THE IMPACTS OF INSTITUTIONAL DIFFERENCES IN RELATION TO INTELLECTUAL PROPERTY RIGHTS PROTECTION ON FOREIGN DIRECT INVESTMENT: FDI INFLOWS AND MODES OF FOREIGN MARKET ENTRY

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Abstract

This Master's thesis seeks to consider the impacts of institutional distance regarding IPR protection on Foreign direct investment’s (FDI) internationalization strategies. Estimated at approximately US$ 1.8 trillion in 2015 and sitting at its highest level since the global economic and financial crisis in 2008 (UNCTAD, 2016), FDI flows are fast becoming a focal issue of global business. Developing Asia, for example, has emerged as the world’s largest FDI recipient region in the world, which has attracted a wide and public attention. China, in particular, is the largest recipient of FDI among the emerging economies. In 2014, it overtook the US as the most popular destination for multinational enterprises (MNEs). To date, most academic interest has focused on how the institutional environment of the host country affects both the overall volumes of FDI (e.g., Lee & Mansfield, 1996; Smarzynska Javorcik, 2004), and the modes of entry strategy (e.g., McCalman, 2004; Dikova & Witteloostuijn, 2007). However, other areas of research also consider institutional distance, and the magnitudes and asymmetric effects of institutional distance (e.g., Cuervo-Cazurra & Genc, 2011; Phillips, Tracey, & Karra, 2009; Zaheer et al., 2012). In this context, this thesis, uses China as a sample of FDI recipient to seek to understand how the directions of institutional distance affect FDI’s flows and MNEs’ choice of entry mode into the host country. In particular, the research questions being addressed in this study are: (1) How does the bidirectional distance between home and host country regarding IPR protection affect FDI’s inflows to China? and (2) How does this bidirectional distance regarding IPR protection influence MNEs’ choice of entry mode?
Using a quantitative research design, two dependent variables are examined in this study: FDI inflows and entry mode (wholly-owned subsidiaries (WOS) versus joint ventures (JVs)). Using the institutional theory as its theoretical underpinning, this study hypothesizes that IPR distance between home and host countries negatively affects FDI inflows to the host market. It also hypothesizes that IPR distance is positively related to MNEs’ choice of WOS as an entry mode as opposed to JVs. Both hypotheses build on the new notion regarding the directions of institutional distance that MNEs’ strategies and behaviours are divided into positive and negative directions. This consideration of directions of institutional distance differs to that of the general institutional approach, which typically clusters all regulative, normative and cognitive pillars within the institutional distance. However, this research focuses on the single regulative distance of IPR protection. Using the 691 collected observations of FDI flows to China from 2006 to 2012, hypothesis 1 was tested by employing the estimation techniques of panel linear regression. To further assess hypothesis 2, 801 instances of foreign market entry of FDI in China between 2008 and 2012 were analysed by logistic regression.

From the panel linear regression model, the empirical results show that the larger the distance of IPR protection between home and host countries, the fewer the flows of FDI that entered into China. Such results are consistent with previous mainstream literature suggesting that greater institutional distance significantly diminishes the MNEs’ intentions to invest (e.g., Du, 2009; Berry et al., 2010). Moreover, logistic regression
for hypothesis 2 reveals that IPR distance appears to be significantly and positively associated with the choice of WOS. This means that the tendency of MNEs from countries with a higher distance of IPR protection to enter China’s market by means of WOS (as opposed to JVs) will decrease. This result is in line with previous studies that note that larger institutional distance is associated with a lower level of equity ownership mode, such as JVs over WOS (e.g., Xu et al., 2004; Xu & Shenkar, 2002; Estrin et al., 2009).

The greatest takeaway from this study is that it advances knowledge about the impact of the directions of IPR distance and provides new opinions on the debate around the asymmetric effect of institutional distance on internationalization decisions. This study also offers practical implications for both firm managers and public policy makers.

**Key words:** Institutional differences; Intellectual Property Rights Protection; FDI inflows; Foreign market entry mode.
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Chapter 1 Introduction

This chapter begins by explaining recent trends in global foreign direct investment (FDI) and institutional distance that influences FDI strategies. It goes on to discuss the gaps in IPR-FDI research. China is discussed specifically as a sample country in the chapter. The chapter concludes by formulating the aim and research questions of the study.

1.1 Background

Despite the recent fragility of the global economy and persistent fluctuations in investment activities undertaken by multinational enterprises (MNEs) in host countries, global foreign direct investment (FDI) has experienced a significant increase. In 2015, FDI has created a new high level since the global economic and financial crisis in 2008. FDI inflows to developed countries almost doubled to US $962 billion in 2015. Importantly, inward FDI flow to less developed countries was recorded as the highest level of US $765 billion, 9 per cent higher than in 2014. The newest data from UNCTAD (2016) reveals a strong recovery of FDI in 2015, in which global flows of FDI increased by about 40 per cent to $1.8 trillion. Public expectations for FDI prospects over the next three years (UNCTAD, 2016) indicate that approximately half of all MNEs anticipate FDI to rise in 2018.

Developing Asia remains the world’s largest FDI recipient region. Its inflows already surpass half a trillion US dollars. A representative example is observed in China. The
outside world often describes Chinese market as the “factory of the world” and the “black hole” of inward FDI (Ghauri & Park, 2016). FDI inflows to China increased by 6 per cent to $136 billion in 2015 (UNCTAD, 2016). Over the past two decades, FDI in China averaged US $420.54, reaching its overall highest level of US $1263.70 in December of 2015 (Trading Economics, 2016). It is the largest recipient of FDI among the emerging economies, and has overtaken the US as the most popular destination for MNEs in 2014. Analyst predictions (e.g., Santander Trade Portal, 2016) also predict that China is one of the most attractive economies to MNEs in the future.

In saying this, FDI creates significant processes of economic development for a country: it is a major source of “income, capital flows, business competition, industrial innovations, job creations and technological transfer” (Xaypanya, Rangkakulnuwat & Paweenawat, 2015). To this end, most countries around the world are improving their investment environments in order to attract more FDI inflows. Such investment environment in a country has largely been introduced at the national institutional level, both formal and informal. Accordingly, institutional theory has become a popular approach to explain the behaviour of FDI in host countries (Anil, Tatoglu & Ozkasap, 2014; Du & Boateng, 2015).

The theory extends the transaction cost perspective that different environments are endowed with different sets of resources and institutions of varying effectiveness (Anil et al., 2014). It suggests that the institutional context in host countries, which is
described as ‘the rules of the game’ (North, 1990), shapes the strategic and behaviour patterns of an organisation. Scott (1995) identifies three pillars of the institutional framework in a country: the regulatory pillar, the cognitive pillar and the normative pillar. The regulatory pillar represents existing laws and rules in host markets. The cognitive pillar includes social knowledge and social perceptions, while the normative pillar covers social norms, values and culture. These pillars draw form a conceptual base for the analysis of a country’s institutional profile and its effects on MNEs’ behaviour.

Institutions reflect the structures and mechanisms of unique social order. Formal institutions are created by different governments and public departments. The quality of institutions all around the world is uneven as it depends largely on the legal and administrative framework within which individuals, firms, and governments interact in a country. Particularly, the inequality of intellectual property rights (IPR) protection in different countries is one of the most important foreign policy issues around the world (Long, 1997). IPR protection is important for economies (Fatma & Zouhaier, 2014), as it protects intellectual assets and increases the possibility of approaching the frontiers of knowledge. Within a perfect IPR system, firms can easily avoid imitative risks and uncertainties. They are also encouraged to design and develop cutting-edge products and processes to maintain a competitive edge and move toward the higher value-added activities. The level of IPR protection in developed countries is generally high, however it varies widely in developing countries. MNEs from many developed countries,
therefore, are worried about the inadequate IPR protection when investing in developing countries. For example, investors from the US have suffered greatly from the absence of rigorous and uniform international standards for IPR protection in developing markets. The lack of IPR protection in host markets has caused US firms to lose one dollar for every three dollars of revenue they gained (Long, 1997).

Institutional theory holds that a host market’s institutional environment reflects the rules of the game, which directs a firm’s scope of action (Brouthers & Hennart, 2007). IPR protection, in particular, influences FDI strategy. In general, MNEs tend to invest in wholly-owned subsidiaries (WOS) if IPR protection is weak in the host country (Lee & Mansfield, 1996; Chen, 2013). On the other hand, joint ventures (JVs) are more likely to be chosen when IPR protection is stringent (Leahy and Naghavi, 2010; Chen, 2013) as the stronger protection of intellectual property is expected to lower the risk of imitation by partners.

China has a huge and rapidly expanding market with a large group of strong potential employees and business partners eager to learn and evolve their business which encourages FDI inflows. Nevertheless, certain factors can still hinder inward FDI, such as China’s low level of IPR protection. In a recent article, Ghauri and Park (2016) cited the Chinese violation of IPR as one of the most keenly debated issues in discussions within the international business (IB) arena. In the western world, the prevalent attitude is that China is not equipped with an effective way to protect the IPR of foreign
businesses (Leila, 2013). China is also regarded as synonymous with counterfeiting and breaches of IPR privacy.

In recent years, China has made progress around statute laws for IPR protection and has moved toward international standards. The overall consciousness of the need to protect IPR is improving and is gradually coming to be better understood within the country. According to WIPO (2016), China is the third largest individual filling country (following the US and Japan) of the patent cooperation treaty (PCT). In 2015, with 29,846 applications it accounted for 13.7 per cent of the world’s total patent applications. It was also ranked seventh of the top 10 individual filling countries who filed the most Madrid trademark applications, with 2,401 applications and with 4.9 per cent of the world’s total. China is ahead of the developed countries of Japan, Australia and Netherlands. However, there is still a mismatch between the increasing appeals from cross-border investors to effectively protect their intellectual assets and the poor enforcement of IPR laws in China which has not yet met international expectations.

This mismatch is the reason why China is referred to as the black hole of inward FDI. On one hand, its large market power represents strong business opportunities. On the other hand, the comparatively imperfect institutional environments and the violation of IPR protection pose potential risks and uncertainties. This can be compared to the power of space and time to warp in the black hole, lengthening and expanding on one side but flattening and shrinking the other.
1.2 Gaps in prior research

Institutional theory has been a popular and major dimension of many previous cross-border studies (Kunsch, Schnarr & Rowe, 2014). Topics of special interest in recent literature are based on how the institutional environment of the host country affects both the overall volumes of FDI (e.g., Lee & Mansfield, 1996; Smarzynska Javorcik, 2004; Xaypanya et al., 2015; Wach & Wojciechowski, 2016; Anwar & Afza, 2014) and the mode of entry strategy (e.g., McCalman, 2004; Dikova & Witteloostuijn, 2007; Lu, 2016; O’Cass, Ngo & Heirati, 2012). However, compared to the other institutional elements like corruption, political instability and cultural characteristics of the host country, relatively few empirical research have paid attention to the impact of IPR protection on FDI (Awokuse & Yin 2010).

Further, results on the relationship between IPR protection in host countries and FDI inflows are not consistent (Mathew & Mukherjee, 2014). The argument depends on two opposite propositions: the market expansion effect and the market power effect. The market expansion effect proposes that stronger IPR protection attracts more FDI inflows (e.g., Lee & Mansfield, 1996; Seyoum, 1996; Javorcik, 2004), whereas the market power effect causes firms to restrain their output sales in host markets and therefore discourages the flow of FDI.

More importantly, only a handful of papers published more recently have started to explore the relationship between IPR protection and entry mode strategy of FDI (e.g.,
Stephan, 2011; Leahy & Naghavi, 2010). Entry mode choices with respect to WOS and JVs have been relatively absent from these discussions. For example, Papageorgiadis, Cross and Alexiou (2013) evaluated the impact of patent protection and enforcement on entry mode choices between affiliate licensing and non-affiliate licensing. The findings suggest that strengthening de jure protection induces greater affiliate licensing while strengthening de facto enforcement induces non-affiliate licensing. Takechi (2012) has examined the negative effects of IPR on entry mode choices between direct supply and licensing. Evidence reveals that the direct supply mode is negatively related to IPR, while licensing is not. The results from the limited empirical research around WOS and JVs are mixed. For example, Chen (2015) found that when IPR protection becomes stronger, the likelihood of choosing a JV decreases in comparison to WOS. Li and Xie (2011), in contrast, found that MNEs prefer setting up WOS in regions with poor IPR protection and cooperative ventures where protection was more robust.

These ambiguities stimulated further research into the concept of distance, which incorporates the effect of home-country characteristics in cross-border analysis. The concept of distance is originated from the economic gravitational models (Beckerman, 1956). Gradually, distance has come to receive a central interest in IB research, basically for the ‘distant’ impact on location and entry mode decisions (Ambos & Hakanson, 2014; Shenkar, 2001). Beyond that, it has been argued that a more robust operationalization of distance can be achieved by focusing on a couple of key dimensions of distance. These dimensions are clustered together under one overarching
multidimensional measure, labeled “psychic distance or institutional distance” (Zaheer, Schomaker, & Nachum, 2012). Early work investigating institutional distance tended to focus on cultural distance (Hutzschenreuter, Kleindienst & Lange, 2016), while the bulk of the remaining articles favoured the term of psychic distance. Yet, a striking gap has emerged the lack of emphasis on the distance between IPR protection of home and host countries.

Until recently, the issue of asymmetry in distance-related research was theoretically challenged (Shenkar, 2001). This asymmetry primarily comes from the bidirectional nature of distance. The illusion of symmetry was first critiqued by Shenkar (2001), who maintained that the distance from A to B was not always identical to the opposite distance from B to A. It can be probably explained by the example of a company from Dutch investing in China. The Dutch firm does not face the same culture distance when investing in China as the Chinese firm does when it invests in the Netherlands. Researchers have tested the asymmetry of distance, from indirect to direct testing and from theoretical justification to empirical persuasion. For example, O’Grady and Lane (1996) provided initial empirical evidence for asymmetry in perceived distance, and later, Selmer, Chiu and Shenkar (2007) attempted to study the asymmetry adjustment between expatriates from Germany assigned to the US and expatriates from the US assigned to Germany. They also found that the impact of cultural distance was contingent on different directions of the assignment. More specifically, Hakanson and Ambos (2010) had provided extensive data by reviewing a number of distance research
studies to illustrate the fact of asymmetry in that the development of destination markets can possibly be more or less weak than that of the origin market.

Subsequently, research in the IB field has begun to examine the asymmetric effect of regulative distance (e.g., Cuervo-Cazurra & Genc, 2011; Phillips, Tracey, & Karra, 2009; Zaheer et al., 2012). It is possible that the regulative development of host countries may be much weaker than that of the home countries. Therefore, such an asymmetric effect depends on different directions; a firm enters a country with better or worse regulatory conditions than those of its home country. Studies have examined the asymmetric effect of regulative distance on the success of product innovations (Wu, 2013) and on the decisions of foreign market entry (Hernandez & Nieto, 2015). Zaheer et al. (2012) insist that the impact of institutional distance on entry mode choice may be contingent upon the direction of distance. Nevertheless, to the best of the author’s knowledge, the analysis of distance in relation to IPR protection via the premise of the existence of asymmetry is underdeveloped in entry mode decisions.

This thesis aims to cover the shortage of IPR-related research in the IB field and takes as its starting point the idea of distant asymmetry. It develops hypotheses based on the argument that the directions of distance (positive distance or negative distance) have different institutional impacts on FDI inflow and entry mode choices for FDI.
1.3 Purpose of the study

The decision choice of a target market and the selection of an appropriate entry mode for different institutional environments is a complex and crucial task for MNEs’ success in the international arena. Furthermore, target markets and entry mode choices of FDI are not independent of one another; entry mode choices are inseparable from a firms’ previous decisions on whether to set up FDI in a host country. Research on FDI inflow creates a fundamental and macro understanding for the study of entry mode selections, involving both an industry and firm-level analysis. Therefore, the identification of associations between institutional distance and both FDI inflows and entry mode choices is an important managerial issue.

The purpose of this thesis is to examine the impacts of institutional distance on FDI inflows and entry mode choices. This will be done by focusing on:

1/ Institutional distance between home and host countries when it comes to the degree of IPR protection,

2/ Two directions of institutional distance: positive distance and negative distance, and

3/ Two types of entry mode: wholly-owned subsidiaries (WOS) and joint ventures (JVs).
1.4 Research questions

This thesis examines the impacts of institutional distance in relation to IPR protection on FDI inflow and modes of entry into a country. The findings are expected to provide answers to two research questions:

1/ Does institutional distance in relation to IPR protection affect FDI inflows into a host country?

2/ Does the institutional distance in relation to IPR protection differentiate FDI’s choice of entry modes between WOS and JVs?

To address research question 1, the annual data of FDI inflows to China will be obtained from the China Statistic Yearbook (CSY) database. The CSY database is a leading resource for statistical data in China, which is published annually by the National Bureau of Statistics of China. For research question 2, the entry modes (WOS or JVs) of FDI in China will be extracted from the China Industrial Survey (CIS) database. The CIS database is also published annually by the Chinese National Bureau of Statistics (CNBS). In China, all types of firms are required to cooperate with and submit their basic and financial information to the CNBS. The index of IPR protection was taken from the World Economic Forum’s (WEF) Global Competitiveness Reports.
1.5 Contributions of the study

This thesis offers theoretical contributions to IB research in two areas. First, it advances research on the institution-related determinants to a focus on IPR protection. Second, it adds new insights to the distance literature by answering a call for scholars to investigate the asymmetry of bidirectional distance, and provide empirical advances to research on institutional distance, particularly a comparative new understanding of general regulative distance (Hernández & Nieto, 2015). In doing so, this study enhances current comprehension of the use of institutional distance and its particular dimension on regulative institutions. The results are believed to shed some light on the debate over the mixed empirical evidence of research on IPR-FDI relationships. Furthermore, this study enriches the literature on FDI in China.

In practice, managers are advised to identify both the IPR distance and the bidirectional nature of such distance when making their expansion decisions. Also, this study provides policy makers with a reference of how to carefully manage national IPR policy in terms of encouraging more FDI inflows.

1.6 Outline of the study

Following this introductory chapter, literature on the topics of FDI and institutions will be reviewed in chapter 2. Also, hypotheses will be developed in chapter 2. Chapter 3 is concerned with the methodology used in the empirical examination, including data selection, sampling and measuring methods. The main findings of the examination are
presented in chapter 4. Finally, chapter 5 presents a discussion and conclusion. It discusses the limitations of the study, and provides ideas for future research.
Chapter 2 Literature review and hypotheses development

This chapter illustrates FDI and FDI’s choice of entry mode from different perspectives and describes the institutional theory as the most appropriate for this study. It reviews the recent trends of FDI flows and IPR protection development in China and explains China’s suitability as a sample for the research topic. Chapter 2 also discusses critical aspects on the concept of institutional distance and the previous research relevant to the IPR protection. Finally, hypotheses regarding FDI inflows and entry mode choices are presented at the end of the reviewing and discussion.

2.1 Institutional theory and institutions

Institutional theory constructs a theoretical framework to explain social phenomena (Leaptrott, 2005). Scott (2008) defines institutional theory as “a widely accepted theoretical posture that emphasizes rational myths, isomorphism and legitimacy”. The institutional environment in each country is unique (Kogut, 1991), which consists of the government’s and the society’s formal and informal institutional structures (North, 1990). These structures contain regulatory frameworks, rules, laws and other societal and cultural practices (DiMaggio & Powell, 1983), and act as authoritative guidelines for social interaction (North, 1990).

Institutions in a country direct the way in which social, cultural, political and economic relations are managed. Institutions broadly refer to social structures which have attained
a high degree of resilience, and the multifaceted and durable nature of society (Scott, 1995). Currie (2009) suggests institutions are made up of symbolic components, social activities and material resources. For instance, human rights, societies, families, greeting patterns and religions like Christianity are institutions that organizations and individuals are expected to follow.

Based on research into institutional analysis, Scott (2007) summarized and identified three pillars of institutional forces; regulative, normative and cognitive. Deriving most directly from economic studies, the regulative pillar represents existing laws and rules and enforcement mechanisms in a country. These rules provide a rational actor model of behaviour by means of governmental monitoring and enforcement. The normative pillar covers social values, or what is preferred or considered proper. Norms represent how things ought to be done, and are consistent with values and culture. Normative institutions provide guidelines for organizational and individual behaviour by means of recognizing what is appropriate or what is expected in social interactions. The final institutional pillar is the cognitive one, which derives mostly from the research in terms of social science. It represents the social knowledge and shared perceptions which may operate at more at the individual level, like culture and language (Scott, 2007).

2.1.1 Institutional theory in multidirectional research

2.1.1.1 Economic and political research

Traditionally, institutional theory can be applied to various disciplines: from economics
North (1990) and political science (Bonchek & Shepsle, 1996) to sociological (DiMaggio & Powell, 1983, 1991) and organizational notions (Meyer and Rowan, 1991; Kostova & Zaheer, 1999). North (1955) was the first to interpret economic development in line with the institutional structures. Since then, researchers have widely accepted the idea of adopting institutions in explaining economic development problems. Further to this, North’s theory provides a useful framework for economic analysis in the future.

Over time, new institutionalism has recognized the complex and fragmented institutional environments as crucial to organizational behaviour (Meyer and Rowan, 1977; Galbraith, 1977). With North’s (1990) interpretation of the relationship between institutions and organizations; institutions are the “rules of the game” and organizations act as players (pp. 4-5). However, such rules of a game generally create uncertainty and exert pressures on players. An organization’s creations of their distinctive forms, processes, strategies, outlooks and competencies is thus driven by the need to get involved in social interactions and to adapt to environmental pressures (Selznick, 1996).

A natural question from the institutional perspective in the organization field is how organizations can better secure positions and gain legitimacy by changing and conforming to different institutional environments in a given country.

2.1.1.2 Organizational and sociological research

Organizational institutionalism in the 1970s and 1980s brought about an evolution in the way people thought about the relationships between organizations and institutions through conceptual emphasis. Meyer and Rowan (1977), like Scott (2008), consider
institutional rules to be myths which organizations use to gain legitimacy, resources, stability, and enhanced their own survival prospects. They proposed that if an organization constructs its structure following such institutionalized myths, it is more likely to internally and externally maintain an elaborate display of confidence, satisfaction, and good faith in society.

Zucker (1977) provides an adequate explanation of the effects of institutionalization on cultural persistence, consisting of generational uniformity, the maintenance of cultural understandings and the resistance of these understandings to change. The greater the degree of institutional development, the greater the cultural persistence will be. DiMaggio and Powell (1983) insist that the “organizational field” which includes a totality of relevant actors engages in the processes as a useful level of analysis. It is a signpost of institutional analysis in the organizational field since DiMaggio and Powell’s (1983) work to link institutional thoughts to ideas about networks. From then on, definitions for organizational fields became a standard for institutional researchers. DiMaggio and Powell (1983) also suggest that organizations are connected and those connections direct and construct the institutionalization of ideas and practices. Notably, unlike economists, who are more concerned with formal and clearly defined rules, organizational theorists emphasize implicit normative and cognitive factors. The evolution of the theory also witnessed an increased recognition within institutional research, which moved from understanding the influences of social embeddedness and cognitive factors to recognizing the responses of organizations and the interplay
between organizations and environments.

Beyond that, the theme of legitimacy and issues relating to isomorphism and diffusion have long been of central interest to researchers of organizational institutionalism (Wright, 2012). In line with institutional theory, organizational legitimacy refers to how organizations adapt to the environment and manage their credibility in a social system (Meyer & Scott, 1983). Social legitimacy, to a large extent, guarantees organizational success and survival (Kostova & Zaheer, 1999), as legitimacy allows access to materials, capital, and labour from a specific social system (Luhman & Cunliffe, 2014). Suchman (1995) provides a synthesis of previous organizational legitimacy research to delineate strategic and institutional forms of legitimacy. His analysis identifies three main types of legitimacy: pragmatic, moral and cognitive. Further to this, Kostova and Zaheer (1999) extend the theory of organizational legitimacy by examining the MNE case, in which a meta-environment consisting of both home and host country institutional environments exists, although some aspects from the case of MNE can be generally accommodated by the theory of organizational legitimacy. Such a case distinctly emphasizes the social and cognitive nature and bounded rationality of the cross-border legitimation process. Another topic, isomorphism and diffusion, interprets scholarly thinking about how structures, practices and strategies diffuse and travel to new organizational settings. In fact, institutional adaptation and conformity give rise to the issue of isomorphism. As DiMaggio and Powell (1983) mention, organizations become similar due to the isomorphic pressures. This isomorphic pressures can be
considered to consist of coercive pressures from laws and regulations, normative pressure from cultural expectations as well as mimetic pressures from a desire to belong.

Notwithstanding this, some empirical findings in fact found the support that many organizations actually become heterogeneous over time. For instance, Yin and Schmeidler (2009) conducted a study of 400 firms’ implementation of ISO 14001 Environmental Management Systems standards and found that firms implemented the system differently based on internal norms, needs and practices. Even though standardized management systems and tools were similarly adopted, the implementation was interpreted according to the firm’s norms. Another finding from Danisman, Hinings and Slack’s (2006) study of 33 Canadian Olympic sports organizations suggests that even though they faced institutional pressures, organizations were not adopting consistent values and norms.

2.1.2 Institutional theory in international business research
In general, institutional theory describes both an institutional environment that creates the “rules of the game” and an institutional adaptation, which refers to the “play of the game” (Ngo, Janssen, Leonidou & Christodoulides, 2016). Institutional theory has been increasingly used by IB researchers to explain the behaviours and strategies of MNEs. Tihanyi, Devinney and Pedersen (2012) have indicated that the current dominant role of institutional theory in business practice and academic research is likely to continue.
One of the most crucial factors in the continued dominance of institutional theory is the explosion of leading MNEs on to the global marketplace. In a cross-border context, MNEs have subunits that face pressures both for isomorphism with the local environment and for internal consistency. Rosenzweig and Singh (1991) reexamined the nature of organization-environment relationships based on the special experience of MNEs. They found that the relationship between an organization and its environment is complex and fluid as national boundaries exert varied pressure on different parts of MNEs. Awareness of the importance of national boundaries in organizational-environment relations has triggered the liability of foreignness (Zaheer 1995) to become a salient issue in institutionally different countries. Firms and managers are eager to understand the regulations, customs and norms in different countries. Zaheer (1995) suggests that the more the source of firm-specific advantage lies in organizational capabilities, the greater the benefits that will be acquired if foreign subunits to import home-country organizational capabilities rather than to attempt to mimic.

Furthermore, the growing political and economic importance of emerging countries is another factor that stimulates the application of institutional theory in the IB field. The rules of the game have been traditionally conceptualized at a national level by IB research. In a broad sense, IB research acknowledges that the institutional environment including regulative, cognitive and normative institutions in the host country affects the adoption of MNEs’ practices in foreign markets (Guler & Guillen, 2010; Meyer et al.,
Kostova and Roth (2002) introduced the ‘institutional profile’ as a new concept to describe the set of regulatory, cognitive and normative institutions in a country. The institutional profile of a host country is identified as a factor influencing the adaptation of MNEs’ practices, based on data collected from 534 managers and 3,238 non-managerial employees from 104 subsidiaries (Kostova & Roth, 2002). As a player, an organization’s strategic decisions can be affected by institutional factors through regulative, normative and cognitive forces. Consideration of the influence of institutional factors on international business research is necessary because they influence every aspect of international business activities such as an MNE’s choice of location, foreign market entry strategy, labour staffing and the sequence of investment (Henisz & Swaminathan, 2008).

With the increasing importance of emerging economies in the global marketplace, analytical attention to perspectives on institutions has experienced an increasing tendency from concentration on institutional environment in a host country to focus on institutional distance between home and host country. MNEs doing business in different nations come across distinct institutional settings from both home and host country that constrain or enable business (Meyer & Peng 2016). Accordingly, scholars (Kostova, 1999; Shenkar, 2001) draw on the notion of ‘distance’ to describe the degree to which the institutional frameworks in home and host country are different. Moreover, institutional environment in the home country has also attracted academic interest in IB research. It indicates that institutions and institutional changes of home country...
influence the strategic decisions and action patterns of MNEs (Xu & Meyer 2012), as home-country institutional environment creates an advantage or disadvantage for outward firms in overseas expansion. Sol and Kogan (2007) discovered that Chilean companies’ operations in Latin America performed better than local firms, as they exploited know-how acquired during pioneering economic reforms in their home country. Cuervo-Cazurra and Genc (2008) suggest that MNEs from emerging economies may attain competitive advantages in the least developed countries. Even the competitors from developed economies master better technologies than MNEs from emerging economies, the lack of sufficient experience with imperfect institutions in the least developed countries presents risks and challenges.

The possibility of taking institutional theory into consideration in the IB field is also attributed to its bringing together of several distinct lines of research (economic, sociological and organizational), with shared interests in the influence of institutional environments, especially on the behavior of MNEs. Importantly, the growing availability of multiple data sources relating to institutions and institutional structure has made the dominance of institutional theory in IB field possible. Despite the domination of transaction cost theory and neoclassical economics in early international business research, the application of institutional theory has been found to be a major theoretical foundation in the past decade (Tihanyi et al., 2012; Meyer & Peng, 2016).

Xu and Hitt (2015) redefined institutional polycentrism in explaining the relationship
between entry mode choice and institutional learning. The concept of institutional polycentrism demonstrates that institutions are multi-centered systems rather than single-centered hierarchies. Based on a multi-centered view of institutions, they discovered the nature of institutional learning for firms from emerging economies entering developed countries. Xu and Hitt’s (2015) study concentrates on the formal institutional learning of MNEs. This is because emerging economies commonly have weaker formal institutions so that society is heavily reliant on informal institutions. To a large extent, informal institutions serve as substitutes for weaker formal institutions in emerging economies.

Previous IB research has identified three highly important formal institutions: regulatory institutions, political institutions and economic institutions. Economic institutions mainly comprise a country’s monetary and fiscal policies, and include the rules and standards that manage the financial resources in a country. Political institutions are rules and standards established by governments which define the nature of political process in a country. In other words, political institutions illustrate how power is distributed within government and how people’s rights are allowed to be exercised.

Regulatory institutions are an important responsibility of government used to standardize the activities of domestic and foreign organizations’ operations within a country. He and Cui (2012) investigated the effects of home-country regulatory
institutions on MNE’s international expansion. They found that MNEs from countries with advanced regulatory institutions are more engaged in internationalization than those from countries with less developed regulatory institutions. Moreover, Dong, Paik and Seung (2010) examined the impacts of host-country regulatory institutions on MNE partners’ control activities in China. The findings illustrate that MNE partners’ activities are significantly associated with the regulatory institutions in the host market. For instance, MNE partners are more likely to exercise less output and process control when minority equity restrictions are present.

More relevant to the topic of this study, Ramachandran, Clark, Miller and Wang (2012) developed a framework to explain how a host’s country’s property and contractual rights, rule of law, and the institutional distance between home and host countries affect the attractiveness of both exploratory and exploitative alliances. According to the propositions, the institutional environment is expected to continually play a key role in IB research on the topic of international strategy, in particular MNEs’ strategic alliances.

2.2 Institutions and FDI inflows

2.2.1 Foreign direct investment (FDI)

Among a variety of dimensions adopting institutional approaches within cross-broader studies, FDI has gained significant traction from international business scholars. What this means is that many governments, such as China, in both developed and developing countries, believe that inward FDI exerts unique spillover effects of capital,
technological and managerial knowledge. This speeds up national development or hinders economic stagnation. Among all potential benefits of commercial globalization, FDI is seen to be a powerful international mechanism for mobilizing both tangible and intangible assets, and is considered to be one of the most effective tools in the global fight against poverty. Therefore, understanding antecedents of FDI is essential.

Over the past two decades, global FDI flows experienced an overall upward trend, although accompanied by some slight fluctuations. For example, the crash that followed the collapse of the dot-com bubble in 2001 and the slump led by the financial crisis in 2008 (OECD, 2016) are some causes of these fluctuations. More importantly, recovery in global FDI flows was strong in 2015. FDI flows rose by about 40 per cent, to $1.8 trillion, reaching the highest level since the global economic and financial crisis of 2008 (UNCTAD, 2016). Such a global rebound is driven by a surge in cross-border mergers and acquisitions (M&As) from US$432 billion in 2014 to US$721 billion in 2015. The value of the announced greenfield investment remained at a high level, reaching US$766 billion in 2015.

FDI flows to developing economies increased to US$741 billion in 2015, five per cent higher than in 2014. For example, Developing Asia remained the largest FDI recipient region in the world, with an increase of 16 per cent to US$541 billion, a new record. Developing economies occupied half of the top 10 host economies for FDI flows. This surge was largely due to the high value of FDI flows to the East and South Asian
markets. In 2015, the four largest recipients, namely Hong Kong (China), China, Singapore and India, received more than three quarters of total inflows to Developing Asia (UNCTAD, 2016).

China’s inflows, for example, rose by 6 per cent to US$136 billion in 2015, and China was ranked the third largest FDI recipient (following the US and Hong Kong). This is a tenfold increase when compared to the realized FDI in 1992 (US$11.2 billion). The early market-oriented reform in China and its open-door policy assisted in this increase. Looking back over the past decade, despite the worldwide economic upheaval and the slowdown in global FDI, inflows to China remained resilient. After joining the WTO in 2001, China received US$47 billion in FDI inflows. In 2010, China broke through the US$100 billion threshold. In 2014, China had surpassed the US to become the largest FDI recipient in the world, with US$129 billion in FDI inflows (UNCTAD, 2015).

The rapid growth and prominent benefits of international trade and FDI have inspired extensive research on the determinants of FDI and FDI decisions (Assunção, Forte & Teixeira 2011). Sauvant (2016) has reiterated the concept regarding the Sustainable Development Goals of FDI, which indicate that, to fulfil its potential, FDI must increase substantially. Improving the economic determinants and implementing official development are two principal forces, especially for less developed countries. However, the first challenge for developing countries to attract sustainable FDI is to improve their
regulatory framework and investment promotion capacities (Sauvant, 2016). This institutional reformation in developing countries, and especially the least developed countries, also calls for a concerted international effort.

Institutional theory has recently been adopted to explain the essential role of influential social factors on FDI (Henisz & Delios, 2001). The literature regarding institutions and FDI is broadly divided into two dimensions: host country attractiveness, which examines the impact of ‘good’ or ‘bad’ institutions on inward FDI decisions, and institutional distance, which focuses on the impact of institutional differences between home and host countries on inward FDI decisions.

2.2.2 Formal institutional determinants for FDI

Determinants for FDI are one of the most popular research problems in FDI research. As Sauvant (2016) said, the primary challenge in attracting FDI flows to developing countries is to improve their regulatory pillar, therefore, most attention in this study will be concentrated on formal institutional determinants. In view of Daniele and Marani’s (2006) study, institutions may affect FDI inflows through three channels. First, good institutions probably improve productivity, thereby stimulating investment, both domestically and internationally. Secondly, good institutions reduce investment-related transaction costs or corruption-related costs. Lastly, good institutions safeguard property rights, which in turn provide a predictable legal environment.
Similar to Daniele and Marani’s views that assert the determinants for FDI inflows, Assunção et al. (2011) classified determinants that could explain FDI flows into micro dimensions, like organizational aspects, and macro dimensions like resource allocations. Furthermore, Holmes Jr et al. (2013) agree with these studies and categorize formal institutions that may influence FDI into three types: political institutions, economic institutions and regulatory institutions. Therefore, based on the logic of Holmes Jr et al., the following review will firstly outline several popular focuses in relation to formal institutional determinants for FDI inflow.

2.2.2.1 Political institutions

The nature of domestic political institutions is largely defined by the relative degree of democracy in a country’s political system. Thus, it gives rise to numerous academic focuses on democracy-FDI relations. Oneal (1994) is a pioneer in this area having investigated the role of democratic systems in attracting FDI. His results indicate that the relationship between governmental regime type and FDI flows is not statistically significant. In contrast, several empirical studies have arrived at the opposite conclusions (Busse, 2003; Jensen, 2003; Choi, 2009; Farazmand & Moradi, 2014). The studies generally agreed on the idea that the volume of foreign investments is significantly higher in democratic countries than those in less democratic regions. Democracy is identified as having a positive effect on investors’ decisions about location choice.
This ambiguous situation has received new explanations since scholars’ reconsideration of the significant moderate factors that influence democracy-FDI relations. Research on democracy-FDI relations has also witnessed a shift of analytical focus to developing countries. For example, Asiedu and Lien (2011) discovered that the size of natural resources in a given host country moderates the relationship between democracy and FDI inflows. Analyzing data from 112 developing countries, their results indicated that democracy in 90 countries with a lower amount of natural resources attracted more foreign investments, while democracy in 22 countries with a greater amount of natural resources discouraged FDI. In a similar manner, Mathur and Singh (2013) stressed the moderate effect of economic freedoms on democracy-FDI relations. They believe that when making decisions on location choice, foreign investors are more concerned about economic freedoms than political freedoms. Using data on FDI inflows to 29 host countries during the period 1980–2000, the article showed that more democratic countries may receive less FDI inflows if economic freedoms are not guaranteed.

In addition, political stability is one of the key aspects shaping political institutions (Child & Marinova, 2014) which may influence FDI inflows. Foreign investors face two principal barriers stemming from political instability in host countries (Brada, Kutan & Yigit, 2006). One of them is domestic instability or conflict with other countries that will reduce profitability. The other is the negative effect caused by political instability on the value of the host country’s currency. The currency devaluation in the host country is likely to reduce the value of assets invested in and
the future profits generated by the investment.

There is a large amount of literature on the effects of political instability on FDI (e.g., Bennett & Green, 1972; Agarwal, 1980; Schneider & Frey, 1985; Singh & Jun, 1995; Alesina & Perotti, 1996; Globerman & Shapiro, 2003; Cho, 2003; and Asiedu, 2006). This offers clear evidence that political instability decreases the attraction of FDI in a given country. Still, several empirical studies suggest the opposite. Azam and Kahttak (2009) examined the effect of political instability on FDI stock in Pakistan from 1971 to 2005. The findings showed that political instability has a positive impact on FDI, though the statistic is insignificant. Anwar and Afza (2014) empirically investigated FDI determinants in Pakistan between 1980–2010 and found that political instability has had a negative impact on FDI inflows in Pakistan. Meanwhile, Burger, Ianchovichina and Rijkers (2013) evaluated quarterly greenfield investment flows into countries from the Middle East and North Africa for a ten-year period (2003 to 2012). Their results suggested political shocks would significantly reduce investment inflows only in the non-resource tradable sectors, while the influence of such shocks on investments in natural resource sectors and non-tradable activities is limited.

Another popular strand of literature on political institutions is the role of corruption in FDI inflows. Indeed, corruption is decisively responsible for political instability (Chayes, 2014). The literature is relatively abundant, however, it still lacks agreement on whether corruption influences FDI. Some researchers negatively state that
corruption acts as a grabbing hand to impede FDI as it can raise both uncertainty and transaction costs (Zeneli, 2016; Quazi, 2014; Al-Sadig, 2009). On the contrary, another stream indicates that corruption can act as a helping hand to facilitate FDI by ‘greasing the wheels’ of commerce in the circumstance of a weak regulatory framework (Quazi 2014). Haksoon (2010) found that countries which have a highly corrupt and undemocratic government achieve higher FDI inflows. Wheeler and Mody (1992) and Henisz (2000) have also found the evidence to validate the helping hand hypothesis.

The inconclusive situation is rendered even more inconclusive by a few further studies that have found no evidence that corruption significantly affects FDI. For instance, using two different indices of corruption to study FDI inflows to a cross-section of 52 developing countries, Akcay (2001) found no evidence that corruption significantly affects FDI.

2.2.2.2 Economic institutions

The role of economic institutions in FDI inflows is well researched in the literature (Naanwaab & Diarrassouba, 2016). Dunning, one of the leading proponents of the economic approach, distinguishes three sets of economic influences on FDI: market factors, like the size and growth of the recipient market; cost factors, such as the availability of labour, low labour costs and inflation; and the investment environment which is normally measured by the degree of foreign indebtedness and the state of the balance of payments. Dogru’s (2012) study suggests that, compared to social and
political institutions, the economic institutions play a more major role in attracting FDI. Specifically, the market size indicators, population growth rate, global competitiveness and international country risk are the key factors to promote FDI inflows.

Marr (1997) introduced a list of the critical determinants of FDI inflows, including market size, trade openness, labour cost and other incentives. Focusing on a specific country, Yohanna (2013) and Bekana (2016) respectively discovered that market size, inflation and human capital are the important forces attracting FDI into Nigeria and Ethiopia. Further to this, Naanwaab and Diarrassouba (2016) found that economic freedom also positively and significantly affects FDI in middle- and high-income countries. Focusing on outward FDI, Sharma and Bandara (2010) empirically found that host countries which are open and provide a large domestic market attract most of Australia’s foreign investment.

2.2.2.3 Regulatory institutions

In the literature that explores the relationship between FDI and external formal institutions, a handful of studies concentrate on obtaining evidence for the existence of regulatory institutions. Among all the formal institutions, regulatory elements, which are the focus of this thesis, are in practice more easily identified as they are the most formalized with explicitness, more easily planned and strategically crafted (Scott, 2008). The impact of regulatory institutions is different, as it generally depends on not only the laws and policies enacted and enforced, but also on the way firms respond.
Regulatory institutions which provide more friendly business environments are likely to attract FDI (Globerman & Shapiro, 2003), while tight regulations impose costs on organizations, thereby reducing their incentives to invest.

A high level of regulatory quality has a significant positive effect on FDI. The unpredictability of laws, regulations and policies and excessive regulatory burden are thought to be a major player in deterring FDI (Daude & Stein 2007). Kirkpatrick, Parker and Zhang (2006) empirically examine the relationship between the quality of the regulatory institutions in middle- and lower-income developing countries during the period 1990–2002. Their results suggest that an effective domestic regulatory framework positively attracts FDI in infrastructure. Further, Fournier (2015) concludes in his study of inward FDI in OECD countries that the complexity of regulatory procedures can have a negative impact on FDI.

To illustrate one of the popular focuses of concern, the environmental impact of international trade and investment have brought about an increase in the study of environmental regulations on FDI. Kirkpatrick and Shimamoto (2008) assess the impact of environmental regulations on Japanese foreign investment in five dirty industries such as iron and steel, nonferrous metals, chemicals, paper and pulp, and nonmetallic products. They found that countries with a transparent and stable environmental regulatory environment attract more inward Japanese FDI. Considering the nature of countries, Co, List and Qui (2004) indicate that strengthening
environmental standards in the southern country will attract FDI from the northern country. In contrast, utilizing a panel data of 28 OECD countries from 1990 to 2000 to evaluate the impact of environmental regulations on FDI, Naughton (2014) found that host regulation decreases FDI inflows. As for the home environmental regulations, they increase FDI at low levels of home regulation and decreases FDI at high levels of home regulation.

Formal institutional determinants, as discussed above, are particularly noted by MNEs’ decisions on whether to enter a target market. The role of institutions is also particularly important in entry mode strategy, in which MNEs decide how to enter a selected foreign market. The choice of a target market and the selection of foreign market entry mode are not independent of one another; entry mode choices are inseparable from the results of the previous decision of whether to conduct FDI in such a host country.

2.3 China as a recipient of FDI

2.3.1 China’s four stages of investment climate and patterns of FDI

This section examines the case of China to highlight the relationship between FDI and IPR protection. As a large recipient of global FDI, China has attracted an increasing amount of academic interest from varying dimensions, from sociological to economic and commercial. FDI is an important driving force behind the development of transition economies (Du, Lu & Tao., 2008). It is not surprising that the popularity of studying China has not only resulted from China’s important role in the global economy, but also
from its astounding growth in FDI inflow over recent decades. China also represents the tremendous interest of different transition economies in understanding what helps to lure FDI. China is a new player in welcoming foreign investors since market-oriented reforms and opening-up policies were initiated in 1978. In regards to geographic regions and sectors open to foreign investors, China has experienced changes in its FDI policies, moving from the restrictive policies of the pre-1978 era to more tolerant ones in the early 1980s. From there, it began to encourage investors between the mid-1980s and the mid-1990s, and finally matured its policies after the mid-1990s (Long, Yand & Zhang, 2015). In this regard, it is better to investigate both the patterns of FDI inflows and the investment climate (Jiang, Wang & Sharma, 2013) during the four stages: the limited openness (1979–1986), the active promotion of foreign direct investment (1987–1991), the FDI policy adjustment and consolidation (1992–2000) and the accession to the World Trade Organization (WTO) (2001 to the present).

2.3.1.1 Limited openness (1979–1986)

China’s integration into the world economy started when the government embarked on market-oriented economic reform and the open-door policies in 1979. During this time, the most important approach to such economic development process was to increase the volume of China’s trade with other countries and to remove some of the barriers to the inflow of foreign direct investment. Scholars (like Balgar, 2015) refer to this period as the limited openness stage in which the nature of limitations not only existed in the investment climate but it also lay in the patterns of FDI in China.
As for the investment climate, China’s government allowed foreign investment to occur step by step and from place to place across the country. One year after the 1979 law of China on Joint Ventures Using Chinese and Foreign Investment, the government created four economic zones in Guangdong and Fujian provinces in which the establishment of joint ventures was limited to export-oriented business. Even though this experimental area was small and limited, it represented a window towards the outside world. The announcement for 14 other port cities to be opened to FDI inflows in subsequent years supported a further improvement of the investment climate for FDI in China. Later, wholly-owned foreign enterprises in China were eventually accepted in the form of the Law of China on Enterprises Operated Exclusively with Foreign Capital in 1986.

In the first stage after China’s reform in 1979, FDI inflow to China was slow and unoptimistic. Researchers attributed such slow development to continued restrictions in accessing the Chinese market, or to the non-convertibility of the Chinese currency, together with other organizational barriers (Coughlin & Segev, 2000). In 1983, FDI inflow into China was still estimated to be below US$1 billion. During the 1984–85 period, China’s total FDI inflows increased to $2.3 billion which accounted for 0.7 percent of China’s GDP and 12.7 percent of the total FDI inflows to developing countries.
2.3.1.2 The active promotion of foreign direct investment (1987–1991)

Moving to the period from 1987 to 1991, which was characterized as the stage of the active promotion of FDI, China’s government had positively conducted some extension and adjustment of the FDI legislation. As mentioned, in 1986, the Law on the establishment of 100% foreign-owned companies was announced and it provided foreign investors with the right to set up wholly-owned subsidiaries in China. Further to this, new regulations were also introduced to eliminate investor uncertainty. These included; ensuring joint ventures had access to utilities for the same tariffs as state-owned enterprises, additional tax relief, and the possibility to take up low-interest loans (Balgar, 2016). Consequently, this positive investment context triggered the massive inflow of FDI from developing countries into China, like Hong Kong and Taiwan.

It must be noted that in this stage, the active regulation adopted by China’s government had positively promoted the FDI inflow to China. The amount of FDI inflow grew to US$16.8 billion in this period, with an average annual amount of US$4.2 billion. It had constructed a solid foundation for a potential growth of FDI inflow to China in the 1990s.

2.3.1.3 The FDI policy adjustment and consolidation (1992–2000)

The third stage of China’s investment openness progress can be traced back to Deng Xiaoping’s visit to southern China in 1992. This southern tour aimed at extending market-oriented reform and the scope of the open doors policy. These efforts had
successfully gained some trust from foreign investors. During this stage (1992–2000), the objectives of China’s government in developing a market economy and promoting foreign capital were twofold. First, it attempted to redirect investment flows from the south-eastern coastal areas to the north-western inland areas. Secondly, the government planned to force an industrial transfer in FDI inflow from workforce-intensive industries towards the capital or advanced technology-intensive sectors. Further, the publication of the guidelines for foreign investment projects in 1995 appears to explain the objectives of the Chinese government. The objective was to permit and encourage investments to industries that made use of advanced technologies and had a higher production quality. This, additionally, stimulated investors to locate themselves in the central and western regions.

Surprisingly, the adjustment and consolidation of FDI policy reflected an unprecedented growth in FDI inflows to China after 1990. Realized FDI in 1992 surged to US$11.2 billion, which was almost the same as the total realized FDI inflows in the entire first decade (US$12 billion). In particular, in the period 1995–1999, FDI reached US$40.6 billion per annum, occupying 4.7 percent of China’s GDP and 23.3 percent of the total FDI inflows to the developing countries. By 1997, the amount of FDI inflows quadrupled from the level achieved in 1992.

2.3.1.4 Accession to the World Trade Organization (WTO)

As a fully-fledged member of the World Trade Organization (WTO) in 2001, China’s
investment policy continued to be geared predominantly towards investment liberalization, promotion and facilitation, which made good progress in attracting FDI inflows. To a large extent, joining the WTO brought about multilateral trade opportunities. However, it also exerted a series of obligations for China in terms of the improvement of its national FDI policies, industrial policies and the regulation of intellectual property protection. Accordingly, the government implemented a wider open-door policy of the market to foreign investors and eliminated a variety of trade barriers. For example, the new legislation and policies of FDI undertook to eliminate the geographic restrictions that had previously limited the expansion of foreign investors. Further, it opened some service sectors to foreign investors, like retail, transport and finance.

Despite the worldwide economic upheaval and the slowdown in global FDI inflows, FDI inflows to China remained resilient. In 2001, foreign investment in China was US$47 billion, a tenfold increase compared to 1991. Two years later, China attracted $53 billion in direct foreign investment. This was the first time China surpassed the United States as the largest host country of FDI inflows. In 2010, China broke through the threshold of US$100 billion in direct foreign investment. In 2014, China again surpassed the United States to become the largest FDI recipient in the world in 2014, with its US$129 billion received from FDI inflows (UNCTAD, 2015). This came about as a result of an increase in FDI to the service sectors. As estimated, by 2015, inflows to the service sectors had accounted for a new record of 61 per cent of FDI in China.
Newest data indicates FDI inflows increased by 6 per cent to US$136 billion, and importantly, market-seeking investment has become more significant for foreign MNEs.

### 2.3.2 Research on FDI in China

With the dramatic increase of FDI in China, not surprisingly, a great amount of academic interest has emerged to test international business theories. One of the reasons for this interest is to gain new empirical insights into the determinants and entry decisions of inward FDI in China.

#### 2.3.2.1 Determinants for FDI entering China

Understanding in regards to the location choice of FDI in China is largely inspired by the major contribution of the theoretical developments published during the last five decades. Theories such as the internationalization theory (Buckley, 1990), the eclectic paradigm (Dunning, 2001) and the macro-economic perspectives (Kojima, 1982) draw most of the academic attention. Empirical studies discovered determinants of economic development and prosperity (e.g., Coughlin & Segev, 2000; Liu, Burridge & Sinclair, 2002; Fung, Iizaka & Parker, 2002), labor quality (e.g., Liu, Daly & Varua, 2012; Zhang, 2001; Cassidy & O’Callagan, 2005) and labor cost (Chen & Yeh, 2012; Falk, 2016; Liu et al., 2012; Cheng & Kwan, 2000), which has played an important role in attracting FDI in and across China. Institutional environments and regulatory changes are of particular importance in improving the location-specific advantages of China. Cassidy & O’Callagan (2005) concluded that institutional quality is significantly and positively
related to FDI in China. Additional investigation is provided by Cole, Elliott and Zhang’s (2009) provincial-level findings that suggest that a high degree of government efficiency and a low level of corruption positively influenced FDI in China. Also, the changes and reforms of China’s investment policies, and the establishment of special economic zones in selected coastal areas, have driven another provincial-level stream of study, which concentrates on the agglomeration effects in attracting FDI in different cities in China (e.g., Huang & Wei, 2016; Yin & Ye, 2016; Chen & Yeh, 2012). These provincial-level studies reflect the fact that FDI is clustered in particular areas.

2.3.2.2 MNEs’ modes of entry to China

After considering location advantages, firms devoted to serving foreign markets face another difficult decision in respect to the choice of entry mode. Comparatively, few studies tend to investigate foreign firms’ entry strategies in China (Wei, Liu & Liu, 2005). In a multinomial manner, Tse, Pan and Au (1997) evaluated the entry choices of foreign firms from the US, Europe, Japan and other Asian countries among export, licensing, JVs and WOE in when entering China between 1979 to 1993. The study developed a generic model to explain a firm’s entry-mode choice and concluded that host-country, home-country and industry-specific factors would affect the mode choice of entry. Wei et al. (2005) investigated 10,607 foreign investment projects in China. Their results suggest that an MNE’s choice of the WOS mode is positively related to its large investment commitment, the host country’s experience in attracting FDI, a good industrial location, and a high asset intensity in the host industry. Among the
focuses on the binary choice, Luo (2001) studied the conditions under which EJVs are selected, as opposed to WOEs, at four levels: country, industry, firm and project. One of the important findings indicated that MNEs will prefer the entry mode of WOS when intellectual property rights are not well protected, the number of firms in the industry is growing fast, the need for global integration is high, or the project is located in an open economic region. More specifically, Pan and Tse (2000) reconsidered the choice between equity and non-equity modes in different levels of hierarchy. This is where firms will choose either equity-based modes (include WOEs and EJVs) or non-equity-based modes (including contractual agreements and exports) in the first stage. After the first choice, firms then decide on the specific mode with which they will align—equity or non-equity.

The relationship between institutional environment and entry modes (e.g. Tse et al., 1997; Dikova & Witteloostuijn, 2007) is another focal point in the existing China-focused literature. Chen et al. (2009) regard institutional factors as the more crucial driving force than transaction cost considerations for entry mode decisions. This conclusion came from their investigation of the entry mode choice of a leading Taiwanese food company in China with regards to transaction cost theory, resource-based view and institutional theory. Chiao, Lo and Yu (2010) found that the perception of institutional differences between home country and host country moderated the relationship between resource-based factors and a firm’s choice of entry mode into the host market. In a recent study, Gu, Huang and Shi (2015) used census data to examine
whether legal traditions had impacted on foreign investors’ ownership decisions in China. The findings indicated that when the legal origin and legal enforcement between home and host countries was similar, a higher level of foreign control was likely to be selected.

2.4 Foreign market entry strategies

2.4.1 Theoretical perspectives

Research on foreign entry mode choice is dominated by four theoretical frameworks: transaction cost theory (Williamson, 1985, 1991, 1998), the eclectic paradigm (Dunning, 1988), institutional theory (North, 1990; Scott, 1995), and social capital theory/network theory (Adler & Kwon, 2002). The following paragraphs will explain these theories as they relate to foreign entry-mode choice.

2.4.1.1 Transaction cost theory (TCT)

Transaction cost theory has been most widely adopted in the general research on foreign entry mode choice (Zhao, Luo & Suh, 2004; Brouthers & Hennart, 2007). It is concerned with which entry modes MNEs should choose in order to minimize the costs of foreign transaction. According to TCT, foreign transaction is brought about by three major causes: asset specificity, uncertainty and frequency creating market transaction and control costs (Williamson, 1985). Typically, TCT has been applied in a number of research settings studying MNEs’ choice of foreign market entry mode.
Villar, Pla-Barber and León-Darder (2012) indicate that when transaction costs are limited, non-equity modes such as contractual arrangements or franchising are commonly selected. Yet, if the costs of negotiating a contract and monitoring the behavior set out in that contract are high, wholly-owned subsidiaries are preferred as they confine the transaction within their own organizational boundaries.

Specific assets are a central feature of TCT. In line with TCT reasoning, MNEs choose equity (as opposed to non-equity) foreign market entry modes to safeguard specific assets (Maekelburger, Schwens & Kabst, 2012). The more specific assets a firm owns, the higher the perceived risk of technological leakage when cooperating with partners (Chiao et al., 2010). In order to protect its proprietary competencies, a firm may choose a hierarchical method of control. Hennart (1991) also indicates that if there is a high risk of technological leakage, a firm will probably opt for wholly-owned subsidiary. Chiao et al. (2009) investigated 819 Taiwanese firms through logistic regression and found that the more firm-specific assets a firm held, the more likely it was to enter a foreign market by setting up a wholly-owned subsidiary.

Further, the TCT posits that the nature of the knowledge or technology affects the choice of the mode of foreign market entry. Arora and Fosfuri (2000) argue that intangible and complex knowledge results in a more problematic contracting process and requires the highest transaction costs. Therefore, the firm would choose an effective way of in-house transfer through WOS.
2.4.1.2 Eclectic paradigm (OLI framework)

Integrating insights from resource-based view, institutional and TCT, Dunning (1988) established an eclectic paradigm in explaining MNEs’ choice of foreign market entry mode. This paradigm indicates that organizations choose the most appropriate entry mode into a foreign market by considering advantages that follow the three factors which make up the OLI framework. These are: the ownership (O) representing firm-specific competitive advantages, location (L) representing country-specific advantages, and internationalization (I) representing a firm’s choice of specific entry mode. The OLI framework represents a multi-theoretical approach in explaining foreign market entry (Pinho 2007). It builds on various theoretical foundations, such as the monopolistic advantage theory (Hymer, 1960), the transaction costs theory (Buckley & Casson, 1976) and the internalization theory (Zhao & Decker 2004).

It is worth highlighting that the OLI paradigm has provided a conclusive framework for researchers in studying the relationship between various determinants and foreign entry modes choices (e.g., Pinho, 2007; Dunning, Pak & Beldona, 2007; Talay & Cavusgil, 2009; Tse et al., 1997; Brouters, Brouters, & Werner, 1996, 1999). Generally, the literature holds that a firm’s ownership (O) advantages can be transferred internationally without losing its value. Thus, it would most likely select a high-control mode of entry. This entry guarantees an efficient implementation of the firm’s special advantages and better protects its knowledge from unauthorized copying.
MNEs targeting foreign markets are expected to enter markets that are more attractive. Accordingly, the literature suggests that, when entering countries with a high market potential, a firm would favour long-term investment potential and high-control modes of entry (Pinho, 2007; Luo, 2001). However, if the market is filled with risks and uncertainty for investments, a firm may not lean towards a high-involvement entry mode. Lastly, the literature also posits that entry mode selection can be influenced by global integration and internalization strategies. That is, if a firm tends to integrate highly with the targeted foreign market, high control entry modes are likely to be chosen. However, when a firm is not interested in integrating highly with the foreign market, low control modes of entry are more appropriate.

2.4.1.3 Social capability/ network theory

The social capability and network theory can also be applied to predict firms’ foreign market entry strategies. An organizations’ ability to access and exploit resources from business networks is described as the social capability (Battilana & Casciaro, 2012; Chetty & Agndal, 2007). The present research holds that a firm’s entry mode decision is affected by its network relationships, rather than being solely directed by its firm-specific advantages. Social capability and network theory have arisen from other theories used in the study of foreign market entry mode choice (Laufs & Schwens 2014). For example, network theory suggests that markets are the interconnections in which ‘insidership’ advantages and ‘liability of outsidership’ exist. Consistent with Dunning’s
OLI paradigm which implies that ownership, location and internationalization advantages are the motivations for internationalization, insidership advantages are likely to drive and facilitate firms’ internationalization. Business network relationships can reduce certain external uncertainties and are better at controlling and minimizing opportunistic behaviour by local partners. In this way, firms can attempt to minimize the cost of foreign transaction. Moreover, reflecting on institutional theory, social capital brings benefits to firms seeking to internationalize. This is because when entering a foreign business market, a firm can gain useful knowledge (language, laws, rules) and experiences (business practices) by establishing the right steps.

A great number of studies focus on the relationships between social networks and foreign entry mode choices. Several researchers acknowledge the positive influence of social networks on the choice of foreign market entry mode (Chetty & Blankenburg Holm, 2000; Chung & Tung, 2013). The social capital in business networks provides reliable information and resources, which in return helps shorten the existing psychic distance between home and host markets (Coviello & Martin, 1999). Firms are likely to engage in a higher resource commitment mode when entering into a host market with a comparatively low psychic distance (Johanson & Vahlne, 1977; Zhao & Hsu, 2007). Rhee (2008) found evidence from the internationalization of new Korean ventures and highlighted that the larger the social network of the firms involved, the more likely they were to choose wholly owned modes.


2.4.1.4 Institutional theory

Institutional theory holds that a host market’s institutional environment reflects the ‘rules of the game’ (Brouthers & Hennart, 2007) which directs a firm’s scope of action. Accordingly, it is widely accepted in international business research that the institutional context in which firms operate has a direct influence on the choice of market entry mode (Brouthers, 2002; Brouthers & Hennart, 2007; Henisz, 2000; Meyer & Nguyen, 2005; Cavusgil & Zou, 1994; Kwon & Konopa, 1993). Studies that draw on institutional logic distinguish between formal and informal institutions that influence foreign entry strategies (North, 1990; Meyer & Rowan, 1977; Scott, 2007). Formal constraints are determined through political rules and the legal system, while informal institutions include the values, norms and patterns of culture.

Prior research regarding foreign market entry mode choice has primarily drawn on two perspectives to theorize about the influence of informal and formal institutions. First, with regard to informal institutions, entry mode research has paid more attention to the distance between home and host country. Large informal institutional distance involves higher uncertainty and risks, which tend to add some challenges to a firm’s business activities in the host market. Xu and Shenkar (2002) proposed that when other situations are equal and within the same ownership category, an MNE will prefer a high equity mode of control over a joint venture where normative distance is lower. Conversely, it will favour low equity modes of control where normative distance is large. More recently, Kraus, Ambos, Eggers and Cesinger (2015) conducted surveys with 126 CEOs
and top managers of MNEs whose headquarters were located in Germany, Switzerland or Austria. The findings demonstrated that MNEs’ internationalization decisions were perceived to be riskier when there was a greater cultural distance between home and target country. Precisely that perceived risk would lead to the choice of a more equity-intensive entry mode. Ramsey, Barakat and Monteiro (2013) evaluated the relationship between current cultural distance and future entry mode choice of Brazilian MNEs and predicted that high levels of cultural distance would negatively influence the choice of acquisition, while they would positively influence export.

Second, entry mode research also focuses on the degree of risk and uncertainty in the formal institutional of the host country. From this perspective, the choice of foreign entry mode is key to reducing institutional pressures, risks and uncertainty caused by political, financial and economic weaknesses (Demirbag, Glaister, & Tatoglu, 2007). Foreign subsidiaries are likely to encounter institutional conflicts in host markets as they must conform to rules and norms in their business activities that differ to a great extent from those in their home market (Holtbrügge & Baron 2013). In this situation, subsidiaries entering distant markets choose lower levels of control and resource commitment as this may lower the risk of institutional conflicts (Morschett Schramm-Klein & Swoboda, 2010; Xu & Shenkar, 2002). Shared ownership with a local company greatly decreases institutional pressures and compensates for difficulties in two ways. Firstly, a local partner’s knowledge and suggestions may help the foreign company to achieve legitimacy more easily. Secondly, joint venturing with local companies allows
the firm to access host-country networks. Makino and Delios (1996) even noticed that the success of a foreign firm is largely dependent on its capability to establish legitimacy through partnership with a local company.

In Yıldız and Karakaş’s (2012) study of 2,293 entries into Turkey, the empirical findings showed that MNEs that entered Turkish markets opted for wholly owned subsidiaries when investment freedom in Turkey increased. They opted for joint ventures when intellectual property rights protection increased. Moreover, using the data from four emerging economies, India, Vietnam, South Africa and Egypt, Meyer, Estrin, Bhaumik and Peng (2009) found that JVs are used in order to access resources in a weaker institutional framework. Thus, in a stronger institutional framework, JVs become less important compared to acquisitions, as acquisitions help to better access resources that are intangible and organizationally embedded.

2.4.2 Foreign entry mode choices

Entry mode research looks at the antecedents and consequences of a firm’s choice between various modes of participating in a foreign market (Brouthers & Hennart, 2007). Recently, attention has been paid recently to the question of whether researchers need more entry mode studies (Shaver, 2013) and, the conception of future research avenues is necessary (Hennart & Slangen, 2015). Still, arguments on how to differentiate entry modes are mixed. The disagreements commonly focus on whether a subsidiary’s ownership mode and its establishment mode constitute conceptually
distinct entry mode dimensions (Hennart & Slangen, 2015). For example, the perspective of ownership-based options refers to three types of entry mode: export, contractual and equity (Root, 1994; Anderson & Gatignon, 1986). These entry options generally include exports, licensing/franchising, JVs and WOSs. The perspective of establishment modes covers greenfields and acquisitions (Dikova & van Witteloostuijn, 2007; Hennart & Slangen, 2008). The category of equity modes depends on whether a subsidiary contains equity investment. Further to this, entry modes in each category have also been discussed along the continuum of low vs high commitment, control and risk (Anderson and Gatignon, 1986). This is because of the varying natures of exporting modes, contracts, JVs and WOSs. They range in practicality from low to high levels of resource requirements, organizational control, expected future returns and risk exposure.

Typically, research has compared entry modes in a dichotomous manner as low control (e.g. exporting, licensing or distribution agreements) vs high control (e.g. WOS, greenfield or full acquisition), and shared (e.g. JVs) vs full control (e.g. greenfields or full acquisitions). However, there are theoretical and empirical reasons for insisting that ownership mode and establishment mode choices for foreign subsidiaries should be studied separately (Hennart & Slangen, 2015; Padmanabhan & Cho, 1996). One of the reasons is that establishment modes and ownership modes are two different concepts which cover diverse aspects of FDI (Dikova & van Witteloostuijn, 2007). To illustrate, the establishment mode (greenfield or acquisition) is concerned by how efficient the
combination of MNEs and local assets is, while the ownership mode (JV or WOS) hinges largely on the need for control over the subsidiary’s assets (Gatignon & Anderson, 1988; Hennart, 2009). For this reason, this thesis follows previous entry mode reviews and does not include concepts related to establishment mode choice.

2.4.2.1 The entry mode: choosing between JV and WOS

A study on international entry mode is important as it outlines the correct and suitable firm strategies that have significant and far-reaching performance implications (Brouthers & Hennart, 2007). Before entering a new foreign market with equity investment, multinationals must decide on entry mode: either WOSs or JVs (Kuo et al., 2012). Academically, the most commonly explored decision is the one between WOSs and JVs (Brouthers & Hennart, 2007). Among various entry mode choices, WOSs and JVs are the most important and complex investment forms (Zhao et al., 2004).

WOS refers to a subsidiary established in a host country in which the parent company has full ownership and sole responsibility for the management and the operation. Thus, with the highest level of control, firms are likely to avoid the difficulties of integrating different cultures, managing divergent strategic viewpoints and legitimizing separate policies (Nitsch, Beamish & Makino, 1996). In a JV, the ownership, management, risks and profits are shared by the local and foreign partners. In this case, JV is thought to better minimize investment risk and capitalize on the valuable resources of the local partner.
The choice of WOS and JV varies significantly in terms of resource commitment, risk and control in foreign market activities (Anderson & Gatignon, 1986; Anil, Tatoglu & Ozkasap, 2014). WOSs require a larger commitment of the resources of the destination country than JVs’ sharing commitments of resources among partners. When establishing a wholly-owned investment, foreign firms are obliged to shoulder all the costs of operating and monitoring. Furthermore, the choice of foreign market entry and the level of resource commitment determines the level of risk for foreign investors. A larger resource commitment also exposes foreign firms to a higher level of risk (Hill & Kim, 1988). For example, MNEs that establish costly wholly-owned investments in a host country are exposed to a greater risk of losing their significant resources than the firms that collaborate with more than one partner in the same host country (Laufs & Schwens, 2014). On the other hand, the establishment of WOSs reduces the risk of unintended knowledge diffusion. That is, the establishment of JVs adds more risk for such diffusion as one firm is partnering with another firm. Also, modes of WOS and JV involve different levels of control in regard to the strategic decision-making in the foreign market. To illustrate, a WOS determines the overall control and strategic decisions with the foreign subsidiary, yet the level of control in a JV depends both on the type of ownership, either minority or majority, and the number of partners involved.

Several different theories can be used to explain the determinants of foreign entry mode choices between WOS and JVs. Traditionally, TCT has extensively been used to explain
the choices between WOS and JVs (e.g., Hennart, 1991; Hennart & Larimo, 1998; Makino & Neupert, 2000). Under the TCT logic, a subsidiary prefers the mode of JV to a WOS if the firm needs to obtain complementary assets. In particular, the likelihood of choosing a JV will increase if assets purchased on the market entail high transaction costs or the needed assets’ costs are higher than what is required from replication or acquisition. Other theories seek to explain entry mode choices between WOS and JVs. For example, the internationalization theory indicates that MNEs sometimes choose WOSs to satisfy their strategic need to coordinate activities on a global basis (Bartlett & Ghoshal, 1986). Additionally, organizational capability theory looks at the development of the firms’ capabilities. Therefore, the issue of developing a firm’s capabilities becomes one of the most decisive considerations underlying entry mode choices (Madhok, 1997; Porter, 1990).

2.5 Intellectual property right protection (IPR protection)

2.5.1 IPR protection

Intellectual property refers to the intellectual input that creates the products and services that an organization provides (Seyoum 1996). Intellectual property rights protection prevents property such as copyright, patents and trademarks from being appropriated by others. Both companies and governments benefit from an effective intellectual property protection system (Growth, 2005). For companies, effective IPR protection guarantees their investment into high-technological developments without the threats
of free riders. In addition, governments are more likely to encourage innovation and foreign investment in their country if effective IPR protection systems are in place.

In recent decades, the importance of intellectual property has emerged as a popular international topic as a result of an increasingly global economy. This means that the marketplaces are becoming borderless and the negative impacts of geographical separation are gradually disappearing. It is common for firms to set up business in different parts of the world, where research and development occurs in one country, and manufacturing can occur in another. The international protection of intellectual property originated from the shift in global trade from primary products or raw materials to products with greater complexity involving higher levels of technology and services. Researchers (e.g., Growth, 2005) have predicted that resource-based economies will no longer be the leading economies in terms of growth or living standards, pointing instead to the focus on products with a high intellectual content that have dominated economic development in this century. At the same time, the cost of research and development is getting higher. In 1994, the World Trade Organization (WTO) established widely accepted international guidelines on intellectual property; the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). Therefore, in the context of borderless markets, rapidly changing technological conditions heighten the importance of effective and flexible international regimes, which both accommodate intellectual assets at home and encourage similar standards abroad.
Since the late 1990s, the US has dominated the global reform of IPR protection. This is largely because US industries in such sectors as computer software and microelectronics, entertainment, chemicals, pharmaceuticals and biotechnology have been suffering heavy losses as a result of the lack of adequate protection of their IPRs in foreign markets. Industrial upgrading and a regulatory revision in the US occurred comparatively earlier than other countries. Since the late 1980s, the US has supported the idea of taking on the issue of IPR within the General Agreement on Tariffs and Trade (GATT) framework. Even in the recent past, the US raised IPR issues with China and stated that it would continue to pressure China to strengthen its IPR protection and adjust some of its industrial policies (China Daily, 2010).

Despite objective institutional development, developing countries’ subjective motivations to improve their domestic IPR protection regimes are making IPR protection unequal globally. This is particularly true of the distance between developed and developing countries. In general, developing countries are concerned that global standards of IPR protection are over enforced by the US government on its industries and domestic conditions. Efforts toward the establishment of an effective global IPR regime were aimed at furthering the interests of western businesses but not those of developing countries (Dutfield, 2003). Developing countries prefer to discuss IPR protection under the context of multinational trade negotiations. This is because inappropriate IPR protection regimes for developing countries have a significantly
negative influence on industries and innovations.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) was established in 1994 based on a global negotiation at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). This agreement provides the benchmark on the issue of IPR protection. TRIPS is administered by the WTO, which stipulates the minimum standards for different components of IPR regulation as applied to members of the WTO. Most importantly, the TRIPS agreement was the first attempt to introduced IPR laws into the international trading system.

2.5.2 The development of IPR protection in China

Consequently, with increasingly closer economic global connections with China through its industrial upgrading to a service sector and the focus on high-technology foreign trading, IPR protection in China has become a priority. China offers attractive business opportunities and has a huge potential market, however, attractiveness is accompanied by risks such as the theft of IP or the infringement of IPR. It is fair to say, China has made great progress in improving the quality of Chinese IP laws in order to meet international standards, even though enforcement remains troublesome (Devonshire-Ellis, Scott & Woollard, 2011).

Looking back on the historical development of IPR laws in China, the earliest regulations on intellectual property rights in China appeared around the turn of 20th
century. In 1889 the Emperor Guangxu enacted the first legislation concerning inventions as the “Regulation for the Award and Promotion of Technology Development”. Moving forward to 1949, the year of the foundation of the People’s Republic of China, a modern set of IP norms and a modern patent law were established. In 1963, the government further introduced the concept of collective property of invention rights, which gave the State the right to exploit inventions unconditionally.

The turning point arose after China’s political and economic reforms in the late 1970s, during which the construction of patent laws benefitted from knowledge from the outside world. China’s first patent law was enacted in 1984. This patent law has been amended three times, in 1992, 2000 and 2008 to extend the scope of patent protection. Since joining the WTO in 2001, China has been transformed from a regime with little concept of private intellectual property to one with a stronger legal framework through IPR-related laws and regulations (Watson, 2011). In order to better comply with the WTO agreement on TRIPs where China amended and extended the duration of patent protection to 20 years from the date of application. In 1982, China first adopted its trademark law and revised it twice in 1993 and 2001. Chinese copyright law was established in 1990 and amended in October 2001 to align more with TRIPS.

Even though the government is endeavoring to make its laws compliant with international standards, the public attitude and views toward China’s IPR protection are pessimistic (Jones, 2009). In the western world, the prevalent attitude is that China is
not equipped with an effective way to protect the IPR of foreign trade and business (Leila, 2013). What is worse, some regard China as being synonymous with the counterfeiting and breaches of IPR. There is no doubt that foreign investors are finding business opportunities in China, however it is far from a paradise (Xiao & Hu, 2014). In essence, there are many potential risks investors should be cautious of, in particular issues related to IPR protection.

China’s recent IPR protection reform and its past reputation as a large recipient country with a potential threat of imitation makes the impact of IPR protection on FDI an excellent area of study.

Du et al. (2008) examined the relationship between property rights protection and contract enforcement and the location choice of US multinational investment in China. The results indicate that regions with better IPR protection, less government intervention in business and better contract enforcement attracted more US multinational investors. Awokuse and Yin (2010) studied the effects of IPR protection on the increase in China’s FDI inflows. Similarly, their results suggest that China’s inward FDI is positively and significantly influenced by the improvement of IPR protection.

2.5.3 Different measurements of IPR protection

The increased global attention to IPR issues has stimulated research interest in IPR
protection and its economic and business impact (Ostergard, 2000). The measurement of cross-national IPR protection is the first critical problem for IB researchers in conducting this research. Scholars’ attempts to construct measures of IPR protection have led to a growing number of quantitative studies. The early ideas came from Rapp and Rozek (1990), Seyoum (1996) and Sherwood (1997).

Rapp and Rozek (1990) are thought to be the first researchers to quantify IPR protection. In their study, national patent law was adopted as a proxy for IPR protection. They measured the level of patent laws in 159 countries with a zero-to-five scale, where zero represents a country with no patent laws and five represents a country with laws consistent with the minimum standards established by the US Chamber of Commerce Intellectual Property Task Force.

Seyoum (1996) has also considered the US Chamber of Commerce’s minimum standards as criteria for his survey constructing. The only difference is that Seyoum’s (1996) analysis of IPR protection was oriented towards IPR practitioners rather than focusing on the types of laws. The survey was based on a four-component structure (patents, copyrights, trademarks and trade secrets) and on a zero-to-three scale.

Furthermore, Sherwood (1997) puts forward the third measure of IPR protection. Sherwood’s scores of IPR protection theoretically range from 0 to 103 and were developed for eighteen countries. Their merit is the combination of personal knowledge
and experience with professional interviews. However, the selection of components and the relative weights of each component were based on the author’s experience.

Two other measures of IPR protection have become popular during recent decades: Ginarte and Park’s (1997) index and the index value of “Protection of intellectual property” in the Global Competitiveness Report, developed by the World Economic Forum. The IPR index developed by Ginarte and Park (1997) contains continuous values between 0 and 5, where larger scores represent stronger IPR protection. This IPR index is based on laws from different countries. However, Ginarte and Park’s IPR index is also criticized by some scholars because of the subjective criteria used in constructing the indexes with potential measurement errors and the lack of an accurate reflection of dynamic changes in actual IPR protection practices. One of the empirical examples is Awokuse and Yin’s (2010) study of the contribution of IPR to the surge in China’s inward FDI. This paper applies two alternative measures of IPR as a proxy for IPR regimes, including Ginarte and Park’s (1997) IPR index and the annual foreign patent applications in China. One notable finding indicates that the measurement of patent applications in China has a better fit and larger estimated coefficients.

The section of “Protection of intellectual property” in the Global Competitiveness Report is another measurement adopted in a number of IB studies (e.g. Stephan, 2011; Zekos, 2016; Watkins & Taylor, 2010; Chen, 2015). The Global Competitiveness Report is conducted annually by the World Economic Forum covering most economies.
around the world. For example, the 2016–2017 report covers 138 economies. The indicator of IPR protection belongs to the first pillar of “Institutions” in the report. This survey asked executives about their evaluations of the extent of IPR protection, including items such as, “In your country, to what extent is intellectual property protected? [1= not at all; 7=to a great extent]”. This thesis adopts the scores of IPR protection from the Global Competitiveness Report. Further justifications will be presented in the methodology chapter.

2.6 Impacts of IPR protection on FDI inflow

The growing importance of IPR protection in both developed and developing countries has shaped a new pattern in the global market. This market is filled with competitive advantages which are now based more on the development of new technologies than on the availability of natural resources (Seyoum 1996). Therefore, there is a growing amount of IB research studying IPR-FDI relations (Pugatch & Chu, 2011). However, empirical evidence on the relationship between IPR and FDI is inconclusive and mixed (Mathew & Mukherjee, 2014). The different ideas regarding the relationship between IPR and FDI can be classified into three main opinions. These will be discussed in the following paragraphs.

The oldest and most widely accepted is the positive relationship idea, which argues that strong IPR protection is an important variable in attracting FDI (Zekos 2016). A government with strong IPR protection provides a signal for potential investors that
there is a decreased risk of losing intellectual assets loss. On the other hand, firms will be reluctant to invest in a country with weak protection of intellectual property. To a large extent, weak IPR protection in a country gives rise to the possibility of unauthorized imitation. Several empirical analyses using different databases and research methods support this argument (e.g., Awokuse & Yin, 2010; Lee & Mansfield, 1996).

In the 1990s, research on the level of IPR protection was mostly based on subjective judgement (Watkins & Taylor, 2010) such as survey responses and questionnaires from MNE managers or IPR experts. For example, using the data collected from approximately 100 US firms regarding their perceptions of the strength of IPR protection in various countries, Lee and Mansfield (1996) found that a country’s legal system of IP protection influences the volume and composition of FDI from the US. Moreover, in Pugatch and Chu’s (2011) examination of the effect of the intellectual property environment on FDI, the strength of IP protection is measured by the Pharmaceutical IP Index in these countries. Overall, the findings support the idea that stronger national pharmaceutical IP environments tend to receive more biomedical FDI and enjoy a greater level of activity from multinational research-based firms. Similarly using the US-based data in almost 166 countries, empirical evidence from Nunnenkamp and Spatz (2004) also supports the hypothesis that stronger IPR protection may help to raise the quantity and quality of FDI.
Developing countries which act as the emerging recipients of FDI have gradually become the focus of more and more research interests in regard to IPR-FDI. In a study of the panel data for a cross-section of 75 developing countries from 1985 to 2003, Samuel (2010) indicated that strengthening IPR has a positive effect on FDI. Specifically, Du, Lu and Tao (2008) analysed a data set of 6288 US MNEs in only one recipient country, China, and discovered that US investors prefer to invest in those regions with a higher degree of IPR protection. Telling a similar story, Kawai (2009) investigated the potential determinants of location choice for Japanese manufacturing FDI in China from 1998 to 2006. The result shows that a greater degree of protection of IPR acts as one of the essential determinants of attracting Japanese manufacturing FDI.

The second group of hypotheses argues that IPR protection is only one of the key determinants and that it alone does not act as an effective incentive for FDI. For instance, Pfister and Deffains (2005) investigated French investors’ location choices in 17 developing countries. The regression results showed that patent rights would only negligibly affect the location choices of French firms. Watkins and Taylor (2010) examined the influences of IPR on US FDI into 22 emerging economies from 2006 to 2008. They consistently failed to find any evidence that IPR protection strongly influenced a developed country’s FDI into developing countries. Further to this, some scholars who support the ambiguous relationship hypothesis argue that strong IPR protection in a given country might negatively discourage FDI inflows since MNEs are
likely to replace FDI in that country with licensing or exporting (Ferrantion, 1993; Carlos, Primo & Fink, 1998).

Lastly, another group of opinions argues that the IPR-FDI relationship largely depends on different circumstances. One of the circumstances worth mentioning is the characteristics of industry. Varying strengths of IPR-FDI relationships are present in different industries. Several scholars, not surprisingly, indicate that imperfect IPR protection would strongly affect FDI in the high-technology industries. This is because those industries are more sensitive to intellectual property, but would slightly influence FDI in less-technology-intensive industries. (Maskus, 2005). Nicholson (2007) explained in his paper that firms in industries with high capital costs prefer to set up direct investment in order to maintain their control over production knowledge in host countries with less-developed IPR system. Innovative activities in newly industrialized countries are another moderate factor to consider in the IPR-FDI relationship. Using Mathew and Mukherjee’s (2014) analysis as an example, the results show that a firm’s innovative activity in host countries plays an important role in the relationship between IPR and FDI. To illustrate, if imitation occurs within export and FDI, stronger IPR protection in the host country may reduce FDI inflows.

2.6.1 Institutional distance in relation to IPR protection and FDI inflow

Institutional distance usually captures institutional differences between two countries (Hakanson & Ambos, 2010). The concept of distance encompasses several different
components, the most popular components adopted in prior studies are geographic, cultural, administrative and economic. Ghemawat’s (2001) framework reasoned that distance illustrates differences along cultural, administrative, geographic and economic dimensions. It should be noted that it is neither easy nor wise to calculate these four dimensions of distance together in one study. Instead, the majority of articles focuses on one dimension of distance. Some articles analyse several dimensions of distance under the term psychic distance. Among the four dimensions of distance, institutional distance was introduced to the literature relatively late (Hutzschenreuter et al., 2016). In current studies, institutional distance more commonly refers to differences between countries of origin and target firms in the development of formal institutions (Yang, 2015). Accordingly, the research interest of this thesis, institutional distance in relation to IPR protection, measures the extent of the differences in IPR protection between home and target countries.

Distance is traditionally associated with higher obstacles for inflows of direct investment (Berry et al., 2010). Foreign firms prefer markets to be more similar to their home environments, as these countries present lower levels of uncertainty. Closeness, within cultural, geographical or economic spheres, facilitates foreign investors’ learning from host countries as it can effectively avoid misunderstandings and conflicts. MNEs choose to enter markets perceived to be psychologically closer as these markets present lower levels of uncertainty and risk (Aleksynska & Havrylchyk, 2013). Evidence (Cuervo-Cazurra, 2006) has shown that investors from countries with high
corruption and a lack of enforcement of anticorruption laws prefer to invest in countries with similar backgrounds when they decide to expand globally. This is because they can potentially exploit their familiarity with a corrupt atmosphere and are likely to face lower costs of operation than other investors.

In line with the above hypothesis, it is also reasonable to assume that a larger institutional distance in regard to IPR protection would deter foreign investors. Weak institutions increase the environment uncertainty faced by investors, and thus the costs. Xu and Shenkar (2002) posit that larger institutional distance causes the cost of doing business abroad to increase. In contrast, when institutional distance is low, costs may be marginal or even negligible because of minimal requirements for learning (Eden & Miller, 2004; Gaur & Lu, 2007). As for IPR-FDI relationships, stronger IPR protection could positively promote FDI inflows (e.g., Lee & Mansfield, 1996; Javorcik, 2004; Nunnenkamp & Spatz, 2004). This is because a robust IPR regime helps to reduce the threat of imitation by local firms and thus ensures high returns on the investment in research and development of foreign firms. A poor IPR protection system, in contrast, brings additional costs to FDI as foreign investors are likely to pay more administrative expenses to safeguard their intellectual property without perfect legal protection.

The traditional measurements prefer to consider the magnitude of distance and are normally applied to MNEs from advanced countries investing in emerging or less developed countries (Meyer et al., 2009). The negative association between
institutional distance in relation to IPR protection and FDI inflows, however, may not necessarily apply to firms from less developed countries or emerging markets. Further by observing the contemporary business framework, investments not only originate from developed countries entering developing countries, but also from developing countries entering other developing countries. Therefore, scholars (e.g., Aleksynska & Havrylchyk, 2013; Hernandez & Nieto, 2015) have introduced the notions of positive institutional distance in which host institutions are higher developed than home institutions, and negative institutional distance in which host institutions are less developed than home institutions.

Institutional distance has been shown to decrease the preference of inflow of FDI, though, this may not hold true in the positive institutional distance. In general, the positive institutional distance describes MNEs from less institutionalized countries investing in higher institutionalized markets. Basically, those are MNEs from less developed or emerging economies (EMNEs). Formal institutions are less developed in EMNEs’ home countries than in developed markets (Peng, Wang, & Jiang, 2008). Furthermore, the highlighted difference between EMNEs and traditional MNEs is that EMNEs’ comparative advantage is embodied within their latecomer status (Gaffney, Karst & Clampit, 2016). The latecomer status normally manifests in a poor quality of formal institutional structure, a lack of advanced technology or a lack of professional marketing strategies in home countries (Khanna & Palepu, 2006; Luo & Tung, 2007). Therefore, EMNEs prefer to systematically and recursively employ international
expansion as a springboard (to seek safer environments for business and to acquire critical resources and strategic assets. These assets are aspects like technology, R&D operations, operational know-how, and managerial expertise. To acquire these assets is to effectively counteract firm-level disadvantages globally and to avoid institutional and market constraints at home (Gaffney, Kedia, & Clampit, 2013; Luo & Tung, 2007). Practically, EMNEs are more likely to overcome these latecomer disadvantages through aggressive, proactive and risk-taking strategies.

EMNEs’ international expansion seems to suggest that institutional distance in relation to IPR protection may be less negative, or even positive in effect (Mathews, 2002, 2006; Luo & Rui, 2009; Luo & Tung, 2007). Elango and Pattnaik (2011) propose that EMNEs are increasingly targeting locations with economically developed and strong protections for intellectual property, such as tacit and other indigenous knowledge.

In short, when firms from countries with stronger IPR protection invest in countries with weaker IPR protection (negative distance), they are facing a higher risk of losing their intellectual property and, thus, it is more expensive to safeguard their intellectual assets. To this end, foreign investment is likely to be deterred by inadequate IPR protection. When firms from countries with poor IPR protection enter countries with better IPR protection (positive distance), the distance can be viewed as a driving force. This is likely due to the ‘asset-seeking’ nature of FDI originating from less developed markets, as the positive direction acquires new technologies, brands, and intellectual
property, which are much easier to find in a good institutional environment. Furthermore, they can conduct research and development smoothly without the threat of imitation and acquire competitive capability in a more innovative environment. In this case, institutional distance in terms of IPR protection would attract more inflows of FDI.

These considerations lead us to put forward the following hypothesis:

Hypothesis 1: There is a negative relationship between institutional distance in relation to IPR protection and FDI.

To illustrate, negative distance in IPR protection (where firms from markets with a higher degree of IPR protection invest in markets with a lower degree of IPR protection) deters foreign direct investment to host markets. Whereas, a positive distance in IPR protection, where firms from markets with a lower degree of IPR protection invest in markets with a higher degree of IPR protection, attracts more foreign direct investment to host markets.

2.7 The impact of IPR protection on entry mode choice

Another key issue in the analysis of how IPR protection affects FDI is the nexus between IPR and FDI entry mode choice (Chen, 2015). Though studies on IPR and entry mode choice are relatively sparse, researchers have found ambiguity in this issue. This is similar to research findings about the relationship between IPR and FDI flow.
Early empirical studies generally suggest that MNEs preferred JVs over WOS if they were entering a host country with strong IPR protection (Mansfield, 1996; Chun, 2008; and Chen, 2013). In contrast, Javorcik and Saggi (2010) could not find any evidence to support the hypothesis that stronger IPR protection increases the propensity to invest by means of JV.

In order to capture a more complicated environment within the relationship between IPR and different entry modes, An, Maskus and Puttitanun (2008) re-examined inter-industry variation in ability to extract rents through exclusive rights and other factors. The findings showed that strengthening IPR protection would reduce exporting in all industries, however, it would attract more FDI (as opposed to licensing) in industries with shorter rent-extraction times. In a similar manner, Ivus, Park and Saggi (2015) also suggested that industry-level variation in imitation risk is relevant when considering the relationship between IPR and foreign market entry. The established model shows that technology licensing is more sensitive to the change of IPR protection than FDI.

Chen (2015) studied the impacts of IPR protection on the entry modes between WOS and JVs in vertically related industries. The results indicate that when IPR protection becomes stronger, the likelihood of choosing a JV decreases. However, this study is based on Chen’s (2015) assumption that technology spillover is the same and that the effect would exist once the MNE enters, irrespective of entering as a wholly-owned investor or a JV partner. Under this assumption, spillover effect is strong in a market
with poor IPR protection, however the production costs are similar. The MNE is thus likely to seek a partner to reduce its number of competitors. This advantage of JV shrinks when the spillover effect decreases due to a stronger IPR protection and, therefore, MNEs will choose WOSs as opposed to JVs.

2.7.1 Institutional distance in relation to IPR protection and entry mode choice

Several prior studies have evaluated the effects of institutional distance on a firm’s entry mode choice. For example, Xu, Pan and Beamish (2004) discovered that large institutional distance, both regulative and normative, is associated with a lower level of equity ownership. Similarly, Xu and Shenkar (2002) found that small normative distances positively push MNEs towards high equity control over a joint venture. Furthermore, evidence from the study by Demirbag et al. (2007) shows that a large corruption distance between home and host markets increases the likelihood of choosing JV or lower equity modes over WOS. In contrast, Estrin, Baghdasaryan and Meyer (2009) argue that an MNE is more likely to pursue greenfield over cooperative entry modes when institutional distance is high. Despite the growing interests in examining the influences of institutional distance on entry mode choice, the results are largely ambiguous.

When investing a distant destination, managing and overcoming institutional distance is a particular challenge for foreign investors. Based on this logic, MNEs pursue a mode of entry that can counteract or minimize distance-related uncertainties in a target
country (Lahiri, Elango & Kunda, 2014). Thus, the likelihood of selecting local partner increases, since such a choice allows for a relatively lower level of resource commitment and a lesser need for control. Most importantly, venturing with other local firms allows MNEs to gradually learn how to deal with and adjust to different institutions, like foreign government policies and different levels of corruption, and, further, conform to local legitimating requirements. Destination countries with weak institutions generally lack property functioning formal institutions (Schwens, Eiche, & Kabst, 2011). In particular, regulatory distance between countries implies regulatory uncertainty and risk that significantly affects the establishment of legitimacy. In situations with greater regulative distance, firms will find it harder to manage wholly-owned subsidiaries as they are not familiar with the regulatory ‘rules of the game’. Generally speaking, prior literature assumes that the greater the differences in regulatory distance between home and host countries, the greater the uncertainty and, thus, the greater the likelihood that MNEs will opt for a JV.

However, this hypothesis is probably biased, as most of the facts are based on studies of MNEs from developed countries, which are used to comparatively guide better quality of domestic regulatory environments, and commonly enter low-quality regulatory markets (negative distance). The results do not explain why MNEs from less institutionalized countries invest in highly institutionalized countries (positive distance). To this positive direction, in line with Hernandez and Nieto’s (2015) notion, explanations can be drawn from the literature which typically analyzes the entry
decisions of MNEs from less developed countries to enter into comparatively
developed ones.

Firms from less developed countries (or EMNEs) commonly encounter less uncertainty
and risk of legitimacy in developed countries. The reasons are twofold: first, the
relatively good quality of institutions generally implies transparent, impartial and
effective legal systems that protect property and individual rights, and stable, credible
regulations that promote open and healthy business environments (Globerman &
Shapiro, 2003; Gelbuda, Meyer, & Delios, 2008). EMNEs, in this situation, will have
a better chance to invest and operate smoothly in developed and regulated markets.
Furthermore, according to Kostova and Zaheer’s (1999) conclusion, regulatory issues
are easier to observe, interpret and understand when they are clearly established. Thus,
MNEs from less developed countries have a higher potential to learn by themselves and
adapt to the better-formalized ‘rules of the game’.

Given that uncertainty and risk are lower and legitimacy criteria are easier to achieve
in these positive cases, the likelihood opting for WOSs over JVs will increase. More
specifically, when it comes to the regulatory distances of IPR protection between home
and host countries, the effects on foreign entry mode choice are out of the ordinary.
This is likely due to the intrinsic function of IPR protection against infringement and
counterfeiting. A JV allows a firm to minimize investment risk and cope with the
liability of foreignness with the help a local partner, but it may also pose serious
research and development problems due to the threat of unauthorized mimics. A WOS must come across problems of having to integrate different cultures, divergent legal viewpoints and separate policies (Nitsch et al., 1996), yet it enables full control of intellectual assets. In other words, when MNEs decide to invest in a foreign market, uncertainties and risks are not only driven by the legitimacy of differences, but also by the consideration of intangible assets security. For firms, the dilemma is whether to choose a JV to overcome the liability of foreignness or a WOS to safeguard their own intellectual property.

In line with ideas from Hernandez and Nieto (2015) and Zaheer et al. (2012), this thesis assumes that the choice of entry mode will be contingent upon different directions of IPR protection distance (negative or positive). It has been widely accepted that in the negative direction (e.g. MNEs from countries with stronger IPR protection entering countries with weaker IPR protection), entry modes exert higher control, and the level of commitment will be selected so as to safeguard firms’ intangible assets. For example, Maskus (1998) indicates that MNEs are likely to engage in greenfield FDI when entering host countries with a weak enforcement of IPR protection in order to prevent their intellectual property from leakage to the local firms. Similarly, Lee and Mansfield (1996) evaluate the entry strategies of 14 US firms and conclude that MNEs prefer to establish wholly-owned subsidiaries if IPR protection is imperfect in host countries. MNEs from developed countries are comparatively advanced in technology or branding with the purposes of accessing cheaper labour forces and grabbing the availability of
natural resources in developed markets (Dunning, 1998). They also have many prior learning experiences and overall greater international competitiveness (Lahiri et al., 2014). These allow MNEs from advanced countries to more easily overcome the negative influence of institutional distance compared to firms from less developed countries. Indeed, uncertainties and threats from the unprotected intellectual property are much more serious than those from the liability of foreignness in negative distance situations. Therefore, this thesis argues that the likelihood of choosing a WOS over a JV is higher when the greater institutional distance in relation to IPR protection exists in a negative direction.

Where the direction is positive, MNEs will be more likely to prefer entry modes requiring a lower level of control and commitment. Countries with lower levels of IPR protection development commonly developing countries. In the positive direction, MNEs plan to enter higher institutionalized markets in order to overcome the restrictions and limitations of home countries, to gain access to new technologies or to improve their reputation or brand image (Luo & Tung, 2007; Wright, Filatotchev, Hoskisson, & Peng, 2005). As such, MNEs from less developed countries that invest in advanced countries will favour JVs. Moreover, stronger IPR protection systems in advanced countries better prevent their existing intellectual assets from being misappropriated. In this situation, firms aren’t scrambling to safeguard their unique technologies. Therefore, they are more likely to choose JVs in order to access more information and new technologies from partner firms. In other words, in the positive
direction, MNEs will give priority to cooperatively acquiring and improving new technologies in an advanced business world. This results in firms choosing the JV entry mode.

These considerations lead us to put forward the following hypothesis:

Hypothesis 2: There is a positive relationship between institutional distance in relation to IPR protection between home and host countries with MNEs’ choice of WOS, as opposed to JVs.

To illustrate, as the negative distance in relation to IPR protection increases, MNEs will be more likely to prefer entering by WOS as opposed to JVs. Where positive distance in relation to IPR protection increases, MNEs will be more likely to prefer entering by JV than by WOS.
Chapter 3 Data and Methodology

This chapter highlights the research method used to examine the hypotheses advanced in chapter 2. It describes the database selection and other procedures that were used to collect and analyse the data that constitute the basis of this study. In particular, the sample selection procedure, variables and their operational measures and statistical analysis techniques are presented in this chapter.

3.1 Data

The hypotheses were tested respectively on a sample of foreign direct investments in China made during a seven-year period from 2006 to 2012 (hypothesis 1) and, 2008 and 2012 (hypothesis 2). Focusing on investments into one host country allows the researcher to control the differences in the institutional background of the host country. What this means that is China is selected for both samples, so the IPR protection environment is the same.

The data were mainly collected from three sources. First, the research obtained the annual data of FDI inflows to China from the China Statistic Yearbook (CSY) database. The CSY database is a leading resource for statistical data in China. It is published annually by the National Bureau of Statistics of China. The FDI data was measured over a seven-year period (2006–2012). Second, information about IPR protection was taken from the World Economic Forum’s (WEF) Global Competitiveness Reports.
Global Competitiveness Reports provide an index of IPR protection for most countries in the world. This IPR index is drawn from a combination of publicly available data and the results of an Executive Opinion Survey. It is a comprehensive survey conducted annually by the WEF in countries which are covered in the available data. To evaluate IPR protection, respondents are asked the question ‘How would you rate intellectual property protection, including anti-counterfeiting measures, in your country?’ The IPR index ranges from 1 to 7, where 7 indicates ‘equal to the world’s most stringent’ and 1 is ‘weak or nonexistent’. The data sample begins in 2006 because the new measurement criteria was implemented then for the Global Competitiveness Report. Given the availability of consistency and conformity, this paper only considers the post-2006 data.

Lastly, this study collected entry mode information on FDI in China from the China Industrial Survey (CIS) database (2008, 2012). The CIS database is published annually by the Chinese National Bureau of Statistics (CNBS). In China, all types of firms are required to cooperate with and submit their basic and financial information to CNBS. Therefore, the CIS database is considered to provide the most comprehensive information regarding domestic and foreign enterprises in China’s industrial sector (Chang & Xu, 2008; Tian, 2007). The data contains detailed information about firm-level financial conditions such as sales, capital, and employment, and demographic details like the investing year and ownership structure. Many researchers (e.g., Chang and Xu, 2008; Park, Li & Tse, 2006) have taken advantage of the CIS database, due to its statistical accuracy and consistency (Chow, 1993).
3.2 Sampling

China was selected as an appropriate potential object of study for several reasons. China is one of the largest host markets for FDI, and works as a manufacturing platform for worldwide marketplaces, such as the US (He, Zhang and Wang, 2015). FDI inflows to China increased by 6 per cent to $136 billion in 2015 (UNCTAD, 2016) and China overtook the US as the most popular destination for MNEs in 2014 (UNCTAD, 2015). Similar to many of its emerging-market counterparts such as India, China has provided low-cost raw materials, and a cheap labour force. It also has a growing consumer power for MNEs from advanced countries. Meanwhile, due to under-developed infrastructures, an unstable political environment or imperfect institutions, access to emerging markets is often difficult and challenging for foreign investors.

Another reason to choose China as a sample of study is based on its under-developed institutions and growing incentives of institutional reform. China has been undergoing significant institutional transitions, moving from being a centrally controlled economy to a market-oriented economy. Since joining the WTO in 2001, China has significantly relaxed the restriction on foreign investors’ domestic sales and has adopted a much freer orientation towards FDI (Chang, Chun and Moon, 2013). China has made a great progress in improving the quality of Chinese IP laws in order to meet international standards, though enforcement remains troublesome (Devonshire-Ellis, Scott and Woollard, 2011).
The first patent law in China was enacted in 1984 and it has been amended three times, in 1992, 2000 and 2008 to extend the scope of patent protection. Since joining the WTO in 2001, the introduction of IPR-related laws and regulations has transformed China from a regime with little concept of private intellectual property to one with a stronger legal framework (Watson, 2011). China now better complies with the WTO agreement on TRIPs, having amended and extended the duration of patent protection to 20 years from the date of application. China first adopted its trademark law in 1982 and has revised it twice in 1993 and 2001. Additionally, China’s copyright law was established in 1990 and amended in October 2001 to better align with TRIPS. To a large extent, China’s recent IPR protection reform and its past reputation as a large recipient country with a potential threat of imitation make it an excellent topic of study in regard to the impact of IPR protection on FDI in China.

Furthermore, the scope of research in this thesis is limited to manufacturing industries. By focusing on a single industry, the industrial effects will be nullified and, therefore, the researcher gains a clearer view of the variables included in the model (Talay & Cavusgil, 2009). Most importantly, the manufacturing industry is appropriate to test the hypothesis of this study for several reasons. First, manufacturing serves as the dominant sector of China’s total inward FDI and has played an essential role in China’s economic growth and long-term social development over the past 20 years (Buckley & Meng, 2005). Thus, the proportion of the manufacturing sector in the value of China’s inward FDI was approximately 63 per cent in 2000, 70 per cent in 2005, and 47 per cent in
2010 (China Statistical Yearbook, 2001; 2006; 2011). In 2011, China overtook the US to become the world’s largest producer of manufactured goods. Employment in cities and towns in China has largely relied on the manufacturing industry. China has emerged as a manufacturing powerhouse for the world (Mckinsey Quarterly, 2013). Indeed, manufacturing is the main symbol of China’s improvement of comprehensive national power. The manufacturing industries were also selected on account of the Chinese government having eased policy restrictions on foreign ownership in manufacturing industries. Under these circumstances, many MNEs can choose independent entry strategies. This is important for the accuracy of the current research regarding FDIs’ entry mode choice into China.

Another reason for selecting the manufacturing industry in China is that it needs to upgrade to a more cutting-edge scientific and technical industry. It needs to move away from its traditional labour-intensive form of production (UNTCAD, 2016). The main task of the manufacturing industry in China is now to take a new path of industrialization, moving from labour intensive activities to activities that enhance independent innovation abilities by encouraging and supporting the development of advanced production capacities. Protecting intellectual property has thus become an essential move for China’s government. Focusing on the manufacturing industry, this study attempts to test whether strong or weak IPR protection would influence FDIs’ mode of entry to China.
Specifically, this thesis limits the data to the most five classifications of the manufacturing sector, which are Food and Kindred Products, Chemical and Allied Products, Industrial and Commercial Machinery and Computer Equipment, Electronic and Other Electrical Equipment and Components, and Transportation Equipment. Among those five classifications chosen, Food and Kindred Products are a low-tech group, while the other four classifications are high-tech groups (UNIDO, 2016). As expected, sector-specific variation can differentiate the analysis of IPR protection because not all sectors receive equal benefit from improvements in an IPR regime (Fukui, Hammer & Jones, 2013). In other words, sectors with high R&D intensity will be more sensitive to changes in IPR regimes. Selecting the low- and high-tech groups for the data allows the study to find different influences of IPR protection on a firm’s entry strategies.

3.3 Measurement

3.3.1 Dependent variable

The dependent variable used to test hypothesis 1 is the value of FDI inflows, extracted from the CSY database. FDI inflows were converted to US dollars over the 2006–2012 period, and a non-negligible portion of observations are zeros (53 out of a total of 841 observations). Given the readability of data, figures were taken from the logarithms and coded as FDI_Log.

The dependent variable, choice of FDI entry mode, was used to test hypothesis 2. The
data was taken from the CIS database in the years 2008–2012. This research adopted the ownership share of 95% as the cutoff point between a JV and a WOS, coding 310 and 330 respectively in the CIS database. The entry mode is identified as a WOS if the investing firm holds 95% or more equity ownership in the foreign venture. This is in line with the majority of prior literature (e.g., Hennart, 1991; Makino & Neupert, 2000; Cui, Jiang & Stening, 2011). As for data coding, the current research introduced a binary dummy variable in which a value of 1 represented the entry mode as WOS and a value of 0 represented a JV.

3.3.2 Independent variables

The primary independent variable used in the hypotheses testing is the distance of IPR protection (IPR_2). The distance of IPR protection represents the differences in IPR protection between home and host countries. IPR distance is extended from the meaning of institutional distance which encompasses differences in the regulatory, normative and cognitive pillars of institutions (DiMaggio & Powell, 1983; Scott, 1995). By focusing on the regulatory pillar of institutions, the distance of IPR protection shows the differences in IPR laws or enforcement in countries. One of the most popular indices used to measure IPR protection is the Ginarte-Park (GP) index (e.g., Chen, 2008; Nunnenkamp & Spatz, 2004; Al-Mawali, 2005). The index, developed by Ginarte and Park (1997), incorporates five measures related to national patent laws: the extent of coverage of patent protection, membership in international patent agreements, provisions for loss of protection, enforcement mechanisms, and the duration of
protection. This index is only mentioned as a reference point; instead this thesis selected another IPR index, which is taken from the WEF’s Global Competiveness Reports.

The WEF IPR index is drawn from a combination of publicly available data on IPR laws in a country and a survey which asked for opinions about the enforcement of IPR laws. It is important to note that the GP index is mainly a measure of IPR protection based on formal patent laws. The WEF index, on the other hand, takes both general IPR laws and their enforcement level into account. Moreover, the WEF index is a more recent assessment and has captured the effects of the TRIPS agreement on the level and variation of IPR protection. The selection of the WEF index for the current study is also in line with some prior literature (e.g., Watkins and Taylor, 2010; Chen, 2015; Yang & Huang, 2009). The distance of IPR protection was calculated by using China’s IPR index to minus home country (IPR_2).

3.3.3 Control variables

In addition to the independent variable, the current research also included control variables which are commonly used in theoretical and empirical models of the IRP-FDI relationship. The control variables for hypothesis 1 are market size, market growth, openness, human capital and country group. Also, we control for variables such as firm age, firm size, industry, FDI, openness, human capital and country group to test hypothesis 2.
Market size (GDP). Large consumer markets are expected to attract more FDI inflows compared to small ones as they provide more potential for consumption and trade. Market size in this research was measured by Gross Domestic Product (GDP), which comes directly from World Development Indicators (WDI). GDP were calculated by taking the logarithm and coded as Log_GDP.

Market growth (MktGrowth). Along with market size, market growth of a country is found to positively improve FDI inflows (e.g., Vita & Kyaw, 2008; Goswami & Haider, 2014). In general, markets with higher and more sustained growth rates receive more FDI inflows than volatile economies. To represent the growth rate this research used the growth rate of real GDP, which was extracted from the WDI database.

Openness (ExpGDP). The degree of openness of trade is generally estimated to be a significantly positive determinant for FDI inflows. The control variable of openness used the ratio of export to GDP in a country as the proxy. This ratio was collected from WEF’s Global Competitiveness Index.

Human capital (HumanCap). Human capital generally consists of health and the development of education in a country. In the present study, the proxy of human capital of China is the ratio of secondary school enrolment to the total labour force. This is in line with the measurement of human capital from Mankiw et al. (1992), as China is still a less developed country. The ratio of secondary school enrolment to the total labour
force in selected countries was also employed from the WEF’s Global Competitiveness Index.

Country group (CountryGrp). The current research also controlled types of countries (OECD and non-OECD countries) in the context of FDI inflow and entry mode choice. The main reason for making a distinction between OECD and non-OECD countries is to control the level of economic development. Based on the classification, this analysis can verify whether the results are different between two types of countries. A dummy variable was introduced in this case, which takes a value of one if the countries are OECD countries, and zero otherwise.

Firm age (Age_Inv). A firm with a long history and much experience tends to master more advanced abilities to deal with differences, uncertainties, and potential conflicts in foreign markets. The bulk of empirical evidence (e.g., Pak and Park, 2004; Padmanabhan & Cho, 1996) seems to support the idea that experienced firms are less likely to establish a JV when investing in overseas markets. For this study, the experience was measured by the age of a firm. The firm’s age was computed as the distance between the year of a focal foreign entry and the year when its parent firm was established. The investment year of the subsidiary came directly from the CIS database while the established year of parent company was collected from company’s profile on its official website.
**Firm size** (Logassets). The size of a firm often indicates its competitive advantage in financial, physical, human, technological, or organizational resources (Ekeledo and Sivakumar, 2004). Thus, to a large extent, firm size determines the scope of what a firm can do. Larger firms are more likely to possess a stronger capability to afford the high costs and to take the risks involved in cross-border expansion through WOS (Buckley and Casson, 1976). Several prior empirical analyses (e.g., Buckley and Casson, 1976; Kimura, 1989; Etemad-Sajadi, 2015) have found evidence to show a positive relationship between the size of a firm and its higher-control mode of entry. In this study, following the method from Barkema et al. (1997), the firm size was measured by the total assets which were taken from the CIS database. Assets were calculated by taking the logarithm and were coded as Logassets.

**Industry** (Ind). This research also controlled for the manufacturing sector on the basis of SIC codes. This is because opportunities to choose a WOS or JV might differ across sectors. Sectors with IP-intensive goods are expected to be influenced the most under different IPR regimes. The data came from five industries within the manufacturing sectors. That is, food and kindred products; chemicals and allied products; industrial and commercial machinery and computer equipment; electronic and other electrical equipment; and electronic and other electrical equipment and components. These five industries were coded into five dummy variables from Ind5_1 to Ind5_5. Table 1 summarizes the operationalization of the variables and sources of data used.
3.4 Methods

In this thesis, I estimated the link between the distance of IPR protection and FDI flows to China (hypothesis 1) with the panel regression approach. Logistic regression analysis is adopted to examine the impact of IPR distance and FDIs’ entry mode (WOS or JV) choice (hypothesis 2). All calculations and estimations were conducted using Stata computer professional software.

The gravity model has been widely used to identify the determinants of international trade and investment flows because of its “strictly descriptive” nature (Leamer & Levinsohn, 1995). For example, Eichengreen and Tong (2007), Bergstrand and Egger (2007), and Mutti and Grubert (2004) have recently applied the gravity model to FDI. A gravity model for analysing FDI normally consists of variables, such as country size, labour quality, and openness to estimate factors causing friction in capital flows.

Instead of employing the gravity model, this thesis utilizes the panel regression approach. Based on this approach, this thesis attempts to determine the IPR distance that affects inflow of FDI into China and uses other possible factors such as market size, growth rate, openness, human capital and country group as control variables. The main
The reason for employing panel data analysis in this study is to capture the dynamic behaviour of multiple countries in multiple years and to provide more efficient estimation of and information about the parameters. Baltagi and Kao (2000) indicate that panel data techniques are suitable for cross-section and time series information as some biased results are detectable in pure cross-sections or in pure time series. Applications of panel data analysis to IPR-trade have emerged over the past decade. For example, Co et al. (2004) evaluate the US exporters to 71 countries during 1970 to 1992 in order to discover whether exports are affected by importers’ patent regimes. Their panel study found no significant influence of IPR protection on R&D-intensive goods. Thus, in this study, panel data analysis allows the researcher to control for unobserved heterogeneity both across countries and times.

In the second stage of analysis, the logistic regression approach was adopted to examine whether IPR distance has an impact on the FDI’s entry mode choice. The main reason to select logistic regression as the statistical technique is because the dependent variable is binary (between WOS and JVs). Binomial logistic regression analysis is considered to be the “statistical method most commonly used in entry mode research” (Canabal and White, 2008, p. 275).
Chapter 4 Results

Chapter 4 presents the results of the hypotheses testing. The first part of this chapter shows the panel linear regression results for IPR distance on FDI inflows (hypothesis 1). The second part of this chapter illustrates the logistic regression results for IPR distance on MNEs’ choice of entry mode (hypothesis 2).

4.1 Hypothesis 1

Descriptive statistics

Table 2 reports descriptive statistics and a correlation matrix using panel data averaged during the period from 2006 to 2012. The original data covered 120 countries for the seven-year time period. Looking at the country group, 609 observations are classified as non-OECD countries and 231 are classified as OECD countries. However, the sample size is further constrained by the lack of data availability. This reduces the total number of observations to 691 countries. The mean of the IPR distance between host and home countries is -.0598, suggesting that China’s IPR protection belongs to the slightly lower-middle level among others. This is an ideal data sample for studying the directions of distance as the middle level ensures half of the observations are positive while half are negative. The mean of FDI inflows (in logs) is 6.5606, demonstrating that the flows of FDI to China during the estimated period are large.

The correlation matrix between variables is also given in Table 2, which shows that all
correlations between explanatory variables are lower than 0.60. This matrix indicates a comparatively high correlation of HumanCap with IPR (-.552). This value shows that as the human capital in a country increases, its positive IPR distance with China increases. In other words, countries with better human capital are the ones which bear relatively higher levels of IPR protection than in China. Variable CountryGrp is highly correlated with IPR (-.587) and GDP (.554), which suggests that OECD countries possess comparatively higher IPR protection measures and have a larger GDP than non-OECD countries. Still, I consider that multicollinearity is not a major concern for the panel regression results reported in the following Table 3. This is because one of the main benefits of panel data is that it can attenuate the problem of multicollinearity by increasing the degrees of freedom (Hsiao, 2003, p. 311). The panel technique can combine several cross-section units and periods (time series) that augment the dataset. Hence, this thesis does not assume multicollinearity to be a major problem.

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Insert Table 2 about here
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Model Fit
The analysis for hypothesis 1 was run with the xtreg command in STATA 13. Table 3 presents the results from the random-effects Generalized Least Square (GLS) regression analysis. Hypothesis 1 was tested by first running a baseline model with the
dependent variable and control variables (Model 1 in Table 3). The estimated model added the IPR distance as an independent variable. (Model 2 in Table 3). The model has a satisfactory fit to the data, with a Wald Chi Square of 107.32 that is significant at 0.0000 confidence level. Further, the R squared of the full specification is 0.3647. After adding the independent variable (IPR), the Wald Chi Square of the estimated model rose from 107.32 to 121.48 with a 0.0000 confidence level. The R square reached 0.3926.

Hypothesis test

Establishing different models makes it possible to compare alternative statistics as it isolates the changes of model fit and determines the explanatory power of the variables (Aiken & West, 1991). Model 1 includes the control variables and their effects on the FDI inflows. It shows that only the GDP (B=1.0838 and \( p=0.000 \)) and ExpGDP (B=.0179 and \( p=0.000 \)) are significantly and positively associated with FDI inflows. Countries with a larger market size and more openness have a higher investment flow to China.

My first hypothesis predicts that as the IPR distance between China and home countries increased, the FDI flows to China decreased. In other words, there was a negative relationship between IPR distance and FDI. Adding the independent variable, Model 2 reveals the results of IPR distance on FDI inflows. The coefficient of IPR in Model 2 is -0.3497 (\( p=0.001 \)), revealing a significantly negative effect on FDI inflows. The result
indicates that firms that come from countries at a larger IPR distance from China are less likely than those at smaller IPR distance to invest in China. Hypothesis 1 is thus supported.

Additionally, some of the findings from the control variables deserve some commentary. The Market size indicator, measured by real GDP, is positive and significant in both of the models (i.e., $B=1.0838$ and $P=0.000$ in Model 1; $B=1.1157$ and $p=0.000$ in Model 2). This is consistent with prior work that reported that market size is a significant determinant of FDI (e.g., Jadhav, 2012; Chen & Yeh, 2012; Huang & Wei, 2016). Also, the Openness indicator, measured by export ratio to GDP (ExpGDP), is positive and significant in both of the models (i.e., $B=.0179$ and $p=0.000$ in Model 1; $B=.0145$ and $p=0.000$ in Model 2). This result aligns with our expectations as well as with prior work that has linked openness to FDI inflows in a country (e.g., Anwar & Afza, 2014; Jiang et al., 2013).

Finally, I should also note that the results of the Market growth, Human capital and Country group did not have significant effects on the FDI inflows. The level of significance for MktGrowth, HumanCap and CountryGrp is 0.206, 0.652 and 0.729 respectively, which is much higher than the usual significant level of 0.05. This suggests that the market growth, human capital and country group did not apparently affect the flows of FDI in China during this period.
4.2 Hypothesis 2

Descriptive statistics

Table 4 provides summary statistics and correlations coefficients for hypothesis 2. All the variables have a range of 801 observations. Of the total 801 deals comprising the sample over the years 2008 and 2012, 605 were WOSs (i.e., 74.7 per cent), while 196 were JVs. Within the five selected manufacturing industries, 55 of the total subsidiaries are from food and kindred products (coded as Ind5_1), 116 of the total are from chemicals and allied products (coded as Ind5_2), 192 of the total are from industrial and commercial machinery and computer equipment (coded as Ind5_3), 322 of the total are from electronic and other electrical equipment and components (coded as Ind5_4), while 116 of the total are from transportation and equipment (coded as Ind5_5). Based on the country group classification, 76 of the total subsidiaries originate from non-OECD countries, while 725 subsidiaries originate from OECD countries. Moreover, the data shows that 55 of the total deals from non-OECD countries and 550 of those from OECD countries were set up by WOS, while 21 of the total deals from non-OECD countries and 175 of the total deals from OECD countries were entered by JVs.

The mean value of IPR distance (coded as IPR2) is 1.5035, demonstrating that IPR
protection in China was lower on average than those in the foreign host countries during 2008 and 2012. The mean value of firm experience is 71.124, which was measured by the age of the overseas parent company. Firm assets (in logs) has the mean of 5.0862 in the data distribution. The mean of FDI inflows (in logs) is 9.2862, suggesting that the flows of FDI to China in 2008 and 2012 were large. Also, the descriptive statistics shows the mean of ExpGDP as 44.3333 and HumanCap as 100.3887. The Correlation matrix indicates a high correlation of CountryGrp with ExpGDP (-0.859). Also, variable Ind5_4 is highly correlated with Ind5_3 (-0.460). To assess whether multicollinearity is a major concern, variance inflation factor (VIF) scores (Belsley et al., 1980) were examined. The VIF values were smaller than 10. Therefore, it was reasonable to believe that there was no serious risk of multicollinearity between the variables in the following model for the hypothesis test.

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Insert Table 4 about here

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Model Fit
The parameters were estimated using a binomial logistic regression procedure (command logit) of STATA 13. Table 5 interprets the estimation results based on the sample of 801 deals, all of which had set up either WOS or JVs in China in 2008 or 2012. Model 3 reports the results of the baseline model, including the dependent
variable and all control variables. As shown in Model 3, the LR Chi-square is 42.43 and significant at .0000 confidence level. The Pseudo R squared of the base model is 0.0476. Further to this, IPR2 was added to the estimated model as an independent variable. Model 4 shows that the estimated model is statistically significant and has satisfactory model fit and predictability. The model Chi-square reaches 46.48, which is significant at .0000 confidence level. The Pseudo R square has risen to .0521. It also indicates an increase of log likelihood from the baseline model of -424.4841 to the estimated model of -422.4590. These results suggest that the estimated model can effectively discriminate between WOS entries and JV entries.

Hypothesis test

According to the baseline model (Model 3), four of the variables are significant: firm size (Logassets), FDI inflows (FDI_Log), openness (ExpGDP), and country level (CountryGrp). There is a negative relationship between firm size and the choice of WOS entries ($B= -.5321$, $P=0.001$). Also, the negative relationship between FDI and the choice of entry modes highlights that larger FDI inflow is associated with the choice of JV entries over WOS entries ($B= -.5356$, $P=0.001$). While the openness was found to be positively associated with the choice of WOS entries with a $B$ of .0142 at the confidence level of 0.000. This suggests that the higher level of openness of home country would more likely direct firms to choose WOS when entering China. Moreover, country group also shows a positive influence on the choice of WOS entries ($B=1.9869$, $P=0.002$), indicating that firms from OECD countries are more likely to enter by setting up WOS
than firms from non-OECD countries. This result follows Nicholson’s (2007) study, which has found that the impact of IPRs on FDI is different when the activity occurs in an OECD country.

Hypothesis 2 predicts that IPR distance between home and host countries will positively influence the choice of WOS over JV. Model 4 captures the influence of IPR distance on WOS entries. This hypothesis was supported with a positive loading of $B=.3815$ ($P=0.043$) in Model 4. Supportive of hypothesis 2, findings indicate that the higher IPR distance between home and host countries will enhance the likelihood of WOS entries relative to JVs.

In addition to the independent variables, two control variables are also positive and significant in the model: Openness ($ExpGDP$) and Country level ($CountryGrp$). The Coefficient of $ExpGDP$ in Model 4 is -.0134 ($p=0.000$). Consistent with prior research (e.g., Nas 2012), the openness of the home country of the MNE shows a positive impact on the mode choice of WOS. Country level ($CountryGrp$) explains a positive impact on the choice of WOS ($B=1.9708$, $P=0.002$). These results support the argument that accounts for differing impacts on ownership mode choices according to general levels of economic development (e.g., Rui & Yip, 2008).

Furthermore, several control variables are found to negatively and significantly influence the entry mode choices: firm size ($Logassets$), FDI inflow ($FDI\_Log$) and
human capital (HumanCap). Coefficient of Logassets in Model 4 is -.4871 with the confidence level of .002. Interestingly, this finding contradicts many prior studies (e.g., Agarwal & Ramaswami, 1992; Aulakh & Kotabe, 1997), which suggest that firm size has a positive impact on the choice of WOS. However, there is still empirical evidence suggesting that firm size has a limited effect on firms’ decisions to internationalize. For example, Quer, Claver and Rienda (2011) analyzed the determining factors of FDI mode choice between WOS and JV by Chinese firms and found firm size to be negatively related with WOS. Gatignon and Anderson (1988) even argued that “higher control modes are less likely for large foreign operations”. This is because the size of global operations in many industries will force large firms to accept help from partners to share the large total investment and the large coverage of global networks. As expected, Model 4 reports a negative relationship between FDI inflow and WOS entries ($B=-.5923$, $P=0.001$). This result indicates that firms from countries which have larger FDI inflows to China prefer to choose JVs as opposed to WOS. The parameter of human capital has a negative sign ($B=-.0248$) and is significant at 0.048 level ($P=0.048$), suggesting that the higher level of human education enhanced the likelihood of not selecting WOS over JVs.

Lastly, the age of the parent firm shows an insignificant impact ($B=.0005$, $P=0.802$) on the choice of WOS as entry mode. In a similar vein, the results from Model 4 show that the parameter of industry is insignificant, indicating that no clear differences of industries can be identified and that the variable cannot help explain the probability of
FDI to undertake the WOS or JVs entries when entering China’s market. This finding contradicts many prior studies with regard to R&D intensity’s positive and significant association with the choice of WOS over JV (e.g., Gatignon & Anderson, 1988; Gomes-Casseres, 1989). An explanation for this insignificant result may be that firms either do not take into account R&D investment when deciding to internalize production procedures to China (Nicholson, 2007).

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Insert Table 5 about here
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Chapter 5 Discussion and conclusion

The initial part of chapter 5 presents a discussion of the overall findings from the hypotheses testing. After the discussion, the main conclusions of the research are highlighted. The chapter discusses a few limitations of this thesis. Finally, this chapter discusses the future directions for IPR-FDI research.

The purpose of this study is to analyse the FDI inflows and the modes of entry chosen by MNEs investing in China on the consideration of institutional differences regarding IPR protection. IPR protection has become a public issue around the world and disputes can occur in both advanced and less developed countries. Chinese market offers an interesting background for study, given its role as a large and important emerging economy. MNEs entering emerging markets such as China must carefully consider the impact of institutional factors in their destination countries (Chiao et al., 2010). In its attempt to join the WTO, China has scored a noticeable and obvious efficiency in spurring the development of IPR systems in the past decade. In order to improve the internal investment environment and the image of the nation, China has actively focused on increasing exchanges and cooperation with international IPR protection organizations. In 2007, China worked with relevant institutions to negotiate with the WTO about copyright and was involved in discussions under the APEC framework to safeguard the country’s interests. Moreover, China’s government has attempted to increase the number of exchanges held with developing countries. In doing so, it hopes
to build up a strong force to protest against unreasonable requirements from developed countries on protecting IPR. Still, for MNEs, China poses a strong threat of imitation due to the fragile nature of its national IPR protection. For example, the US has launched cases against China at the WTO. The main reason is that China is not taking enough responsibility to punish illegal copies of films and music. Moreover, the US government also claims that Chinese restrictions on entertainment imports violate trade rules. IPR protection has remained a key factor to reach a consensus in trade discussion between China and the U.S. Even China has taken a great effort to develop IPR protection, the U.S. government complains that China should be more active. For Chinese enterprises, on the other hand, the Western countries’ tough stance on protection IPR has raised concerns about the adverse impact which may likely make a dent in the profits of many domestic exporters. However, the Chinese government is clear to know that in a long term, IPR-oriented competitiveness will take place of China’s current comparative advantage of low labour costs and cheap raw materials. A new era of the knowledge-based economy is approaching, which hinges on the production, distribution and consumption of knowledge and information. Also, for Chinese enterprises to gain more profit in the present era of the knowledge-based economy, the more crucial task is to substantially actuate their own development of IP assets. This is a key factor this research was trying to discover the IPR-FDI relationship in China. The current study employed the IPR index from the WEF’s Global Competitiveness Reports. Both of the proposed hypotheses have marked statistical support.
5.1 Main findings and implications

Using panel data of 691 observations from 2006 to 2012, the empirical results show that the larger the distance of IPR protection between home and host countries, the lesser the flow of FDI entering into China. Such results are consistent with previous mainstream literature suggesting that greater institutional distance significantly diminishes an MNE’s intention to invest (e.g., Du, 2009; Berry et al., 2010; Li & Guisinger, 1992). In Du’s (2009) paper, the empirical results show the difference in the host country and home country’s institutional environment has a negative effect on the possibility of entry of Japanese outward FDI. Specifically, this study discusses the bidirectional distance of IPR (mentioned in chapter 2), which proposes that, on both sides, a larger distance is more likely to deter FDI inflows. To a large extent, the result also provides evidence to support previous research on IPR-FDI relationships, which positsthat stronger IPR protection could have a positive effect and result in an increase in FDI (e.g., Lee & Mansfield, 1996; Javorcik, 2004; Nunnenkamp & Spatz, 2004). Awokuse and Yin (2010) argue that no previous analysis has investigated the relationship between IPR protection and international trade from the perspective of developing nations. From Seyoum’s (1996) study, the findings suggest that strong IPR protection appears to have a positive influence on FDI in developing countries. The current research is indeed consistently responding to this issue by adopting the data from China’s market, which is one of the largest developing countries in the world. In addition to IPR distance, the results also suggest that measures of market size and
openness are positive determinants of FDI inflows.

Moreover, further analysis of 801 FDIs investing in China in 2008 and 2012 reveals that IPR distance appears to be significantly and positively associated with the choice of WOS. This means that the tendency of MNEs from countries with a higher distance of IPR protection than their host country to enter China’s market by means of WOS (as opposed to JVs) will decrease. This result is in line with previous studies that mentioned that larger institutional distance is associated with a lower level of equity ownership mode, such as JVs over WOSs (e.g., Xu et al., 2004; Xu & Shenkar, 2002; Estrin et al., 2009). For example, in Xu et al.’s (2004) paper, which examines how Japanese MNEs control their overseas subsidiaries, the result shows that the possibility of selecting a lower level of equity ownership will increase in the context of larger institutional distance.

The current study also aimed to compare the different impacts that this distance may have on the choice of entry mode, with reference to the positive and negative direction. With a similar concept, for example, Abdulrahman et al. (2016) demonstrate that the distance-ownership relationship is moderated by direction. In details, they posit that, for EMNEs entering emerging economies, the larger the distance will direct to a lesser acquired ownership mode. Moreover, Hernández and Nieto’s (2015) study indicates that a positive regulatory distance is related to the entry modes that require a lower resource commitment, and conversely, a negative regulatory distance is related to the
modes that require a higher level of resource commitment. Interestingly, the findings of my research both indicate a negative influence of IPR distance on the choice of WOS. To illustrate, as negative distance increases, MNEs will be more likely to enter by WOS as opposed to JVs. Whereas, as positive distance increases, MNEs will be more likely to enter by JVs as opposed to WOS. Possible explanations for this could be the intrinsic function of IPR protection against infringement and counterfeiting. A JV allows a firm to minimize investment risk and cope with the liability of foreignness with the help a local partner, but it may also pose serious research and development problems due to the threat of unauthorized mimics. A WOS must come across problems of having to integrate different cultures, divergent legal viewpoints and separate policies (Nitsch et al., 1996), yet it enables full control of intellectual assets. Given this, the supportive evidence of hypothesis 2 also validates the prior research, which holds that a stronger IPR protection in the host country enhances the likelihood of an MNE to enter by JV as opposed to WOS (Mansfield, 1996; Chun, 2008; Chen, 2013).

5.2 Discussion and contributions

Overall, the results show that IPR distance is negatively related to FDI inflows to the host country. However, the distance of IPR protection is positively associated with the choice of WOS entries, with regard to both positive and negative directions of the movements. One of the major contributions of this study is its response to the academic requirements that consider asymmetric effects of directions regarding distances. As Cuervo-Cazurra & Genc’s (2011) study states, most of the studies examine institutional
distance without considering the directions of the distance. However, what this study found was that in practice, institutional distance may have an asymmetric impact on the strategic choices of organisations (Zaheer et al., 2012). Therefore, some recent studies have tried to take into account the bidirectional features of distance. For example, Chikhouni, Edwards and Farashahi (2016) investigated 25,440 full and partial acquisitions from multiple countries and demonstrate that the psychic distance-ownership relationship is moderated by direction. Another example comes from Hernández and Nieto’s (2015) empirical evidence of the asymmetric effect of regulative distance on entry mode choice. In line with a call for scholars to study how the direction of distance matters, this thesis strives to investigate the direction of the distance under which FDI flows and entry mode choices matters.

Secondly, this study contributes to the research on institutions. To the best of my knowledge, even though an increasing amount of research (such as the examples mentioned above) are exploring the asymmetric effects of institutional distance, no studies focus on IPR protection. This study represents an effort to introduce IPR distance to the FDI research in the IB field. IPR protection is a peculiar regulative institution, bearing in mind that the impacts of IP laws will be different from the influences of other regulations on firms’ entry strategies. This is because IPR distance poses a dilemma of strategic conflicts between efficiency and legitimacy. IPR protection is one of the fundamental and crucial institutions in advanced countries (North, 1990), while it has only been established in many less developed countries over
the past two decades, such as China. IPR protection is developed to varying degrees globally, which is why firms have been operating in many different protection contexts through increasing globalization. Firms from institutionally developed countries have serious concerns about weak IPR in host countries. A close tie is emerging between host countries’ IPR protection and MNEs’ core competitiveness, which comes from R&D and innovation. Chapter 2 clearly demonstrates that IPR distance exerts an influence on FDI flows and MNEs’ choice of entry mode.

What is worth mentioning, this study sets up a research structure from national level to industrial and firm level analysis. It starts from analysing the impact of differences in relation to IPRs protection on FDI inflow and further to the analysis of differences of IPRs protection and foreign market entry mode choice. The research of IPRs- FDI inflow relationship creates a fundamental understanding towards the relationship of IPRs- entry mode decision. FDI and the choice foreign market entry mode are not independent of one another; entry mode choices are inseparable from the results of previous decision of whether to set up FDI in host countries.

In theoretical terms, this research draws on both institutional and transaction cost theory to explain the impacts of IPR distance on entry mode choice. The TCT comes from economic principles and emphasizes the basis of efficiency criteria for a firm’s entry mode decision. On the other hand, institutional theory posits that the entry mode chosen by firms largely depends on what is demanded of them to gain legitimacy in the host
country. Both perspectives help to explain completely the influence of IPR distance on MNEs’ entry mode decisions. This is because firms seek efficiency in their internationalization, but are still constrained by institutions in host countries when making their operating decisions. Furthermore, the study also proposes that the weight of firms’ demands for seeking efficiency or gaining legitimacy are different depending on whether the movements are positive or negative. To this end, the impacts of IPR distance on the choice of foreign entry mode will be considered to be different according to positive or negative directions.

This study advances the knowledge of the impacts of the directions of IPR distance and provides new opinions on the debate around the asymmetric effect of institutional distance on internationalization decisions. Previous literature still lacks consensus about institutional distance. To a certain extent, this can be attributed to the absence of the consideration of direction (Hernández & Nieto, 2015). Hernández and Nieto (2015) suggest that greater regulative distance drives firms to opt for entry forms with a higher resource commitment mode when the distance is negative, whereas greater institutional distance pushes firms to choose entry forms requiring lower resource commitments modes when it exists in a positive movement. However, the current study found it corresponds to the singular regulative institution, IPR protection. In these cases, IPR distance is found to be positively related to the choice of WOS for both positive and negative directions. Similarly, IPR distance is discovered to play a negative role in attracting FDI inflows, for both positive and negative directions. IPR protection is
distinguished from other general regulative institutions as it directly connects national policy to organizational intellectual asset protection and industrial technology upgrading. Such results are likely to be explained by the facts that, given the different levels of IPR protection in host countries, MNEs are not only concerned with the challenges of legitimacy, but also with the uncertainties and risks involved in protecting their intellectual property.

This study also offers practical implications for firm managers and the public policy makers. It is important for managers to consider institutional distance when seeking to expand their operations and make decisions in foreign markets. Some failure cases can tell useful stories. For example, Google first entered China in 2005 in the hopes of connecting Chinese users to the rest of the world, but declared to withdrew from the Chinese market five years later in 2010. The main reason for Google’s withdrawal was its failure to comply with China’s censorship laws. Even though Google is now firmly pushing a path to return to China, the public holds negative attitudes due to the institutional unacclimatization. Moreover, Time Warner’s AOL decided to withdraw from China in March 2009 after twice trying to crack the Chinese market. This is because the foreign companies are restricted to having a Chinese domain sector and foreign companies are not allowed to be in the media business.

The findings inspire managers to consider the particular case of IPR distance as opposed to general institutional distance or regulative distance. International
differences in IPR protection are a significant factor for companies to consider when
engaging in joint ventures or setting up wholly-owned subsidiaries. Indeed, insights
from current research do not generate the conclusion that the impacts of IPR distance
on FDI inflows and MNEs’ entry mode decisions are different based on whether the
movement is negative or positive. Still, it makes it possible to present managers with a
framework of reference that they can use as a basis for their strategic decisions on
internationalization. It is not wise to limit the consideration of institutional distance in
absolute terms. Managers should bear in mind not only the IPR differences between
home and host countries, but also the relevant directions of their movements. Although
my study suggests similar outcomes within negative and positive distance, the
springboards of thinking are not always consistent. With a negative movement,
managers should consider their firm’s legitimacy and a strategy to protect its intellectual
assets in a weaker IPR protection environment. In contrast, with a positive movement,
managers should give priority to a firm’s efficiency and strategies for learning from the
advanced technology of the host country. Taking a holistic view helps firm managers
to make a wise decision in their foreign investment.

The results also raise some potential implications for policy makers who have interests
in promoting the volume of FDI inflows to their local markets. First, by indicating the
bidirectional impacts of IPR distance that are important in attracting FDI, this study
helps policy makers to identify the difficulties and opportunities they may encounter
based on their position. As the results suggest, IPR distance is actually negatively
associated with the flows of FDI to China. FDI is more likely to enter host countries with a similar degree of IPR protection than those with a larger IPR distance. However, the bidirectional argument inspires policy makers to look beyond distance. It is noted that the strength of IPR protection should be similar to the level of the target home country so as to attract more FDI inflows. For example, if China is going to attract more flows of FDI from advanced countries, its government will achieve the target more efficiently by enhancing its IPR protection. The role of IPR protection in stimulating FDI inflows in China may also have relevance for developing policy in other large developing countries. In contrast, the Chinese government seeks to target FDI from less developed economies, so extending its liberalization policies around foreign investors should be the optimal choice. Furthermore, as the study shows the importance of IPR distance in a firm’s choice between WOS and JVs, it helps governments to orientate the strength of IPR protection, according to their desire for WOSs or JVs. It should be noted that entering into joint ventures with advanced foreign firms could be an effective way for the industry and countries to develop their technology and hopefully to partially solve the problems caused by institutional deficiency.

5.3 Limitations and future research

While this study makes contributions to the literature on the IPR-FDI relationship and offers practical implications for managers and policy makers, it still has a few limitations. Opportunities for future research result from these limitations. One limitation of the study is the difficulty in synthesizing data from different data sources.
It proposes that IPR distance between home and host countries affects MNEs’ mode choice of entry. Because it is unable to match the subsidiaries and their parent companies directly and completely due to data unavailability, it was necessary to search for each parent company’s information online. Some of the details were not available publically online, in particular those of companies who have small assets or that originated from less developed countries. It thus sharply reduced the number of available observations and challenged the balance of variables between negative and positive directions. Also, in order to investigate the impacts of IPR distance on FDIs’ decision-making, this study used China as the basis for empirical testing. Because the sample is kind of unique and the available data is not sufficient enough, this study suggests that future research should effectively involve an appropriate unit of analysis from various countries entering multiple host markets, so as to increase the variance in the IPR protection environment and the data availability.

Another limitation of this study comes from its usage of the proxy concept and some single indicators from the eco-metrics point of view. This was due to its data limitations. Developing scales with multiple indicators and using the confirmatory factor analysis will no doubt be of benefit. It helps to enrich the measurement of those variables and to avoid the measurement error. For example, in Seyoum’s (1996) paper, intellectual property was measured by four indicators: patents, trademarks, trade secrets and copyrights. The findings indicate that, for developed countries, patent protection is significantly (negative) related to FDI inflows, while trademarks, trade secrets and
Finally, given some of the imperfections arising from the results, this study also suggests some potential angles of research. Firstly, future research may wish to explore other choices of entry modes such as non-equity modes of export, licensing, and alliances, or compare the different equity joint ventures like minority JVs or majority JVs, or further compare different kinds of WOS such as greenfield, mergers, and acquisitions. Secondly, future scholars may find interesting results from considering the isomorphism phenomena among organizations in the context of IPR distance and their effects on entry mode choices. This research stands on the interaction of the MNEs’ and host markets’ institutional environments, which regard MNEs as independent actors in explaining the variation in MNEs’ entry mode decisions. As mentioned in the literature review, institutional theory also concerns external isomorphism issues. In the practical world, MNEs’ decisions are also influenced by their rivals and competitors. Lastly, future IPR-FDI relationship research directions may also receive some new insights by exploring the moderate variables which influence MNEs’ entry mode choices, such as their motivations for international expansions including market-seeking and resource-seeking strategies.

In conclusion, this study is an attempt to answer the academic call for a bidirectional analysis of institutional distance that focuses on IPR protection. The research focuses solely on the distance of IPR protection; it does not consider other institutional distance.
The results draw on the notion that IPR distance is negatively associated with FDI inflows, while it is positively related to FDIs’ entry choice of WOSs. This study is of great theoretical and practical importance because it analyses the impact of IPR distance on FDI inflows as a fundamental aspect of the relationship between IPR distance and MNEs’ entry mode choice. FDI flows and the choice of foreign market entry mode are dependent on one another; entry mode choices are inseparable from the results of the previous decision around whether to set up FDI in host countries. This study contributes to the theory and stimulates further research into this crucial area of IB research.
References


perspectives. *Industrial Marketing Management, 38*(7), 702-713.  
http://doi.org/10.1016/j.indmarman.2008.02.001

http://doi.org/10.1016/S0022-1996(99)00032-X

http://doi.org/10.1108/02651331011047998

http://doi.org/10.1007/s11151-008-9188-6

http://doi.org/10.1016/j.ibusrev.2012.01.005


http://doi.org/10.1111/1467-9701.t01-1-00260


## Appendix

### Table 1. Variable definitions and data sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI inflow (FDI_Log)</td>
<td>Log value of FDI inflow to China</td>
<td>CSY database</td>
</tr>
<tr>
<td>Entry modes (WOS)</td>
<td>The entry mode was classified as WOS when the investing firm held $\geq 95%$ equity in the foreign venture and was coded as 1; otherwise 0.</td>
<td>CIS database</td>
</tr>
<tr>
<td>IPR distance (IPR and IPR2)</td>
<td>Institutional distance between home country and China.</td>
<td>World Economic Forum</td>
</tr>
<tr>
<td>Market size (GDP)</td>
<td>Log value of GDP from home country</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Market growth (MktGrowth)</td>
<td>The growth rate of real GDP</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Openness (ExpGDP)</td>
<td>The ratio of export to GDP in home country</td>
<td>World Economic Forum</td>
</tr>
<tr>
<td>Human capital (HumanCap)</td>
<td>The ratio of secondary school enrolment to the total labor force.</td>
<td>World Economic Forum</td>
</tr>
<tr>
<td>Country group (CountryGrp)</td>
<td>If the home country is OECD country, it was coded as 1; otherwise 0.</td>
<td>OECD Statistics</td>
</tr>
<tr>
<td>Firm age (Age_Inv)</td>
<td>The distance between the year of a focal foreign entry and the year when its parent firm was established.</td>
<td>Company profile</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Firm size (Logassets)</td>
<td>Log of the value of firm’s total assets</td>
<td>CIS database</td>
</tr>
<tr>
<td>Industry (Ind)</td>
<td>The industries were coded as Ind5.1 to Ind5.5</td>
<td>CIS database</td>
</tr>
</tbody>
</table>
Table 2: Correlation Matrix (N=691)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) FDI Inflow</td>
<td>6.56</td>
<td>2.17</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) IPR distance</td>
<td>-0.06</td>
<td>1.24</td>
<td>-.434**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Market size</td>
<td>10.90</td>
<td>0.86</td>
<td>.484**</td>
<td>-.407**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Market growth</td>
<td>3.98</td>
<td>6.24</td>
<td>-.149**</td>
<td>.101**</td>
<td>-.125**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Openness</td>
<td>46.65</td>
<td>32.90</td>
<td>.252**</td>
<td>-.352**</td>
<td>-0.07</td>
<td>0.04</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Human capital</td>
<td>81.22</td>
<td>26.55</td>
<td>.401**</td>
<td>-.552**</td>
<td>.493**</td>
<td>-.198**</td>
<td>.255**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>(7) Country Group</td>
<td>0.28</td>
<td>0.45</td>
<td>.357**</td>
<td>-.587**</td>
<td>.554**</td>
<td>-.240**</td>
<td>0.05</td>
<td>.545**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 3: Panel linear regression results for IPR distance on FDI inflow

<table>
<thead>
<tr>
<th>Variable</th>
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Two-tail tests. + p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001
Table 4: Correlation Matrix (N=801)

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<th>Variable</th>
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<th>(4)</th>
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<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
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<td>-.038</td>
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<td>-.047</td>
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*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).
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<td>IPR2</td>
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Number of observations: 801.00

-2 Log likelihood: 848.97

d.f.: 10

△ -2 Log likelihood: 4.05

Two-tail tests. + p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001