions drive up transaction costs.

## **2.5 Internationalization Scope from Emerging Markets**

As discussed in the introduction, Scholars found that EMNEs behaved in an unexpected way that traditional IB theories could not explain (Khanna, 2000). The electric framework shows that developed multinational enterprises (DMNEs) pursue internationalization if they have a competitive advantage that other firms in the host country do not possess. They need this competitive advantage to overcome their liabilities of foreignness (Dunning, 1980; 1988). Traditional IB research focusing on developed economies also shows that firms internationalize via a dynamic process in which firms gather knowledge about the market over time. The internationalization process of developed multinational enterprises starts with a low level of commitment towards a foreign market utilizing licensing or export. Firms do this to cope with the perceived market uncertainty because they lack specific knowledge about the market. Over time firms gain more knowledge about the market and thus reducing the market uncertainty. If market uncertainty is low enough, firms will pursuit higher commitment towards the foreign market through FDI (Johanson & Vahlne, 1977).

The internationalization process of EMNEs is quite different from that of DMNEs. First of all, scholars found out that many EMNEs do not follow the dynamic process of internationalization. DMNEs start with a low level of commitment towards FDI and incremental pursue higher commitments. However, there is a trend among EMNEs to so-called springboard certain stages and directly choose a much higher level of commitment (Luo & Tung, 2007). Secondly, EMNEs do not possess a competitive advantage like technologies or capital (Madhok & Keyhani, 2012). Therefore according to traditional international business theory, EMNE's cannot successfully internationalize because there are no competitive advantages to compensate for the liability of foreignness; however, if this is the case, how can it be that the internationalization of EMNE's is on the rise (Gaur & Kumar, 2010). Some literature explains that emerging multinational enterprises internationalize to gain competitive advantages that they can use in their home market and in other emerging markets. Boisot (2004, P6) states that

emerging multinationals “will not be moving abroad to exploit a competitive advantage that was developed in the domestic market, but to avoid a number of competitive disadvantages incurred by operating exclusively in the domestic market”. This shows that the goal of emerging multinational enterprises is to fill the institutional voids they face in their home country by gaining competitive advantages from abroad. This idea of filling up the institutional voids by internationalizing also explains why EMNEs springboard their internationalization process.

Compared to DMNEs who internationalize by exploiting their competitive advantage and are therefore more driven by market and resource seeking FDI, we see that EMNEs have an increased motive to venture out. EMNEs are both interested in asset exploiting as well as asset exploring FDI. EMNEs pursue strategic asset seeking FDI in developed economies to gain competitive advantages that they can use to overcome institutional voids in their home country. On the other hand, EMNEs are also pursuing market /resource seeking FDI in other emerging countries to grow their company and increase profits by using the competitive advantages they gained from FDI in developed economies. Therefore, it can be argued that a higher internationalization scope for emerging multinational enterprises would increase the performance because, with it, they gain competitive advantages that they can also use to compete in new markets. This leads to the following hypothesis:

- *H1: There is a positive relation between geographical internationalization scope and performance for emerging multinational enterprises.*

## **2.6 Distance**

In the international business literature, distance is an often reoccurring research subject. This is no surprise considering that almost every organisation has ties with foreign organisations and thus experiences distance. Some researchers found out that overall distance has a negative effect on organisations. Distance increases the complexity of a firm's social network, making it harder to transfer information, manage foreign subsidiaries, control foreign partners (Chang, 1995) (Tihanyi, Griffith, & Russell, 2005). Distance between organisations also creates some uncertainty because of the liability of foreignness. As already explained in section 2.4. liability of foreignness increases costs because of a lack of market-specific knowledge and the risks of facing discrimination against foreign companies in the host market (Eden & Miller, 2004). The variable of distance is a broad concept and is therefore hard to measure. This is why many scholars broke distance into more minor variables. In Ghemawat's (2001) article, distance is

broken down into four variables, namely, cultural, administrative, geographical, and economic distance. Due to the complexity of incorporating all variables of distance in this thesis and the limited amount of time, we will focus only on geographical and cultural distance.

### *Cultural Distance*

Cultural distance is “the difference in cultural values between two countries” (Beugelsdijk, Kostova, van Essen, Kunst, & Spadafora, 2018). Hofstede is generally seen as the first researcher who measured cultural distance using initially four dimensions; individualism-collectivism, uncertainty avoidance, power distance and masculinity (Hofstede, 1980). This insight in measuring cultural distance sparked considerable interest among scholars. Later in his life, Hofstede added two more dimensions: long-term orientation and indulgence. Hofstede and later on others give scholars the opportunity to research what the effects of cultural distance are on an organization. They found out that, in general, cultural distance decreases the performance of organizations (Beugelsdijk et al., 2018). Organizations that operate in countries where the cultures substantially differ from each other saw increases in transaction and operating costs. This increase in cost can be linked to problems with interpreting different values and norms. Cultural distance also increases difficulties in transferring information between partners or subsidiaries and obstruct organizational learning.

When we look at emerging multinational enterprises, one of the main motives for them to internationalize is to gain competitive advantages from developed economies. An essential condition for these EMNEs is that they can transfer the assets they gain back to their home country or other emerging countries to expand their geographical internationalization scope. The differences in culture would retain the EMNE from transferring the competitive advantage they gain (Uhlenbruck, 2004). This, in turn, will obstruct EMNEs to internationalize in other emerging countries successfully. Thus it can be argued that the positive effect that geographical internationalization scope has on the performance of EMNE is negatively moderated by the degree of cultural distance. This negative moderating effect is caused because EMNEs cannot effectively learn and/or transfer the competitive advantage, which is a crucial factor in the success of the geographical internationalization scope. This leads to the second hypothesis:

- *H2: cultural distance negative moderates the effect that geographical internationalization scope has on the performance of emerging multinational enterprises.*

### *Geographical distance*

As stated in the introduction, with the rise of new technologies, the world around us is becoming more connected. Innovations in communication and infrastructure technologies make it far easier for corporations to do business across the globe. However, even though new innovation in information and communication technologies (ICT) makes it cheaper, easier, and mainly faster to communicate with people worldwide, it does not mean that the influence of geographic distance has disappeared. Recent research indicates that ICT innovations primarily benefited organisations that are communicating with local social ties (Goldenberg & Levy, 2009).

It is stated that geographical distance is still of great importance in influencing the performance of an organisation (Guillaumont & de Melo, 2005). Ghemawat (2001) says that geographical distances increase the cost of companies in several ways. First of all, a larger geographical distance between two countries means an increase in transportation costs. This is especially true for MNEs that want to sell their homemade products in other markets abroad. Secondly and somewhat related, geographical distance makes it harder for a company to transfer tangible and intangible assets between two far-apart countries. Especially intangible assets are hard to transfer since these are often skills and knowledge that employees have. These employees can and are understandably not always willing to travel considerable distances to exchange their knowledge. Thirdly, geographical distance is also associated with a rise in transaction costs. Geographical distance makes it harder for managers to control and coordinate activities that are far away. It can thus be argued that geographical distances negatively moderates the effect of geographical internationalization scope on the performance due to the rise in cost and that it can retain the transferability of knowledge and competitive advantages between host and home country. This leads to the final hypothesis being:

- *H3: Geographical distance negative moderates the effect that geographical internationalization scope has on the performance of emerging multinational enterprises.*

## 2.7 Conceptual Model

Figure 1 shows the conceptual model that visualizes the three different hypotheses used in this study. The conceptual model also shows the relationship each of the hypotheses has towards each other.

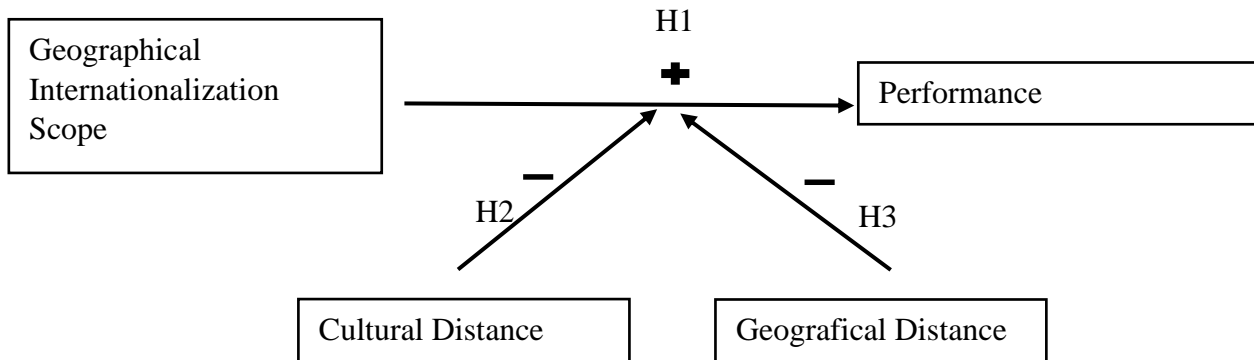


Figure 1. conceptual model

### **3. Methodology and Data Collection**

The chapter methodology and data collection explain how the research is structured and why a deductive research method was chosen. This chapter also describes how the data was collected and analysed.

#### **3.1 Research method**

This master thesis wants to determine how geographic internationalization scope affects the performance of so-called emerging multinational enterprises and if this relation is affected by an increase in geographical and cultural distance. To answer this research question, a quantitative research method will be used. A quantitative research method was chosen because it can make precise statements about the relationship between a limited number of variables (Bleijenbergh, 2016).

This master thesis is built upon two fields of prior research. The first is about the effects that geographic internationalization scope has on the performance of developed multinational enterprises. The second is about how different forms of distances can influence geographic internationalization scope and MNE performance. In this master thesis, I am researching if these theories about geographic internationalization scope and performance change when assessing it with data from multinational enterprises based in emerging markets. This thesis is thus about theory-testing research or, in other words, deductive research. Woiceshyn & Deallenach (2018) describes deductive research as "moving from the general to the particular, as in starting from a theory, deriving hypotheses from it, testing those hypotheses, and revising the theory."

#### **3.2 Data Collection**

To answer the research question, we need to collect data about the geographical internationalization scope and the performance of these companies. There are four variables, one independent variable (geographical internationalization scope), one dependent variable (Performance), and two moderating variables (cultural and geographical distance). As of now, there is no available dataset containing the information about all the variables needed to perform an analysis. This thesis will thus create its own data set by collecting data from the Orbis database. Orbis is a database created by bureau van Dijk that contains the financial and business information of around 300 million private corporations worldwide. The data that can be found

on Orbis ranges from ownership structure, merge and acquisition activities, profits, number of employers, and other financial and business information.

This study looks explicitly at emerging multinational enterprises from one country. It was decided to look at one country so that differences in government interference, currency fluctuations, economic sanctions, and other country-specific variances could not bias the results. The People's Republic of China was selected because of two reasons. As indicated in the introduction, China is seeing a dramatic increase in FDI over the last years and therefore, it is particularly interesting to look if this increase in internationalisation also resulted in an increase in performance. Secondly, due to the increase of FDI, enough companies are available on Orbis to perform a proper analysis.

#### *Geographical internationalization scope*

The geographical internationalization scope looks at how many foreign countries a firm has subsidiaries in. Measuring the geographical internationalization scope will be done by collecting data from Orbis. This data shows all the subsidiaries of the Chinese EMNEs. The geographical internationalization scope will be determined by counting the number of different countries. An important note is that the regions Hong Kong and Taiwan are seen as independent states in this study, meaning that they are not part of the People's Republic of China. These regions are seen as independent states because they had an autonomous government independent of the People's Republic of China. Also, looking at the cultural dimensions of Hofstede, we see that there are significant differences in culture for these regions to be allocated as independent countries.

#### *Performance of Chinese MNEs*

The performance indicator, operating revenue, is being used to get a reliable conclusion about the effects that geographical internationalization scope has on performance. Prior research shows that operating revenue measurement is an accurate indicator for assessing the performance of a corporation (Anand, Kumae Garg, & Anrora, 1999).

### *Cultural distance*

Cultural distance is usually referred to as: “the extent to which the shared norms and values in the home and target country differ from one another” (Hofstede, 1980). To measure cultural distance, The index of Kogut and Singh is used. The K&S index uses the cultural dimensions from Hofstede as the building block. The index looks at how two countries score on the six dimensions of culture and then measures how big the difference between these scores are. The bigger the difference in scores, the more culturally distanced the two countries are (Kogut & Singh, 1988). The formula for measuring the cultural distance between two countries is as follows:

$$KSIndex_j = \sum_{i=1}^n \left\{ (I_{ij} - I_{iHOME})^2 / V_i \right\} / N$$

Figure 2. The K&S index

The formula calculates the average cultural distance between two countries on all six dimensions. To measure the ultimate cultural distance for an EMNE, all the cultural distance between the home and host countries where a firm has a subsidiary will be added up together and then divided by the total number of subsidiaries owned by the EMNE.

### *Geographical distance*

The geographical distance will be measured by calculating the orthodromic distance between the home and host country capitals in kilometres. The orthodromic distance is the shortest distance between two points. The website; <https://www.distancefromto.net/> will be used to measure the orthodromic distance. The ultimate geographical distance will be measured in the same way as the ultimate cultural distance by adding up the distances between the home country capital and all the host countries capitals where a firm has a subsidiary. This will then be divided by the total number of subsidiaries owned by the EMNE.

### *Controlling variables*

There are some aspects in every corporation that, if not controlled, give a distorted picture to the whole analysis. That is why in this thesis, all the corporations will be controlled for their size and the industry in which they operate. We control for size because bigger corporations typically have more significant earnings and better performance than smaller corporations. We

control for this factor by getting data from Orbis about the number of employees the corporation has. In this thesis, we also control the type of industry a corporation operates in. Different types of industries make different amounts of profits and assessing what good performance is also different among sectors. The North American Industry Classification System (NAICS) classifies every company to its representative industry. The NAICS is "developed to provide a consistent framework for the collection, analysis, and dissemination of industrial statistics used by government policy analysts, by academics and researchers, by the business community, and by the public" (USA, 2017). This data will be collected through the use of Orbis.

### **3.3 Data-Analysis**

This thesis analyzes the relationship between one independent variable (geographical internationalization scope) towards the dependent variable (firm performance). There are also two moderating variables (cultural distance and geographical distance). Therefore, the most appropriate method to test this relation is a multiple regression analysis (Field, 2009) (Hair, Black, Babin, & Anderson, 2019). Multiple regression analysis is selected because it can give a clear insight into the effects of geographical internationalization scope on the performance of EMNEs. Furthermore, a multiple regression analysis is most suitable for determining the effects of the moderating variables.

Before we start analysing, we first explore the data to see if any data points are missing and if there are outliers in the data, which could create a bias effect. After exploring the data, we check some assumptions that have to be met to perform a regression analysis. The assumptions are; independence of residuals, random sampling, normal distribution of residuals, and homogeneity of variance-covariance matrices (Field, 2009) (Hair, Black, Babin, & Anderson, 2019).

When analysing the data, we are testing the significance of different models. We first test what the effects of geographical internationalization scope are on the performance. Here we also look if the controlling variables have a significant impact on the results. If we find a significant difference, we will further examine if cultural and geographical distance moderates the relation between geographical internationalization scope and performance. Lastly, we will check if the hypotheses formulated in section 2. are accepted and significant.

### **3.4 Reliability**

Reliability is about the consistency of results. It is essential that in reliable research, the results can be repeated when the same research method and measurements are being used (Bleijenbergh, 2016). Two actions will be undertaken to ensure the reliability of this master thesis. Firstly, every motive for a decision will be discussed concerning data-gathering and analysis. Secondly, The data used in this master thesis comes from the Orbis Database, an internationally recognized database for reliable financial data. Everybody can collect the same data from Orbis, which further ensures the reliability of this master thesis.

### **3.5 Internal Validity**

Internal validity can best be described as: "Does the research measure what needs to be measured or, in other words, are there no systematic biases in the way in which it was observed and/or analyzed?" (Bleijenbergh, 2016). Issues concerning internal validity are minimized in this master thesis by checking if the assumptions for performing a Regression analysis are met. These assumptions look at normal distribution, random sampling, and independence of residuals. Meeting these assumptions means that the data's bias is under the threshold so that we can perform the analysis.

### **3.6 External Validity**

In a study with a high degree of external validity, the results can be generalized to the entire population or generally valid. A high degree of external validity can be achieved when the sample in the study is a good reflection of the whole population under investigation. To get a substantial degree of external validity, we will use a large sample size of 1256 companies. The companies are from different industries and sizes, so it better reflects the whole population.

### **3.7 Research Ethics**

This thesis will ensure its compliance with the *APA Ethics Code*. The data that has been collected comes from Orbis, an internationally recognized database for reliable financial data. When analysing the data, I will ensure that the data is **not** fabricated or in any form manipulated. To the best of my ability and knowledge, I will also withhold myself from any unacceptable research practices as is listed in the *APA Ethics Code*. After collecting and cleaning the data, will it be stored according to the *RDM guidelines* on the university network drive for ten years.

## **4. Analysis**

This fourth chapter will provide the following: It will first describe the data sample that was collected and discuss the missing values and outliers in the data. Secondly, it will check the assumptions that are needed to perform a multiple regression analysis. Finally, the results of the multiple regression analysis will be discussed.

### **4.1 Sample description**

The data that has been used in this thesis was retrieved from the Orbis database. Orbis has information about more than 300 million companies worldwide. The following filters were applied to get the data from Orbis that was needed to perform this analysis. First of all, the companies needed to be located in the people's republic of China. Secondly, The companies needed to publish information about the number of employees, their operating revenue, and their industry. Lastly, the companies needed to have subsidiaries abroad, of which the minimum percentage of ultimate control must be 50,01% or more. When applying these filters, 1.256 companies would remain out of the initial 300 million companies. It is essential to report that in this thesis, the regions of Hong Kong and Taiwan are seen as independent of the peoples' republic of China. This has two consequences for the dataset. First of all, companies located in Hong Kong and Taiwan which have subsidiaries abroad are not included in the dataset. Secondly, companies based in mainland China with subsidiaries in Hong Kong or Taiwan receive a higher internationalization scope (+1 if in Hong Kong or Taiwan, +2 if they are located in both).

Appendix 1A gives an overview of where in the world the subsidiaries of the Chinese companies are located and how many subsidiaries are located in which country. Looking at the table in appendix 1A, we see an unequal distribution between the countries. The biggest portion of subsidiaries is located in Hong Kong, representing 26,6% of all subsidiaries in the dataset. Also, the united states of America, Singapore and Germany are significantly represented with representations in the data of 15,6 %, 5,1% and 4,4%.

Table 1 shows the distribution of the internationalization scope. Also, here we see an uneven distribution in the number of countries a company has its subsidiaries. Most of the companies only possess subsidiaries that are located in one other country. 91,8 % of the companies that are included in this database are located in five countries or less. Interestingly, there are only 35 companies in this database that have subsidiaries in more than ten countries globally.

Table 1: Distribution of internationalization scope

<b>Internationalization scope</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	626	52,5	52,5	52,5
	2,00	242	20,3	20,3	72,8
	3,00	114	9,6	9,6	82,4
	4,00	64	5,4	5,4	87,8
	5,00	48	4,0	4,0	91,8
	6,00	16	1,3	1,3	93,1
	7,00	20	1,7	1,7	94,8
	8,00	18	1,5	1,5	96,3
	9,00	9	,8	,8	97,1
	10,00	7	,6	,6	97,7
	11,00	8	,7	,7	98,3
	12,00	3	,3	,3	98,6
	13,00	3	,3	,3	98,8
	14,00	3	,3	,3	99,1
	15,00	1	,1	,1	99,2
	16,00	1	,1	,1	99,2
	17,00	1	,1	,1	99,3
	19,00	2	,2	,2	99,5
	21,00	2	,2	,2	99,7
	22,00	1	,1	,1	99,7
27,00	1	,1	,1	99,8	
39,00	1	,1	,1	99,9	
40,00	1	,1	,1	100,0	
Total		1192	100,0	100,0	

A crucial condition in obtaining a reliable regression analysis is collecting a large enough sample size. According to Field (2009), a large sample size is needed to achieve a high statistical power and generalizability level. What a big enough sample size is in order to be confident of its statistical power and generalizability depends on the number of predictors that are included in the model and the expected effect size of the analysis. If you expect there to be a large effect, then a smaller sample size is needed. On the contrary, if you expect a small effect, you need a larger sample size (Field, 2009). Generally, you can expect that for analysis with three to six predictors and an effect size that is expected to be small; you need around 500 to 600 samples.

In this thesis, we have (including controlling variables) 5 predictors: internationalization scope, cultural distance, geographical distance, industry, and the number of employees. The dataset contains a sample size of 1.256 companies and is thus large enough to detect minor effects sizes and therefore appropriate to conduct a regression analysis.

## **4.2 Data examination**

### *Checking the missing data*

Before conducting a regression analysis, it is crucial to look if the dataset contains variables with missing data. Most of the data were retrieved from the Orbis database using specific filters, ensuring that the data is available. Therefore the variables, number of employees, industry, and operating revenue have no missing values. For the variable geographical scope, there are some missing values. This data was retrieved by looking at the country where the subsidiary is located and calculate the distance in kilometres between Beijing and the capital of that country. Orbis was, however, not able to filter out Chinese companies where information about the locations of the subsidiaries are unknown. This resulted in 255 subsidiaries with an unknown location and thus a missing value for geographical scope. For the variable cultural distance, the same problem occurred where the location of the 255 subsidiaries were unknown. Therefore we were unable to calculate the distance in culture for these companies. For the variable cultural distance, there was a second problem with missing data. The variable was measured by calculating the difference in the four cultural dimensions of Hofstede between China and the country of the subsidiary. However, the data about the cultural dimension of Hofstede are not available for every country on earth. As can be seen in appendix 2a, there are 39 countries in the dataset where the cultural dimension of Hofstede was not available. This resulted in 660 additional subsidiaries where cultural distance cannot be measured. Interestingly almost two-thirds of these subsidiaries (430) are only located in two countries, namely the Cayman Islands and the Virgin Islands.

In order to solve the issue of the missing data, the following actions were taken. The first action was removing some Chinese companies from the dataset. 44 Chinese companies only possessed subsidiaries without a known value for their location. 21 Chinese companies only possess subsidiaries from countries where information about the cultural dimensions of Hofstede do not exist. It was decided to take these 65 Chinese companies out of the dataset. The motive for removing these companies from the dataset was because no analyses could be performed on

these Chinese companies if the geographical/cultural distance is not available for a single one of their subsidiaries. The second action that was taken had to do with Chinese companies with some subsidiaries where the location was unknown or where the cultural dimensions were not available. For these companies, the subsidiaries without a known value were not excluded when calculating the variables; absolute cultural distance, absolute geographical distance and internationalization scope. The decision not to delete the entire company from the dataset but instead exclude the subsidiaries was chosen because analyses were otherwise impossible. The objective of this thesis was to look if internationalization scope influences the performance of companies. To do this, the dataset needs companies with high and low scores on internationalization scope. In our dataset, most of the companies scoring high on internationalization scope have a subsidiary who is located in a country that does not have a score on Hofstede cultural dimensions. Excluding all those companies makes the dataset skew and unfitted for the analyses that we want to perform. Doing this can be seen as a controversial choice and could perhaps influence to results, but it was necessary in order to be able to perform the analyses. More about this decision and the consequences will be further elaborated on in the limitation section of chapter 6. A list of the deleted companies can be found in appendix 2B.

### *Checking for Outliers*

“An outlier is a case that differs substantially from the main trend of the data” (Field, 2009) or in other words, it is a data point that lies far away from the mean of the dataset. Outliers can cause a problem when analysing data. If the outliers are incorrect, they can bias the estimate of a parameter such as the mean and affect the sum of squared errors (Field, 2009). Therefore it is essential that before running any analyses, the data is checked for outliers.

There are two kinds of outliers; true outliers and outliers by error. True outliers are outliers that differ substantially from the mean of the dataset but are not incorrect data points. These outliers are legitimate datapoint like, for instance, measuring peoples length and somebody is 2,15 meters long while the mean is 1,75 meters. Outliers by error are data points that differ from the mean because of an error in measuring the data or processing the data. For example, this is the case when a data point of 180 meters was measured in a dataset of peoples length (Hair, Black, Babin, & Anderson, 2019). When correcting the data for outliers, it is crucial to identify what kind of outlier you are dealing with. Correcting for outliers by error is possible when you can prove that a mistake was made calculating or processing the data point. Correcting true outliers is much harder to do. True outliers can only be corrected when you can argue that the outlier is

not part of the population you want to research. In order to check for outliers, the variables in the dataset are converted to Z-scores. These Z-scores “express scores in terms of distribution with a mean of 0 and a standard deviation of 1” (Field, 2009). For a datapoint to be considered an outlier, the Z-score of that datapoint should exceed +3 or -3. In all the variables, some of the Z-scores exceed the threshold of 3. Because most of the data were retrieved from Orbis, it can be accurately assumed that in almost all the cases, the outlier is not due to errors in calculating or processing the datapoint and, therefore, a true outlier. Only companies that exceed a Z-score of +5 or -5 are so unlikely that they were deleted out of the dataset. In the dataset, 23 companies had a variable with a z-score of more than 5. Appendix 3A gives an overview of the companies and corresponding Z-scores that were deleted from the dataset.

### **4.3 Assumptions**

As was mentioned in the data-analyses part of chapter 3, some assumptions have to be checked in order to perform a regression analysis. First, two general assumptions are checked that have to be met in order to perform every statistical test. Afterwards, four assumptions are checked that are specific for multiple linear regression analysis.

#### *Distribution of the predicting variables*

The first assumption that needs to be checked is if the predicting variables are normally distributed in the dataset. The predicting variables are the dependent variable (internationalization scope) as well as all the metrically scaled moderating and controlling variables (I.e. number of employees and cultural/geographical distance). To check if these variables are normally distributed, one could look at the histogram of the variables with the normal-distribution curve plotted in this figure. This way of checking for normality can be quite subjective. Therefore, a more statistical way of checking the predicting variables' normality is by looking at the variable descriptive statistics to see the value of the skewness and kurtosis (Hair, Black, Babin, & Anderson, 2019). A variable can be regarded normally distributed if the value of the skewness and kurtosis are between -3 and +3.

The descriptive statistics with skewness and kurtosis of every predicting variable can be found in Appendix 3B. For the moderating; variables cultural distance and geographical distance, the skewness and kurtosis are within the range of -3 and +3. Therefore it can be assumed that there is no problem with normality. For the controlling variable, the number of employees and the independent variable internationalization scope, the scores are above the +3 threshold. This

means that these variables are positively skewed and therefore do not comply with the assumption of normality. To correct this, we need to transform the two variables. Transforming the variables means adjusting all the data points of a variable to correct the distribution problem without changing the relative differences between the data points (Field, 2009). Two common transformations can help with a positively skewed variable: the square root transformation and the log transformation. Both transformations were carried out to check which give the best results (Appendix 3C and 3D). Even though both the log and square root transformation improved the normality of the variables, it was chosen to alter the variables using the log transformation. Using the log transformation, the skewness and kurtosis of both variables fall within the range of -3 and +3. Therefore the variables comply with the assumption of normality.

#### *Distribution of the dependent variable*

Identical to the predicting variables, the dependent variable needs to be normally distributed to perform multiple regression analyses. As shown in appendix 3E, the dependent variable operating revenue has skewness and kurtosis above the +3 threshold and is thus positively skewed. Appendix 3F shows that Transforming the dependent variable using the log transformation helps to improve the variable operating revenue to become normally distributed.

#### *Linearity*

The second assumption that that needs to be checked is the assumption of linearity. This means that the changes in the dependent variable are linear related to changes in the predicting variables (Field, 2009). The assumption of linearity needs to be true for every predicting variable separately and collectively. The partial residual plots (Appendix 4a) were created to check if the dependent variable is linear related to each predicting variable. We can look at the residual plot to check if the predicting variables are collectively linear to the dependent variable (Appendix 4B). For the data to be linear, the standardized predicted to residuals line needs to be around 0. This is the case for every predicting variable separately and collectively.

### *Homoscedasticity*

The best way of examining the variables for homoscedasticity is by again looking at the residual plot (Appendix 4B). In this plot, you want to look if the residuals are plotted in some sort of pattern. A cause of concern for the homoscedasticity assumption is when a pattern can be found. The residual plot does not show any form of a pattern, and therefore the variables comply with the homoscedasticity assumption.

### *Multicollinearity*

For multiple regression analysis, it is crucial to look if there are no linear relations between the predicting variables. This problem of linear relations between predicting variables is being checked with the assumption of multicollinearity. The most used way of identifying multicollinearity is by looking at the variance inflation factors (VIF) of the predicting variables and their tolerance value. The general guidelines are that a VIF score above ten or a tolerance value below 0,1 are a cause of concern for multicollinearity (Field, 2009). The VIF and tolerance value of all the predicting variables can be found in Appendix 5A. There is no cause of concern for multicollinearity in this dataset since the VIF are all below ten, and the tolerance values are all above 0.1.

### *Independence of error terms*

The assumption of independence of error terms means that the residual terms of all the observations that are included in the dataset are uncorrelated to each other (Field, 2009). The best way to test if the residual terms are uncorrelated is by performing a Durbin-Watson test. The value of the Durbin-Watson test lies between 0 and 4. Ideally, you want to have a value of around 2, which indicates that the residual terms are uncorrelated. There may be cause for concern when you have a value lower than one or higher than 3. In this case (Appendix 6A), the Durbin-Watson test has a value of 1.645, indicating that we fulfil the assumption of the independence of error terms.

### *Normality of the error term*

The Last assumption that needs to be checked has to do with the normality of the error term. Using a probability plot (P-Plot) can help determine if the residual terms are normally distributed. The residuals are normally distributed when the residuals are closely following the diagonal line in the P-Plot. Looking at Appendix 7A, we see that the residual does not deviate too much from the diagonal line and is thus normally distributed.

#### **4.4 Multiple Regression analysis**

The multiple regression analysis is used to analyse the relation of internationalization scope on performance (measured by operating revenue). This relation is controlled by the number of employees and the industry of the company. The second objective of the analysis is to find out if the relation between internationalization scope and performance is influenced by the moderating effects of cultural and geographical distance. Before creating the interaction effects, the predicting variables will be transformed to mean-centred variables. This needs to be done to better interpret the interaction effect and prevent multicollinearity (Field, 2009) (Hair, Black, Babin, & Anderson, 2019).

The multiple regression analyses were hierarchically based performed using the “Enter” method. This means that the predicting variables are entered into the analysis in multiple steps (models). In total, the variables were entered into three models. The first model only includes the two controlling variables; the number of employees and industry. In the second model, the independent variable, internationalization scope, will be entered to examine the main effect. In the last model, the newly created interaction effects will be included in the multiple regression analyses to determine the interaction effects.

Appendix 8A shows the output of the ANOVA. From this table, you can see that all three of the models that were included in the multiple regression analyses are significant ( $P < .001$ ). For deeper analyses, we look at the data presented in table 2. The R-square ( $R^2$ ) is a valuable measurement for assessing how much of the total variance of the dependent variable can be explained by the predicting variables included in the regression analyses (Field, 2009). The problem with  $R^2$  is that it will always increase when more variables are included, even when they are not significant. The adjusted R-square (adjusted  $R^2$ ) accounts for the number of variables included in the analyses. Therefore, it better represents the amount of variance the model explains (Hair, Black, Babin, & Anderson, 2019). The first model has an adjusted  $R^2$  of .702, meaning that the controlling variables can explain 70,2% of the variance. When looking at the second model, we see that the adjusted  $R^2$  increases to .706 or 70.6% of the variance. The F change statistic is also significant ( $P = .000$ ), meaning that the second model significantly improves the variance explained. The third model has an adjusted  $R^2$  of .706, indicating that the third model does not contribute towards explaining more of the variance. This is also confirmed by the F change statistic being insignificant ( $P = .343$ ).

<b>Estimates</b>	<b>Model 1</b>			
	B	SE	$\beta$	P
LOG_Employee_Size	0.891	0.017	.021	.000
Industry	0.005	0.004	.839	.181
LOG_Internationalization				
Moderation_cultural				
Moderation_Geographical				
R2			.703	
Adjusted R 2			.702	
Sig. F Change			.000	
<b>Estimates</b>	<b>Model 2</b>			
	B	SE	$\beta$	P
LOG_Employee_Size	.862	.018	.812	.000
Industry	.005	.003	.025	.123
LOG_Internationalization	.148	.037	.069	.000
Moderation_cultural				
Moderation_Geographical				
R2			.707	
Adjusted R 2			.706	
Sig. F Change			.000	
<b>Estimates</b>	<b>Model 3</b>			
	B	SE	$\beta$	P
LOG_Employee_Size	.861	.018	.811	.000
Industry	.005	.003	.024	.130
LOG_Internationalization	.134	.039	.062	.001
Moderation_cultural	.005	.006	.019	.453
Moderation_Geographical	.000	.000	.006	.806
R2			.707	
Adjusted R 2			.706	
Sig. F Change			.343	
Durbin-Watson			1.624	

Table 2: Summary of multiple regression analyses

Zooming in on each model, we can determine if the hypothesis formulated in chapter 2 should be accepted or rejected. An overview of the hypotheses can be found in table 3. Looking at the controlling variables, the effect of the number of employees is significant (B= .891, P= .000), meaning the more employees a company has, the better its performance. The variable industry is not significant (B= .005, P= .181) and therefore does not explain the variance of

the dependent variable. The effect of internationalization scope on performance is significant (B= .148, P= .000) however, no support was found for an interaction effect caused by cultural distance (B=.005, P= .453) and geographical distance (B= .000, P =.806).

Hypothesis	$\beta$	Sig.	Result
H1: There is a <b>positive</b> relation between geographical internationalization scope and performance for emerging multinational enterprises.	.069	.000	Accepted
H2: cultural distance <b>negative</b> moderates the effect that geographical internationalization scope has on the performance of emerging multinational enterprises.	.019	.453	Rejected
H3: Geographical distance <b>negative</b> moderates the effect that geographical internationalization scope has on the performance of emerging multinational enterprises.	.006	.806	Rejected

Table 3: An overview of hypotheses

#### 4.5 Additional analysis

From appendix 1A, you can see that a substantial portion of the subsidiaries is located in Hong Kong. As indicated in chapter 3, it can be controversial to argue that Hong Kong is not part of the Peoples Republic of China and therefore should not be included as a separate country. It can also be argued that over-representation of a country can bias the results. A new regression analysis has been performed to address this issue where Hong Kong located subsidiaries are excluded from the dataset. When examining the results of this analysis (appendix 9A), we see that there is still a positive effect of internationalization scope on the operating revenue (B= .591, P= .000). Also, identical to the previous analyses, the moderating effects; cultural distance (P= .381) and geographical distance (P= .884) are not significant. The big difference between the two analyses lies within the adjusted R2. The regression analysis without the Hong Kong subsidiaries can only explain 46,9% of the variance, which is a decrease in adjusted R2 compared to the analysis with Hong Kong subsidiaries. Therefore removing the Hong Kong subsidiaries does not improve to models.

## **5. Discussion**

In this chapter, we are going to discuss the results of the multiple regression analysis. First, we take a look at the relation between internationalization scope and performance. Secondly, we take a look at the influence of the moderating effects, and lastly, we will discuss the influence of the controlling variables.

### **5.1 Internationalization scope**

The relation between how many countries a Chinese EMNE operates in (Internationalization scope) and the performance of that company was the main relation that was analysed in this thesis. The multiple regression analysis performed in chapter 4, indicates a positive relation between the internationalization scope and the performance of Chinese emerging multinational enterprises. This positive effect was found to be significant in every model that was performed in the regression analysis.

The results found in chapter four contradict traditional international business theory by, for instance, Hashai (2011). He stated that emerging multinational enterprises do not possess competitive advantages that could help them to overcome the liability of foreignness. This exposure to liability of foreignness acts as a barrier for EMNE's to be successful abroad. In order to explain the results that were found in this thesis, we can look at Schwens et al., (2018). His research indicated that EMNE could overcome their liability of foreignness and therefore be successful abroad. Boisot (2004) claims that this has to do with the nature of EMNE's and their ability to deal with institutional voids. He states that EMNE's internationalize to gain a competitive advantage instead of already having one. This is something that was not accounted for by the traditional international business theory. Building on the theory of Boisot (2004), we can thus argue that the positive effect of internationalization scope on performance can be explained by EMNE's behaviour of internationalizing in order to gain a competitive advantage. This competitive advantage can, in turn, be used in the EMNE's home market or in other emerging markets to outperform competitors, which ultimately increases the performance. Another explanation for the positive relation between internationalization scope and performance could have to do with risk spreading, as indicated by Kim, Hwang, & Burgers (1993). They state that a larger internationalization scope reduces a company's exposure to unsystematic risk. This means that multinational enterprises want to locate their businesses around the world to reduce risks associated with economic downturns or fluctuations in

demand. However, the results in this thesis cannot determine if risk spreading is the main reason for the positive effect between internationalization scope and performance. To determine this, one should collect data about the performance and fluctuation in internationalization scope over a period of time. For now, this is beyond the scope of this study, but it would be interesting for further research.

## **5.2 Cultural and Geographical Distance**

Two centred-mean interaction effects were created for the multiple regression analysis. This was done to determine if the moderating effects of cultural distance and geographical distance influence the main relation between internationalization scope and performance. The results in chapter four indicate that both interaction effects are not significant. This resulted in the rejection of both hypotheses two and three.

The traditional international business theory argues that an increase in geographical distance between a company and its subsidiaries generally decreases performance (Guillaumont & de Melo, 2005). According to Freixanet & Renart (2020), companies face more difficulties managing subsidiaries located far away. Companies that owned geographical distant subsidiaries face additional costs related to transferring knowledge and goods. Additionally, companies also saw an increase in cost for monitoring and coordinating these subsidiaries. The same decrease in performance can also be found in companies that own subsidiaries that are culturally distant from their own (Beugelsdijk et al., 2018). Dissimilarities in norms, values, and behaviour make it difficult for companies to do business in countries that are culturally dissimilar to their own. For instance, these difficulties are problems with understanding local demand and difficulties in transferring information between partners or subsidiaries.

While prior research insinuates that cultural and geographical distance can influence the relation between internationalization and performance, This research shows no significant effect. A potential reason why no effect was found could be because not every subsidiary was included in the analysis. The data to perform the analysis was not available for every subsidiary, especially those located in small remoted countries. Not including all the subsidiaries in the analysis could perhaps have biased the results so that no effect was found. A second reason the regression analysis turned out to be insignificant could be that the theory about the interaction effect of cultural and geographical distance is only valid for subsidiaries that hold significant assets or operations for the company. As shown in appendix 1A, 7,3% of all subsidiaries

included in this thesis are from the Cayman island and virgin islands. These countries are notorious for being tax heaving where companies set up shell companies that do not provide any economic benefit besides tax avoidance. These companies primarily exist on paper, meaning that geographical and cultural distance is irrelevant to these subsidiaries. More about this issue and why these subsidiaries were not excluded can be found in the limitation section of chapter 6.

### **5.3 Controlling variables**

In this master thesis, two controlling variables were added. These variables were added in order to perform a proper analysis. The first variable was the number of employees. This controlling variable had a positive and significant effect on performance. This controlling variable was added in order to control for the size of a company. Larger firms tend to have larger operating revenues which could bias the effects if not adequately controlled for.

The performance of the companies was measured using operating revenue. Some industries, however, have by default a higher operating revenue than others. This is why the controlling variable type of industry was added. The controlling variable showed, however, an insignificant effect. The distribution of the companies could explain this insignificant effect. Most of the Chinese companies in the dataset are active in the manufacturing industry where as other industries are under-represented. This could perhaps have biased the effects so that no effect was found.

## 6. Conclusion

In a world that is more connected than ever, where companies locate their businesses all around the world. Answering the question; if internationalization improves the performance of emerging multinational enterprises is becoming more important. In this final chapter, a conclusion will be drawn on the research question formulated in section 1.4. the research question was as follows.

*What is the effect of internationalization scope on the performance of Chinese multinational enterprises, and how does cultural and geographical distance moderates this effect?*

The multiple regression analysis performed in this study shows a significant effect between the internationalization scope of a Chinese multinational enterprise and its performance. The effects were found to be positive, meaning that a higher internationalization scope improves the performance (measured in operational revenue) of Chinese MNE's. The effect of internationalization scope on performance was also expected to be moderated by cultural and geographical distance. The results of the analysis showed, however, no significant interaction effect. In the previous chapter, a possible explanation for these results were examined. The theoretical and practical implementations these results have will be discussed next. Additionally, we will go into the limitations of this research and possible further research topics.

### 6.1 Theoretical implications

The results of this study can provide some theoretical implications for the academic field of international business literature. The results in this study can directly solve the puzzle of what kind of effect internationalization scope has on the performance of emerging multinational enterprises.

Traditional IB theory indicates that only companies that have competitive advantages can successfully internationalize. This is because the competitive advantages can compensate for the additional cost. Traditional IB theory states that EMNE's do not possess competitive advantages which retain them from internationalizing. However, this thesis found a significant positive effect of internationalization scope from EMNE's on performance. This indicates that companies from emerging countries are, despite additional costs from liability of foreignness, able to increase their performance by internationalizing. An explanation for this result could be that emerging countries behave differently than their developed counterparts (Wright,

Filatotchev, Hoskisson, & Peng, 2005). The increase in performance that was found could result from EMNE's successes in gaining a competitive advantage by venturing out instead of already having one. The two moderating variables, cultural and geographical distance, included in the analysis showed no significant interaction effect. However, this does not indicate that there is no effect of cultural or geographical distance on the relation between internationalization scope and performance. It could be that cultural or geographical distance has an effect but not on all subsidiaries, which could have skewed the results.

## **6.2 Practical implications**

The main purpose of this master thesis was to contribute to the international business literature. There are, however, some practical implications for multinationals from emerging markets. The results of this study show that it is favourable for EMNE's to own subsidiaries abroad. These subsidiaries could help them overcome institutional voids they face in their home market (e.g. poor infrastructure or corrupt financial system). Having subsidiaries worldwide could also help decrease the cost that these EMNE's face by creating a global value chain (OECD, 2013). Lastly, the subsidiary could help EMNE's avoid unsystematic risk. By operating worldwide, MNE's are less exposed to fluctuations in demand and economic downturns (Kim, Hwang, & Burgers, 1993).

## **6.3 Limitations of this study**

To give a holistic view of this study, some of its limitations will be discussed. First, as mentioned in section 4.2, When checking the data, it was found that the location and/or cultural dimensions were unknown for some subsidiaries. To deal with this, it was decided to delete from the dataset Chinese MNE's that only owned subsidiaries who had an unknown value. However, Chinese MNE's who owned only some subsidiaries with unknown values were not deleted. It was instead decided to exclude these subsidiaries from the analysis. This was done because otherwise, the dataset would contain only a few Chinese MNE's with a high internationalization scope which would skew the analysis. Most of the Chinese MNE's who owned seven or more subsidiaries abroad had one subsidiary where a data point was missing. These subsidiaries were often located in countries with such a small population size that Hofstede had not indicated the cultural dimensions of these countries. At first glance, it sounds strange that these large MNE's are located in countries with a population size of less than

100.000. However, a look at the list of tax havens by the European Parliament shows that most of these subsidiaries are located in countries labelled as tax havens like the Cayman Islands and the Virgin Islands (European Parliamentary Research Service, 2018).

The second limitation is closely related to the first one and has to do with the insignificant results of the two moderating effects in the analysis. To calculate the cultural and geographical distance, every foreign subsidiary with a known value was included in the calculation. However, as shown, many countries are included in this analysis that is labelled by the European Parliament or the international monetary fund as tax heavens (European Parliamentary Research Service, 2018). Many companies set up subsidiaries in these tax havens with the sole purpose of tax avoidance. These so-called shell companies primarily exist on paper, making the effects of cultural and geographical distances for these subsidiaries negligible. In this thesis, it was not possible to exclude shell companies from the dataset because no information was available about the purpose of each subsidiary. Because this study was not able to exclude these subsidiaries, the data could be analysed wrong. Meaning that there could be an interaction effect of cultural and geographical distance but only for subsidiaries that hold significant assets or serve an economic value besides tax avoidance for the EMNE.

## **6.4 Future Research**

The limitations and findings discussed in the previous sections indicate some subjects that could be reviewed in further research. First of all, this thesis focused explicitly on Chinese MNE's. In order to make accurate statements about the influence of internationalization scope on the performance of emerging multinationals, EMNE's from other countries should be exterminated too.

Secondly, as indicated in the limitations section, this thesis could not differentiate between normal subsidiaries and shell companies. This could be the cause why no interaction effect of cultural and geographical distance was found. Further research could look into this problem by identifying what purpose each of the subsidiaries serves and, with this knowledge, excluded the subsidiaries that only exist on paper. Having this knowledge could also allow researchers to find out if the other variables of distance (administrative and economical) could influence the relation between internationalization scope and performance.

Lastly, This thesis indicated that traditional international business theory (which is mainly based on multinationals from developed countries) is not always able to explain the behaviour of all multinationals. This shows that the academic field of international business should explore different perspectives of looking at multinationals. Besides multinationals from emerging markets, further research could look into what the effects of internationalization scope are on the performance of developing multinational enterprises.

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# Appendix

## Appendix 1A: Distribution of subsidiaries

	Frequency	Percent	Valid Percent		Frequency	Percent	Valid Percent
Ecuador	2	,0	,0	Liechtenstein	1	,0	,0
Malta	6	,1	,1	Lithuania	2	,0	,0
Papua New Guinea	1	,0	,0	Luxembourg	52	,9	,9
Zimbabwe	3	,1	,1	Macao	26	,4	,4
Afghanistan	1	,0	,0	Malaysia	66	1,1	1,1
Albania	1	,0	,0	Mali	3	,1	,1
Algeria	1	,0	,0	Marshall Islands	9	,2	,2
Angola	2	,0	,0	Mauritania	2	,0	,0
Argentina	10	,2	,2	Mauritius	8	,1	,1
Australia	158	2,7	2,7	Mexico	36	,6	,6
Austria	9	,2	,2	Micronesia	1	,0	,0
Azerbaijan	1	,0	,0	Monaco	7	,1	,1
Bangladesh	1	,0	,0	Mongolia	7	,1	,1
Barbados	2	,0	,0	Montenegro	2	,0	,0
Belarus	3	,1	,1	Morocco	5	,1	,1
Belgium	17	,3	,3	Mozambique	2	,0	,0
Bermuda	14	,2	,2	Myanmar	19	,3	,3
Bolivia	3	,1	,1	Namibia	3	,1	,1
Bosnia and Herzegovina	1	,0	,0	Netherlands	77	1,3	1,3
Botswana	2	,0	,0	New Zealand	41	,7	,7
Brazil	51	,9	,9	Niger	1	,0	,0
Brunei	5	,1	,1	Nigeria	10	,2	,2
Bulgaria	8	,1	,1	North Macedonia	1	,0	,0
Burkina Faso	1	,0	,0	Norway	2	,0	,0
Cambodia	19	,3	,3	Pakistan	11	,2	,2
Canada	109	1,8	1,8	Panama	8	,1	,1
Cayman Islands	151	2,6	2,6	Peru	5	,1	,1
Chad	1	,0	,0	Philippines	13	,2	,2
Chile	27	,5	,5	Poland	27	,5	,5
Colombia	4	,1	,1	Portugal	5	,1	,1
Congo	15	,3	,3	Qatar	2	,0	,0
Côte d'Ivoire	3	,1	,1	Romania	18	,3	,3
Croatia	2	,0	,0	Russian Federation	51	,9	,9
Cyprus	2	,0	,0	Rwanda	1	,0	,0
Czech Republic	20	,3	,3	Samoa	17	,3	,3
Democratic Republic of the Congo	9	,2	,2	Saudi Arabia	7	,1	,1
Denmark	17	,3	,3	Serbia	10	,2	,2
Egypt	7	,1	,1	Seychelles	7	,1	,1
El Salvador	1	,0	,0	Sierra Leone	1	,0	,0
Eritrea	1	,0	,0	Singapore	303	5,1	5,1
Estonia	2	,0	,0	Slovakia	5	,1	,1
Ethiopia	6	,1	,1	South Africa	47	,8	,8
Finland	11	,2	,2	South Korea	61	1,0	1,0
France	46	,8	,8	Spain	49	,8	,8
Gabon	7	,1	,1	Sri Lanka	5	,1	,1
Germany	258	4,4	4,4	Sweden	17	,3	,3
Ghana	13	,2	,2	Switzerland	35	,6	,6
Greece	2	,0	,0	Taiwan	21	,4	,4
Hong Kong	1573	26,6	26,6	Tajikistan	3	,1	,1
Hungary	21	,4	,4	Tanzania	10	,2	,2
India	79	1,3	1,3	Thailand	53	,9	,9
Indonesia	56	,9	,9	Trinidad and Tobago	1	,0	,0
Iraq	1	,0	,0	Tunisia	1	,0	,0
Ireland	11	,2	,2	Turkey	18	,3	,3
Israel	20	,3	,3	Uganda	3	,1	,1
Italy	77	1,3	1,3	Ukraine	1	,0	,0
Japan	111	1,9	1,9	United Arab Emirates	30	,5	,5
Jordan	1	,0	,0	United Kingdom of Great Britain	109	1,8	1,8
Kazakhstan	11	,2	,2	United States of America	919	15,6	15,6
Kenya	12	,2	,2	Uruguay	5	,1	,1
Kyrgyzstan	4	,1	,1	Uzbekistan	10	,2	,2
Lao People's Democratic Republic	11	,2	,2	Venezuela	1	,0	,0
Latvia	3	,1	,1	Viet Nam	63	1,1	1,1
Liberia	2	,0	,0	Virgin Islands	279	4,7	4,7
Liberia	2	,0	,0	Zambia	5	,1	,1
				Total	5904	100,0	100,0

## Appendix 2A: Countries with unknow cultural demensions

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5244	88,8	88,8	88,8
Afghanistan	1	,0	,0	88,8
Barbados	2	,0	,0	88,9
Bermuda	14	,2	,2	89,1
Botswana	2	,0	,0	89,1
Brunei	5	,1	,1	89,2
Cambodia	19	,3	,3	89,5
Cayman Islands	151	2,6	2,6	92,1
Chad	1	,0	,0	92,1
Congo	15	,3	,3	92,4
Côte d'Ivoire	3	,1	,1	92,4
Cyprus	2	,0	,0	92,5
Democratic Republic of the Congo	9	,2	,2	92,6
Eritrea	1	,0	,0	92,6
Gabon	7	,1	,1	92,8
Kyrgyzstan	4	,1	,1	92,8
Lao People's Democratic Republic	11	,2	,2	93,0
Liberia	2	,0	,0	93,0
Liechtenstein	1	,0	,0	93,1
Macao	26	,4	,4	93,5
Mali	3	,1	,1	93,5
Marshall Islands	9	,2	,2	93,7
Mauritania	2	,0	,0	93,7
Mauritius	8	,1	,1	93,9
Micronesia	1	,0	,0	93,9
Monaco	7	,1	,1	94,0
Mongolia	7	,1	,1	94,1
Montenegro	2	,0	,0	94,2
Myanmar	19	,3	,3	94,5
Niger	1	,0	,0	94,5
North Macedonia	1	,0	,0	94,5
Papua New Guinea	1	,0	,0	94,5
Rwanda	1	,0	,0	94,5
Samoa	17	,3	,3	94,8
Seychelles	7	,1	,1	95,0
Tajikistan	3	,1	,1	95,0
Uganda	3	,1	,1	95,1
Uzbekistan	10	,2	,2	95,2
Virgin Islands	279	4,7	4,7	99,9
Zimbabwe	3	,1	,1	100,0
Total	5904	100,0	100,0	

Appendix 2B: List of deleted companies (Missing value)

4.	WUCHAN ZHONGDA GROUP CO.,LTD.	582.	SICHUAN JIUZHOU ELECTRONIC CO., LTD.
23.	HENGLI PETROCHEMICAL CO.,LTD.	621.	JIANGSU AKCOME SCIENCE & TECHNOLOGY CO.,LTD.
27.	CHINA GEZHOUBA GROUP COMPANY LIMITED	623.	SHENZHEN FRD SCIENCE & TECHNOLOGY CO., LTD.
54.	NANJING HUADONG ELECTRONICS INFORMATION & TECHNOLOGY COMPANY LIMITED	642.	BEIJING JOIN-CHEER SOFTWARE CO.,LTD.
76.	LAO FENG XIANG CO.,LTD.	646.	HEXING ELECTRICAL CO,LTD
113.	ZJAMP GROUP COMPANY LIMITED	701.	XINJIANG XINTAI NATURAL GAS CO.,LTD.
143.	CHINA NORTHERN RARE EARTH (GROUP) HIGH-TECH CO.,LTD	706.	DAHENG NEW EPOCH TECHNOLOGY INC.
224.	GEM CO.,LTD.	716.	FARASIS ENERGY(GAN ZHOU)COMPANY LIMITED
250.	HONGRUN CONSTRUCTION GROUP CO.,LTD.	746.	CCOOP GROUP CO.,LTD.
282.	BEIJING KINGEE CULTURE DEVELOPMENT COMPANY LIMITED	784.	HUBEI DINGLONG CO.,LTD.
285.	ORIENTAL PEARL GROUP CO.,LTD.	788.	MISHO ECOLOGY & LANDSCAPE COMPANY LIMITED
296.	DHC SOFTWARE CO.,LTD.	848.	SHANDONG CYNDA CHEMICAL COMPANY LIMITED
303.	HAINAN JINGLIANG HOLDING CO.,LTD.	887.	GUANGDONG CHAOHUA TECHNOLOGY COMPANY LIMITED
305.	YONYOU NETWORK TECHNOLOGY CO.,LTD.	889.	SUNDIRO HOLDING COMPANY LIMITED
320.	WANGFUJING GROUP CO.,LTD.	934.	SHANGHAI KINETIC MEDICAL CO., LTD
321.	YIWU HUADING NYLON COMPANY LIMITED	990.	FUJIAN GUOHANG OCEAN SHIPPING (GROUP) COMPANY LIMITED
342.	SHAANXI CONSTRUCTION ENGINEERING GROUP CORPORATION LIMITED	1000.	HANGZHOUCHANGCHUAN TECHNOLOGY CO.,LTD
348.	POWERISE INFORMATION TECHNOLOGY COMPANY LIMITED	1008.	BEIJING KONRUNS PHARMACEUTICAL CO.,LTD.
351.	NORTHEAST PHARMACEUTICAL GROUP CO.,LTD.	1009.	ESPRESSIF SYSTEMS (SHANGHAI) COMPANY LIMITED
364.	ZHONGJI INNOLIGHT CO., LTD.	1017.	HANGZHOU ZHONGYA MACHINERY COMPANY LIMITED

365.	LUOXINPHARMACEUTICALS GROUP STOCK COMPANY LIMITED	1019.	HAINAN YEDAO (GROUP) CO.,LTD
383.	TIANJIN CHASE SUN PHARMACEUTICAL CO.,LTD	1029.	ANHUI DELI HOUSEHOLD GLASS CO.,LTD
397.	HUAGONG TECH COMPANY LIMITED	1051.	GOME TELECOM EQUIPMENT COMPANY LIMITED
439.	BAIC BLUEPARK NEW ENERGY TECHNOLOGY CO.,LTD.	1097.	TECNON (FUJIAN) COMMERCIAL LIGHTING COMPANY LIMITED
451.	GUANGDONG GOWORLD CO.,LTD.	1105.	FUCHUN TECHNOLOGY CO., LTD.
453.	QINGDAO KINGKING APPLIED CHEMISTRY COMPANY LIMITED	1110.	ZHONGRUN RESOURCES INVESTMENT CORPORATION
454.	JOLYWOOD (SUZHOU) SUNWATT CO.,LTD.	1166.	ZHONGHONG HOLDING COMPANY LIMITED
475.	YOUZU INTERACTIVE CO., LTD.	1171.	BEIJING INHAND NETWORKS TECHNOLOGY COMPANY LIMITED
489.	CHIFENG JILONG GOLD MINING CO.,LTD.	1187.	XIAMEN 35.COM TECHNOLOGY CO., LTD.
499.	ANTONG HOLDINGS CO., LTD.	1197.	GUANGZHOU KINGTELLER TECHNOLOGY COMPANY LIMITED
504.	NANJI E-COMMERCE CO., LTD	1230.	SHANGHAI LIUCHENG INTERNET INFORMATION TECHNOLOGY COMPANY LIMITED
535.	AEROSPACE COMMUNICATIONS HOLDINGS GROUP COMPANY LIMITED	1246.	LANHAI MEDICAL INVESTMENT COMPANY LIMITED

Appendix 3A: Deleted Companies (outliers based on Z-scores)

Company	Industry	Employee size	Op Revenue	Internationalization	Cultural	Geographical
HAIER SMART HOME CO., LTD.	-0.28641	5,6961	5,11145	2,48653	1,20637	1,65803
SHANGHAI CONSTRUCTION GROUP CO., LTD.	-1,66443	2,57189	5,65277	0,50617	0,75611	1,56206
HNA TECHNOLOGY CO.,LTD.	2,12512	1,85589	8,4029	2,15647	1,34105	1,43317
NINGBO JIFENG AUTO PARTS CO.,LTD.	-0.28641	0,6674	0,0656	6,11719	1,08485	1,19569
ZHEJIANG DAHUA TECHNOLOGY COMPANY LIMITED	-2,69794	0,63918	0,36814	12,38833	0,79675	1,11654
ZTE CORPORATION	-0.28641	4,11889	2,34134	6,44725	0,45946	1,10284
NINGBO JOYSON ELECTRONIC CORP.	-0.28641	3,59032	0,90103	8,09755	1,03282	1,05569
HANGZHOU HIKVISION DIGITAL TECHNOLOGY CO., LTD.	-0.28641	2,20677	1,35712	12,05827	0,74292	0,98976
KINGENTA ECOLOGICAL ENGINEERING GROUP COMPANY LIMITED	-0.28641	0,10401	-0,06647	5,45707	1,23517	0,79744
CHINA UNITED NETWORK COMMUNICATIONS LIMITED	-0.63092	14,49875	7,56866	3,47671	0,35864	0,49365
SHANGHAI ZHENHUA HEAVY INDUSTRIES COMPANY LIMITED	-0.28641	0,11227	0,2461	5,45707	0,56163	0,48255
POLY DEVELOPMENTS AND HOLDINGS GROUP CO.,LTD.	1,43611	3,34798	5,50174	0,50617	0,58109	0,43603
TSINGHUA TONGFANG CO.,LTD.	-0.28641	0,3498	0,33432	6,11719	0,13381	0,39425
BYD COMPANY LIMITED	-0.28641	13,40038	3,66704	0,50617	0,43894	0,35387
LEGEND HOLDINGS CORPORATION	-2,69794	4,75317	10,52784	1,82641	0,47307	0,31568
MIDEA GROUP CO.,LTD.	1,78061	8,77409	7,08023	2,48653	1,04318	0,23114
CHINA VANKE CO., LTD	1,43611	8,23948	10,6731	0,50617	-0,23155	-0,08546
JIANGXI COPPER COMPANY LIMITED	0,05809	1,10636	7,92144	0,83623	-0,26768	-0,14844
XIAMEN ITG GROUP CORP.,LTD	1,43611	-0,1241	8,76776	0,83623	-0,52865	-0,47381
XIAMEN C&D INC.	2,81413	0,86377	10,84651	1,49635	-0,54159	-0,54168
LUXSHARE PRECISION INDUSTRY CO., LTD.	-0.28641	10,2022	2,0669	1,82641	-0,03826	-0,59266
YONGHUI SUPERSTORES CO., LTD.	1,78061	7,01808	2,08235	-0,15395	-0,39616	-1,03721
SUNING.COM CO.,LTD.	1,78061	2,38631	6,2112	-0,48401	-1,09475	-1,04738

Appendix 3B: Descriptive statistics Predicting valuables

**Descriptive Statistics**

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
number of employees	1164	5409,6031	4,426	,072	27,788	,143
Internationalization scope	1164	2,2560	2,822	,072	9,794	,143
cultural distance	1164	18,0271	,372	,072	-1,187	,143
geographical scope	1164	5181,8903	,723	,072	,219	,143
Valid N (listwise)	1164					

Appendix 3C: Transformation of variable number of employees

**Descriptive Statistics**

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Log_EmployeeSize	1164	3,3741	-,314	,072	,413	,143
Sqrt_EmployeeSize	1164	60,5052	1,764	,072	4,513	,143
number of employees	1164	5409,6031	4,426	,072	27,788	,143
Valid N (listwise)	1164					

Appendix 3D: Transformation of variable internationalization scope

**Descriptive Statistics**

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Log_Internationalization	1164	,2319	1,064	,072	,227	,143
Sqrt_Internationalization	1164	1,3922	1,776	,072	3,218	,143
Internationalization scope	1164	2,2560	2,822	,072	9,794	,143
Valid N (listwise)	1164					

Appendix 3E: Descriptive statistics depending valuable

**Descriptive Statistics**

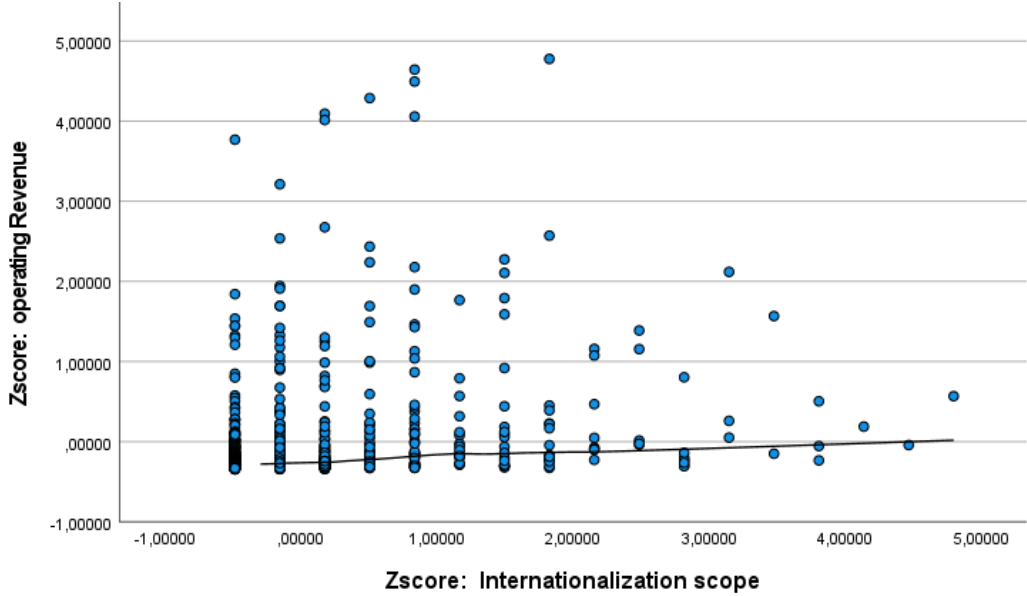
	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
operating Revenue	1168	1474886.943	4,897	,072	29,660	,143
Valid N (listwise)	1168					

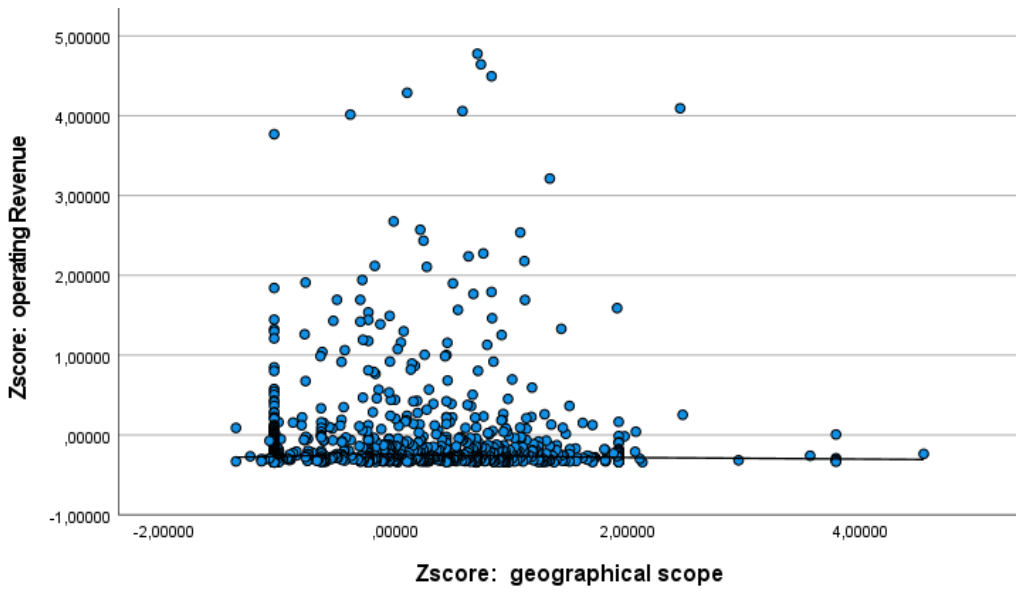
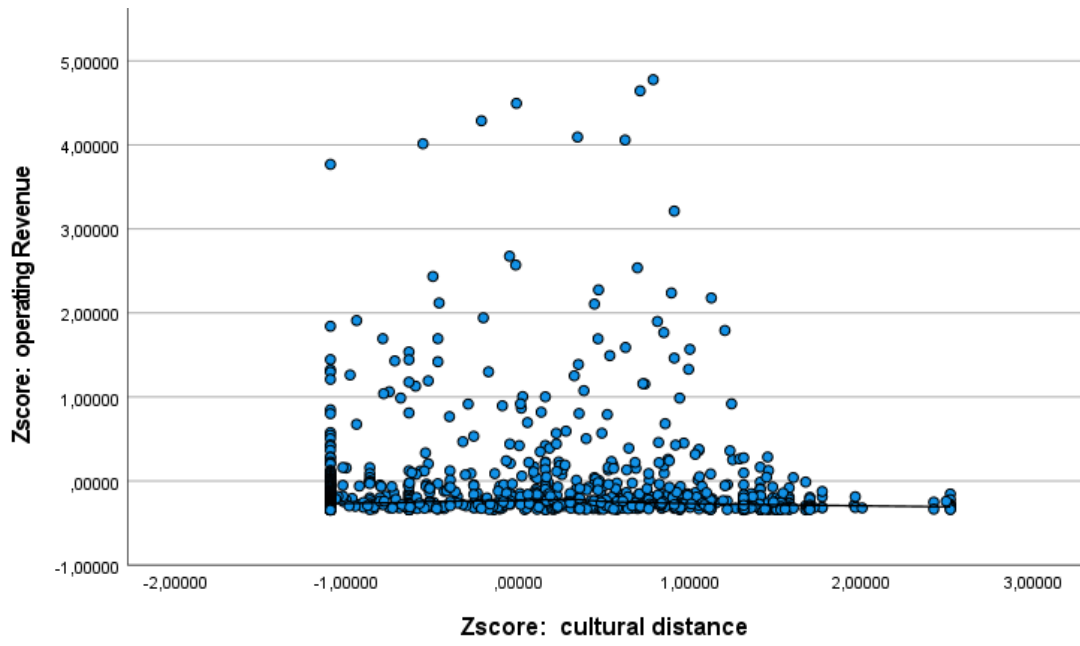
Appendix 3F: Transformation of dependend variable

**Descriptive Statistics**

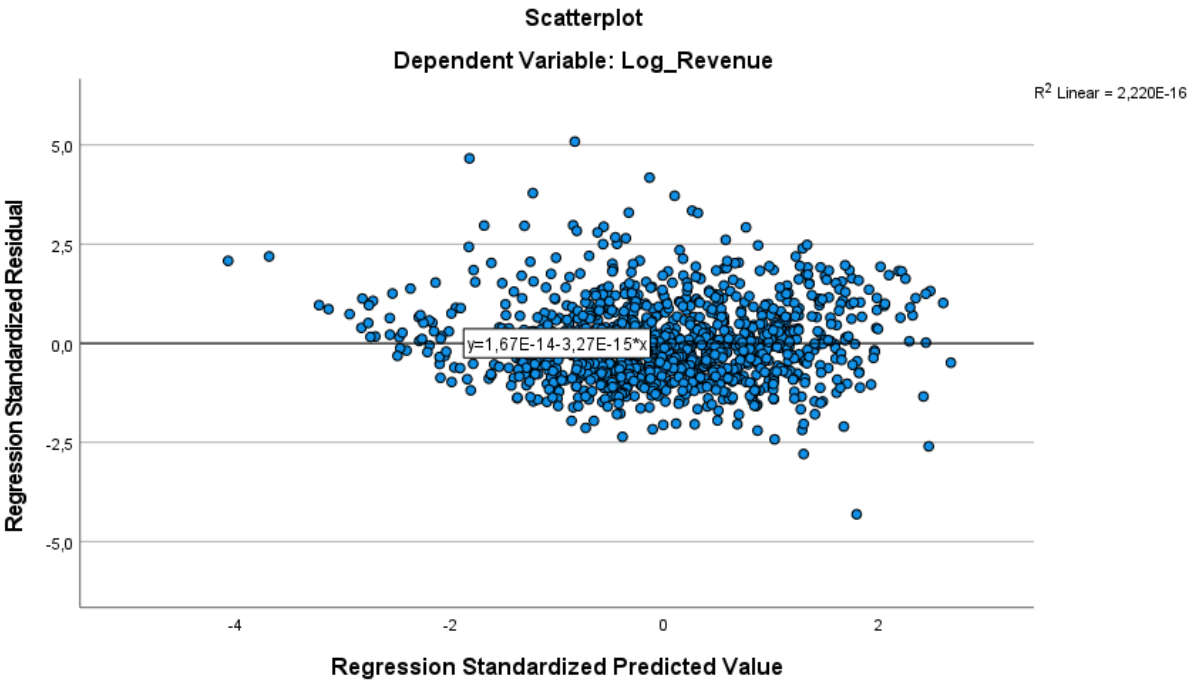
	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
operating Revenue	1168	1474886.943	4,897	,072	29,660	,143
Log_Revenue	1167	5,6852	,275	,072	-,136	,143
Sqrt_Revenue	1168	918,7564	2,443	,072	7,445	,143
Valid N (listwise)	1167					

Appendix 4A: Partial residual plots





Appendix 4B: Residual Plot



## Appendix 5A: VIF and tolerance scores

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Log_Internationalization	,069 <sup>b</sup>	3,979	,000	,116	,845	1,184	,845
	cultural distance	-,070 <sup>b</sup>	-4,401	,000	-,128	,996	1,004	,995
	geographical scope	-,042 <sup>b</sup>	-2,605	,009	-,076	,992	1,008	,992
2	cultural distance	-,097 <sup>c</sup>	-5,915	,000	-,171	,909	1,100	,771
	geographical scope	-,068 <sup>c</sup>	-4,064	,000	-,118	,898	1,113	,765

## Appendix 6A: the Durbin-Watson test

### Model Summary<sup>d</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	,838 <sup>a</sup>	,703	,702	,34469	,703	1374,659	2	1164	,000	
2	,841 <sup>b</sup>	,707	,706	,34252	,004	15,836	1	1163	,000	
3	,846 <sup>c</sup>	,715	,714	,33758	,009	18,128	2	1161	,000	1,645

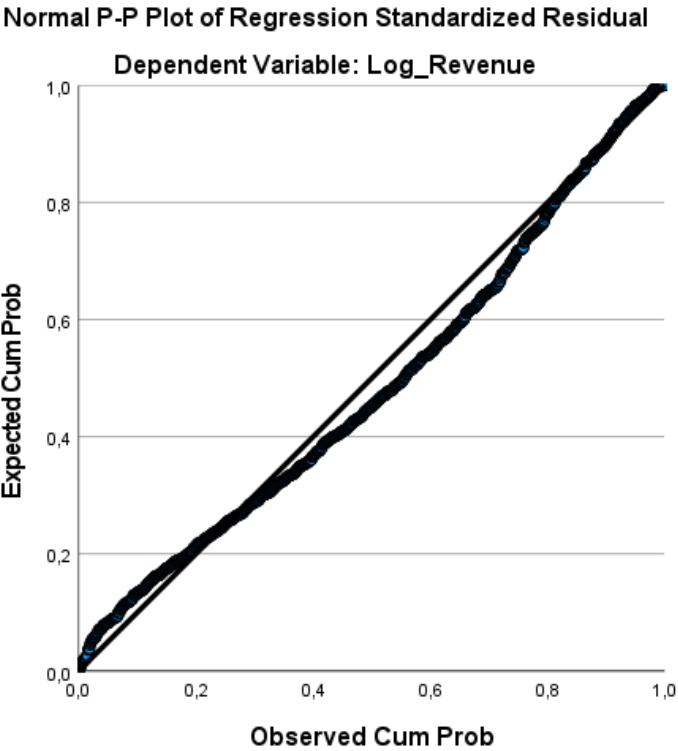
a. Predictors: (Constant), Log\_EmployeeSize, industry

b. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization

c. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization, cultural distance, geographical scope

d. Dependent Variable: Log\_Revenue

Appendix 7A: P-Plot for testing Normality of the error term



## Appendic 8A: Results

### Descriptive Statistics

	Mean	Std. Deviation	N
Log_Revenue	5,6852	,63148	1167
industry	8,8235	2,87499	1167
Log_EmployeeSize	3,3781	,59474	1167
Log_Internationalization	,2328	,29331	1167
Mediation_Cultural_Distance	,8849	2,58145	1167
Mediation_Geographical_Distance	279,5890	784,61975	1167

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Log_EmployeeSize, industry <sup>b</sup>	.	Enter
2	Log_Internationalization <sup>b</sup>	.	Enter
3	Mediation_Cultural_Distance, Mediation_Geographical_Distance <sup>b</sup>	.	Enter

a. Dependent Variable: Log\_Revenue

b. All requested variables entered.

### Model Summary<sup>d</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	,838 <sup>a</sup>	,703	,702	,34469	,703	1374,659	2	1164	,000	
2	,841 <sup>b</sup>	,707	,706	,34252	,004	15,836	1	1163	,000	
3	,841 <sup>c</sup>	,707	,706	,34250	,001	1,070	2	1161	,343	1,624

a. Predictors: (Constant), Log\_EmployeeSize, industry

b. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization

c. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization, Mediation\_Cultural\_Distance, Mediation\_Geographical\_Distance

d. Dependent Variable: Log\_Revenue

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	326,657	2	163,328	1374,659	,000 <sup>b</sup>
	Residual	138,299	1164	,119		
	Total	464,956	1166			
2	Regression	328,514	3	109,505	933,399	,000 <sup>c</sup>
	Residual	136,441	1163	,117		
	Total	464,956	1166			
3	Regression	328,765	5	65,753	560,534	,000 <sup>d</sup>
	Residual	136,190	1161	,117		
	Total	464,956	1166			

a. Dependent Variable: Log\_Revenue

b. Predictors: (Constant), Log\_EmployeeSize, industry

c. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization

d. Predictors: (Constant), Log\_EmployeeSize, industry, Log\_Internationalization, Mediation\_Cultural\_Distance, Mediation\_Geographical\_Distance

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,634	,067		39,055	,000
	industry	,005	,004	,021	1,337	,181
	Log_EmployeeSize	,891	,017	,839	52,414	,000
2	(Constant)	2,690	,068		39,293	,000
	industry	,005	,003	,025	1,544	,123
	Log_EmployeeSize	,862	,018	,812	47,042	,000
	Log_Internationalization	,148	,037	,069	3,979	,000
3	(Constant)	2,693	,068		39,315	,000
	industry	,005	,003	,024	1,514	,130
	Log_EmployeeSize	,861	,018	,811	46,899	,000
	Log_Internationalization	,134	,039	,062	3,476	,001
	Mediation_Cultural_Distance	,005	,006	,019	,751	,453
	Mediation_Geographical_Distance	5,047E-6	,000	,006	,246	,806

a. Dependent Variable: Log\_Revenue

## Appendix 9A: Additional analysis

### Descriptive Statistics

	Mean	Std. Deviation	N
Log_Revenue	5,7044	,71803	804
number of employees	6547,4117	10904,26694	804
industry	8,7600	2,68817	804
Log_Internationalization	,3416	,30322	804
Interaction_cultural	,0039	2,27467	804
Interaction_Geographical	40,1035	2473,74629	804

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	industry, number of employees <sup>b</sup>	.	Enter
2	Log_Internationalization <sup>b</sup>	.	Enter
3	Interaction_cultural, Interaction_Geographical <sup>b</sup>	.	Enter

a. Dependent Variable: Log\_Revenue

b. All requested variables entered.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	,645 <sup>a</sup>	,416	,415	,54922	,416	285,748	2	801	,000
2	,687 <sup>b</sup>	,471	,469	,52302	,055	83,276	1	800	,000
3	,687 <sup>c</sup>	,472	,469	,52330	,001	,563	2	798	,570

a. Predictors: (Constant), industry, number of employees

b. Predictors: (Constant), industry, number of employees, Log\_Internationalization

c. Predictors: (Constant), industry, number of employees, Log\_Internationalization, Interaction\_cultural, Interaction\_Geographical

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172,388	2	86,194	285,748	,000 <sup>b</sup>
	Residual	241,617	801	,302		
	Total	414,005	803			
2	Regression	195,168	3	65,056	237,825	,000 <sup>c</sup>
	Residual	218,837	800	,274		
	Total	414,005	803			
3	Regression	195,476	5	39,095	142,764	,000 <sup>d</sup>
	Residual	218,529	798	,274		
	Total	414,005	803			

a. Dependent Variable: Log\_Revenue

b. Predictors: (Constant), industry, number of employees

c. Predictors: (Constant), industry, number of employees, Log\_Internationalization

d. Predictors: (Constant), industry, number of employees, Log\_Internationalization, Interaction\_cultural, Interaction\_Geographical

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,565	,067		82,703	,000
	number of employees	4,225E-5	,000	,642	23,764	,000
	industry	-,016	,007	-,059	-2,172	,030
2	(Constant)	5,364	,068		79,142	,000
	number of employees	3,672E-5	,000	,558	20,423	,000
	industry	-,012	,007	-,043	-1,686	,092
	Log_Internationalization	,591	,065	,250	9,126	,000
3	(Constant)	5,380	,101		53,351	,000
	number of employees	3,665E-5	,000	,557	20,348	,000
	industry	-,012	,007	-,046	-1,771	,077
	Log_Internationalization	,561	,229	,237	2,445	,015
	Interaction_cultural	,008	,009	,025	,876	,381
	Interaction_Geographical	4,090E-6	,000	,014	,146	,884

a. Dependent Variable: Log\_Revenue