DOCTORAL (PHD) DISSERTATION

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KAPOSVÁR UNIVERSITY

2019
FOREIGN DIRECT INVESTMENT LOCATION
DETERMINANTS IN INDIA: NATIONAL, SUBNATIONAL AND REGIONAL LEVEL APPROACH

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2019

DOI: 10.17166/KE2019.010
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1. INTRODUCTION

Foreign direct investment (FDI) and the location decision in investment of international firms is an attractive research topic between the practitioner and research scholar from last three decades due to the significant importance of international business in modern globalization era viz. (Dunning 1998; Dunning and Gugler 2008; Gerlowski, Fung, and Ford 1994; Guimarães, Figueiredo, and Woodward 2000; Head, Ries, and Swenson 1995; Krugman 1993; Lanaspa, Pueyo, and Sanz 2008; Liu 2009; Wheeler and Mody 1992; Yao and Li 2016; Yin, Ye, and Xu 2014; Zhu et al. 2012). Most of the FDI location decision studies started to explore in the early 1990s.

Study presented by (Adeniyi et al. 2012; Adhikary 2011; Almfraji and Almsafir 2014; Anwar and Nguyen 2010; Arvanitidis and Petrakos 2007; Asheghian 2004; Ayal and Karras 1998; Borensztein, De Gregorio, and Lee 1995; Carkovic and Levine 2002; Kotrajaras 2013; Niels Hermes and Robert Lensink 2003; Oladipo 2010; Tiwari and Mutascu 2011; Zhang 2001a) explore the relation between the FDI, economic growth and multinational Enterprises. In this thesis, we try to elaborate the necessary FDI determinant which significantly impact on the selection of location for national, subnational and regional level viz. country, state and city. According to OECD (2008) FDI is the long term relation between the home and host economy. Therefore, the question arises for foreign firms, where to trade? And what is the important factor which contribute in location selection. The main motivation for foreign business enterprises participate outside home territory to enhance the profit. According to Dunning (1979) eclectic theory, foreign investors confront a severe challenges to selection of foreign location choice and international business cooperative partner for trade. Finally once the foreign investment
location destination is selected, international MNCs has to choose the appropriate mode of investment viz. foreign wholly owned, joint ventures, license franchising and exporting (Buckley 2016). The empirical literature presented that the success and failure of international firms are critically determined by the host country national environment such as economic factors, cost, market, bureaucracy, political interference, basic infrastructure, finance facility, competitiveness and agglomeration of other supportive industries (Head, Ries, and Swenson 1995; Robert Huggins et al. 2014; Lanaspa, Pueyo, and Sanz 2008; Noel and Brzeski 2004; Pollard, Piffaut, and Shackman 2013; Schneider and Frey 1985; Simionescu 2016; Yao and Li 2016; Yu et al. 2012).

This research focuses on critical factors, which contribute to location strategies of MNCs and decision making process at country, state and city level. Therefore, we will check the significance of determinants and variables which contribute the location selection at national, subnational and regional label in our context it is India, Karnataka and Bangalore respectively, like the other researches presented separately at national, sub-national and regional level (Adeniyi et al. 2012; Adhikary 2011; Albulescu and Tămășilă 2014; Ali Al-Sadig 2009; Arjun Bhardwaj, Joerg Dietz 2007; Bakar, Mat, and Harun 2012; Banga 2003; Bhattacharya, Patnaik, and Shah 2012; Brewer 1992; Choong 2012; Fodé 2014; Habib and Zurawicki 2002; Herzer 2008; Ho and Ahmad 2013; Ho and Rashid 2011; Kimino, Saal, and Driffield 2007; Kurečić, Luburić, and Šimović 2015; Lily et al. 2014; Morrissey and Udomkerdmongkol 2008; Niels Hermes and Robert Lensink 2003; Nonnemberg and Mendonça 2004; Noorbakhsh, Paloni, and Youssef 2001; Otchere, Soumaré, and Yourougou 2016; M. E. Porter, Ketels, and Delgado 2008; Prakash and Abraham 2005; Sathe Shraddha and Morrison Handley-Schachler 2006; Shahbaz and Rahman 2012; Tiwari and Mutascu 2011; Y. Wei et al. 1999; Won, Hsiao, and Yang 2008; Yazdan and Hossein 2013). So,
there is a need to integrate the location determinant at national, sub-national and regional level in a single research and fill the literature gap. The other study focused on the location decision process mixing the determinant at national and regional level Liu (2009). Some other researches, which present the location determinant factors are (Guimarães, Figueiredo, and Woodward 2000; Head, Ries, and Swenson 1995; Lanaspa, Pueyo, and Sanz 2008; Marwan Nayef Mustafa Al Qur’an 2005; Wheeler and Mody 1992; Yao and Li 2016; Yoo and Reimann 2017; Zhu et al. 2012). In summarising empirical literature has suggested prior studies had discussed sector based location determinant (tax, economic growth, manufacturing and service sector etc.) however; very few studies based on the country and firms based location determinant such as (Beule and Duanmu 2012; Liu 2009; Marwan Nayef Mustafa Al Qur’an 2005). There are few kinds of literature available in developing countries and Asian region out of them, most of the research dwelling about FDI location selection in China like (Blanc-Brude et al. 2014; Y. Wei et al. 1999; Yin, Ye, and Xu 2014; Zhu et al. 2012). Therefore, the existing literature does not dwell integrated approach of FDI location choice determinant on a national, subnational and regional level in a single experiment. However, in the Indian context, there is huge potential to explore the location determinant at the national, subnational and regional level. In the Asian economy after saturation of China’s economic growth, world economist is expecting fast growth from the Indian economy. This economic growth has a significant impact on FDI and its location determinants, as we discussed previously.

1.1 Research Problem

After selecting the topic and conducting the literature overview next sophisticated step is to articulate the research problems (Marczyk, DeMatteo,
and Festinger 2010). So, before clarifying the other parts of research, formulating the research problem and the research gap is important.

Broadly international investors location selection in a foreign country is selective matter and profit-seeking desire is the main motivation for FDI (Novotný 2015). However, there is the external driving force which motivates the foreign investors to invest in another country, such as economic, seeking a firm’s growth desire and profit earning. These drivers motivate the foreign investors to open, relocate and withdraw the operation from one country to another country. The central question is raised how the foreign firms choose the location for business establishment. There are the variable like administrative, labour costs, location’s proximity to alternative locations and geographic factors which work together to motivate the foreign investors to invest in the host country (Blanc-Brude et al. 2014). In addition, failure to select the effective location of business operation may lead to the negative performance of the organization which alternately cause a loss in profitability. Therefore the economist argue that for successful business operation location choice is the significant factors and this location decision is depend on the variables such as political stability, government intervention, basic infrastructure facility, technology spillover, industrial agglomeration, competitiveness and economic growth and has positive impact to international business (Bakar, Mat, and Harun 2012; Banga 2003; Lall, Shalizi, and Deichmann 2004; Loukil 2016; Ron Martin and Sunley 1996; Nigh 1986; Simionescu 2016). So, in summarizing the foreign investor should have select the business operation’s location carefully to achieve profitability and to focus on these variable to avoid the unwanted withdrawal from the host country. Hilber and Voicu (2007) presented the location of FDI in Romani, they found that industry-specific labour conflicts, foreign and domestic agglomeration economies significantly impact the FDI location. Kang and Jiang (2012) show
that institutional forces such as bilateral trade, economic freedom, political influence, GDP per capita and inflation significantly influence the FDI location choice decisions of the Chinese firm in south-east Asia.

According to Nielsen, Asmussen, and Weatherall (2017) most of the literature on FDI location choice confined to the United States (US), Europe and after 2010 mainly on China. So, there are so many other rapidly growing, developing and transition economies were ignored. They analysed the 153 studies and out of 153 studies only seven studies conducted the survey and utilized the primary data in articles. More interestingly there is no study available which explain the foreign firm location choice on India. Due to the difficulties in conducting a survey and gathering the data from firms most of the studies rely on secondary data which is primarily not based on the firm level. Although the FDI location choices evolve firm-level decision process following the company objectives. So, primarily there is a need to examine FDI location choice behaviour using firm-level data. In summarising we identified a significant gap in FDI location choice literature. Which provides important motivation for undertaking in-depth studies of FDI location choice in India.

1.2 Research Question

In the process of finding location determinant for national, sub-national and regional level in our context it is India, Karnataka and Bangalore. Based on the literature review in Chapter-2 set of detail objectives is derived in Chapter-3. In broadly this thesis generously presents the following research question:

1. Find out the FDI location determinant at the national, sub-national and regional level, for instance, this region is India, Karnataka and Bangalore?
2. Examine the location determinant, whether it differs from national, sub-national and regional level?

3. Find why do the international firms select a particular location for investment and establish the operation facility rather than other location.

4. What are the practical implications of location determinants for managers, central and regional governments in India?

1.3 Justification for Research

For international MNCs location, the determinant is essential and has a direct impact on organization success and failure (Zhu et al. 2012). The empirical study presented by Nielsen, Asmussen, and Weatherall (2017) depict FDI location choice empirical literature from 1976 to 2015. They analysed 153 quantitative studies and interestingly only seven studies (5%) conducted the survey. Therefore, there is a scarcity of primary data. secondly, most of the studies focused on the developed region while according to Prakash and Abraham (2005) and Sathe and Handley-Schachler (2006) developing nation has different FDI location characteristic. So, there is a need to explain and understand the location selection criteria in India, which considered as a developing nation according to IMF, World Bank and other international organization. MNCs face the number of decision’s dilemma, where to invest and how to select the location for business operation. According to Lien and Filatotchev (2015), emerging multinationals are more inclined to choose a location in a developing country, compared to developed country multinationals. The empirical analysis bestows that location determinant literature mainly focused on country and sector-based FDI location approach such as (Beule and Duanmu 2012; Lopez and Henderson 1998; Loree and Guisinger 1995; Rodgers et al. 2017; Yin, Ye, and Xu 2014). However, this
research will consider the multi-level approach for analysing the location determinant. Furthermore, India has been untouched by the researchers and Karnataka “Silicon Valley” for India in previously “Electronic City” contributed 7.36% of FDI from 2004-2016. Mukim and Nunnenkamp (2012) presented that in India foreign investors strongly prefer a location that already hosts other foreign investors. This effect is significantly positive and robust across different years, sectors and different types of FDI. According to Kumbar and Sedam (2017) Karnataka is the third largest contributor of FDI in India. So, this thesis considered Karnataka for research. Further empirical analysis shows that there is a gap in FDI location choices literature to explain the country and regional location determinant separately. So, according to empirical analysis, the question arises whether there is any difference to choose the national, sub-national and regional level location.

The empirical literature on FDI location choice presented the conspicuous gap. Therefore, it is worth conducting the current research with several arguments. As we discussed earlier FDI location determinant in India is unexplored. First, the finding of this thesis will try to fill the literature gap of the FDI location choice determinants. Second, this thesis will present the significant variables for FDI location choice variable separately. Third, this research will present what are the facility needed in the country, state and city to lure the foreign firms.

1.4 Practical Justification

The practical explanation of present research draws attention toward the failure and success of firms, based on the necessary element of location selection criteria and business performance of the firms in a competitive environment (Blanc-Brude et al. 2014; Chakrabarti 2001; John 1997). Therefore, the
research has the practical implication of foreign international MNCs and the pan Indian MNCs who seek to expand the business nationwide, but they also face a dilemma where to select their locations.

This research will present the most important location determinants of India, Karnataka and Bangalore. So, the final determinants will help to improve the location selection criteria for international expansion. The significant location determinant will be generalised. However, the efficiency of this determinant will be better in Indian regions. This thesis has the following practical justification:

1. This research presents the rich, comprehensive and gainful significant variables of the successful location requirements for international investor’s business expansion in India.
2. Providing a better tool of location selection with significant elements, which efficiently work on the Indian international investment environment.
3. This research will deliver recommendations to the local authority to improve the location facility at the city level. So, more and more foreign investors may invest in that area.
4. The central government can use this research to understand, which variables are necessary to attract the FDI and in which area government is lagging behind. Furthermore, it presents the idea for a policymaker to understand the international investment requirement for location choice. So, this research will help to make the policy makers to lure foreign investors.
1.5 Methodological Justification

According to Marczyk, DeMatteo, and Festinger (2010) primary data increases reliability. So, this research conducted a survey for data collection. A thesis questioner is designed to examine the Indian businesses’ environment which significantly focused, according to the Indian business environment and ethics. This thesis ensures about the bias measurement after collecting the data therefore, biasing carefully removed for further analysis. The test we performed for bias removing is the Mann-Whitney U test. Furthermore, we performed the Cronbach alpha for the reliability of construct in (Chapter 4). Which will make the determinants more authentic at ground level. Finally, we performed the logistic regression to find out the location determinant like previous studies adopted such as (Belkhodja, Mohiuddin, and Karuranga 2017; Leistritz 1992; Lien and Filatotchev 2015; Liu 2009; Rodgers et al. 2017; Yin, Ye, and Xu 2014). So, the method we adopted is tested and reputable.

1.6 Boundary line of Research

This research is limited to a certain geographical area and limited to the foreign wholly owned (FWO) firms and joint ventures (JV) because these are the two major types of FDI investment worldwide (Liu 2009; Marwan Nayef Mustafa Al Qur’an 2005). The joint venture is the game between two partners where both play for the benefits without knowing each other cost with the agreed contractual agreement (Darrough and Stoughton 1989). This type of contract has intuitive appeal and has been double sided with the moral hazard (Bhattacharyyya and Lafontaine 1995). International JV is failing due to the mismatch of rational and common strategic goal (Juan 2002). Other limitations of this research, it is limited to 109 responses. In addition, there are many other
traditional boundary lines, which limited the scope of research viz. people, place, the scope of the survey, time, country and criteria.

1.7 Thesis Outline

This thesis is organized into six chapters.

Chapter 1 Describes the overview of the study and discusses the situation of the study, explaining the research problem, scope of the research as well as theoretical and practical justification in addition motivation and rationale of the research.

Chapter 2 Describes the theoretical framework and FDI inflow in India through the eye of the Indian economic trend and liberalization periods and explained the empirical and theoretical review of FDI from diversified trade and location theories. Presenting the past literature especially related to FDI location determinant.

Chapter 3 Provides a conceptual framework and develops the hypothesis, formulate the research design with the emulation of the method used in statistical analysis and variable measurements.

Chapter 4 Empirical testing discusses the finding of hypothesis and significance of determinants and experiment location profile discussion.

Chapter 5 It contains a critical analysis from the result obtained from preliminary research, and output achieves from the core of the research.

Chapter 6 Discussion and conclusion of overall research. Explaining the discussion of final findings along with the research questions.
Chapter 7 Explaining the practical implication and new scientific results, limitation of research and anticipated direction for future work.

Chapter 8 Discussing and summarizes the results in concise.

1.8 Definitions

International Joint ventures: is the bargaining game between two competent where both parity’s bargain without knowing each other coast function (Darrough and Stoughton 1989). It is a tendency of international firms or investors were trying to find the mutual strategically collinear partner in the host country.

Foreign Direct Investment: imply the minimum 10 per cent ownership stake required from foreign firms or investors (IMF Statistics Department 2003). Therefore, the investment made by international firms and foreign investors in another country with the minimum criteria of 10 per cent stake acquisition.

Institutional investors: are the autonomous economic entity, which has owned the right and assets and engaging freely in-home economic activity. These entities can be formed by a group of persons or any other legal and social corporation.

Economic territory: is the institutional unit that located in territory for the purpose of international gain and engaging or contributing to economic activity (OECD 2008).

Economic interest: comprise if two parties involve for mutual benefits and evolve in taxation and regulation, place of incorporation or registration, asset-holding, acquisition of assets and incurrence of liabilities, consumption and current production.
Multinational enterprises: an entity which operated from more than one economic territory with the regaining of its own similar identity and involves in cross-border economic activities.

Greenfield investments or foreign wholly owned investments: involve when the foreign investment completely acquisition and build the new in the targeted country for the purpose of engaging in profit and successfully contributing to the targeted country asset (Calderón, Loayza, and Servén 2004, P-2).

We successfully presented the introduction, framework and basic foundation of the current research. This chapter described the overall objectives, aim, justification, research design, methodology, basic definition, brief introduction of chapters of the research, the key concept, scope, practical and theoretical justification and the boundary line of the research.
2. LITERATURE

Before the 1960s, FDI was modelled as a part of neoclassical trade theory, but as (Dunning 1980) notes there is two main concern with viewing FDI this way. First, FDI is more than just the transfer of capital, more importantly, it involves the transfer of technology, organizational and management skills. Second, the resources are transferred within the firm rather than between two independent parties in the marketplace, as is the case with capital.

Michael Porter and John H. Dunning discuss the role of business environment conditions, the presence of clusters, the role of wages and other local costs in the role of economy, in which all of these elements have an impact on location (Dunning 1993; Porter 1992). They also look at how these individual elements are combined in a specific location to create unique value for the notion and locational competitiveness strategy is explored and developed. Ricart et al. (2004) suggest that IB (International Business) strategy is distinct from mainstream or single country because of differences between locations, therefore, country location is an essential component of international strategy and having a distinctive content. Focusing on FDI location choice and raising the question why locations differ? Econometric results showed that industrial output in the host location, total FDI stock, quality of the labour force and the level of urbanization all had a significant positive impact on FDI location. The study by Outreville (2010) reported significant positive correlations in a cross-country study between the numbers of foreign financial institutions and various explanatory variables such as population, GDP per capita, the size of the financial sector, human capital index, government effectiveness, political risk, corruption perception, and country risk. Buckley, Forsans, and Munjal (2012) took the case of foreign acquisitions by Indian firms over the period 2000–2007 and presented country-level influences on FDI. They show that host-
country location factors like natural resources are a big motive for FDI. In addition, host–home country linkages are important determinants of FDI determinant. Location-specific advantages (LSAs) are key components of the overall competitiveness of an economy, and it would appear to have been a neglected factor in international research, particularly as far as the impact on FDI and MNCs activity is concerned (Dunning 1993; Ricart et al. 2004). Physical and human infrastructure, the macroeconomic environment and institutional framework are nowadays even more decisive for MNCs whatever their motivation for seeking foreign locations. Dunning (1998) wrote thus, the links between LSAs, national economic competitiveness, and the location strategies of MNCs would appear to be a fruitful area for investigation for country-level location choice.

FDI location choice is depending on the type of FDI, resource seeking MNCs invested in a country where accessibility of raw material is mainly the component while labour and quality of infrastructure are the complementary components. The market-seeking FDI always looks about the size and growth of the host countries. However, the efficiency-seeking FDI important factor is cost competitiveness. Host countries with a higher degree of economic development, faster economic growth and larger market size have the potential to provide more and better opportunities for marketing. The elemental question arises about the FDI is why firms like to operate in another country, however, the exporting and licensing facility is existing. Second, if firms relocate the operation facility, then what factors determine the firm’s location? The researchers try to explore the FDI and location choice widely from 1990s (Assunção, Forte, and Teixeira 2011; Beule and Duanmu 2012; Blyde and Molina 2015; Buss 2001; Chaurey 2017; Dang et al. 2018; Dunning 1977, 1998, 2008; Fahmi, Koster, and Dijk 2016; Flores and Aguilera 2007; Gerlowski, Fung, and Ford 1994; Hilber and Voicu 2007; James, Wang, and
Xie 2018; Kinoshita and Campos 2003; Krugman 1993; Lanaspa, Pueyo, and Sanz 2008; Leistritz 1992; Li and Park 2006; Lien and Filatotchev 2015; Lopez and Henderson 1998; Martí, Alguacil, and Orts 2017; Merz, Overesch, and Wamser 2017; Nielsen, Asmussen, and Weatherall 2017; Pinheiro-Alves and Zambujal-Oliveira 2012; Rasciute and Downward 2017; Rodgers et al. 2017; Tate et al. 2014; Wheeler and Mody 1992; Yao and Li 2016; Yin, Ye, and Xu 2014; Yoo and Reimann 2017; Zhu et al. 2012b) are few of them.

2.1 Theories of FDI

The term FDI can be defined as the process where the home (source) country acquire the host (destination) country firms’ assets for controlling the production, distribution and other gain full activities which finally leads to the profit. According to OECD minimum criteria to consider for FDI is 10% (Moosa 2002, p 2). There are mainly three different modes of entry through which foreign investors undertakes the production process in the host country. It can be JV where foreign firm cooperates with a local firm, second merger and acquisition where foreign firm acquires the local firm and its production capacity and third greenfield investment where foreign firm setting up a new foreign established a new facility in a host country to produce goods locally. Markusen (1984) presented the vertical FDI, resource-seeking MNEs cut their production costs by taking advantage of different factor prices across countries. However, the horizontal FDI where market-seeking MNEs set up a plant to produce and sell in a different country to avoid trade costs such as transportation and tariffs the detail of horizontal and vertical type FDI we discussed in detail (Chapter 2) FDI theories. The horizontal and vertical FDI concept combined and further presented in knowledge-based model Markusen (2002). Knowledge-based model explained R & D and knowledge-intensive or skilled labour activities, are geographically segregated from the
production house, which suggests that skill-based activities can be supplied at low cost to a number of production locations.

2.1.1 Hymer’s theory

Although Hymers’s theory was written in 1960 it was not published until 1976. Until 1960s FDI were considered through the neoclassical theory of trade and capital, explaining the capital move from a low rate of return areas to the high rate of return yield areas. Therefore, the FDI was considered as the simple portfolio investment and treated as the differences in the rate of international interest which was driven by rates of return (Hennart 1977). Hymer noticed the flaw in the portfolio and direct investment. Hymers noted that the US was the net importer of portfolio investment but a net exporter of FDI, with this point of focused he noticed the difference in two kinds of investment. In addition, the financial organization was engaged in portfolio investment while direct investments were mainly practised by manufacturing firms. Second, why direct investor concentrated on the single country, while they can invest a small amount in many countries and companies? If MNCs wants to invest own capital in a foreign country, in an unknown business environment there should be some additional benefits. This additional benefit can be exploited by controlling the firm operation through increasing ownership. To understand the direct investment Hymer eliminated the country as the motivational factor for investment. So, the main focus on the firms themselves and the industries. Hymer presented the basic necessary condition for MNCs and FDI, such as these MNCs should have hard to replicate property advantage (viz. technology and brand label) these advantages empower them to become ascendant in the domestic market and after in foreign market (Kogut 1998).
Each country has the different business environment such as its own government, economy, language and legal system etc. which are the disadvantages for foreign MNCs compare to the domestic MNCs. Second, host countries nationalistic discrimination by protecting the home-based MNCs or it can be the consumer-based discrimination who prefer to purchase the goods for the reason of loyalty towards the country. If MNCs facing these barriers then why do company believe in FDI. According to Hymer there could be two reason first firm advantages (differentiated product that is not known in the other country) second remove competition within the industries by invest in other company (J. Jones and Wren 2006, p 28).

2.1.2 Product life cycle theory

Raymond Vernon 1966 of Harvard business school developed the product life cycle theory. He suggested new approach for the product in which discrete changes will occur in the newly establish product in the market and then patterned the product. Vernon significantly diverge from traditional theory and emphasize on the product rather than factor proportion. The main hypothesis of the theory is to locate production shift when product move through various stages of product life cycle. The main assumption of this model is that the effect which occur in expose due to innovation and creativity in the product are undermine by the technological diffusion and labour cost in abroad. This model further assumed the U.S as innovative country firms. Which initially specialized in exporting product in other advanced countries. This theory was based on the proportion that the most of the world product had been produced by US firms and then sold initially in the home market. But it doesn’t mean that the product should be produced in US itself. There might be possibility of producing that product somewhere at lower cost and then exported back to U.S. Further the argument rose that mostly products were initially established in
US. Simultaneously assuming the certainty and the uncertainty risk introducing in new established product. The firms found better production facility apparently close to the market. The three stages of products are new product stage, maturity product stage and the standardizing product stage. The stage one evolves new product. Initially in the life cycle of the product large amount of capital and skill labour are necessary for research and development. In this stage the demand is growing rapidly in U.S whereas the demand in other advanced country is lacking as compare to highly advance countries. The product is considered non-standardized which is required as flexibility thus production costs are quite high which is also useless for other advanced countries to produce the product on their own because of the limited demand and hence it is worthwhile them to export from the U.S. The stage two including maturing product in this stage product is becoming increasingly standardize due to expansion in production. The product start growing in other advanced countries. The foreign producers might get benefited of producing product from their home markets. But the demand for the highly skilled labor diminishes because of fall in need for flexibility in design’s firms also might established production facility in advance country and hence this will lower their need for export from the U.S firms. The stage three include standardize product. In the final stage the product become standardize and prices is considered as main tool. This encourages cost to play an important role in the competitive process. Hence the country started producing cheap unskilled labour will having access to large amount of capital. The producers have become profitable for the innovative firms but now the country advantages have shifted in location of production because the technology of innovative firms has matured due to cheap labour cost firms of advanced countries and now able to export to U.S firms. Hence there has been shift in production high cost size to the low-cost size in other advanced countries and then to developing countries. Thus, the process continues where advance country
acquired production advantages over U.S and on the same side advance country losing advantage over developing countries. Therefore, innovative firm’s country become net importer of product whereas developing country become net exporter of product. In evaluation of product life cycle theory, it is noted that labour and capital levels identify and analyse the countries production, consumption, export and import. Firms do not play major role to analysing them. The switching of production should change pattern of trade but did not resulting loss of market share profitability or competitiveness of the firms. The countries comparative advantage might change. This firms-based place a crucial role in planning international investment and put greater emphasises analysing the impact of technology and product cost. The theory is not only able to recognize the capital mobility across countries but it also made effort to switch the locus of production from country to the product. Hence it become necessary to match the product by its maturity stage with its location of production so as to analyse competitiveness (Vernon 1966). However Vernon’s theory is true during U.S global dominance which was 1945 to 1975 because Vernon’s argument regarding most product developed in U.S seems to be ethnocentric but it has limited relevance in the modern world. This theory has various limitation. This theory focuses on technology-based product which mostly experience modifications in production process as they reached the maturity stage. However, it does not take to consideration either resource-based product or services that are not recognized by maturity. This theory is more appropriate for products which eventually fall victim to mass production and therefore cheap labour forces. Though the theory seems of limited relevance of all other thing considered the theory aimed that breaching the gap between traditional trade theories and modern trade theories. In which mobility of capital, technology, information and firms is better than classical theories.
2.1.3 Horizontal and vertical FDI

Caves (1971) extended the Hymers theory of direct investment and presented the industrial organization theory in terms of horizontal and vertical integration. Cave augmented in his study FDI occurs due to specific market structure in home and host countries. Horizontal (market seeking) FDI occurs due to the same line of products as they produce in the home country, vertical (efficiency seeking) FDI occurs to seeks the raw material.

**Horizontal FDI** as reported by Caves, firms engage in horizontal FDI if it has unique asset advantages. It must be two characteristics establish production in the host country. Primarily the asset prerequisite as a public good within the firm, so that once provided, the sunk cost has occurred and the firm’s advantage can be used in other national markets such as Investments technological advantage. This allows the firm to overcome other informational disadvantages in which home country have merits viz. cultural, economic and social. The second characteristic of the asset is that profits made in the host country must depend upon production in that country, as this ensures that the firm has to locate abroad if it is going to be successful in production. Caves argue that both characteristics will be found in a market with product differentiation so that the firm can move into these markets at little cost. Overall, horizontal FDI is a feature of oligopolistic markets, where products are differentiated.

**Vertical FDI** Caves also looks at FDI occurring at a different stage of production but within the same industry, i.e. a vertical foreign investment. The argument is that it occurs when firms seek to avoid strategic uncertainty, and erect entry barriers to prevent foreign firms from entering the market. Caves argue that vertical FDI is more likely if profits in the foreign market are
dependent on long-term prices and investments are large in size, which together ensures that the market structure is characterized by a few suppliers. However, FDI is unlikely to occur when there is no technological complementarity between the stages of production and market is competitive then, as these make the risk of investment high. It is likely when there is a high-seller concentration, the size of the firm is large enough to cope with the size of the investment made and the competitors are small in number.

In conclusion, Caves adapts Hymers’s theory of entry barriers and firm-specific assets and embeds this in the industrial organisation literature. (Caves 1974) extended his theory to look at multi-plant enterprises and entrepreneurial resources. The multi-plant enterprise hypothesis states that in order to capture economies of scale beyond the single efficient-scale plant, firms become multi-plants in order to reduce costs. The entrepreneurial resources view states that direct investment will occur in order to maximise the usage of the firm's entrepreneurial talent. This view implies that the firm will hold some intangible assets in the form of human capital.

**2.1.4 Dunning’s Eclectic theory**

The basic assumption of the eclectic paradigm is that the returns to FDI, and hence FDI itself, can be explained by a set of three factors Ownership, Location and Internationalization (OLI) and considered as the three legs of the stool. This stool become only perfect if all the tri combination of legs is perfect and balance. The surface table can be assumed as FDI which is stand on the OLI legs. So, all legs are important to support the table surface. So, if we trying to compare this philosophy in terms of trade, ‘I’ is the critical leg advantages from internalising production, O is the ownership advantages over foreign rivals and L is location advantages in foreign countries. The ownership advantages of
firms’ ‘O’, indicating who is going to produce abroad. Ownership refers to possession of a certain valuable hard-to-imitate organizationally embedded resource that allows a company to have a competitive advantage compared to foreign rivals. Another factor is locational factors ‘L’ which presents where to produce. Location advantages can be simply geographical because of the existence of cheap raw materials, low wages, a skilled labor force or special taxes and tariffs. The internalization factor ‘I’ that addresses the question of why firms engage in FDI rather than license proprietary assets. Reasons to outsource certain activities to different companies abroad might be because they have more local market knowledge, can do it in low cost or because management simply wants to focus on other activities in the value chain such as marketing or design. Utilizing the above propositions one can explain the scope and geography of international value-added activities.

2.1.5 Strategic motivations of FDI

The theory of eclectic paradigm approach has been criticized for not considering the other factors of FDI. Knickerbocker (1973) first argued that strategy is the role of strategy which was further extended by Graham (1978). The important features of this theory it considers FDI as a dynamic process, the inflow of FDI initially produce a reaction to the local producers. This reaction from local producers can be offensive or defensive. This theory considered merger or acquisition as a defensive approach and entry into the foreign firms home market or price war would be an aggressive response. In starting of 1970s wave of strategic motivation arose European FDI into the USA because of oligopolistic industries. Further, the role of the strategic motivation of FDI literature extended by (Acocella 1992), he suggested market power is the motivational factor for firms to engage in strategic behaviour. If foreign firms engage in production with following strengthen factors such as the large initial
size of a firm, greater capacity and better information from a larger array of markets give the foreign firm a greater market power and a large share in countries market. This strategic factor benefits the foreign firm to gain directly extra market share, but to threaten other firms from expanding and expected potential entrants. This is termed ‘exchange of threats’ and its intention is to minimize the risk by jeopardizing the other (Head, Mayer, and Ries 2002). Another aspect is presented by the Casson (1987) exchange of threat for longer period negatively influence the credibility of firm reputation. So, at the starting threat benefit the firm but for a longer time it became repulsive in nature and dent the firm’s credibility.

FDI’s strategic theory further has been extended to the multinational firm’s strategic alliance (such as non-equity cooperative arrangements for research and development, marketing arrangements, production arrangements and strategic alliances include franchising). The strategic alliance literature was presented by authors (Dunning 1993; Dussage and Garrette 1995; Harrigan 1987).

2.2 Trade Theories

Modern trade theories play an important role in explaining pattern of international trade. Evolution of these theory basically support the rapid growth of MNCs. The fundamental reason to switching from traditional theories to modern theories because of MNCs expansion and intra industry trade that would not take account in to traditional theories. All theories are examined that why it is beneficial to country to engage in international trade but modern trade theory form the basis of trade. Newer trade theory can have assurance of having comparative advantage but the source of this comparative advantage is subtler. Country similarity states that trade of manufactured goods
should occur between countries having similar per capita income. The underlying assumption of these theory is that have similar per capita income haven’t different consumer taste and preferences. Hence the theory asserts homogeneity in this regard. Product life cycle theory suggest that pattern of international trade is analysed when a new product introduce. This theory relevance in the modern world is limited. According to this theory shifting trade flow of product goes to three stages namely new product stage, maturity product stage and standardized product stage. The consequences of this firms-based theory are, over time and innovative firms becomes the net importer and developing countries become net exporter. However, some expectation examines the impact of these theory on product manufacturing trade. Short life cycles of the high-tech products create the necessity for geographical closeness – lack of time and tense competition are reasons why companies cannot leave the path dependency to a new location because they would lose their ability to compete. Products have short life cycle; luxury product cost doesn’t matter in this case product requiring socialized knowledge. Next is new trade theory focuses on two points increasing product verity and reducing cost and economies of scale, first-mover advantages and the pattern of trade. New trade theory describes that in industries where there are substantial economies of scale, imply that world market will profitably support only few firms. However, countries may predominant certain kind of products because they have the first mover advantage in the industries. Another trade theory is competitive advantage theory focuses on four broad areas factor endowment demand conditions, relating and supporting industries, firms’ strategies structure and rivalry. These four determinants constitute a diamond. The effect of one determinant contingent on the states of others. Additional variable that influence the diamonds are the chance in government and innovation and creative idea can reshape the structure of industries. On the other hand, government can retract form national advantage for using its policies.
2.2.1. New trade theory

New trade theory is a collection of economic models in 1970s and early 1980s which focuses on the role of increasing returns to scale. Several contributions have been made to the understanding and developing international trade. An industrial organization view has been incorporated in the trade policy where new trade theories are good at increasing returns of scale and prevail economies of scale. Economies of scale are the reduction of cost per unit as a result of large quantity. The assumption of increasing return gives rights to an imperfectly competitive market. For instance, automobile companies experience economies of scale by manufacturing a large number of automobiles from an assembly line where the unique task is performed by each employee. Thus, by analysing the major impact on economies of scale trade will result in enhancing the variety of product available to consumers and simultaneously there will be a reduction in the average cost. According to R. W. Jones (1956), new trade theories suggest that factors of Heckscher-Ohlin theory are determined by industry trade. On the other hand, increasing returns which result from specialization within the industries drive intra industry trade. Hence there is co-existence between the comparative advantage of factor endowment differences and increasing return from economies of scale because of differences in the application of inter versus intra industries trade. Importance of externalities is realizing by new trade theory in international trade. Externality prevails when the action of one agent directly affect the environment of another agent like government policies, political relations between countries, consumption differences between other countries and cultures etc. These externalities are considered an alternate to comparative advantages which directly influence international trade. In the concise, the new trade theory focuses on two points (increasing product variety and reducing cost) and (economies of scale first-mover advantages and pattern of trade).
Thus, this theory requires industries with high fixed cost in industries where there are substantial economies of scale exist. However, the government also play a crucial role in instating strategic trade policy to assist industries in achieving national competitive advantage to make a shift from perfect competition to managed competition. Strategic trade policies have been instituted by the national government to assist industries in achieving national competitive advantage. The main aim of these types of policies is to make a shift from perfect competition to managed competition (Krugman 1979). This theory mainly covers oligopolistic industries like aerospace industries.

There is a certain implication of new trade theory there is mutual advantages of mutual gain irrespective of differences in factor endowment. Which results in increasing product variety and reducing cost. It has been observed that the country’s dominance in the export of goods, which implies the first movers in the world market always advantageous along with the ability to gain economies of scale. This theory is variance with the Heckscher Ohlin theory because Heckscher Ohlin theory explains only the part of trade, on the other hand, new trade theory supported with comparative cost advantage theory.

2.2.2 The competitive advantage of nations

According to M. Porter (1992), there has been a focus of shifting from a comparative advantage to competitive advantage. Different strategies have been suggested for low income, middle income and high-income countries. Now the effort had been taken to move to a sophisticated way of competing. Which depend on changes taking place in the microeconomic environment. This microeconomic environment has been termed as “determinants of national competitive advantage”. The early trade theory emphasis on the country or the particular nation and analyses the factor which enhances
competitiveness. Later it switches to the product level, leaving behind competitiveness at the national level. Now the attention has been paid to all the condition that altered within a country by government and private industries so as to maintain the competitiveness of firms.

Old theories of international trade explain only a part of the story. In 1990 Michael E. Porter framed a theory of competitive advantages. That is originally published in his book “The competitive advantage of nations”. He fed that if the old theory of international trade explains only a part of the story. Thus, his task is to explore the achievement of international success in a particular industry by initial country competitiveness was institutively measure to determine its share in the world market. Four broad areas has been defined to shape the competitive environment in which local firms compete and lead to create a national competitive advantage. These factors are demand conditions, relating and supporting industries, firms’ strategies structure and rivalries between firms and factor endowment. These attribute forms a diamond and the success occur where these attributes exist. First factor endowment is explaining the nation's factor of production are important in determining the pattern of trade but they are the only source of competitiveness as suggested by factor proportion theory. It is the ability of a nation to continually create, upgrade and deploy its factors such as skilled labour that is important for the initial endowment. Second is demand conditions, it is the character of the market to paramount the competitiveness of the firms. Third relating and supporting firms’ informal sector which maintains advantages through close working relationship proximity to the industries.

Porter differentiated two factors, basic factor and advance factor. The basic factor is naturally endowed factor which includes natural resources, climate, location and demographics. On the other hand, advance factor includes
communication infrastructure, skilled labour, research facilities and technological norms. The complexity is observed in these two factors. There is a proposition, advance factors are necessary for achieving a national competitive advantage. Home demand plays an important role in providing competitive advantages. Competitive advantage is accomplished by firms in a particular nation only if their domestic consumer is well demanding. Efforts have been made by domestic firms to follow innovative ideas in manufacturing good quality of a product.

Competitive advantage theory can be evaluated as a hybrid theory which shows that the presence of all four determinant is essential to achieve national competitive advantage. There is a contention that endowment is influenced by governments regulation like subsidies and capital market policies. Therefore, relating and supporting industries is influenced by government policy. This theory creates a favourable environment in which firms are an active actor who actually participates in international trade. Countries should be exporting those products from other countries where four components of a diamond are favourable. While importing product from those areas where components are not favourable.

2.2.3 New economic geography

Krugman (1993) summarizes the relationship between trade theory and location theory. In analyses, he compares Ricardo’s comparative theory with new trade theory. The Ricardo’s principle of comparative advantage theory explains that a country should specialize in producing and exporting product in which it has a comparative cost advantage compared with other countries, and should import those goods which it has a comparative disadvantage (Burgstaller 1986). On the other hand, the principle of Krugman new trade
theory explains that the ability of a country to gain economies of scale were unit cost reductions associate the large scale of output, can have important implications for international trade. Countries may specialize in production and export of particular product because, in certain industries, the world market can only be supporting a limited number of firms. Towards the end of the 20th century, the geographic dimension of economy fading away. Paul Krugman greatest merit was the bring back of this dimension into economic mainstream under the label of New Economic Geography. The trade theory revolving around the question who produced and what produced. Consecutive this question there is two such field trade theory and location theory. In the early 19th century these two fields diverged until end of the 19th century these two fields is distinct. Krugman (1993) shows these two branches of economies is the same “question arises why trade theory has not contained insight to the location theory”. Location theory and trade theory has different approaches, location theory is technical rather than philosophical. In international trade theory, 1993 Krugman tried to remove this. He believes that international trade theory as a genre in a novel. In this novel international trade theory emphasize the which genre has a dominant character. Location theory is not concise one single idea it is the scatter of ideas and some cases location theory seems to fail linkage where several ideas have different versions within the location theory. If the two forces labour and capital can freely move. He considered the two types of forces centripetal force immobile factors (land and natural resources) and centrifugal forces market size and labour. If the centrifugal forces are widely dispersed with the economies to push the economic activity to spread out would be opposed by the centripetal forces to access large market which tends to the concentration of economies. In this theory increasing return together with capital and labour immigration and transport cost in one model. To minimize transport cost firms, want to relocate near the consumer, on the other hand, consumer want to relocate with near the work. Thus, there is
multiple equilibria and after the tripping point, single firms and the customer can snowboard to the big effect.

2.3 FDI Location Choice Literature Review

Numerous studies have investigated potential determinant of FDI location choice. Kang and Jiang (2012) presented the FDI location choice of Chinese multinationals in East and Southeast Asia. They analysed the market seeking, resource seeking, efficiency seeking, strategic asset seeking, regulative asset institution and cognitive institution factors which take into account 12 variables such as GDP growth, GDP per capita, market openness, resources, unit labour cost, patent applications in host economy, economic freedom, political influence, FDI restrictions, cultural distance, bilateral trade and inflation Chinese firms FDI stock in eight host Asian economies including East and South Asian economies. The research used the regression method and results showed that that variable involved in research was highly correlated with several other independent variables. The empirical test demonstrates that institutional systems had a strong influence on the location choice of Chinese FDI so Chinese firms would prefer FDI locations where a big difference in levels of economic freedom existed between the home and host economies. The other variable political influence is also significant but negative association it depicts smaller the difference in the political and legal regulative regime between China and a host economy, the more attractive it was for Chinese firms to locate their FDI there. Hilber and Voicu (2007) analysed the FDI inflow location choice in Romania. The research utilized the conditional logistic regression and shows that industry-specific agglomeration is significant in Romania every 10% positive influence in service sector agglomeration cause the 11.9% increment to choose Romania as FDI destination. Huett et al. (2014) studied the FDI location choice in Germany
they tested the resource-seeking variables such as international experience and knowledge intensity and collected the primary data on mix Likert scale of 100 SMEs in Germany. In secondary analysis, they assumed Cronbach’s alpha for all scales is above the acceptable cut-off point of 0.70, for good internal consistency and, consequently, reliability in all constructs. The result bestows that international experience and knowledge intensity significantly influence the FDI location choice motive to invest in SMEs. Rodgers et al. (2017) examine the decision of location choice in offshore R & D by exploring the location determinants. The research used the data 126 UK-based MNEs and utilized the multinominal logistic regression. They presented traditional variables viz. wages and cost have less influence on selection offshore R & D projects compare to sector-specific variables viz. routineness, innovativeness, interactivity, quality and speed. Mukim and Nunnenkamp (2012) studied the FDI location choice in India at the district level. The research used the secondary data about 19,500 foreign investment projects approved in 447 districts from 1991 to 2005. They analysed the variables such as population, business environment wages, electricity, telephone, education, busses, roads, banks and health and utilized the two popular methods Conditional logistic regression and Poisson regression. Results depict that the foreign investors prefer to choose the location where the other foreign investors already invested. Blanc-Brude et al. (2014) investigated the FDI location decision in China. The study used the secondary data collected from the Chinese National Bureau of Statistics. They analysed the variable such as local market, agglomeration, government expenditure on science, cost, trade openness, wages government revenue and rural population and utilized the ordinary logistic regression method. They presented to attract FDI city level is policy is more influential if the hosted city is located nearer to the administrative and economically developed cities. Kumbar and Sedam (2017a) analysed empirically FDI location choice in India. The research used the secondary data
and presented that the current FDI location choice is the continuation of previous investors present in the area. There is no single factor work alone to motivate foreign investors.

In summarizing the literature regional and national factors analysed in various studies separately. The most common methodology is used by the FDI location choice is logistic regression including binary and conditional. Most of the study used the secondary data which is also presented by the (Nielsen, Asmussen, and Weatherall 2017). We successfully analysed the modern literature (after the 2000s) on FDI location choice. Table summarizes the literature review.

**Table 2.1 FDI location choice literature from 2000 onwards**

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Sample</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Buss 2001)</td>
<td>Various</td>
<td>Secondary</td>
<td>Empirical</td>
</tr>
<tr>
<td>(Kang and Jiang 2012)</td>
<td>China</td>
<td>Secondary</td>
<td>Correlation</td>
</tr>
<tr>
<td>(Hilber and Voicu 2007)</td>
<td>Romania</td>
<td>Secondary</td>
<td>Conditional logistic regression</td>
</tr>
<tr>
<td>(Huett et al. 2014)</td>
<td>Germany</td>
<td>Primary</td>
<td>binary logistic regression analysis and Cronbach’s alpha</td>
</tr>
<tr>
<td>(Rodgers et al. 2017)</td>
<td>United Kingdom</td>
<td>Secondary and Primary</td>
<td>Multinomial logistic</td>
</tr>
<tr>
<td>(Mukim and Nunnenkamp 2012)</td>
<td>India</td>
<td>Secondary</td>
<td>Conditional and Poisson regression</td>
</tr>
<tr>
<td>(Blanc-Brude et al. 2014)</td>
<td>China</td>
<td>Secondary</td>
<td>Ordinary logistic regression</td>
</tr>
<tr>
<td>(Kumbar and Sedam 2017a)</td>
<td>India</td>
<td>Secondary</td>
<td>Empirical</td>
</tr>
<tr>
<td>(Lien and Filatotchev 2015)</td>
<td>China</td>
<td>Secondary</td>
<td>Binomial logit regressions and multilevel regression analysis</td>
</tr>
</tbody>
</table>
2.4 FDI inflow in the Globalization

The important characteristic of FDI inflows in the past decade was a massive shift into the services sector. Traditionally, FDI inflow was directed to the development of natural resources and to manufacturing enterprises. In particular, during the 1980s, FDI inflows increased to take advantage of lower costs of product assembly in developing economies, typically for exports to world markets. However, in the 1990s, increasingly larger shares of FDI inflow went to service production and delivery into such sectors as finance and telecommunications and more recently into wholesaling and retailing. The high level of mergers and acquisitions reported increased entry of foreign investors in service sectors.

As figure 2.1 illustrate FDI inflow fell 1.47 trillion USD in 2017 and still continue in 2018. The third consecutive drop brings FDI inflows back to the low point reached after the global financial crises. FDI inflows decline in North America (-4%) while in Africa it increased by 6% and developing Asia it
increased by 5% (502 billion USD) and in which South Asia FDI inflow were rose in third consecutive year.

Figure 2.1 FDI inflow by group of economies

![Graph showing FDI inflow by group of economies]

*Source: figure from UNCTAD 2019*

However, the concentration of FDI is just in few countries of Asia. Transition economies it declines 19% (44 billion USD). South America flows were increased by 3% compare to 2017, Panama bounced to 6 billion USD and Mexico received 32 billion inflow of FDI. In developed countries FDI inflow declined by 40% in Europe it declined (-73%) from 372 to 100 billion USD and North America it declined (-13%) from 302 to 263 billion USD.

2.4.1 FDI in South Asia

Most of the South Asian economies were closed economies until the late 1970s and early 1980s. However, a shift in economic policy began in South Asia in the 1980s when Bangladesh and Sri Lanka started reforming their economies to create more space for the domestic private sector and external competition.
However, the real changes in South Asia occurred in the 1990s when even India was swept along by the changes in economic policy through liberalisation and integration with the rest of the world.

**Figure 2.2 FDI inflow in Asia**

![Graph showing FDI inflow in Asia](image)

*Source: UNCTAD, compiled by the author.*

Figure 2.2 represents the overall FDI inflow in Asia, the graph shows the FDI inflow from 1992 to 2017. Figure 2.2 Central Asia covered (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan), Southern Asia (Afghanistan, India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives), Eastern Asia (China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea and Taiwan) while western and south-eastern Asia consist of various other countries. FDI flows to Asian countries have been increasing in recent years. Though in south Asia India is the most dominant destination
of FDI. Despite its relatively slow growth in FDI inflows, South Asia has witnessed much greater expansion in its share in global and Asian FDI stocks due to a sharp rise in India’s share. Further, in order to expand the growth of inward FDI, South Asia have to capture the greater part of inter Asian FDI flows especially from China to other countries like Pakistan and Bangladesh. South Asia Indian share is dominated while the other hand in eastern Asia region China has a majority of FDI inflow in East Asia. Empirical analysis shows from 2000-2018 FDI location study in the Asian region is mostly concentrated on China.

2.4.2 FDI trend in India

The changing nature of the global economy has changed the competition among locations in three important ways: it increased the intensity of competition among them second it has led to successful locations to be more specialized and third it has increased the level of interconnections across regions. Due to globalization business location as getting more connected and interlinked with other locations. Specialization and the focus on leveraging is the combination of local assets where capabilities are a compliment to a strong external linkage, not an alternative. The more specialized region needs to rely on complementary activities in other locations too, providing other elements of industry value chains and these more specialized regions focused on downstream value chain activities in other locations. A developed country that has benefited significantly from globalization have done tremendously because they were specialized in areas in which global demand was rising and they had a base on strong multinational companies that provided multiple linkages to other locations in the world (Porter, Ketels, and Delgado 2008).
Figure 2.3 Cumulative percentage of Sector wise FDI inflow in India
April 2000 to June 2018

Source: India stat compiled by the author, note: sectors contributing less than 1% didn’t include in the figure.

Figure 2.3 depicting the distribution of FDI by different sectors and percentage of contribution by each sector in India’s FDI from April 2000 to June 2018. Service industry (Finance, banking, insurance, non-finance/business, outsourcing, R&D, courier, tech. testing and analysis, Other) attracted the most FDI share 17.61 per cent, followed by construction and infrastructure, computer software and hardware and telecommunications sector. The trading, automobile industry, chemicals power, hotel and tourism, metallurgical industries and food processing industries also contributed a significant amount.
In summarising India’s FDI inflow sector-wise, services sector attracted the highest percentage of FDI followed by infrastructure. More interestingly India considered as the agricultural prior country but FDI in agriculture services is just 0.52 per centage of total FDI inflow from April 2000 to June 2018. All together service, computer and telecommunication contributed 34%.

Figure 2.4 Cumulative percentage of FDI inflow in India from different countries
April 2000 to June 2018

Source: India stat Compiled by author.

From figure 2.4 Mauritius is the top source of FDI inflow into India over 2000–2018 contributed 33.13% of the total FDI inflow into India. India is a signatory of Double Taxation Avoidance Agreements (DTAAs) with 88 countries. Out of 88 countries, Mauritius has the lowest taxation rates. So, foreign investor prefers to investment through Mauritius route. Even Indian investors also inflow money through Mauritius because there is loophole exist in double taxation avoidance agreement, means investment once taxed in Mauritius can't be taxed again in India. Therefore, investors prefer to like to deal with Manutius. Although this investment rout of FDI inflow is diverted time to time
through the other countries also such as Singapore because of the same reason, “treaty shopping”. After Manutius and Singapore, U.S emerged as the third largest investor in India after 2010 but overall from 2000-2018 U.S have just 5.84 per cent of total FDI. The other FDI investors in India are Japan and the other developed countries like the UK, Netherlands, Germany, Singapore, and France.

One of the most significant development in the world economy in the 90s was the spectacular globalization. Although over the period in 1984 foreign investment continues to take place in India at a slow pace. After 1984 the inflow of foreign capital in the form of capital equity remains quite low. In fact, the net inflow of foreign capital mainly in the form of retained earnings that could be a portion of foreign equity holders. Between 1984 and 1990 actual fresh flow of annual income was remain very low.

A true journey of India’s economic reform starts from early 1991, which was started because of the exceptionally severe balance of payments crisis. Same time the other countries in East Asia carried out high economic growth and poverty reduction by liberalized trade policies which accentuate greater export orientation and backing of the private sector. Mainly during the 1991-92 Indian government reviewed the policy and changed in five major areas and initiated the reform program: industrial and trade policy, infrastructure development and social sector development, agricultural policy, fiscal deficit reduction. Based on the consecutive effort of liberalization Indian economy achieved 6.5 per cent growth in 1998-99. It is well known recognized that before 1990s Indian policymaker stuck to the ‘inward-looking import substitution’ model of development which focused on centralized the economy and accompanied by extensive regulatory controls over the economy. Indian economy passed through the several economic liberalization waves first in the 1970s and the
1980s which was not truly open liberalization efforts. In 1991 which was the true effort toward the liberalization and next is 2014 through starting to make in India imitative. We can analyse from figure 2.5 India’s FDI inflow compare to the rest of the world is highest in 2008.

Figure 2.5 Share of India’s FDI inflow in terms of total percent from world

![Graph of India's FDI inflow percentage from world (1970-2015)](image)

*Source: data collected from UNCTAD and compiled by the author.*

While world was growing faster in the 1990s, India’s FDI contribution to the world was just 0.11 per cent from figure 2.5. India faced a critical foreign reserves crisis in 1990. The world bank and IMF agreed to provide the loan on conditions to major changes in investment and trade liberalization. In 1991 Industrial licensing policy (ILP) was revoked except for 18 industries and selected 34 high priority industry, 51 per cent equity in FDI was allowed. Since 1991 till now 2018 in every budget the tariffs on imports have been firmly reduced. FERA act was replaced by the FEMA Act. in 1991. The objectives of FEMA had been to ease the payment and external trade and to boost orderly
maintenance and development of the foreign exchange market. It means to facilitates not to regulate the investment and foreign trade (RBI 2000). Most of the sector automatic FDI has been allowed except postal services, broadcasting, print media, plantation and agriculture, defence, atomic energy, investing companies in the service sector and infrastructure, petroleum, venture capital funds, real estates, civil aviation and banking. Resulted ILP was all-time high for FDI into India. As a result, 145 foreign companies registered in India between 1991-2000 and in addition to thousands of foreign collaborations were made. Companies such as IBM, Ford Motors and General Motors has re-entered in Indian market which previously had divested in the 1950s to 1970s. A large number of Asians companies such as Honda motors and Matsushita Television from Japan and LG Electronics, Hyundai motors and Daewoo Motors from South Korea invested in India during this period. In 1991 the number of foreign collaborations increased from 976 to 2144. Although the share of FDI from the USA decreased and share from the UK also declined by about 10 per cent. The share from countries like Australia, Malaysia, South Africa and other countries from Europe and Asia comprise over 65% of FDI during this period (Amar K.J.R.Nayak 2008).

In 20\textsuperscript{th} century to become in FDI there are three criteria, first if the foreign companies acquire a minimum ten per cent of assets in Indian company it become consider as an FDI in India less than ten per cent does not consider as FDI according to the IMF FDI definition second if the foreign company come with the joint venture (JV) investment or public partner partnership (PPP) in India then it will become FDI. This PPP is generally grouped with the contract of two countries government example is the Delhi metro rail project in the year 2000. The third is if any company is open a subsidiary in India. The figure 2.6 presenting India’s FDI inflow in terms of India’s GDP (in terms of percentage) after 1992 India’s FDI contribution to the GDP continuously increase till 2008,
from 2008-2009 it shows again one per cent decline from 3.7 to 2.7 approximately and afterwards it makes crust and trough.

**Fig 2.6 India’s FDI inflow in terms of GDP**

![Graph showing India's FDI inflow in terms of GDP](image)

*Source: data collected from UNCTAD and compiled by the author*

While the other economies were facing the world economic crises in 2008 due to global financial and economic crises that time from figure 2.6. India’s FDI contribution to the GDP was maximum during this year. India’s contribution to the GDP was all-time high at 3.75 per cent in 2008. The reason behind was that the foreign investor moves from the US economy to towards the Indian economy and increased the capital inflow in India.

**2.4.3 Post liberalization period FDI reforms**

The new industrial policy 1991 is coming up in the time of industrialization, privatization and globalization. The 1991 India truly liberalized the policy and major theme behind the policy was to build the infrastructure both in financial
and non-financial types. The major objectives of the new industrial policy were:

- Advancement of new indigenous capabilities in technology and manufacturing sector and upgrade it up to world standard.
- Demolishing the old regime of the regulatory system for the benefit of the common man by increasing the competitiveness and developing the capital market.
- Open market for private players.
- Promoting workers participation in management, enhancing their welfare and equipping them to deal with the inevitability of technological change.

The approach behind the policy was the development of outreach areas in India. To reach this objective few steps were taken. Abolishing the prevailed licensing system with exception of 18 industries like Industries engaged in manufacturing goods which are harmful to the environment and industries, forest conservation, arm and defence sector and manufacturing luxury goods, for the affluent class etc. The second step was relocating all industries which are near to the city and has population 1 million was subjected to transfer 25 km far away from the city. However, the city has population less than 1 million can host the industry without out government permission. The third step was increased in FDI limit from 40% to 51% by foreign investors in the equity shares of Indian companies. This enhances the technical exchange and foreign capital inflow into India. The fourth step was increased workers participation in management by safeguarding the worker’s interest. The fifth was the number of industries reserved for the public sector reduced from 17 to 8 and then further to 6. These six industries are as follows: defence products, mineral oil, railway transport, atomic energy and coal and lignite. The sixth initiative was, MRTP act for a private company under a certain amount (1 billion INR)
prior approval of the central government for expansion, the establishment of new industries undertaking etc. were eliminated. The seventh initiative was all administrative controls have been removed, in order to increase the productive capacity of new industries. For the opening of new units or increasing their production capacity industrialists will only have to inform the government but no need to prior grant. The eighth initiative was Indian companies is free to negotiate from foreign companies on their own terms in a matter of technology, prior permission will be required from government to importing the foreign technology under 1.5 million USD and government continuously supported the SMEs.

2.4.4 FDI related authorities in India

It is necessary to know for the foreign investors what are the channels they have to pass before any investment in India. The foreign investment policy announcement is generally made by the department of industrial policy promotion of India (DIPP). Which are subsequently notified by reserve bank of India (RBI) and foreign exchange management act. (FEMA). In an attempt the IMF guidelines following in India, effective from March,31,1992 the threshold criteria to identify FDI have been fixed at 10% ownership of ordinary share capital for a single investor. There are two routes to investment in India RBI automatic route and three step system approval for foreign investment. First is the Foreign investment promotion board (FIPB), Secretariat of industrializing association (SIA) and foreign investment authority (FIIA). The inflow and outflow of India are monitored by the ministry of commerce and industries and RBI. A legal framework is existing for FDI for automatic and government approval routes which are regulated by the FEMA act. from 1999 and is amended from time to time.
2.4.5 FDI Barriers in India

It is more than two decades since India dismantled its FDI restrictive regimes in 1990 and replaced one of the most open and relaxed economies for foreign investors. However, now, the debate is about how much more open India should be towards FDI. The flow of FDI to India continued to be sluggish because foreign investors face major roadblocks all this made India a less attractive investment destination for FDI then most of them its competitors. Slow decision-making processes, outdated law and their inefficient implementation, the weak capability of the regulatory system, conflicting roles of various agencies of government, bureaucratic procedure, corruption and red tape are the major hurdles in India for FDI. The other aspect is in which state the FDI is going to be invested is an important aspect for the investors. According to Bhattacharya, Patnaik, and Shah (2012) in India, we have tied ourselves in nodes even in the time when the country needs capital inflows. It was not easy for the government to move at the required speed. From the Ministry of Finance (2010) it is important that the control system over the FDI now re-examined and rationalized and keeping in the mind of objective they serve.

UNCTAD (2017) World investment report (WIR) asserts the ‘only opening an economy is no longer enough” there is a need to the developed attractive configuration of locational advantages by capitalizing the synergy of endowments of a factor of productions. There is an urgent need to improve the macroeconomic and organizational framework so that the FDI policy looks more coherent. The pace of improvement in infrastructure should be hastened to convert intent into action in a global market where everybody is out to woo an investor. Bold and proactive moves embedded, in reality, governed by a will to improve the economic environment of the country are needed to bring about
radical changes. There is a lack of a single government body in India for dealing the FDI matters in ordered to clear the confusion of foreign investors who is very important for FDI inflow in the country. Furthermore, India is ignoring the regulatory framework simultaneously. Another hurdle is FDI policy is incoherent towards the maximization of its contribution to India’s development rather than to maximization the magnitude by itself. One more problem with the disappointed policy is to clear the project from A to Z in a short period. Back-drop policymaker failed to realize that merely liberalizing the sectors' caps for FDI will not bring more capital, there should be ease of capital flow in location investment. The foreign entrepreneur just like the counterpart are driven primarily by return on investment (ROI) consideration and to make India an attractive destination. For them, sector regulators need to deliver better and less government. Therefore, much needed to be done in order to make India an attractive destination for foreign investors. There is an inadequacy in both legal and administrative process. FDI does not flow merely from the economic policy it also requires desirable political action in India both at the central and state level. The formation of strategy mainly requires a vision of the development of coherent coordination between the different objectives.
3. HYPOTHESIS

Based on this literature we made the questioner for our research, table 3.1 shows the variable references for FDI and foreign location choice at national, sub-national and city level. At national level from table 3.1 there are nine determinants (economy, infrastructure, political factors, proximity between countries, social factors, institutional administration, market factors, global competition factors and finance), state level five determinants (state infrastructure, corruption, industrial agglomeration, state investment incentives, state institutional administration) and at city level five determinants (city Infrastructure, regional agglomeration, cost factors, regional competitiveness, regional finance facility). From table 3.1 each determinant consists a group of related variables. The dependent variable in this thesis is dichotomus on the scale, joint ventures and foreign wholly owned enterprises. In addition, table 3.1 also shows the literature support for each variable and each variable measure on the seven-point Likert scale, the second column in table 3.1 shows the number of variables in each determinant.

Table 3.1 Determinant include

<table>
<thead>
<tr>
<th>Country specific FDI location determinants</th>
<th>Variables include</th>
<th>Scale</th>
<th>Variable reference from previous studies on FDI and foreign location selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
<td>5</td>
<td>7-point Likert scale</td>
<td>(Javid 2016; Kotrajaras 2013; Kurečić, Luburić, and Šimović 2015; Leistritz 1992; Loree and Guisinger 1995; Ron Martin and Sunley 1996; Mottaleb and Kalirajan 2010)</td>
</tr>
<tr>
<td>Category</td>
<td>Points</td>
<td>Scale Type</td>
<td>References</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Bakar, Mat, and Harun 2012; Bayane and Yanjun 2017; Geginat and Ramalho 2015; Grimsey and Lewis 2005; Li and Park 2006; R. P. Pradhan et al. 2013; Prakash and Abraham 2005; Wekesa, Wawire, and Kosimbei 2016; Ye, Koch, and Zhang 2018)</td>
</tr>
<tr>
<td>Political factors</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Belkhodja, Mohiuddin, and Karuranga 2017; Bollen and Jones 1982, 1982; Fernández-Méndez, García-Canal, and Guillén 2015; Lopez and Henderson 1998; Rodgers et al. 2017; Yin, Ye, and Xu 2014)</td>
</tr>
<tr>
<td>Proximity between countries</td>
<td>3</td>
<td>7-point Likert scale</td>
<td>(Assunção, Forte, and Teixeira 2011; Blanc-Brude et al. 2014; Jordaan 2004; Ron Martin and Sunley 1996)</td>
</tr>
<tr>
<td>Social Factors</td>
<td>3</td>
<td>7-point Likert scale</td>
<td>(Bhardwaj, Dietz, and Beamish 2007; Mac-Dermott and Mornah 2015; Sathe and Handley-Schachler 2006)</td>
</tr>
<tr>
<td>Institutional administration</td>
<td>3</td>
<td>7-point Likert scale</td>
<td>(Ali Al-Sadig 2009; Habib and Zurawicki 2002; Onyeiwu 2004; Riley and Roy 2016; Voyer and Beamish 2004; Walsh and Yu 2010)</td>
</tr>
<tr>
<td>Market Factors</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Akhtar 2014; J. R. Markusen 1995; Nigh 1986; Rasciute and Downward 2017)</td>
</tr>
<tr>
<td>Category</td>
<td>Scale</td>
<td>Likert Scale</td>
<td></td>
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<tr>
<td>--------------------------------</td>
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</tr>
<tr>
<td>Global Competition Factors</td>
<td>3</td>
<td>7-point</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Likert scale</td>
<td>(Banga 2003; Erdal and Göçer 2015; Ron Martin and Sunley 1996; Potter, Moore, and Spires 2002; Yao and Li 2016; Zhu et al. 2012)</td>
</tr>
<tr>
<td>Finance</td>
<td>2</td>
<td>7-point Likert scale</td>
<td>(Grimsey and Lewis 2005; J. R. Markusen 1995; Ron Martin and Sunley 1996; Porter, Ketels, and Delgado 2008; Walsh and Yu 2010)</td>
</tr>
<tr>
<td>State specific FDI location variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Infrastructure</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Bayane and Yanjun 2017; Canning 2000; Leistritz 1992; Melo, Graham, and Brage-Ardao 2013; Nataraj 2007; Yu et al. 2012)</td>
</tr>
<tr>
<td>Corruption</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Ali Al-Sadig 2009; Habib and Zurawicki 2002; Mauro 2008; Quah 2008; Riley and Roy 2016)</td>
</tr>
<tr>
<td>Industrial agglomeration</td>
<td>4</td>
<td>7-point Likert scale</td>
<td>(Hilber and Voicu 2007; Jindra, Hassan, and Cantner 2016; Lall, Shalizi, and Deichmann 2004; Li and Park 2006; Nielsen, Asmussen, and Weatherall 2017; Y. Wei et al. 1999; Zhu et al. 2012)</td>
</tr>
<tr>
<td>State Investment Incentives</td>
<td>3</td>
<td>7-point Likert scale</td>
<td>(Banga 2003; Erdal and Göçer 2015; Parthasarathy 2004; Sahoo, Nataraj, and Dash 2014)</td>
</tr>
<tr>
<td>State Institutional Administration</td>
<td>3</td>
<td>7-point Likert scale</td>
<td>(Gerlowski, Fung, and Ford 1994; Merz, Overesch, and Wamser 2017; Walsh and Yu 2010)</td>
</tr>
</tbody>
</table>
City specific FDI location variables

<table>
<thead>
<tr>
<th>City/Infrastructure</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Infrastructure</td>
<td>6</td>
</tr>
<tr>
<td>Regional Agglomeration</td>
<td>4</td>
</tr>
<tr>
<td>Cost Factors</td>
<td>4</td>
</tr>
<tr>
<td>Regional Competitiveness</td>
<td>3</td>
</tr>
<tr>
<td>Regional Finance Facility</td>
<td>2</td>
</tr>
</tbody>
</table>

7-point Likert scale

(Lanaspa, Pueyo, and Sanz 2008; R. P. Pradhan et al. 2018; Rodgers et al. 2017; Sohrabi et al. 2012)

(Guimarães, Figueiredo, and Woodward 2000; n, Asmussen, and Weatherall 2017; Y. Wei et al. 1999)

(Prajapati and Abraham 2005; Rasciute and Downward 2017)

(Begg 1999; Dunning and Gugler 2008; Klaus Schwab 2017; OECD 1997; Potter, Moore, and Spires 2002)


The main aim of this thesis is to determine the location determinants that contribute to FDI location choice. To achieve this goal the author analyses the determinants which are based on a national, sub-national and regional level. In our case, these are India, Karnataka state and Bangalore city. Regarding the FDI location choice, the author is formulated the following hypotheses or objectives which will be justified in this thesis.
3.1 Hypothesis at the Country Level

3.1.1 Economic growth


Analyses the causality between economic growth to FDI empirical analysis shows that most of the researchers uses the Granger Causality. Shahbaz and Rahman (2012) analyse the Granger causality between economic growth and FDI in Pakistan present the bidirectional relation between economic growth and FDI. Arshad (2012) also utilized Granger causality between economic growth and FDI in Pakistan. Results shows that FDI is not causing the economic growth but conversely economic growth cause the FDI. Nasser (2010) examine the economic growth and FDI and utilized the Granger causality test in Asian and Latin American countries they presented that there is a unidirectional causality between economic growth to FDI in Asian countries. However, in Latin America FDI and economic growth have
bidirectional causality. Alam (2013) presented bidirectional Granger causality between economic growth and FDI in India. Choe (2003) also presents the bidirectional Granger causality between economic growth and FDI. However, result show more strong causality apparent from economic growth to FDI compare to FDI to growth. Empirical analysis indicating that economic growth and FDI has a positive association in Asia region and this association is stronger from economic growth to FDI.

From the above literature relation between economic growth and FDI to select country as investment destination hypothesized as follow:

**H1**: Economic growth has a positive influence on FDI, to select the country as an investment destination.

### 3.1.2 Infrastructure

Tiwari and Mutascu (2011) argue that enhanced technology would draw attention of FDI. But it requires a comprehensive investment in the country’s infrastructure. However, foreign investor approach toward the Indian economy progressively for increasing FDI if it meets few necessary prerequisites: infrastructure development, enhancement of regional cooperation, availability of skilled labour, flexible labour laws, accelerated development of SMEs, regulatory frameworks, appropriate policy and macroeconomic and political stability. Although the level of FDI in India is still low comparing to other Asian emerging regions like China. This consideration is because of poor infrastructure, rampant corruption, weak regulatory systems, political uncertainties and civil conflicts, restrictive labour policy and labour unrest and poor business climate (Sahoo, Nataraj, and Dash 2014). The combined effect of, low investment and poor infrastructure rate and usually, the productivity of firms daunted the FDI (Sachs et al. 2004). Hence, a good infrastructure is a
mandatory condition for foreign investors to engage strongly in FDI, some of India’s region has lack of infrastructure and some of them is well developed, so there is a disparity in infrastructure development. Therefore, in South Asia, a good infrastructure is another important factor to attract FDI. Indian economy suffered from the lack of infrastructure (electricity, water, sanitation, road and urban population) public and private sector can play a significant role in developing infrastructure (Nataraj 2007). Research by Campos and Kinoshita (2003) utilise the panel data in 25 transition economies and analysed the geographical FDI pattern in transition economies. The result shows that the countries like Kyrgyz Republic, Moldova, Armenia, Georgia, Kazakhstan, Russian Federation, Ukraine, Tajikistan, Turkmenistan, Azerbaijan, Belarus and Uzbekistan infrastructure is an important factor for acquiring FDI. The literature presents infrastructure have positive influence on FDI such as (Asiedu 2002; Kok and Acikgoz Ersoy 2009; Zhang 2001b). Other studies by Bakar, Mat, and Harun (2012) shows that the infrastructure has a positive and significant impact on FDI inflow in Malaysia.

From the above literature relation between infrastructure and FDI location choice at the country level is hypothesized as follows:

**H2:** Infrastructure has a positive influence on FDI, to select the country as an Investment destination.

**3.1.3 Political factor**

Sahoo, Nataraj, and Dash (2014, p-2) wrote in his book that political stability, regulatory framework and appropriate policy have a positive effect on FDI and South Asia have great opportunities for increasing FDI but due to political interference and poor economic management is a barrier to attract FDI. A politically steady region with powerfully macroeconomic fundamentals would
attract huge sums of FDI and positively impact the economic growth while the political instability would set it back. Schneider and Frey (1985) examined the flow of FDI in 80 less-developed countries, concluded that political instability significantly reduces the inflow of FDI. Political stability to be most important variable influencing the foreign investment decisions, aside from market potential. Nabamita Dutta and Sanjukta Roy (2011) using a panel of 97 countries empirically analyse the role of political risk in the association of FDI. The results presented political stability seems to play a significant role in this FDI and financial development. Empirical literature shows that political condition impacts the foreign investor’s perception. The question arises “Much politics and less economics” or “Much economics less politics”. According to the world bank, India has regained the 70th position in ease of doing business, which is 30 points higher than the previous year which is quite promising (World Bank Group 2018).

From the above literature relation between Political factor and FDI location choice at the country level is hypothesized as follows:

**H3:** Political factors have a negative influence on FDI to select country as an investment destination.

### 3.1.4 Proximity between countries

South Asian countries share geographical proximity and common culture but, due to political antagonism and mutual distrust, they are not economically integrated. Two big economies India and China in the Asian region they are geographically close to each other and separated by Himalayan terrain. China liberalized its economy from 1972 while India liberalized from 1991. Due to the difficult terrain, the trade between these two countries was lagging behind. In the case of China, it's neighbouring part Taiwan and Hongkong are the top
sources of FDI inflow. In another case of India, Singapore and Mauritius is the main source of FDI due to double taxation treaty operational between India. However, the Indian MNCs has been started to invest from the beginning of 1960s in Ocean and the Asian region, and this is agitated by Indian cultural and geographical proximity to the region, which successfully cooperates with the investment and trade. In China, political leadership enforced a vision for the path of growth and development of the country. Whereas, India reaching a political consensus on any major policy issues is an uphill task. Further, in China a great deal of autonomy in economic decisions was given to the government it allowed a market-based economy to develop alongside a centrally planned system. In conclusion, it can be said that while it is natural that China and India will be compared to each other, but they do not easily lend themselves. Policy aim and ease of its implementation are two key elements that separate these two giants. China due to its concentric political system can move along with reforms more easily, which is hard to replicate in the decentralized structure of India. There is a connected border between China and India but due to difficult terrain, both countries didn’t reach to its threshold level of trade. However, India’s neighbour in South Asia like Bangladesh, Pakistan, Nepal and Sri Lanka was all struggling economies, facing internal problems and not in a situation to invest in India. So literally India has been broadly dependent on the developed world like USA, UK, Japan and other European countries for its FDI inflow. In addition, the geographical proximity automatically creates a spillover effect on its neighbouring country (Sahoo, Nataraj, and Dash 2014, p-143).

From the above literature, the proximity between countries and FDI location choice at the country level is hypothesized as follows:
**H4:** Proximity between countries has a positive influence on FDI to select the country as an investment destination.

### 3.1.5 Social factor

South Asian countries share the economic linguistic, cultural and social similarity; these 8 countries are- Sri Lanka, Pakistan, Maldives, Nepal, Bangladesh, Bhutan, Afghanistan, and India. FDI flowing into any country depends upon the rate of return on investment (Sahoo, Nataraj, and Dash 2014). According to Sathe and Handley-Schachler (2006) with the addition of urbanization in India, the social factors have a determinantal influence on FDI. Mac-Dermott and Mornah (2015) examined the impact of culture on international business; this study took the 9 cultural dimensions that were established by the organizational behavioural effectiveness and global leadership. These 9 cultural dimensions were gender egalitarianism, humane orientation, future orientation, assertiveness, in-group collectivism, institutional collectivism, power distance, uncertainty avoidance, and performance orientation. Although the analysis shows that social and culture is an important factor for FDI in the disclaimer, he suggested that his study does not claim that culture is the one and only or even the main determinant of international business. The study hypothesized that all cultural dimensions have an equal significant effect on international business. The analyses finally concluded that the different cultural and social aspect has the diverse effect on the decision to trade investment and business. The perfect country is not which scores more in all dimensions because some of the dimension have a positive effect, and some have a negative effect depending on the dealing partners. Bhardwaj, Dietz, and Beamish (2007) analysed the novel outlook towards the emphatic influence of host country culture on the location choices of foreign firms. In analyses, they took the two variables of trust and uncertainty.
avoidance. The result showed that these two variables influence the location choices of foreign firms the, foreign firms prefer to invest in nations with a high level of trust and low level of uncertainty avoidance. In addition, if the uncertainty avoidance increases the relationship between trust, and FDI becomes weaker. They found the mixed support for a direct effect of host country trust on location decisions of foreign firms. Firms looking for investment in a foreign country are typically inspired to invest in a nation with the favourable regulatory condition, institutional and economic benefits with the exclusion of foreign firms may be attracted to certain host country cultural characteristics (Dunning 1998).

From the above literature relation between social and cultural factor and FDI to select the country as an investment destination is hypothesized as follow:

**H5**: Social factors have a positive influence on FDI to select the country as an investment destination.

### 3.1.6 Institutional administration

Various literature has used a distinct proxy for good institution, and suggest mixed empirical results. For example, Wheeler and Mody (1992) analyse firms-level US data and find the impact of corruption in the host country. They found the regulatory framework, judicial transparency, red tape and bureaucratic hurdles are insignificant. Although, S. J. Wei (2000) found that corruption significantly pushed the firm's costs and disrupts the FDI inflows. The other side, J. Yu and Walsh (2010), utilize financial depth as proxies for the institutional administration, legal system efficiency, judicial independence, infrastructure quality and labour market flexibility. Institutional factors are also decisive in the FDI growth connection, particularly, the rule and law, protection of property rights and quality of host country institutions, is an
example of host country aspects, that determines the growth-enhancing effect for FDI (Dani Rodrik 1999; North 1991). Another study Olofsdotter (1998) analysed the economic growth and FDI capabilities using cross-sectional data. In research, he found that an enhancement in FDI stock is positively related to growth. He also established a stronger effect for host countries with improved institutional competence as measured by the degree of bureaucratic efficiency and property rights protection. Durham and Benson (2004) showed that institutional factors have a significant influence on FDI and economic growth. The analyses used corruption as institutional indices, business regulation and property rights protection.

Asian nations are governed by large bureaucracies, in Asian nations, regulations are created by the government for its own use and are subject to change whenever it suits the government's purposes. A bureaucracy may tell a company that there are no rules but use unidentified regulations to justify a negative decision (Walker 2014). The bureaucratic inertia is often compounded by interagency conflicts both at the central level as well as between the centre and the state. Kumar and Kumar Sethi (2005) concludes bureaucrats are penalized for errors but not appreciated for performance. This revealed that bureaucratic hurdles were stifling the flow of foreign direct investment into India. Good-quality institutions are possibly another valuable determinant of FDI, especially for developing countries. So positive institution can increase the FDI and according to World Bank (2018) ease of doing business index India’s rank is improved from the 130th position to 77th position, big improvement in ease of doing business in two years. So, there is a positive sentiment towards the institutional administration. Good governance is correlated with higher economic growth, which may attract more FDI inflows (J. Yu and Walsh 2010).
From the above literature relation between National Institutions administration and FDI to select the country as investment destination hypothesized as follow:

**H6:** National institutions’ administration has a positive influence on FDI to select country as an investment destination.

### 3.1.7 Market factors

Global managers nowadays are facing new management demands as their accountability and tasks evolve into progressively more complex. The 1990s were characterized according to meet the current requirements for flexibility, responsiveness to customers, cycle time, cost and quality. With the inclusion of urgency to bring global products to a global marketplace, poses the bifocal requirements of unified local responsiveness and global company presence. The early market environment of the 2000s had replaced the vertical and hierarchical organization structure in all markets. Company’s perquisites grapple with a new set of dynamic issues as they consider the global marketplace. South Asia has recently been a preferred destination of FDI due to its large domestic market and robust economic growth in services and export’s sector (Sahoo, Nataraj, and Dash 2014).

The direction of FDI inflows to emerging countries is to tap the domestic market and for market orientation the market size matter. Market size is normally measured by the size of the middle class, per capita income and GDP. The size of per capita income or market is a sign of the breadth and sophistication of the domestic market. Therefore, an economy with giant market size (with the inclusion of other factors) should captivate additional FDI. Market size is significant for FDI as it carried, relatively diverse resources, greater profitability of local sales to export sales, the potential for local sales, which make local sourcing more feasible (Pfeffermann, Madarassy,
and International Finance Corporation. 1992, p-97). Therefore, bigger market size brings more opportunities for sales and profits to MNCs and therefore attracts more FDI (Chakrabarti 2001; Noy et al. 2007; Ramirez 2006). Determinants of FDI in South Asia present that there is no significant influence of growth or market size on FDI inflows (Asiedu 2002; Edwards 1990). However, the other studies find that growth impact and market size differ under different conditions (Loree and Guisinger 1995; S. J. Wei 2000). In most of the empirical studies, per-capita GDP or real GDP is considered (Adhikary 2011; Armstrong 2016). Finally, in addition, the other analysis established a positive significant relationship between market size and FDI (Banga 2003; Chakrabarti and Avik 2003). In terms of market size, India is the highly demanded country that attracts a huge amount of FDI in South Asia.

From the above literature relation between market factors and FDI to select country as an investment destination is hypothesized as follows:

**H7:** Market factors have a positive influence on FDI, to select the country as an investment destination.

**3.1.8 Global competition**

The 1970s witnessed an increased number of multinational enterprises in the global economy, growth in cross-border competition in globalization. The result of this was an increased interdependence of firms on a global scale which causing some authors to look at the theory of FDI. Some author were the main proponents of this theory whose basis was the ‘new’ industrial organization and game-theory literature of the 1970s (Flowers 1976; Edward M. Graham 1978; Lall and Sanjaya 1974). FDI had become increasingly concentrated in the hands of a few countries, as MNCs have grown, the role of competition and strategy in the global economy remains visible. So, the dramatic rise in mergers
and acquisitions in the 1990s, international capital flows have gained valuable push since the extent of globalization in the early 1990s. Another side East, Asian countries successfully attracting foreign investment by highlighting its role for enormous opportunities. Which cause developing countries to achieve accelerated economic growth and subsequently sparked off a competition among countries to attract foreign investors (J. Jones and Wren 2006).

According to Miyake and Sass (2000), policy reforms, including privatization, deregulation and de-monopolization of national markets, had also led the environment that promotes globalization and FDI. National policy reforms have resulted in greater competition within countries, while greater international trade and investment have resulted in greater competition across world markets. This increased competition and provokes the firms to invest abroad in order to compete effectively with their rivals. The above changes in the global economy had resulted in the flourishing of capitalism in an international setting, with consumers and producers from different countries additionally unified through trade and FDI. This increased level of competition between firms has ultimately manifested itself in mergers and acquisitions (Anand and Kogut 1997).

James R. Markusen (1997) examine the competition and linkage effects on local producers. In their model, there are two industries first producing an intermediate good and second final good. They find that there are two effects that the FDI has on the host economy. The first is a ‘competition effect’ by which the MNCs displaces domestic producers in the final-goods industry. This reduces domestic firms’ sales and causes some firms to exit the industry. The second is a ‘linkage effect’, which is beneficial to domestic firms producing the intermediate good. The backward linkage occurs because the MNCs creates extra demand for intermediate goods. It may lead to a forward
linkage effect if the producers of the intermediary goods achieve economies of scale, which lowers their price and leading to the attraction of new entrants into the final goods sector. (Blomstrom and Kokko 1998) identify four transmission mechanisms underlying a spillovers purchase and supply linkages between MNCs and domestic firms; the movement of labour between MNCs and indigenous plants; imitation of MNCs specific technology by domestic firms; and competition effects that force domestic firms to become more efficient. The first two of these enable both productivity and market-access spillovers to occur, while the latter imitation and competition are solely concerned with the productivity benefits of FDI. According to Beule and Duanmu (2012) companies invest in countries that are similar to their own institutional background, such that they would have less competition and a better chance to succeed in the country. Availability of skilled labour with strong language skills, low costs, favourable business and stable political environment, well-developed infrastructure and geographical and cultural proximity are the main reason of offshoring in central and eastern Europe (Sass and Fifekova 2011).

From the above literature relation between International competition and FDI to select the country as an investment destination is hypothesized as follows:

**H8**: International competition has a positive influence on FDI, to select the country as an investment destination.

**3.1.9 Finance**

Jones argued in his article that the introduction of the Euro-currency markets in the 1960s enabled European firms to raise greater levels of finance and engage in higher amounts of FDI (Jones 1995). Terms FDI and MNCs are treated synonymously with each other (John 1997). Lerat (1981) stated that
since MNCs finance overseas subsidiaries from their funds through capital markets or reinvested earnings, then these overseas affiliates same as FDI.

Wobbly condition of the real exchange rate is expected potency to increase FDI as firms to take benefit of relatively low prices in host markets to purchase facilities. As Ramirez (2006) argued that home-country currency depreciation is likely to boost its exports, which in turn motivates FDI in export-oriented sectors. However, the other hand, a stronger real potential determinant of FDI, the strong appreciated exchange rate might be assumed to boost the incentive for foreign companies to produce domestically. The exchange rate is a touch impediment to entry in the market that could be the way to move horizontal FDI (Walsh and Yu 2010). The empirical analysis of Lily et al. (2014) on ASEAN countries, Singapore, Thailand, Philippine and Malaysia showed that there is an important long-run cointegration between FDI and exchange rate for a case of Philippines, Malaysia and Singapore. There is bi-directional causality between FDI and exchange rate for the case of the Philippines and Singapore. For the case of Malaysia, there is unidirectional long-run causality between FDI and exchange rate. However, there is a short run unidirectional for the case of Singapore.

From the above literature relation between International Finance and FDI to select the country as an investment destination is hypothesized as follows:

**H9:** International finance has a positive influence on FDI to select the country as an investment destination.
3.2. Karnataka Region Location Factors

3.2.1 Infrastructure

All states in India have different geography and different infrastructure facility. Karnataka has benefited for its Silicon Valley; Andhra Pradesh is benefiting for its cyber city; Haryana and Uttar Pradesh are benefited for its proximity with capital city Delhi. All states have diverse infrastructure requirement. Although the basic infrastructure facility like electricity, land, transport linkage and airport facility are the same. So, to measure this determinant is essential at the sub-national level. Since the actual investment takes places at the state level. The Andhra Pradesh Infrastructure Act. attracted the FDI and the success of the Gujarat government private investments in ports are the example of successful infrastructure build-up, which attracted the FDI.

Regional infrastructure is more states specific task compared to the central specific commitment, particularly the telecommunication, transport, water and electricity, is an important determinant of FDI. Infrastructure has a straight influence on the cost of production, as good infrastructure enhanced the effective usage of the labour force and minimizes the cost of production (Wheeler and Mody 1992). Another research Kinoshita and Campos (2003) shows that good infrastructure is a decisive circumstance for foreign investors to operate successfully FDI. On the other hand, Sachs et al. (2004) presented the mixed effect of atrocious infrastructure and less investment rate usually shrinks the productivity of firms, which avert FDI. When developing countries’ contest for FDI, the country that is finely groomed to address infrastructure secure a larger amount of FDI. The previous literature shows the conclusive influence of infrastructure facilities on FDI inflows (Asiedu 2002; Kok and Acikgoz Ersoy 2009; Zhang 2001b). In observational literature, there
are numerous measures used for infrastructure condition of a country. For example, Banga (2003) uses the ratio of transport and communication over GDP whereas Canning (2000) considered the number of telephones per 100 people as telecom density is another factor for infrastructure and found it has positive influence on foreign investment and Kok and Acikgoz Ersoy (2009) used per capita electric power consumption.

From the above literature relation between the state’s infrastructure and FDI to select the state as an investment destination is hypothesized as follow:

**H10**: State’s infrastructure has a positive influence on FDI to select the states as an investment destination.

### 3.2.2 Corruption

Mauro (2008) analysed the various categories of political stability for a cross-section of countries, lower efficiency of the judicial system, amount of red tape and corruption. Corruption in the public sector causes the lower in investment, therefore lowering the economic growth. For example, Bangladesh improved the bureaucracy and integrity to raise the positive sentiment for investors and overall rise the investment.

The other studies, it would seem that India generally has a moderate to a large problem with corruption as a whole country (Quah 2008). While this actually maybe because of a strong high degree of fiscal decentralization and relatively strong political grip resulted the reduced level of corruption and level of corruption didn’t spread massively across the country, and in fact varies quite significantly from state to state. For instance, Indian states like Himachal Pradesh and Kerala have relatively restricted personal experience in low perception of corruption. However, in a few states, the public services in
regions like Jammu Kashmir, Uttar Pradesh, Bihar, Bengal and Madhya Pradesh appear to be full of under table fraudulent. Habib and Zurawicki (2002) show that foreign investors usually avoid investing in countries with a high level of corruption as they are afraid of operational inefficiencies and finally they concluded that the effect of corruption on FDI is negative. Durham and Benson (2004) concluded that institutional factors have a valuable influence on FDI and economic growth. He used business regulation, property rights protection, and corruption as institutional indices. To support this argument, Riley and Roy (2016) show that corruption in India has a detrimental effect on FDI, whereas in China has the opposite effect because corruption in China is low while in India is very high. A similar explanation is that predictable corruption cannot necessarily adversely affect an investor’s ability to predict future activities while unpredictable corruption creates insecurity and uncertainty business environment. The other study suggested a one-point increase in the corruption level leads to a reduction in per capita FDI inflows by about 11 per cent. This negative relationship between political instability and FDI inflows is supported by (Ali Al-Sadig 2009).

From the above literature relation between corruption at states level and FDI, to select the state an investment destination is hypothesized as follow:

**H11:** Corruption in the state has a negative influence on FDI, to select the states as an investment destination.

### 3.2.3 Agglomeration

The primary factors that decide the area of FDI into two classifications; ergodic and non-ergodic frameworks (Arthur 1986; Wheeler and Mody 1992). An ergodic framework always comes back to its primary state when the particular conditions that prompted the primary state are duplicated, however, a non-
ergodic framework will never return to its primary state regardless of whether
the primary conditions are replicated. In a non-ergodic framework, a history
plays a critical role as little changes will prompt irreversible results. Arthur
(1990) and David (2001) connected to the hypothesis of FDI and reported
ergodic framework fundamentally dictated by the established well-known
factors: market estimate, transport expenses, work costs and geological
highlights. The logic behind the features of two type of system is valuable
because the agglomeration economies mean the non-ergodic system.
Guimarães, Figueiredo, and Woodward (2000, p-116) characterize the
agglomeration economies as, ‘economies that are external to firms, but internal
to the small geographic area’. In other words, compared to firms elsewhere for
given labour and capital firms perceive agglomeration economies at a higher
level. This theory can occur across the industries or within the industries.

Firms in a single industry will advantageous from technology and
advancement from other industries as long as the industries are making
proximity with each other (Jacobs 1969; J. Jones and Wren 2006, p-35). These
variety of industries are important within the locality. Which built the
agglomeration economy? however, the firms initially located randomly
because of getting the benefit of classical variables or due to agglomeration
economy in both case firms benefiting with each other (Head, Ries, and
Swenson 1995). In this process, location constitute further expansion by
enhancing the supply of the factor that builds the location allure in the primary
place. Rising consolidation of firms will be emerge and an increasing number
of firms is the product of a world economy (Krugman 1993). Together two
system non-ergodic and ergodic can lead to clustering of firms which has been
the centre of attraction for recent policy initiatives (Potter, Moore, and Spires
2002). Although due to the attractiveness of the area only non-ergodic systems
agglomeration will arise. Therefore, non-ergodic system bestows the
agglomeration effect more decisive over time in attracting FDI compare to classical variables like geographical endowment and labour availability. In conclusion, the classical factor and agglomeration factors are not mutually exclusive to one another.

Either it is infrastructure, level of industrialization or the amount of previous FDI, all found the positive significant effect between these and FDI location, which they attribute to agglomeration economies (Gerlowski, Fung, and Ford 1994; Y. Wei et al. 1999; Wheeler and Mody 1992). Lall, Shalizi, and Deichmann (2004) examine the agglomeration economies and productivity in India. They distinguish the three sources agglomeration economies first regional level (inter-industry urbanization economies), industry level (intra-industry localization economies) and firms’ level (improved access to market centres). In conclusion, they found significant variation in source and effect of agglomeration economies among sectors.

From the above literature relation between Industrial agglomeration within the states and FDI, to select state an investment destination is hypothesized as follow:

**H12:** Industrial agglomeration in the state, has a positive influence on FDI, to select the states as an investment destination.

### 3.2.4 State Investment Incentives

State investment incentive we can measure in the terms of tax rebates, state government investor-friendly policy, environment permission and financial incentives. The central and state government in India has different tax rates and policy but from 2017 all come under the one umbrella goods and service tax (GST). Through tax incentives, state government increase the mobility of
international firms and deliberately remove the barrier of capital flow. Host
government incentives and policy are integrated part of internationalization.
Subsidized equity, subsidized loans, subsidized transportation, subsidized
building, sales tax exemption, direct subsidy, relaxation of industrial relations
laws, training grants, wage subsidies and guarantee against expropriation
attract the FDI (Brewer 1992). Another study S. Pradhan (2000) concluded
incentives like guarantee for profits, capital repatriation, guarantee for
currency conversion, dividend and capital gains, exemption from income tax,
exemption from imports and exports duties, tariff protection, employment
grants and training allowances, subsidies on land and building purchase,
interest subsidies and direct tax grants can attract FDI.

Host states have invited FDI with the ambition that it would enhance the
overall economic development, growth in trade and commerce and industrial
productivity so the other sectors also integrate with this and contribute
positively in economic growth. Many researches have been done on the policy
of the host region that promotes the FDI. Maximum research concluded that
host economies in developing country with developing economies should
liberalize their economy to globalize and privatize business in order to carry
out a share of FDI in their respective countries (Dalgleish et al. 2007, p-10).
Host government that provides supported asset-based and region-based
benefits are assumed to be successful in attracting FDI. Moreover, the host
region contributes good governance along with appropriate mobile asset and
investments increase the foreign investment in the region (Narula and Dunning
2000).

From the above literature relation between state investment incentives and
FDI, to select the state an investment destination is hypothesized as follow:
**H 13:** State’s investment incentives have a positive influence on FDI, to select the state’ as an investment destination.

### 3.2.5 Institutional administration

In India foreign project need approval from both central and state government, this includes many bureaucratic procedures and delay. However, the central government time to time reform the policy. Although the actual implementation takes place at the state level (Palit 2009). Bureaucratic commotion at the state level is one of the bigger reason for sluggish FDI recognition and approvals in India. However, the foreign investment implementation authority tries to solve the problem through the regional meeting of foreign investors. Centre and state government allowed an autonomous body in charge of getting clearance with single window solution with in a designated time frame. Another useful step would be coordination between centre and state institutions, such as the Secretariat for Industrial Assistance (SIA), the Foreign Investment Implementation Authority and Foreign Investment Promotion Board (FIPB) these state-level nodal agencies to reduce duplication and the number of clearances. If there is a complex matter between the state and central government the relevant related institution and ministries must be available for problem-solving and make a decision quickly. Some major hindrance for FDI at states level institutions is building plan approval, power connection, land use change and land acquisition. Therefore, there should be the coordination between state and centre for quick approval of the investment project. Accounting the overall factor from states and centre for investment, States institutional play a positive role to increase the investment in the state (Sahoo, Nataraj, and Dash 2014, p-320).
Good quality of institutions is an important determinant of FDI, especially for developing countries, as favourable governance for investment is associated with higher economic growth which may appeal to more FDI. Ali, Fiess, and MacDonald (2010) used sixty-nine countries panel data to investigate the role of the institution to determine the FDI inflow from 1981 to 2005. They concluded that the institutions are a powerful predictor of overall FDI and expropriation risk, rule of law and property rights are the most significant institutional aspect. On the other side poor institutions mismanagement, delay of project permission, corruption increases the overall cost and reduce the profit. The high sunk cost and political uncertainty that arises from poor institutions make investors highly sensitive (Walsh and Yu 2010). However, the other studies used a distinct proxy for good institutions and found a mixed empirical result like (Wheeler and Mody 1992). In this study, they used US firms level data and find the impact of the extent of corruption, judicial transparency, red tape, bureaucratic hurdle and regulatory framework has an insignificant influence on the host country. Although the S. J. Wei (2000) finds that corruption significantly adds firms cost and hinder FDI inflow. J. Yu and Walsh (2010) examine determinants of FDI inflows in 27 developed and emerging country 1985 to 2008 and found the role of the qualitative and institutional factors is an important determinant.

From the above literature relation between state institutional administration and FDI, to select the state an investment destination is hypothesized as follow:

**H14:** State’s institutional administration has a positive influence on FDI, to select the states’ as an investment destination.
3.3 City Oriented Location Factor

3.3.1 City infrastructure

Karnataka is topmost favourable states for India’s start-ups and Bangalore the Indian “Silicon Valley” is technology district for India. The capital city of Karnataka, Bangalore is the perfect example of representation of paradigm shift from industrialism to the post-industrial informationalism. Karnataka was the first state in India founded the informational technology department (IT) which was, at the starting referred to the electronics city which further arouse the first software technology park in Bangalore. In 1976 to address more investment and business venture in India, Government of Karnataka founded the Karnataka State Electronics Development Corporation (KEONICS) for both International and national investors. At the outskirt of Bangalore, Doddathogur village and Konappana Agrahara these industrial parks called the electronic city. In which less than 1.5 Km² houses of more than 100 IT companies, which are handled by KEONICS. And just in front of these IT companies well-reputed university located IITB (Indian Institute of Bangalore) which directly integrate the business activity and innovation. But to increases immigration towards the city Bangalore infrastructure emerged a true system weakness. From Houser road (Residential area) to reach electronic city one of the most developed areas the road leads to excellency of traffic congestion this is the serious daily problem of inefficiency of infrastructure. Although the 70 per cent population living in the rural area in which many more want to move in near to the city in the near future. This promoted the huge population growth during the last ten year. As for government institution backing, regardless many entrepreneurs complained about the, delays or other general Indian problems such as corruption and bureaucracy and shortcoming in business ecosystem infrastructure (Collato 2010). With the conclusion of the literature,
it will further lead to lack of connectivity through transport which arises due to heavy traffic, shortage of parking area, shortage building and utilities (water, electricity and gas) and security of the city.

The availability of good infrastructure, especially water, telecommunication, transportation and electricity are a significant determinant of FDI. Although the bad infrastructure facilitates the dampen foreign investors to anticipate the investment in India. Infrastructure project in India has been traditionally owned, managed and initiated by state (Sahoo, Nataraj, and Dash 2014, p-311). The role of the private sector usually restricted and relatively limited to sub-contracting in the construction phase. Although the capability of the government to fund infrastructure project has limited progress by there the sheer scale of demand and resources constrained for both provision of additional services and maintenance of existing infrastructure (Grimsey and Lewis 2005; Nataraj 2007; NCAER, Holcim Ltd 2011; Noel and Brzeski 2004). So, overall we can assume that developed infrastructure in Bangalore increase the FDI and make Bangalore as preferred location choice.

From the above literature relation between regional infrastructure and FDI, to select the city an investment destination is hypothesized as follow:

**H 15**: City’s infrastructure has a positive influence on FDI to select the cities’ as an investment destination.

### 3.3.2 Industrial agglomeration in Bangalore

Since due to the presence of Silicon Valley the most of the software company agglomeration to the Karnataka, most probably within the Bangalore. Such as (Brody 1985; Brusco 1982; Storper 1997) in regional development literature shows that the geographer inspections the industrial agglomeration and
focused on organization production is economically desirable developmental facilitate innovation. They augmented that specialized disperse production network of a steeply degenerated organization and unified range of trade unions, industry association, universities, including other firms and local institution helps to create agglomeration. For instance, the computer manufacturing firms and dense network of semiconductor firms, with the cooperation of upholding public institutions in Hsinchu Science Park has played a crucial role in preparing Taiwan a superior global producer in both industries (Volti 2001).

Although Bangalore from the 1950s was a home of a huge pool of skilled labour for technologically advanced the sector in the public sector with a small domestic market. The rising entrenched between society, states and institutions gave states more information and clearest manifestation, which was crucial for the territorial ground of agglomeration for software production. Bangalore became unified into the software product with the international division of high skilled labour for diminishing value-added services. Although this export focus didn’t change agglomeration (Parthasarathy 2004). Bangalore is an information district of genetic engineering, software and microelectronics which fundamental elements are geographical proximity of companies located in a limited geographical area and companies competitiveness, especially in innovation (Collato 2010).

Indian market is a big emerging market of millions of potential customers (Collato 2010). However most of the firms in Bangalore delivering the overseas market with no physical proximity to the customer and other valuable informal suppliers in the market (Parthasarathy 2004). For instance, Banerjee and Duflo (2000) analysis the 125 firms’ of 230 project in India concluded that firms and client characteristic with controlling of project, a firm’s reputation

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matter in software contracting. So physical proximity is not necessary for software industries.

From the above literature relation between regional agglomeration and FDI, to select the city an investment destination is hypothesized as follow:

**H 16:** Industrial agglomeration in the city has a positive influence on FDI, to select the cities as an investment destination.

### 3.3.3 Cost factors

Low-cost labour is an important determinant for FDI in the service and manufacturing industries. Bangalore the huge chunk of employment is offered by the software industries. Frederick P. Brooks (1995) concluded in his study that, in software industry testing and coding was done manually and the labour division in software production is better observed as a skill instead of a mixture of more and skilled labour. However, the automated capital intensive works allow the high quality of mass production for software and hardware industries uneven the labour intensive affair cause error (Gibbs 1994). Other researches presented positive relation between FDI inflow and labour cost studies (Loree and Guisinger 1995; Wheeler and Mody 1992). The availability of educated and low-cost workforces is the significant determinants for FDI and influence the investment decision. Huge level of human capital is an excellent indicator of high skilled workforces. Human capital is the significant determinant for inward FDI study (J. Markusen 1998; Xosé-Antón Rodríguez 2007). The other studies reported human capital is the most important determinant of location advantage and play a key role in attracting FDI in the host country (Asiedu 2002; Borensztein, De Gregorio, and Lee 1995; Noorbakhsh, Paloni, and Youssef 2001). However, the other cost factor for the location choice is transport. Transportation infrastructure is a significant key player to economic
growth and FDI (Bayane and Yanjun 2017; Melo, Graham, and Brage-Ardao 2013; R. P. Pradhan et al. 2013; Ramanathan 2001; Yu et al. 2012). Therefore, the cost factor is the important determinant for FDI location determinant. So, higher the cost lesser is the chances to select the region as a final investment destination, firms want to minimize the operation cost.

From the above literature relation between regional cost factors and FDI, to select the city an investment destination is hypothesized as follow:

**H17:** High-cost factors in a city have a negative influence on FDI, to select the cities as an investment destination.

### 3.3.4 Regional competitiveness

Regional competitiveness normally attributed to the existence of particular circumstances value of the firms and competition in the chosen market, to capture the majority share inappropriate market (Begg 1999; R Huggins 2003). Therefore the regional competitiveness is considered as the competence of a specific region to fascinate and maintain firms and accompanying rising or stable market share in an activity along with managing rising fixed or increase standard of living for those who participate in it (Storper 1997). Although this given competitiveness diversifies across geographic space, as the different region develops at a different rate depending on diversifying growth (Audretsch 2004). Competitiveness has to diversified into city region, local levels, urban and regional (R Martin 2005). The main drivers of regional competitiveness often deliberated to creativity through clusters and enhancement of knowledge networks of complementary organizations and firms (Huggins, Robert and Izushi 2007; Michael 1992). The other researcher's analyses this aspect and argue that the simulated view of endogenous regional development, themselves act as an organizational form of coordination and
facilitating sustainable competitive advantage (Courlet, C. and Soulage 1995; Garofoli 2002; Lawson, C. and Lorenz 1999; Maillat 1998). However the regional competitiveness and regional competition has little difference, regional competitiveness is firmly connected to economic performance and development (Robert Huggins et al. 2014). Regional competitiveness is influenced by the collection of other tangible factors communication, transportation, ease of access to energy, development, degree of infrastructure and level of industrial and technological development to more intangible elements. As well as these may contain training and learning opportunities that enable people continue to develop their competencies qualification, availability of qualified and adaptable workforces and the cluster of firms (OECD 1997, p-37). Policies and instruments to progress the quality of the region as a business location and policies and instruments to increase the productivity or competitiveness of firms in the region, widely these two sets of pathway approach have become effective in the reckless chase of regional competitiveness (Birstow 2010, p-35). According to World Economic Forum Klaus Schwab (2017, p-112), global competitiveness has twelve pillars based on this pillar I constructed the regional competitiveness determinant for Bangalore.

From the above literature relation between regional competitiveness and FDI, to select the city as an investment destination is hypothesized as follow:

**H18:** Competitiveness in the city has a positive influence on FDI, to select the cities as an investment destination.

### 3.3.5 Regional finance facility

Choong (2012) analyse the relationship between economic growth, financial development and FDI using panel data of 95 developing and developed
countries from 1983 to 2006. They found that the financial system has a necessary significant impact on FDI. Niels Hermes and Robert Lensink (2003) examine the 67 developed and under-developed financial system in order to check the relation between FDI and economic growth. The article empirically resulted that the development of the financial system has a significant positive relation between FDI and economic growth. Choong et al. (2004) examine the FDI and economic growth pattern in East Asian and developed countries with the aim of to check the development of the financial sector and demonstrate the technology diffusion in FDI inflow. The results show that the FDI and economic growth both are not cointegrated by itself. There is a dynamic interaction between financial development, FDI and economic growth. Results prove that the for long run FDI creates significant technology diffusion if there is a minimum threshold value of the domestic financial system has been accomplished. Adeniyi et al. (2012) showed that financial indicator (Total Banking Sector Credit to the Private Sector, Total Liquid Liabilities and Credit to the Private Sector) has a positive impact on FDI to record the economic growth in Sierra Leone, Gambia and Ghana. They examine the causality relation between FDI, financial development and economic growth. In the research they concluded that there is a bidirectional relation with strong causality between the variables FDI and economic growth and financial development. Cointegration of these factors with long-run relationship has a positive significant impact between these variables. (Z. Gal 2000) examine the development and spatial structure of the Hungarian banking system and reported that less developed banking systems including regional banks have a lesser capacity to promote their economic development and might experience certain disadvantage. The research published by Chen et al. (2015) analyse the relation between FDI and regional finance development in China’s firms using a large microdata set. First, they found that regional finance development has
positive significance linkage with FDI. Regional finance development promotes FDI significantly. Second regional finance plays a positive role in FDI productivity spill over. FDI firms located in financially developed region has positive knowledge spillover effect to the domestic firms. Nabamita Dutta and Sanjukta Roy (2011) examine the 97-country using panel methodology and empirically they studied the linkage between financial development and FDI with the association of political risk. The research shows that at some extent, below the threshold level there is a positive relationship between the financial development and FDI. Above the threshold level, there is a negative relationship between financial development and FDI.

From the above literature relation between regional finance development and FDI, to select the city as an investment destination is hypothesized as follow:

**H19:** Finance development in city have a positive influence on FDI, to select the cities as an investment destination.
4. MATERIAL AND METHODS

4.1 Experiment Location Profile

Karnataka is the eighth largest state in the country both in terms of population and area, and it is the fastest emerging economies in India. Bangalore (Silicon Valley of India) the capital of Karnataka, has been rising as one of the major technology destinations in the country as well as in the world and known as the ‘IT capital of India’, Bangalore put Karnataka on the global IT and technology map. Bangalore “developed as one of the global IT hub and technology centres with an agglomeration of fortune 500 technology companies and R&D institutions. Karnataka has more than 300 km of coastal line and blessed with ample of natural resources especially water and forest resources. In India, approximately 50% State Domestic Product (SDP) comes from the IT sector. This state impressed with 26% contribution of industrial base in SDP. The ICT cluster was started to develop in India after the 1970s. The major boost was brought up by the R. K. Baliga, the first managing director and chairman and of Karnataka State Electronics Development Corporation in 1976 (Collato 2010; Kumbar and Sedam 2017b; Sharma 2013).

The literature presented FDI inflows to Karnataka from 1991 to 2015 reveals that in the initial period of liberalization USA was the top country which invested in Karnataka followed by Belgium, UK, Japan and Mauritius (Kumbar and Sedam 2017b). From figure 4.1, Bangalore is on the third position to receive FDI in India and emerged as a leading destination for FDI inflows because of easily availability of skilled labour, infrastructure and natural resources, which assure the investors to get the proper return for the capital employed (Sharma 2013). Karnataka has pleasant weather and good infrastructure facility the capital city Bangalore previously known as the...
electronic city, as India’s IT sector started to progress the name of the city alter and now popularize as the IT capital of India. Figure 4.1 presenting the cumulative percentage of FDI in India, Bangalore is the third contributor of FDI from 2000 to 2018.

Figure 4.1 Total cumulative % of FDI inflow in India from top seven states April 2000-June 2018

Source: India stat compiled by the author.

There are more than 1,100 medium and large manufacturing firms in the state with an accumulated investment of larger than 7 billion USD by international and domestic players. Karnataka positioned first in the production of silk and electronic equipment. Mangalore Chemicals and Fertilizers, New Government Electric Factory, Wheel and Axle, Indian Telephone Industries, Hindustan Machine Tools, Hindustan Aeronautics Limited, Bharat Heavy Electricals, Bharat Electronics and Bharat Earth Movers are among the major PSUs. There are numerous factories with different arrangements under private JVs and M&A like in field of fertilizers, motorcycles, cement, mining metal tools, capacitor newsprint, papers, caustic soda, porcelain sugar, electrical goods sandal oil, silks, textile, electric motors, spark plug, batteries, glass, electronic and telephone instrument and rail coaches. Karnataka has the highest
contribution in IT and software contribution approximately 35% from overall IT contribution in India (Amir Ullah Khan 2007).

Figure 4.2 FDI inflow in India from top five states in terms of percentage

Source: India stats compiled by the author

As figure 4.2 illustrated location of FDI inflow, states who attract more FDI in 2005 continuing to attract FDI in 2005. Foreign investors location preference from starting of liberalization period is continually the same after the two decades. Top five states which were performing well from 2005 till 2015 were Delhi, Maharashtra, Karnataka, Tamil Nadu and Gujrat the flow of FDI to these five states stood at 82.48 in 2015, 71.47% in 2014, 59.69% in 2013, 72.33% in 2012 and 57.88% in 2011 of the total FDI inflows in India. The cumulative FDI inflows to these 5 states in the decade 2005-2015 stood at 69.54% of total FDI flows to the country in the decade. However, states such as Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Orissa, and Kerala which was lagging behind at the starting continuously remain behind and foreign investors didn’t consider this state as favoured FDI location. Total FDI inflow received by the country, in 2015 the status of these states was 0.96% which
was almost the same in 2005 less than 1%. The cumulative inflow of FDI to these laggard states in the decade stands at mere 0.99% of total FDI received by the country in the decade. According to S.Kumar and Sedam.H (2017), there is no single factor which could lead to the attraction of FDI to a particular state in India and this leads to the conclusion that capital liberalisation policies have thrust only on attracting foreign investment rather than taking care of its distribution in the countryside by side.

Fig 4.3 Population distribution in Karnataka
From figure 4.3 we can observe that Bangalore has the highest number of people concentration while the other side it acquires low land area compared to the other cities in Karnataka. Bangalore has the highest employment rate and numerous biotech-firms. Out of total value exports from Karnataka, 49% come from software and electronics sector, 2% by silk products, 5% by iron-ore and minerals, 4% by engineering and 9% by readymade garments. The rail network is approximately 4,000 km while the road network in the state is more than 1,50,000 km. Bangalore city has known as the “Silicon Valley ” India due to too high agglomeration of IT and computer sectors (Basant 2006)

### 4.2 Research Design

As we discussed earlier the selection of location for international business is a critical challenge as each country has different political, economic, cultural, geographical and infrastructure availability and have different criteria for location selection. Several studies presented to find out the determinants to explain the multinational investment in a given location but they did not produce the consensual results. Matter of fact a large number of studies do not find any statistically significant relationship for some determinants (e.g., financial and fiscal incentives, market growth, infrastructure, and openness of the economy) (Assunção, Forte, and Teixeira 2011). The research presented by Blanc-Brude et al. (2014) shows that foreign investors are not directly attracted by the location-specific attribute like economic growth of the country, states incentives and labour cost in the local area etc. but also depend upon the location’s proximity with alternative locations. So, we consider this research location variables at country, state and city perspective. Where traditional variables and location proximity with other location comes under the same umbrella. Therefore, this research is design in the manner that all
three level of FDI location decision covered. The previous study is generally focused on the national level or industry based (Frost and Zhou 2000; Gerlowski, Fung, and Ford 1994; Kang and Jiang 2012; Liu 2009; Wheeler and Mody 1992).

Figure 4.4 Process flow diagram

source: created by the author.
Figure 4.4 shows the process flow of research, started with the theoretical framework where we review the researches related to the FDI location choice. Based on collected literature made unique objectives. In next step secondary data was collected from the Bloomberg database, once the stakeholder data process is finished the to make the hypothesis, we divided the hypothesis in 3 level country, state and city in our case it is India, Karnataka and Bangalore. This thesis collected data from 109 enterprises for FDI location choice in Bangalore to know the point of view for the country, state and city level in the matter for FDI location selection. The stakeholder in this research for data collection are the managers, HR, companies research analyst and other decision makers which are contributing in the company decision process. Further, we proceed with this research with the following steps mentions in figure 4.4 to get the final conclusion.

4.3 Tools and Material

This research used the IBM SPSS 25.0 version to analysed the data. This thesis collected the company information which invested in India during 1992-2018, which was collected from the Bloomberg database. The Bloomberg terminal access is used from Corvinus University central library. The keyword used to search the information from Bloomberg database was “Merger and Acquisition” “Joint Ventures” and “Investment” in India. Total 600 company’s information was extracted from the terminal. Once the basic information of foreign investors in India is collected, we refine the data and extracted the companies which invested in Bangalore. After that, we approach companies HR, data analyst, managers or other higher authorities who have the company’s information through the emails. The emails are collected through the company’s official websites and India’s registrar of companies (ROC) official database.
For data collection, request email sent to the respondent to take part in and used the Google form survey platform, to collect the respondent data. Connect through the email to the respondent for participating in the survey has extra merits and benefits, compared to the traditional way of doing the on-ground survey. According to Richman et al. (1999), computer-based survey is created less distorted noise in samples because respondent gets the flexibility of time to fill the questioners. However, the email survey and purely web-based survey are not statically different (Fleming and Bowden 2009). However, compared to email survey and web-based survey the, the web-based survey is more effective and get high responses with smaller turnaround time (Kwak and Radler 2002). This research used a hybrid approach according to the suitability of data collection. We positively contacted to samples through email and shared the “google form” survey platform web link to fill the questioner. The collection of data was closed, the web link is shared only to the perspective sample participant. However, the process of the computerized survey has some nonlinear noise like privacy and sensitivity issue (Jansen, Corley, and Bernard J. Jansen 2007; Richman et al. 1999). To overcome this problem questioner is focused only, questions which are highly correlated to the research and no personal information is asked. Medlin, Roy, and Chai (1999) compare the web-based survey and email survey in computer-based industries like IT sector. They obtained the survey response rate 47% through the mail and 28% from the web-based survey. Collection of samples data, this thesis organized the survey in Bangalore city which is “Silicon Valley” of India where the majority of firms is related to the computer-based services. The following research found that the web and email based survey is an efficient way to approach the respondent with sufficient successes rate for data collection process (Añón Higón and Driffield 2011; Crawford and Lamias 2001; Fleming and Bowden 2009; Jansen, Corley, and Bernard J. Jansen 2007; Kwak and Radler 2002). The email-based survey is prominent to collect the respondent data for this
research. Therefore, based on the literature the method used to collect the data for this research is feasible and enough to fill all requirement.

4.4 Length of Survey

The response rate is correlated with the length of the survey, it is hypothesized from the study (Kwak and Radler 2002). He shows that the 8 or 10-minute survey has lower nonresponse rate compare to those who mentioned 20 minutes at the starting of the survey. Although the 20-minute group respondent has a lower break off survey response rate. We tested this research survey had an average time to fill the questioner is 17 minutes. After collecting the data from a respondent in the first wave, a reminder sent to the respondent in the second wave to enhances the response rate. The research by Kwak and Radler (2002) found in his research 2nd, 5th 23rd day increases the response rate in his research and sending the reminder successfully increase the response rate. Total 600 company’s secondary data were collected from the Bloomberg but due to discontinuity in data, this thesis includes a total 400 companies and tried to approach by email to fill the survey questioner. Out of 400 total 115 firms participated in this research from the 115 responses, this research finally included 109 respondent data, other six samples were rejected due to the discontinuity of data.
5. RESULTS AND THEIR EVALUATIONS

This chapter divided into three part. The first part we tested the sample biases. Our data is not normally distributed and have the dichotomus dependent variable. To check the respondent biased responses author using the Mann-Witney test presented in Appendix-1. After successfully performing the unbiasing in sample responses, the second part is explaining the reliability analyses by using the Cronbach’s alpha, this section will explain why Cronbach’s alpha is the best fit for research and explaining what criteria of reliability analysis used in this thesis with the presence of other literature. The third part is the main part of the analysis, where the core part of the determinant of location choice was tested. This part demonstrates the significance of variables and model summary.

5.1 Sample Unbiasing

The questioner was made on google forum and circulated around the selected responses through email. Data was collected by using google form and it has many merits like respondent get enough time to fill the questioner. So, in the final output, we got the precise view from the respondent. Online survey collection has many other merits like user can use multiple question formats, data quality checking, ease of ensuring confidentiality and can provide customized delivery of items (Jansen, Corley, and Bernard J. Jansen 2007).

According to Marczyk, G. R, DeMatteo, D. and Festinger (2010) biased response can alter the real results. Like every research, this research also can be biased problems. Since data measured on the Likert scale, so we adopted the non-parametric test for checking any kind bias in this research therefore, we used the Mann-Witney test which fits with the Likert scale. Addressing non-response bias through Mann-Whitney like another study (Granell 2015, p-
divided the data between early and late response which is the best strategy to check the biasing. We divided the response into two waves, the first wave included the first 54 respondents who responses early and second wave another 54 respondent who response late. Last 109th response is not included in the Mann-Witney test. The Mann-Witney test output bestowed in (Appendix-1) none of the constructs showed the significant difference. Although the single variable for a country shows significant value like bureaucracy, efficient workforces and access to finance for the state it is transported linkage, overall construction, proximity business and industrial law and city level, availability of insurance are a significant value less than 0.05. This showed that however bias in the response may exist in the single variable response but overall, they were not a significantly affect as a determinant, which could affect the conclusions of a group of variables construct or determinant which being studying in this thesis. So, in this research, we can move further for the reliability test to checking variables robustness and model of fittest.

5.2 Reliability and Robustness

Examine the construct stability and consistency we used the robust estimation of Cronbach’s alpha. The Cronbach’s alpha is a prominent method to measure the reliability of data Christmann and Van Aelst (2006). Alpha value tends to increase with increase the items in the scale. So, this thesis we used Cronbach’s alpha to test the internal consistency (i.e. how closely related a set of independent variables are as a group) and reliability. For example, at the country level, we considered infrastructure as a determinant but within the infrastructure determinant we took the group of variables viz. utility telecommunication and transport. Therefore, through the Cronbach alpha we checked the internal consistency of the infrastructure determinant. To decide the significance of alpha value we used the other researches references,
empirical studies indicating that the threshold value 0.6 is prominent. According to Cronbach (1951); Peter (1979) value 0.6 is sufficient threshold value for the reliability and consistency. Cronbach’s alpha differs from 0 to 1, the value from less than 0.6 is unsatisfactory internal consistency and reliability but greater than 0.6 it is satisfactory (Malhotra 2010, p-287). So, in final argument, this thesis using the 0.6 minimum threshold criteria for significant reliability. Therefore table 5.1 presenting the reliability test for country-oriented factor, all variables in table 5.1 have the positive co-relation in the construct, size of the local market has the lowest correlation value 0.27 in construct market factor. Further in this chapter table 5.2 and 5.3 present the Cronbach’s alpha for state and city.

Table 5.1 Reliability Test for Country Oriented Determinants

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rich and strong purchasing power of economy</td>
<td>0.759</td>
<td>0.732</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>0.809</td>
<td>0.677</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Economy</td>
<td>0.790</td>
<td>0.647</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth rate of economy</td>
<td>0.789</td>
<td>0.635</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per capita of economy</td>
<td>0.810</td>
<td>0.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of utilities. ex- electricity, water, sanitation</td>
<td>0.683</td>
<td>0.560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of telecommunication and IT services</td>
<td>0.636</td>
<td>0.525</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of developed transport</td>
<td>0.722</td>
<td>0.603</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

96
<table>
<thead>
<tr>
<th></th>
<th>0.665</th>
<th>0.459</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of overall infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Political</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government tendency to promote India as an investment destination</td>
<td>0.740</td>
<td>0.510</td>
</tr>
<tr>
<td>Political trust between India and the parent firm’s country</td>
<td>0.655</td>
<td>0.732</td>
</tr>
<tr>
<td>Adequacy of investment friendly policy</td>
<td>0.555</td>
<td>0.751</td>
</tr>
<tr>
<td>Policy Stability/Instability</td>
<td>0.778</td>
<td>0.358</td>
</tr>
<tr>
<td><strong>Proximity with neighbour country</strong></td>
<td>0.811</td>
<td>3</td>
</tr>
<tr>
<td>Location benefits with neighbour country</td>
<td>0.812</td>
<td>0.587</td>
</tr>
<tr>
<td>Adequacy to access to the neighbour country market</td>
<td>0.569</td>
<td>0.811</td>
</tr>
<tr>
<td>Geographic proximity between India and the parent firm’s country</td>
<td>0.800</td>
<td>0.603</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>0.755</td>
<td>3</td>
</tr>
<tr>
<td>Employees loyalty to the company</td>
<td>0.467</td>
<td>0.744</td>
</tr>
<tr>
<td>Adequacy of ethical employees</td>
<td>0.681</td>
<td>0.587</td>
</tr>
<tr>
<td>Ethical business environment</td>
<td>0.772</td>
<td>0.541</td>
</tr>
<tr>
<td><strong>Institutional administration</strong></td>
<td>0.821</td>
<td>3</td>
</tr>
<tr>
<td>Bureaucratic institution. ex FIPB, RBI, CVC</td>
<td>0.594</td>
<td>0.818</td>
</tr>
<tr>
<td>Regulatory framework boundation</td>
<td>0.568</td>
<td>0.842</td>
</tr>
<tr>
<td>National judiciary system</td>
<td>0.973</td>
<td>0.419</td>
</tr>
<tr>
<td><strong>Market</strong></td>
<td>0.634</td>
<td>4</td>
</tr>
<tr>
<td>Size of local market</td>
<td>0.652</td>
<td>0.270</td>
</tr>
<tr>
<td>Future Growth and development of parent firms in the host country</td>
<td>0.476</td>
<td>0.523</td>
</tr>
<tr>
<td>Increase the product line</td>
<td>0.576</td>
<td>0.403</td>
</tr>
<tr>
<td>Accessible market information</td>
<td>0.523</td>
<td>0.487</td>
</tr>
<tr>
<td><strong>Global Competition</strong></td>
<td>0.775</td>
<td>3</td>
</tr>
<tr>
<td>Follow the other competitors</td>
<td>0.572</td>
<td>0.716</td>
</tr>
</tbody>
</table>
Follow firms in complementary sector  
Explore any other opportunities due to globalization

**Finance**

<table>
<thead>
<tr>
<th>Access to finance facility</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>0.238</td>
<td>0.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport linkage</td>
<td>0.687</td>
<td>0.569</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

source: compiled by the author.

Table 5.1 presenting the reliability test for country-oriented factors. The second row represent Cronbach's Alpha if item deleted, we can observe all value in column second is near to Cronbach's Alpha value. Therefore, all variables are contributing to the experiment effectively. The last determinant finance didn’t show any value because it contains only two variables. The second column shows the correlation between the variables for a particular determinant for instance economic determinant, GDP per capita has minimum correlation value 0.571, same as we can observe for other variables in table 5.1. Therefore, we can consider that all variables for country-oriented factors are pass the reliability test.

Table 5.2 Reliability Test States Oriented Determinants

<table>
<thead>
<tr>
<th>Variables</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic infrastructure, electricity, water and gas supply</td>
<td>0.238</td>
<td>0.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport linkage</td>
<td>0.687</td>
<td>0.569</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Information and communication technology and IT services 0.689 0.573
Over all infrastructure development in state 0.522 0.673

**Corruption**
Crime and theft records 0.51 0.769 0.782 4
Political corruption in state 0.688 0.679
State Judiciary and municipal system fair and impartial 0.726 0.65

**Industry agglomeration**
0.459 0.788
Intra Industry agglomeration
Proximity to raw material suppliers 0.219 0.8 0.716 4
Proximity benefit of the same sector 0.668 0.547
Proximity to Industrial park and export processing zone 0.682 0.542
Proximity to customers and buyers 0.489 0.664

**State Investment Incentives** 0.71 3
Ease of industrial laws 0.47 0.694
Environment permission 0.562 0.579
Financial incentives and rebates 0.556 0.586

**State Institutional Administration** .615 3
State judicial system .477 .439
Tax administration regulatory framework .617 .271
Overall state Institutional system partial and fair (ex. Combination of Municipal and local police etc.) .241 .806

*source: compiled by the author.*

From table 5.2 presenting the reliability test for states-oriented factors, there is five-determinant related to the state-oriented FDI location choice. From table 5.2 all variables within the determinant positively correlated with each other. Proximity to raw material and suppliers have the lowest correlation value 0.219. This variable has alpha value 0.8 which is higley contributing determinant. State institutional administration has the lowest Cronbach's Alpha
value 0.615 but overall it passes the threshold level 0.6 criteria. We can consider all variables related to state pass the robustness test.

Table 5.3 Reliability test city-oriented Determinants

<table>
<thead>
<tr>
<th>Variables</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
<th>Cronbach's Alpha</th>
<th>N of Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking facility</td>
<td>.295</td>
<td>.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of telecommunication</td>
<td>.342</td>
<td>.560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate availability of utilities (water, electricity, gas, etc.)</td>
<td>.396</td>
<td>.536</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessibility via highways</td>
<td>.174</td>
<td>.622</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to the city airport</td>
<td>.627</td>
<td>.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of nearest transport</td>
<td>.211</td>
<td>.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regional Agglomeration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to customers and employee</td>
<td>0.326</td>
<td>0.851</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity with informal sector</td>
<td>0.727</td>
<td>0.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clustering of other firms within the city</td>
<td>0.744</td>
<td>0.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>proximity with an organized developed industrial zone</td>
<td>0.624</td>
<td>0.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of land, construction and renovation.</td>
<td>0.718</td>
<td>0.634</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent cost</td>
<td>0.598</td>
<td>0.699</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of low-cost labour</td>
<td>0.745</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logistic cost within the city</td>
<td>0.286</td>
<td>0.863</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

100
**Regional Competitiveness**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Alpha</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional economic environment</td>
<td>0.627</td>
<td>0.54</td>
</tr>
<tr>
<td>Innovation and technology spillover in the city. ex-Silicon Valley</td>
<td>0.574</td>
<td>0.605</td>
</tr>
<tr>
<td>Labour market efficiency</td>
<td>0.45</td>
<td>0.748</td>
</tr>
</tbody>
</table>

**Regional Finance Facility**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of credit from a regional bank</td>
<td>0.643</td>
</tr>
<tr>
<td>Availability of Insurance</td>
<td>0.643</td>
</tr>
</tbody>
</table>

*source: compiled by the author.*

From table 5.3 infrastructure has the lowest alpha value 0.604 but greater than our threshold level. Regional agglomeration has the highest alpha 0.790 in city-oriented factors. So, all city-oriented variables pass the reliability test.

Overall for summarizing the reliability test for India, Karnataka and Bangalore. The country’s variable from table 5.1 has nine determinant and 31 independent variables which represent the national level FDI location choices criteria. From table 5.2 sub-national level has five determinant and 18 variables which reflect the Karnataka’s foreign investment location related variables and table 5.3 first column shows five determinants with nineteen variables for city-level FDI location choice in Bangalore. From the column, corrected item, total correlation and Cronbach's Alpha item if deleted we can say that all variables in the research are contributed effectively, there is no need to omit any variables. The fourth column representing the Cronbach's Alpha, threshold criteria for considering the reliable determinant. From table 5.1, 5.2 and 5.3 we can observe that all determinants have the Cronbach’s alpha value greater than 0.6 which we want in this research. Therefore, all determinants passed the reliability test and we can perform the goodness of fit test.
5.3 Goodness of Fit Test

Author Garson (2014, p-163) reported Hosmer and Lemeshow test is considered more robust than a traditional omnibus test, it is often preferred over the omnibus test; to check the significance of the model. The significant value near to 1 represent the better goodness of fit, and this test is stricter than other traditional tests (Garson 2014). Probability is computed based on chi-square distribution for the logistic model. The goodness of fit is considered if the significance value is higher than 0.5 which we want in this research. The greater significance value leads to rejecting the null hypothesis, that there is no difference between observed and model-predicted values, this implying that the model's estimates fit the data at an acceptable level.

Table 5.4 Goodness of fit Hosmer and Lemeshow test

<table>
<thead>
<tr>
<th>Country</th>
<th>Chi-square</th>
<th>Sig.</th>
<th>State</th>
<th>Chi-square</th>
<th>Sig.</th>
<th>City</th>
<th>Chi-square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Factor</td>
<td>8.03</td>
<td>0.43</td>
<td>State Infrastructure</td>
<td>2.06</td>
<td>0.96</td>
<td>City Infrastructure</td>
<td>3.15</td>
<td>0.92</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>1.41</td>
<td>0.97</td>
<td>Corruption</td>
<td>2.79</td>
<td>0.83</td>
<td>Regional Agglomeration</td>
<td>3.88</td>
<td>0.87</td>
</tr>
<tr>
<td>Political Factors</td>
<td>3.65</td>
<td>0.82</td>
<td>Industrial agglomeration</td>
<td>2.23</td>
<td>0.97</td>
<td>Cost Factors</td>
<td>5.06</td>
<td>0.75</td>
</tr>
<tr>
<td>Proximity with neighbour country</td>
<td>2.36</td>
<td>0.67</td>
<td>State Investment Incentives</td>
<td>2.87</td>
<td>0.94</td>
<td>Regional Competitiveness</td>
<td>2.11</td>
<td>0.91</td>
</tr>
<tr>
<td>Social factors</td>
<td>5.85</td>
<td>0.44</td>
<td>State Institutional Administration</td>
<td>4.49</td>
<td>0.81</td>
<td>Regional Finance Facility</td>
<td>0.57</td>
<td>0.9</td>
</tr>
<tr>
<td>Bureaucracies</td>
<td>8.24</td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From table 5.4 Hosmer and Lemeshow test the model data predictability for infrastructure at the national, subnational and regional level is high, the value of data predictability for infrastructure determinant at the national, subnational and regional level is 97,96 and 92 per cent respectively. The lowest model predictability, we can see for the global competition with 27 per cent predictability. From table 5.4 we can observe that the all determinant significant for a model of fit and reject the null hypothesis. So, further, we can peruse for the logistic regression.

**5.4 Logistic Regression**

In this thesis from logistic regression, we wanted to predict the dichomous (FWO and JV) variables with the help independent variables. Binary logistic regression is a perfect methodology to describing the relationship between a dependent or response (Joint ventures =0 and foreign wholly owned=1) variables and a set of independent (predictor or explanatory) variables, observe the table 5.5, for all independent variables in details at country, state and city level.

The figure 5.1 shows the conceptual map for the binary logistic regression. The process start with the research objectives which we discussed in Chapter-3 in detail. In this thesis logistic regression applies maximum likelihood estimation after transforming the dependent into a logit variable. To measure the logistic regression, we will check the model predictability by odds ratio. The impact of predictors is usually explained in terms of odds ratios, which is the key effect
size in this thesis. With the help of logistic regression in this research, we will check the probability of getting (successful occurrence of the event) foreign wholly-owned firms with the association of predictors. This thesis used the Hosmer and Lemeshow test to check the goodness of fit for the model it is preferred compared to traditional Wald Static test, because of its strictness and better model predictability.

Overall figure 5.1 presenting the concept map for binary logistic regression for this research.

Figure 5.1 Concept map for binary logit analysis

Source: created by the author.
Here is the following parameter that we want to draw the attention in terms of thesis for explaining the conclusion in Chapter-6:

**Odds:** In terms of this research can be defined as the probability of getting (probability of occurrence) foreign wholly-owned firms divided by the probability of JVs (the probability that the event does not occur). Here we considered foreign wholly-owned firms as the main category “denoted by 1” in logistic regression and Joint venture as reference category “denoted by 0”.

**Odds ratio:** With reference of (Hosmer, Lemeshow, and Rodney 2014) odds ratio in terms of this research can be explains as “association”, as it approximates how much more likely or unlikely (in terms of odds) outcome to be present among those subjects with foreign wholly-owned = 1 as compared to those subjects with Joint venture = 0.

**Log odds:** The log odds, thus equal the natural log of the probability of the event occurring (i.e. foreign wholly-owned firms) divided by the probability of the event not occurring.

**Table 5.5 Hypothesis Results**

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India Economy</td>
<td>Rich and strong purchasing power of economy</td>
<td>-1.019</td>
<td>0.816</td>
<td>0.212</td>
<td>0.361</td>
</tr>
<tr>
<td></td>
<td>Inflation</td>
<td>2.133</td>
<td>1.278</td>
<td>0.095</td>
<td>8.438</td>
</tr>
<tr>
<td></td>
<td>Size of economy</td>
<td>-0.611</td>
<td>0.587</td>
<td>0.298</td>
<td>0.543</td>
</tr>
<tr>
<td></td>
<td>Growth rate of economy</td>
<td>-0.21</td>
<td>0.581</td>
<td>0.718</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>GDP per capita of economy</td>
<td>0.474</td>
<td>0.654</td>
<td>0.469</td>
<td>1.607</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>2.937</td>
<td>4.364</td>
<td>0.501</td>
<td>18.857</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Adequacy of overall infrastructure</td>
<td>0.14</td>
<td>0.397</td>
<td>0.724</td>
<td>1.15</td>
</tr>
<tr>
<td>Adequacy of utilities. ex- electricity, water, sanitation</td>
<td>0.159</td>
<td>0.433</td>
<td>0.715</td>
<td>1.172</td>
<td></td>
</tr>
<tr>
<td>Adequacy of highly skilled research and development personnel</td>
<td>-0.096</td>
<td>0.396</td>
<td>0.809</td>
<td>0.909</td>
<td></td>
</tr>
<tr>
<td>Adequacy of developed transport</td>
<td>19.676</td>
<td>4113.2</td>
<td>5</td>
<td>3.51</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-57.374</td>
<td>12339.75</td>
<td>0.996</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Political factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government tendency to promote India as investment destination</td>
<td>-1.533</td>
<td>1.166</td>
<td>0.189</td>
<td>0.216</td>
<td></td>
</tr>
<tr>
<td>Political trust between India and parent firm’s country</td>
<td>0.049</td>
<td>0.718</td>
<td>0.945</td>
<td>1.051</td>
<td></td>
</tr>
<tr>
<td>Adequacy of investment friendly policy</td>
<td>0.207</td>
<td>0.371</td>
<td>0.576</td>
<td>1.23</td>
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<tr>
<td>Policy Stability/Instability</td>
<td>0.3</td>
<td>0.291</td>
<td>0.302</td>
<td>1.35</td>
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<tr>
<td>Constant</td>
<td>9.771</td>
<td>7.496</td>
<td>0.192</td>
<td>17525.3</td>
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<tr>
<td><strong>Proximity between countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location benefits with neighbour country</td>
<td>0.484</td>
<td>0.856</td>
<td>0.572</td>
<td>1.622</td>
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<tr>
<td>Adequacy to access to the neighbour country market</td>
<td>-1.447</td>
<td>1.123</td>
<td>0.197</td>
<td>0.235</td>
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</tr>
<tr>
<td>The geographic proximity between India and the parent firm’s country</td>
<td>2.422</td>
<td>1.144</td>
<td>0.034</td>
<td>11.266</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.276</td>
<td>2.492</td>
<td>0.912</td>
<td>0.759</td>
<td></td>
</tr>
<tr>
<td><strong>Social Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees loyalty to the company</td>
<td>-0.235</td>
<td>0.648</td>
<td>0.717</td>
<td>0.79</td>
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<tr>
<td>Adequacy of ethical employees</td>
<td>0.323</td>
<td>0.566</td>
<td>0.568</td>
<td>1.381</td>
<td></td>
</tr>
<tr>
<td>Ethical business environment</td>
<td>0.255</td>
<td>0.992</td>
<td>0.797</td>
<td>1.291</td>
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</tr>
<tr>
<td>Constant</td>
<td>0.795</td>
<td>4.56</td>
<td>0.862</td>
<td>2.214</td>
<td></td>
</tr>
<tr>
<td><strong>Institutional administration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureaucratic procedure and red tape</td>
<td>1.685</td>
<td>0.719</td>
<td>0.019</td>
<td>5.393</td>
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<tr>
<td>Efficient regulatory framework</td>
<td>-1.61</td>
<td>0.641</td>
<td>0.012</td>
<td>0.2</td>
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<tr>
<td>National judiciary system</td>
<td>-0.455</td>
<td>0.406</td>
<td>0.263</td>
<td>0.634</td>
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<tr>
<td>Constant</td>
<td>5.1</td>
<td>2.388</td>
<td>0.033</td>
<td>163.998</td>
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<tr>
<td>Market Factors</td>
<td>Market size</td>
<td>-1.048 0.861 0.224 0.351</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>---------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Growth and development of parent firms in host country</td>
<td>0.338 0.446 0.449 1.402</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase the product line</td>
<td>0.423 0.412 0.305 1.526</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Adequacy of market information</td>
<td>1.129 0.67 0.092 3.093</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.367 5.226 0.794 0.255</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Global Competition</td>
<td>Follow the other competitors</td>
<td>-0.391 0.341 0.251 0.676</td>
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<td></td>
<td></td>
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<tr>
<td>Follow firms in complementary sector</td>
<td>0.328 0.305 0.283 1.388</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Explore the other opportunities</td>
<td>0.063 0.313 0.841 1.065</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Constant</td>
<td>3.112 1.426 0.029 22.458</td>
<td></td>
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<tr>
<td>Finance</td>
<td>Adequacy of finance facility in India</td>
<td>0.227 0.447 0.611 1.255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current currency exchange rate</td>
<td>-0.693 0.616 0.26 0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>5.574 3.398 0.101 263.541</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Karnataka**

<table>
<thead>
<tr>
<th>State Infrastructure</th>
<th>Basic infrastructure, electricity, water and gas supply</th>
<th>-0.52 0.492 0.291 0.595</th>
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<tbody>
<tr>
<td>Transport linkage</td>
<td>-0.918 0.781 0.239 0.399</td>
<td></td>
</tr>
<tr>
<td>Information and communication technology and IT services</td>
<td>0.58 0.892 0.516 1.786</td>
<td></td>
</tr>
<tr>
<td>Over all infrastructure development in state</td>
<td>1.933 0.725 0.008 6.91</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.002 2.267 0.658 0.367</td>
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<table>
<thead>
<tr>
<th>Corruption</th>
<th>Crime and theft records</th>
<th>-0.032 0.527 0.951 0.968</th>
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</thead>
<tbody>
<tr>
<td>Political corruption at state level</td>
<td>0.332 0.644 0.605 1.394</td>
<td></td>
</tr>
<tr>
<td>State Judiciary system fair and impartial</td>
<td>-0.278 0.539 0.607 0.758</td>
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<tr>
<td>Security</td>
<td>0.654 0.497 0.189 1.922</td>
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</tr>
<tr>
<td>Constant</td>
<td>-1.074 3.068 0.726 0.342</td>
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<tr>
<td>Industrial agglomeration</td>
<td>Proximity to raw material suppliers</td>
<td>-0.562 0.488 0.249 0.57</td>
</tr>
<tr>
<td>Proximity benefit of same industry</td>
<td>-0.648 0.629 0.303 0.523</td>
<td></td>
</tr>
<tr>
<td>Proximity to Industrial park and export processing zone</td>
<td>0.26 0.734 0.723 1.297</td>
<td></td>
</tr>
<tr>
<td>Proximity to customers or employee</td>
<td>2.019 0.765 0.008 7.529</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.869 2.317 0.708 0.419</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of industrial laws</td>
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<tr>
<td>Investment</td>
<td></td>
<td></td>
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<tr>
<td>Financial incentives and rebates</td>
<td>-1.034 0.419 0.014 0.355</td>
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</tr>
<tr>
<td>Constant</td>
<td>0.932 0.537 0.083 2.539</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State judicial system</td>
<td></td>
<td></td>
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<tr>
<td>Institutional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax administration regulatory framework</td>
<td>-1.569 0.576 0.006 0.208</td>
<td></td>
</tr>
<tr>
<td>Overall state, Institutional system fair policies (ex. Combination of Municipal and local police)</td>
<td>1.679 0.797 0.035 5.359</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.902 3.165 0.548 6.698</td>
<td></td>
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<tr>
<td>Bangalore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking facility</td>
<td>0.503 0.536 0.348 1.654</td>
<td></td>
</tr>
<tr>
<td>Availability of telecommunication IT services</td>
<td>1.018 0.675 0.131 2.768</td>
<td></td>
</tr>
<tr>
<td>Adequate availability of utilities (water, electricity, gas, etc.)</td>
<td>-0.903 0.589 0.125 0.405</td>
<td></td>
</tr>
<tr>
<td>Accessibility via highways</td>
<td>-0.553 0.587 0.346 0.575</td>
<td></td>
</tr>
<tr>
<td>Proximity to city airport</td>
<td>-0.518 0.563 0.357 0.595</td>
<td></td>
</tr>
<tr>
<td>Availability of nearest transport</td>
<td>1.304 0.699 0.062 3.685</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.034 6.725 0.762 0.131</td>
<td></td>
</tr>
<tr>
<td>Regional Agglomeration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity to suppliers in city</td>
<td>-0.221 0.298 0.46 0.802</td>
<td></td>
</tr>
<tr>
<td>Proximity with informal sector</td>
<td>0.363 0.433 0.401 1.438</td>
<td></td>
</tr>
<tr>
<td>Clustering of other firms within the city</td>
<td>0.397 0.393 0.312 1.487</td>
<td></td>
</tr>
<tr>
<td>Proximity with organized developed industrial zone</td>
<td>-1.26 0.502 0.012 0.284</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>6.586 2.97 0.027 724.548</td>
<td></td>
</tr>
<tr>
<td>Cost Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of land, construction and renovation.</td>
<td>0.509 0.753 0.5 1.663</td>
<td></td>
</tr>
<tr>
<td>Rent cost</td>
<td>0.205 0.867 0.813 1.228</td>
<td></td>
</tr>
<tr>
<td>Availability of low-cost labour</td>
<td>0.132 0.436 0.762 1.141</td>
<td></td>
</tr>
<tr>
<td>Logistic cost within the city</td>
<td>-1.062 0.486 0.029 0.346</td>
<td></td>
</tr>
</tbody>
</table>
5.6 Discussion

In hypothesis explanation utilised the binary logistic regression to predicts the foreign wholly owned firm coded as 1 value of the dependent, using the Joint Ventures 0 as the reference value. That is, the lowest (i.e. Joint ventures) value is the reference category of the dependent variable. Explanation of the hypothesis, we considered the \( \beta \) coefficient sign of corresponding independent variables and the assumed hypothesis. Significance and the association of \( \beta \) with the hypothesis are empirically presented in each section. In hypothesis explanation, some of the determinants are combinedly explain such as infrastructure. Determinants are considered significantly less than 0.05 value. Therefore, a single determinant is significant if one or more independent variable within the determinant is significant to see table 5.5. Exp(b) column odds ratios are variable (not model) effect size measures in logistic regression, with values above 1.0 reflecting positive effects and those below 1.0 reflecting negative effects (Garson 2014, p 49).
5.6.1 Economic factors

**H1:** Economic growth has a positive influence on FDI, to select the country as an investment destination.

The β coefficient for the economic factor is positive. This exploratory variable is statically insignificant in model testing. Therefore, it suggested that FDI project location choice is not compelled by GDP, inflation, growth and purchasing power of the Indian economy. In insignificant results, inflation and GDP per capita of Indian economy positively influence the FDI location choice for India, every one-unit increment in GDP and inflation chance to increase as FDI location destination by foreign wholly-owned enterprises 8.4 and 1.6 times more likely. The other factor purchasing power, size of economy and growth rate are less likely influenced by FDI location choice.

The result of this study concerning the variable of economic factors is persistent with the other empirical study: With respect of economic growth, impact on FDI location choice does not support by binary logistic regression result as shown in table 5.5. Economic growth variables an have an insignificant but positive effect on FDI location choice in India. Durham and Benson (2004) found that FDI has a negative and insignificant effect on economic growth. Whereas the other study showed a positive but insignificant effect on economic growth (Alfaro 2013; Borensztein, J. De Gregorio, and Lee 1997; Carkovic and Levine 2002). Zoltan Gal and Andrea (2017) presented limited access to resources in the process of capital accumulation, and, semi-peripheral regions experiencing significant outflows of resources making them unable to pursue autonomous growth in transition economies. There is a unidirectional causal linkage between FDI and economic growth in Asian countries (Nasser 2010). Another study explained that import and export in
long-run relationship, FDI has an insignificant effect on growth (Arshad 2012). For the second long-run relationship, both import and export affect FDI but GDP is not significantly affecting FDI. It means for long-run relationship GDP and FDI has no effect on each other. Based on references we can conclude that our logistic regression result for countries’ Economic factors is valid.

5.6.2 Infrastructure

H2: Infrastructure has a positive influence on FDI, to select the country as an Investment destination.

H10: State’s infrastructure has a positive influence on FDI to select the states as an investment destination.

H 15: City’s infrastructure has a positive influence on FDI, to select the cities as an investment destination.

The β coefficient of variable infrastructure at the country, state and city level is insignificant and negative for India, Karnataka and Bangalore respectively. There is evidence from lack of infrastructure in India. According to insignificant results, transport facility at the national level is more likely increase the chances to select the FDI location by foreign wholly-owned firms 3.51 times, for Karnataka 6.19 and for Bangalore availability of nearest transport is 3.68. Banerji (2013) reported due to lack of infrastructure adequacy in India, FDI in retail has a negative impact. Developed infrastructure acknowledge the movement of products from the production house to market very easy. Devarajan, Swaroop, and Zou (1996) show that developing countries should have to dislocate the resources for economic growth which alternately lead to the ease of doing business and strong infrastructure. However, Sass, Gál, and Juhász (2018) reported the positive and significant
impact of FDI on vertical business services, horizontal telecommunications services and employment in business services. The business and services has been associated with the relocation of shared services centres created by FDI (Gal 2014). Whereas another research by Wekesa, Wawire, and Kosimbe (2016) quality of infrastructure lowers the doing business cost and promote the FDI in Kenya. Telecommunication infrastructure and transport infrastructure are important FDI determinant.

Energy, information technology telecommunication and transport are an indicator of infrastructure in India. India is lagging behind compared with the other Asian countries except Bangladesh, Nepal, Bhutan, Myanmar and Pakistan (Sahoo and Dash 2009). There are so many challenges which act as a barrier in India at city state and national level because of funding, shortage of power and land acquisition. Indian states have a disparity in infrastructure such as Karnataka, Gujrat, Maharashtra and Delhi have better infrastructure facility compare to Bihar, Orissa and Rajasthan etc. More interestingly infrastructure facility within the states also has dissimilar infrastructure development. In some areas in India within a state have developed infrastructure of transport and highway on the other side some areas don’t have paved road. We can see this effect in our result also. Within the determinants, some independent infrastructure variable has positive association while others have a negative association. Such as utilities like water and electricity have a positive association at the national level while at the subnational and regional level have a negative association. Maharashtra spread over the 307,713 km² out which most of the development is just near to the Mumbai and Pune city which covered only 935 km² area and fully occupied with population, so no space for new business establishment. Due to this disparity, infrastructure is not the motivational factor for foreign investors. Therefore, FDI location is not driven by the infrastructure determinant.
The result of this study concerning the variable of Infrastructure is persistent with the other empirical study: Liu (2009) found the infrastructure in China has an insignificant and negative impact on FDI location selection. Another research by (Asiedu 2002) also found the insignificant effect of infrastructure on FDI.

### 5.6.3 Agglomeration

**H12:** Industrial agglomeration in the state, has a positive influence on FDI, to select the states as an investment destination.

**H16:** Industrial agglomeration in the city, has a positive influence on FDI, to select the cities as an investment destination.

We analysed the industrial agglomeration at state and city level. Variable of agglomeration has mixed results and it is supported in Bangalore (at city level) with the positive effect but in Karnataka (state level) it is insignificant and negative. Overall the industrial agglomeration in Karnataka is not the significant factor. Variables like proximity benefit of the same industry, proximity to raw material suppliers and proximity to industrial park and export processing are insignificant variables. Although proximity to customers or employee variable is significant in Karnataka with significance value 0. 008. So, improvement in firms’ proximity with customer or employee chances to select by foreign wholly-owned firms in Karnataka increase by 7.529 times more likely. Another side the overall agglomeration factors in Bangalore is significant with value 0. 027. However, the single variable like Proximity to suppliers in the city, proximity with informal sector and clustering of other firms within the city are insignificant. Another variable like proximity with the organized developed industrial zone is significant in the Bangalore region. From table 5.5 odds ratio we can conclude that every one-unit increase of
regional agglomeration in Bangalore cause 724.548 more likely to invest foreign wholly-owned firms in Bangalore. The Indian industries is more agglomerate within the city comparing to spread across the whole state such as other state Uttar Pradesh most of the cities is agglomerate with the specific sectors such Aligarh is famous for lock industries, Meerut for sports products and Barely for furniture etc.

The result of this study concerning the variable of agglomeration is persistent with the other empirical study followed by: there is a positive impact on industrial agglomeration and FDI location choice (Guimarães, Figueiredo, and Woodward 2000; Head, Ries, and Swenson 1995). Another research Lall, Shalizi, and Deichmann (2004) reported that the agglomeration is an important to factor for Indian industries productivity. So, we can conclude that agglomeration tends to find insignificant effects if the location choices are large areas like Karnataka but statistically significant and highly meaningful effects if the location choices are small areas like Bangalore. This argument is supported by the previous study (Hilber and Voicu 2007).

5.6.4 Foreign investment promotion policy in India and corruption in Karnataka

H3: Political factor has a negative influence on FDI to select country as an investment destination.

H11: Corruption in states, has a negative influence on FDI, to select the states as an investment destination.

Politics at the national level and corruption state level; both have an insignificant effect on FDI location choice. Politics in India has an insignificant and positive effect and corruption inside the Karnataka has an insignificant and
negative impact. Both exploratory variables are statically insignificant. Therefore, FDI location choice is not compelled by government effort, to promote India as an investment destination. So, the political trust between India and parent firms is weaker. The overall corruption factors in Karnataka has negatively insignificant with variables like crime and theft records, political corruption at the state level, state judiciary system and security in Karnataka. From table 5.5, the odds ratio $\text{Exp}(\beta)$ explained that increase in political stability causes the 1.35 times more likely to select India as FDI location destination by foreign wholly owned enterprises and other variable favourable investment policy, increase the chances 1.23 times more likely.

Indian have the central and state government so some states are more corrupt compared to the other according to Amnesty international Index viz. Bihar has more corruption compare to Kerala. Which we can see in this thesis results at the state level in Karnataka corruption has a negative association with FDI location choice. However, the political determinant variable at the national levels such as investment friendly policy and political trust has a positive association. According to the ease of doing business index from 2018 to 2019 India improve ranking 23 places this impact we can observe in thesis results.

The result of this study concerning the variable of politics and corruption is persistent with the other empirical study followed by: The following study reported that political risk and corruption have insignificant or mix effect on FDI (Root and Ahmed 1979; Schneider and Frey 1985; Singh and Jun 1995; Wheeler and Mody 1992). Another study Quazi, Vemuri, and Mostafa Soliman (2014) found the positive impact of corruption on FDI. However, Jordaan (2004) reported if, political rights in developing and developed countries worsen FDI in host countries improve. While in the case of Africa strong political rights decrease the FDI in host countries.
5.6.5 Proximity between countries

**H4:** Proximity between countries has a positive influence on FDI, to select the country as an investment destination.

The proximity between countries has a negative and insignificant impact on FDI location choice. However, the insignificant results suggested that the variable, location benefits with neighbour country and geographic proximity between India and parent firm’s country has positive influence and adequacy to access to the neighbour country market has a negative impact. The regression result from odds ratio shows that if we increase the variable geographic proximity between India and the parent firm’s country, it increases the chances 11.266 times more likely to select India as FDI investment destination. While the increments in a variable, location benefits with neighbour country cause, 1.62 times more likely to select India as FDI destination.

The result of this study concerning the variable of proximity between countries is persistent with the other empirical study followed by cost of establishing business are more important for smaller firms so, smaller firms preferred to invest in more proximate neighbouring countries with strong cultural and historical ties so, they can access the skilled labour easily, whereas larger firms have more resources to cover higher transaction costs and they may not be (as much) discouraged to locate their investment in more remote locations to access larger markets (Jordaan 2004; Rasciute and Downward 2017).

5.6.6 Social factor

**H5:** Social factors have a positive influence on FDI, to select the country as an investment destination.
Social factor has an insignificant and positive impact on foreign wholly-owned firm’s location choice. Alternatively, we can say that the social factor in India positively influence the FDI inflow insignificantly. From the statically insignificant logistic regression increment inadequacy of ethical employees and ethical business environment increase the chances to select India as investment destination 1.38 and 1.29 times more likely. While employee’s loyalty to the company adversely affects the FDI inflow in India, 0.79 times less likely.

The result of this study concerning the variable of social factor is persistent with the other empirical study followed by: the following study reported that host country culture avoid the uncertainty and trust which alternately positively influence the FDI (Bhardwaj, Dietz, and Beamish 2007; Dunning 1998; Mac-Dermott and Mornah 2015; Sathe and Handley-Schachler 2006). However, Buckley, Forsans, and Munjal (2012) shows country should be involved as institutional assets in the eclectic paradigm that improves linkages between home and host country.

5.6.7 National and sub-national intuitional administration

H6: National institutions’ administration has a positive influence on FDI to select country as an investment destination.

H14: State’s institutional administration has a positive influence on FDI, to select the states as an investment destination.

Institutional administration at the national level has a significant and positive effect however at the subnational level it has an insignificant but positive effect. In local taxes and land acquisition permission, states play a major role, but the majority of policy related to foreign investment is made by the national
government. Both factors are important for foreign investment. Increase the predictability of government policies and transparency particularly in government procurement in overall India including Karnataka positively influence the FDI.

Every one-unit increment of positive institutional administration, increase the chances to select India as by the foreign wholly-owned firms 163.998 times more likely. Variables bureaucratic procedure red tape and efficient regulatory framework in India is significant with value 0.019 and 0.012 respectively. The other side variables for a state like tax administration regulatory framework and overall state institutional system fair policies (ex. combination of municipal and local police) are significant with value 0.006 and 0.035 respectively. In terms of odds ratio bureaucratic procedure and red tape increase the chances to select India as an investment destination. Single unit increase of bureaucratic procedure and red tape effect 5.393 times more likely to increase India as an investment destination. In addition, it shows that public-private partnership increases the trust between foreign investors and government and builds a positive sentiment for international businesses. For Karnataka overall improvement in state institutional system increase the chances of foreign wholly-owned firms to select Karnataka as an investment destination. 6.698 times more likely.

The result of this study with concerning the variable of national and sub-national intuitional administration is persistent with the other empirical study followed by Ali, Fiess, and MacDonald (2010) reported that the government institutions is a significant and powerful predictor of overall FDI. This research supports our result for the national level. Since the company invest finally in Karnataka to establish the operation, but in our research it is insignificant and positive effect in our study, to support this argument, other empirically study
Peres, Ameer, and Xu (2018) shows that developing countries’ institutional quality has insignificant impact on host countries investment because of the weak structure of institutions. Overall, Walsh and Yu (2010) explained in his research that, institutional factories an important determinant for foreign investment.

5.6.8 Market factors

**H7:** Market factors have a positive influence on FDI, to select the country as an investment destination.

Market factors in India have an insignificant effect on foreign wholly-owned firms to select India as an investment destination. Variables like growth and development of parent firms in the host country, the increment of the product line and adequacy of market information have a positive influence. From the insignificant results corresponding to market factors, we notice that odds ratio parameter, increments in future growth and development of parent firms in the host country, product line and adequacy of market information increase chances to select India as investment destination 1.402,1.526 and 3.093 times respectively more likely. Finally, we can conclude that, since India is culturally and geographically diversified as a result product choice to the consumer is also diversified. In this large spread out the market quality of information is very influential for an international organization to make a successful strategy. Statically, insignificant market factor result suggests the foreign wholly-owned firm’s location choice is not driven by market information, product line and market size.

The result of this study concerning the variable of market factors with the other empirical study followed by market factors has an insignificant effect on market growth, domestic products and FDI location choice in the host country.
(Akhtar 2014; Arshad 2012; Liu 2009). For the support of our finding another study Li and Park (2006) shows that the domestic market has an insignificant effect on FDI location choice. Zheng (2009) showed that market size is not a significant factor in contributed FDI location choice in India.

5.6.9 Global competition effect in India and regional competitiveness in Bangalore.

**H8:** International competition has a positive influence on FDI, to select the country as an investment destination.

**H18:** Competitiveness in the city has a positive influence on FDI, to select the cities as an investment destination.

Global competition has a significant and positive effect in India and competitiveness in Bangalore has an insignificant and positive effect for foreign wholly owned enterprises FDI location choice. International investment in India is driven by the global competition however competitiveness in Bangalore is not the main factor which compelled the international firms to invest in Bangalore. The increment in variables, follow firms in the complementary sector and explore the other opportunities, increases the chances to select India as final investment destination 1.388 and 1.065 times more likely.

The result of this study concerning the variable global competition and regional competitiveness with the other empirical study followed by: Anand and Kogut (1997), James R. Markusen (1997), J. Jones and Wren (2006) and Miyake and Sass (2000) shows that international competition lead firms to invest abroad in order to compete effectively with rivals, mostly in terms of keeping place with firms’ technological capabilities. The globalization has a significant positive
association between home and host country economy globalization while a significant negative association between home and host county social globalization (Bojnec and Ferto 2017).

5.6.10 Finance

**H9:** International finance has a positive influence on FDI to select the country as an investment destination.

**H19:** Finance development in the city has a positive influence on FDI, to select the cities as an investment destination.

International finance in India (adequacy of finance facility in India and current currency exchange rate) positive but the insignificant effect and regional finance facility in Bangalore (availability of credit facility from regional bank and availability of Insurance) is a statically significant and positive effect. Therefore, FDI in Bangalore is driven by the regional financial facility viz. credit availability from regional bank and insurance facility. Whereas the national level finance facility, viz. current currency exchange rate and overall finance facility didn’t show any significant effect. Every unit increase of combine finance facility (credit facility from regional bank and availability of insurance) increase the chances to select the location, by foreign wholly owned firm 229.65 more likely. Obumneke, Oluseyi, and Ojarikre (2014) analyze the cashless policy and its effectiveness on attracting FDI in Nigeria using quarterly data of 2006 to 2012. Result presents the FDI has long run relationship among the variables mobile money, internet banking and automated teller machine (ATM). Sheeba, Patil, and Srinivas (2016) analyse the FDI in Indian banking sector by utilizing the regression analysis mainly result shows that productivity and profitability of South Indian Bank is directly related to the inflow of FDI into the bank. Compare to the strong financial
policy at national level and currency exchange rates, regional banking facility is an attractive factor for FDI in India. Foreign investor likely to invest in location where the banking facility is near to the offices.

The result of this study concerning the variable International and regional finance with the other empirical study followed by Froot and Stein (1991) showed the exchange rate have an insignificant impact on inward FDI. Another research by Bruce and Feenstra (1996) showed overall finance has an insignificant effect on FDI and Zheng (2009) depict strong and stable currencies cause expensive FDI inflow which adverse the foreign investor interest. However, finance facility at the city level is supported by Desbordes and Wei (2017) reported that source and destination countries finance development has a significant effect on FDI.

5.6.11 Investment incentives in Karnataka

**H 13:** State’s investment incentives have a positive influence on FDI, to select the states as an investment destination.

Investment incentives in Karnataka have positive and significant effect on FDI location choice and have significant value of 0.048. Therefore, FDI investment in Karnataka is driven by state government incentives. Increase in investment incentive by Karnataka government, chances to select wholly-owned firms Karnataka as investment destination improves by 72.85 times more likely. Whereas the variables like ease of industrial laws and environment permission have a negative effect this is due to the delay of environment permission by the Karnataka government. So, the regional policymaker should have to ease the environmental policy and industrial laws. Environment permission and industrial law cause the delay of foreign projects and increase the cost. Variable environment permission affects the investors 0.355 times
less likely to select Karnataka as an investment destination. Appreciation in ease of industrial laws, investors are 0.947 less likely to select Karnataka as an investment destination. Direct financial incentives and rebates are significant. Improvement in financial incentives and rebates increase the chances to select Karnataka as an investment destination by foreign wholly-owned firms 2.539 more likely.

The result of this study concerning the variable Investment incentives in Karnataka with the other empirical study followed by: Brewer (1992) and Pradhan (2000) shows incentives like direct subsidy, relaxation of industrial relations laws, training grants and wage subsidies in addition to the land and building purchase, employment grants and training allowances and environment permission attract the FDI. If the Karnataka government provides supported asset-based and region-based benefits are assumed to be successful for attracting FDI. Moreover, the host region contributes good governance along with appropriate mobile asset and investments increase the foreign investment in India, which alternately increase the probability to select Karnataka as an investment destination.

5.6.12 Cost factor in Bangalore

**H17:** High cost factors in the city has a negative influence on FDI, to select the cities as an investment destination.

The cost factor in Bangalore has an insignificant but positive effect on foreign wholly-owned firm’s location selection. Considering the insignificant variables cost of land, construction and renovation, rent cost and availability of low-cost labour in Bangalore have positive influence. While the logistic cost within the city has a negative and significant influence on foreign wholly-owned firm’s location choice in Bangalore city. If we increase the logistic cost
within the city chances to select Bangalore as FDI investment destination is less likely 0.346 times. The government should have the focus to provide the better highways and roads to promote Bangalore as a preferred location for FDI.

The result of this study concerning the variable, cost factors in Bangalore with the other empirical study followed by Loree and Guisinger (1995) and Wheeler and Mody (1992) reported positive relation between FDI inflow and labour cost. The research by Holl and Mariotti (2018) reported better road and highway increase the productivity for firms. According to Li and Park (2006), developed road infrastructure shows a positive significant effect on FDI.
6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The main objective of the thesis was to find the FDI location determinants at the country, state and city level in the context of Indian at the national, sub-national and regional level. Analysis shows that the country determinant viz. institutional administration and global competition has a significant impact in India for FDI location choice, another side at the state level, states government investment incentives has significant impact on Karnataka to select an investment destination and for Bangalore regional agglomeration and regional finance facility has significant impact at city level to select Bangalore as final investment destination for foreign investment.

The determinant national institutional administration has a significant effect on FDI location choice with the individual variables viz. bureaucratic procedure and red tape, efficient regulatory framework and national judiciary system. National institutional administration has a huge impact on FDI location choice. Every unit increment on determinant national institutional administration increases the FDI location choice by foreign wholly owned firm by 163.998 times more likely. In India, FDI project need clearance from both state and central government which involves many bureaucratic procedures and it is a complex matter between central and state to finalize the policy and synchronization the bureaucracy procedure, FDI project passes through the multiple steps from both bureaucracies. There are few steps which cause the delay of FDI projects viz. building plan approval, power connection, land use change and land acquisition. Therefore, coordination on these issues between the centre and the states cause unnecessary delays at the centre and state level. Global competition market is imperfectly competitive and countries, with
identical taste and technology, to achieve the economies of scale traded each other (Krugman 1979) and India is benefiting from this global competition. In research, we found that every one-unit increment of global competition foreign wholly-owned firms prefers to invest in India 22.458.

State investment incentive is a significant factor for the FDI location choice. However, India has a federal system and states have their own responsibilities and control over many subjects that affect investment, direct rebate, environment permission, land acquisition and ease of industrial law can help the state government to hike the FDI. So, improvement in incentives directly causes 72.85 times more likely to increase the chances to select states for FDI projects.

Agglomeration of industries either it is industry specific or sector based and foreign or domestic agglomeration both impact the FDI location choice (Hilber and Voicu 2007). We found in our research improve in agglomeration boost the FDI location choice 724.548 more likely. In India agglomeration is mainly product specific and industry-specific like “Aligarh” is famous for lock production and “Bareilly” is famous for bamboo furniture production. To support these agglomerated industries financial facility is important as like as “blood for the human body”. Credit from regional bank and insurance is the main component for financial development at the regional level which impacts the foreign wholly-owned firm’s location choice decision.

Different factors work at national, sub-national and regional level to attract the FDI location choice. According to Kumbar and Sedam (2017a) depicted empirically there is no single factor which could lead to the attraction of FDI to a particular state. New foreign investors inspired by the previous foreign investors to select the FDI location. So, FDI location choice is following the
process of previous investors at the state level. Following Kumbar and Sedam we found that foreign investors location choice decision is more concentric in nature at city level compare to states and nationwide. Therefore, the agglomeration effect is significant at the city level however, it is not significant at state and country level. We found in the thesis that the institution hypothesis at the national level is significant. Nielsen, Asmussen and Weatherall (2017) presented in his study that 75% empirical literature on FDI location choice is considered the institutional system as a significant factor. However, an efficient regulatory framework and national judiciary system need to be improvised in India.

6.2 Recommendation

The closure of this thesis contributes to the base of consecutive policy implications for the central government of India in order to attract more FDI by suggesting that location determinant is significant at national, sub-national and city level. This thesis presents the recommendation for the central government, state government and managerial implication. Recommendation works better if the policy implementation at the central and state government work together. This thesis found that most of the significant determinant at city level so, the contribution of the local authority is a necessary task for better policy implementation. In our empirical analysis, we found that FDI is concentrated mostly in three big cities Delhi, Mumbai and Bangalore. But the question is arising why there is so much concentration near to these cities. According to this thesis results, foreign investors want to select the FDI location near to the customers and employees and these three cities are accounted for 36 % of the Indian population. Since from the Independence, there is no global city developed in India. Therefore, we recommended to develop a new global city or converted the other old cities into the global cities.
According Nielsen, Asmussen, and Weatherall (2017) Global cities are different from the megacities, global cities should have the high levels of advanced producer services, cosmopolitan environment and high degrees of interconnectedness to local and global markets.

6.2.1 Recommendation for central government

For the central government, the key factors for the FDI investment are related to economic, political, global competition, institutional administration, market and social factors. Therefore, the empirical result from the research has some practical implication for the central government. Over the last few years from 1992 central government time to time liberalized the industrial policy. Although, there is some decision taken by the central government in a few years like GST (goods and services tax) and demonetization which adversely affects the foreign investor's interest. In this research, we found that that Indian government should have to avoid the bureaucracy and red tapism and the accidental decision viz. demonetization that comes out on 8 November 2016. We found in research that India is suffering from the inefficient regulatory framework. So central government should have carefully made the policy framework which strongly promote the economic activity in India. Since, India is benefitting from the global competition. It has a positive impact on Indian FDI investment. Foreign investors trying to explore the new market for the growth of the firms. India can be the best option for the international investment, to cash this opportunity the Indian government should have to understand which determinant is most effective for India too, popularize as attractive location choice for FDI. Political factors, institutional administration and finance is the most valuable determinant which drives the foreign investors to select India as an investment destination.
Within the last three years, India moves from 130 positions to 77th position in ease of doing business (World Bank 2018). Although the central government is dedicated to making the investors friendly policy there are other factors in which India needs serious and rapid improvement. So, the research output has practical implication for central and state government to make India as an attractive FDI location destination. Variables like market information, ethical business environment, labour laws and the political trust for international investors are failed to impress the foreign investors in India. So, the government should have to work on this matter, other countries in Asia had focused on this variable like Singapore, China, South Korea, Japan. Since India it is not just a country, within itself it a continent therefore, there is cultural and geographical diversity, this diversity reflects the foreign investors to diversify the product line to capture the market.

6.2.2 Recommendation for the state government

From 27 year of liberalization, Karnataka emerges as the third largest state to attract FDI. This research gave the focused considerable determinant for FDI location choice. Therefore, the research revealed the variables contributing into FDI location choice in Karnataka, which was not previously explored. So, research shows the practical factors which are useful for state government. This research gives both positive and negative FDI location determinant which will help the local government to make the policy towards to attract more FDI and make Karnataka as more attractive FDI location destination.

This research recommended to the state government, should have improvised the overall infrastructure in Karnataka. Increasing population migration and shortage of basic facility resulted in the lack of basic infrastructure viz. electricity, transport linkage and telecommunication. The infrastructure and
corruption determinant negatively contributed to FDI location choice in Karnataka region these, determinants are not driven the FDI investment in Karnataka. So, the government should have to improvise the policy, that these variables will contribute possible in future to attract FDI. State government should have to consider the other positively significant location variables also viz. State investment incentives in Karnataka and regional agglomeration in Bangalore, in policy making, to attract more FDI in Karnataka.

6.2.3 Managerial implication

Location decision for the firms at country, state and city level is crucial and it can impact the firms market entry strategy and successful operation. Therefore, it is strategically important to firms how to enter in country and where to invest in a country. This research provides managerial implication for FDI location selection process. Therefore, the research has the practical implication of foreign international MNCs and the pan Indian MNCs who seek to expand the business nationwide but in the dilemma of location selection.

Based on the research hypothesis this research suggests three major location selection made at national, subnational and regional level (India, Karnataka, Bangalore). The enhanced understanding of the FDI location determinants provided by this research has important implications for the FDI location choice in India for managers of MNCs, firm’s decision makers, CEO and CTO. The FDI location determinant from this research explores important factors, in the quest to choose optimal FDI location for business operation by identifying the determinant which successfully contributing to location selection at country, state and city. Decision makers can develop strategies to enter in host countries and select this research determinants for successful location for business operation.
Different determinant works for the national, subnational and regional level, this research provides valuable FDI location determinant. Institutional administration and global competition in the country, investment incentives in states and agglomeration and regional finance in Bangalore is a significant determinant in India. The suggested variable could differ from one company to another company and one sector to another sector.
7. NEW SCIENTIFIC RESULTS

7.1 Uniqueness of research

For each country the main driving force for FDI location choice can be distinct due to dissimilarity in economic structure, government, geographical, political and market structures etc. and including other variables. Thesis literature explained that the determinant which is significant in China and cause the main driving force for FDI location choice and it is not necessary that same variables are significant in other South Asian countries also like India, Pakistan, Bangladesh etc. this research is conducted in Indian context and previously there are no researches available on widely recommended big researches databases (Science Direct, EBSCO, Sage, Google scholar, Willey, Oxford, Cambridge, Jstor, DOAJ, GetCITED ). So, all result we get after the binary logistic regression is unique. In addition, the other uniqueness in this research is, this thesis separates the FDI location determinant on three levels national, subnational and regional level. While the available FDI location choice literature jumbled the location determinant between national, subnational and city level. So, there was the need to differentiate the FDI location determinant on all three levels. Another uniqueness in this thesis is, all these three levels are collectively integrated and present in a single platform.

7.2 Scientific Outcome

- Institutional administration and global competition factors are the two main driving force for FDI location choice in India.
- State investment incentives are the main determinant at subnational, which motivate the foreign investors to select any, states in India for new FDI project and operation units.
Adequacy of finance facility viz. credit from the regional bank and insurance facility for a particular location, is the significant factor in Bangalore. Further, this result is also applicable to other cities in Karnataka because all of the cities in Karnataka comes under the same umbrella of economic policy.

Collectively agglomeration (suppliers, informal sectors, clustering and presence of developed business area) is another significant determinant which driven the foreign projects in Bangalore and motivates the investors to select Bangalore as FDI location.

Further, we can find new specific results which are listed below:

### 7.2.1 India

#### 7.2.2.1 National Institutional administration

- Every unit increases of bureaucratic procedure chances to select foreign wholly owned firms, India as investment destination increase 5.393 times more likely.
- When national judiciary system improves, foreign wholly owned firms are 0.634 times less likely to invest in India.
- Every unit increases of efficient regulatory framework chances to select foreign wholly-owned firms, India as an investment destination decrease 0.2 times less likely.
- Overall national institution administration has a positive impact. A national institution in administration improves chances to select foreign wholly-owned firms India as an investment destination by 163.998 times more likely.
7.2.2.2 Global Competition

- Foreign wholly-owned firms in India negatively influence by other competitors in India. The variable “follow the other competitors” has a negative impact to select India as an investment destination and it influence 0.676 times less likely.
- The complementary sector has a positive impact on FDI location choice at the national level. Increment in the variable “follow a firm in a complementary sector”, foreign wholly-owned firms 1.388 times more likely to select India as an investment destination.
- Since India is a growing market, investor tries to explore the new opportunity for continuous growth, we can observe the evidence through this thesis. Foreign wholly owned firms 1.065 more likely to invest in India if the variable “explore the other opportunities in India” increase.
- Overall global competition positively impacts the Indian FDI location choice decision. Progress in global competition, chances to select foreign wholly-owned firms India as investment destination increase by 22.458 times more likely.

7.2.2 Karnataka

7.2.2.1 State Investment Incentives

- Ease of industrial laws influence the foreign wholly-owned firms, 0.947 times less likely to choose Karnataka as an investment destination.
- Increment in Environment permission, influence 0.355 times less likely to select Karnataka as an investment destination.
• State investment incentives have a positive impact on FDI location choice at the subnational level. Increment in state investment incentives, chances to select Karnataka as investment destination increase by 72.85 times more likely.

7.2.3 Bangalore

7.2.3.1 Regional Agglomeration

• Proximity to the supplier in Bangalore influence the chances to select the foreign wholly-owned firms 0.802 times less likely.
• Proximity in informal sector positively influences the foreign wholly-owned firm’s location selection decision in Bangalore city. Firms want to locate the facility near to the supportive industries. Every one unit increment in variable “Proximity with informal sector” chances to select Bangalore as an investment destination 1.438 times more likely.
• Foreign investors are positively influenced by the clustering of other firms within the city. Every unit increment of clustering in Bangalore, chances to select Bangalore city as FDI location destination increase by 1.487 times more likely.
• Bangalore has more than 50 small and big IT parks and industrial zones they positively affect the foreign investment. Firms try to relocate within this developed zone we can observe the evidence from this thesis. Every unit increment in variable “proximity with organized developed industrial zone” increase the chances to choose Bangalore as investment destination 0.284 times more likely by foreign wholly-owned firms.
• Overall regional agglomeration has a positive influence on FDI location choice. We can observe the evidence through this thesis. Every
unit increment in regional agglomeration increase the chances to select Bangalore as an investment destination 724.58 times more likely.

7.2.3.2 Regional Finance Facility

- Improvement in the availability of credit from a regional bank, chances to select the local area for the company’s operation by 1.840 times more likely.
- Local insurance risk in the city, negatively influence the foreign wholly-owned firms by 1.393 times less likely.
- Broadly we can say that the regional finance facility positively affects the FDI location choice decision. Therefore, adequacy of regional finance has a good impact on FDI location choice and we can conclude from our result every unit increment in regional finance, chances to select area as an investment destination by foreign investor 229.658 times more likely.
8. SUMMARY

The thesis examines the central issue, which determinant cause the FDI location choice for foreign wholly-owned firms to invest in India. The study started with (Chapter-1) introduction which describes the overview of research. In (Chapter-2) we give an overview of the other research related to this thesis based on this thesis describe the research problem and research sub-questions. Further (Chapter-1) explain the justification of research with the central idea of why this research is necessary to conduct. Next, thesis describe the practical justification of this research and how the existing literature of location jumbled the country selection determinant and the regional location determinant and raise the question for policy maker, what are the basic element need to establishing successful business at the national, subnational and regional level and how the central government, state government and the foreign investors can use this research results for betterment of FDI and improvement of location facility. After that thesis describes the methodological justification, boundary line of the research, outline of thesis and definition related to this research which we further used in this thesis.

Further thesis moves toward literature review. In (Chapter-2) thesis described the FDI trend in India from 1943 to 2000 onwards in five sections. Next, research explained India’s six industrial policy from 1948 to 1991 and explained how India changes its industrial policy time to time and what was the impact of this policy on foreign investment’s. Another research topic covered in this (Chapter-2) is FDI related authorities in India and what are the possible hurdles can foreign investors face. The research explained the FDI related theories and divided into two parts classical trade theories (theory of mercantilism, absolute advantage theory, comparative advantage theory and factor proportion theory) and modern theories (country similarity theory,
product life cycle theory, new trade theory and comparative advantage theory). At the end of the literature review thesis explain the relationship between trade theory and location theory. In next chapter Objective of the dissertation, research proposed the hypothesis for our experiment area India (nine hypotheses related to the country), Karnataka (five hypotheses for subnational level) and Bangalore city (four hypotheses at regional level) in addition research give variable justification with reference of other researches. Further thesis moves to the materials and methods this chapter explains the three frameworks for FDI location selection at country, state and city level further, the thesis explains the experiment area location profile, research process flow, tools and material and length of the survey. Once the material method was completed thesis progress for exploring the results and their evaluation in this chapter, we show the thesis experiment results. Started with sample biasing since data was on Likert scale so, thesis used the Mann-Whitney test to remove the sample biasing, therefore, responses divided into two waves early responses and late responses. Next step was the reliability tests for robustness, Cronbach’s alpha is a prominent method to measure reliability and checked the all of determinant alpha value was greater than 0.6. Afterwards from reliability test main experiment is started with logistic regression. In this process first, perform the Goodness of Fit with Hosmer and Lemeshow Test. The goodness of fit was considered if significance value greater than 0.5. After successful completion of result and their evaluation. Further progress to the conclusions and recommendations this part describing the significance of the hypothesis with the support of references and continue with the recommendation for central and state government in India and Managerial implication. At the end of thesis describe the uniqueness of the research and new scientific result. The result explains the FDI location choice result for India, Karnataka and Bangalore. Further (Chapter-5) discusses the significant hypothesis step by step viz. economic factor, infrastructure, agglomeration, international politics.
and corruption, the proximity between countries, social factor, administration, market factor, global competitiveness, finance, investment incentive and cost factor. Conclusion part describes the output of research and gives the recommendation to the central government, state government and managerial implications. Furthermore, the (Chapter-6) discusses the conclusion and recommendation. Starting the presented the significant determinant from thesis results and concluded why and how much this determinant effect the FDI location choice. In addition, we specify the variables which are significant in our result. Recommendation part first we recommended that both governments have to come together for the betterment of the location development. We describe the importance of global cities in FDI location choice. Most of the FDI is invested in India from 2000 to 2018 concentrated around the three cities of India. We divided our recommendation at three levels first at national level second at the state level and third managerial implications of our results. We described in what matters central and states government is lagging behind to attract the FDI. At the end of the thesis in (Chapter-7) thesis describe the uniqueness, importance and implication of research for policymakers, managerial and literature point of view. Continuing further research precisely explain the significant scientific outcome at national, sub-national and regional level.
9. ACKNOWLEDGEMENT

I want to acknowledge people who help me during the research. First, I would like to thank Dr Zoltán Gál who actively directed me during the research and provide me with necessary resources during the research. I’m also thanks to all faculty member from the economic department who gave me valuable knowledge during my study. I would like to show my appreciation to all participants who gave time in a busy schedule.
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11. ARTICLE PUBLICATION

11.1 Publication on thesis topic:


11.2 Off topic publication

12. CURRICULUM VITAE

Devesh Singh: 12 January 1986

Obtained his graduation degree in Electronic and Communication Engineering 2006-2010 From Dehradun Institute of Technology, Dehradun. He obtained his master degree in Software enterprises and management, from Centre for Development Advance Computing, Noida in 2012-2014, Professionally he works as research analyst in ANS Square partner from 2014 to 2015
13. ATTACHEMENTS

13.1 Appendix-1

Mann-Whitney U Test

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<th>Country Variables</th>
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13.2 Questioner

Thanking you for participation in this survey foreign direct investment (FDI) location determinant in India: national, Sub-national and regional level approach. This study is conducting as a part of PhD thesis at Kaposvár University, Hungary. The questionnaire you will fill in this study aim to the decision of your foreign parent firms regarding the selection of location choice. The questionnaire is divided into four-part, first general information with two questions, second the decision of location choice in India, the third decision of location choice in Karnataka and fourth decision of location choice in Bangalore. The questionnaire takes "17 minutes" to fill all entries. All replies are classified and used purely for the PhD study. No personal detail will be asked in this questionnaire.

If you wish to receive the final report of this research, please provide the detail in the comment section. If you know someone who is suitable for this survey, please refer. Your time and effort are appreciable.

1. Location of foreign parent firms/investor country/state name?
----------------

2) Parent firm’s entry mode?
1) Foreign wholly owned  2) Joint Venture

Use the rating scale marked the number beside each statement that matches your opinion on each factor.

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<th>Inappropriate</th>
<th>Slightly Inappropriate</th>
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Source: compiled by the author
### India

**Economy**

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**Political factors**

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<td></td>
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**Karnataka**

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<td>Over all infrastructure development in state</td>
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<td>Political corruption at state level</td>
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**Bangalore**

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**Regional Agglomeration**

| Proximity to suppliers in city | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Proximity with informal sector | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Clustering of other firms with in the city | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Proximity with organized developed industrial zone | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Cost Factors**

| Cost of land, construction and renovation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Rent cost | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Availability of low-cost labour | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Logistic cost within the city | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Regional Competitiveness**

| Regional economic environment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Innovation and technology spill over in city, ex - Silicon Valley

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Labour market efficiency

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Regional Finance Facility

Availability of credit from regional bank

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Availability of Insurance

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13.3 Letter of Recommendation
To
The participant
Whom it may concern

Re. Recommendation Letter

I am writing in support of my PHD student’s doctoral research on the topic of the “Foreign Direct Investment Location determinant in India: National, Subnational and Regional level Approach”.

I am writing to you on behalf of Devesh Singh who is in the process of collecting a data in order to conduct the research FDI location choice. This data is indispensable and very useful for this research, which has a strong implication on selection of location choice. Also, if it is necessary, I would strongly promote him to interview by phone calls in appropriate time.

Please find this letter as evidence of my support for this student's application. As the student's supervisor, I accept responsibility for the data needs of my student.

I appreciate all your time and efforts.

Yours Sincerely

12/06/2018
Prof. Dr. Gál Zoltán

Dr. habil. Zoltán GÁL PhD, Full-professor, senior research fellow,
Kaposvár University, Head of Dept. of Regional Economics & Statistics,
HAS Centre for Economic and Regional Studies, Institute for Regional Studies HUNGARY

13.4 Participant Information letter
PARTICIPANT INFORMATION STATEMENT

Research Project

“Foreign Direct Investment Location determinant in India: National, Subnational and Regional level Approach”

1). What is this study about?

This study investigates the key determinants of foreign investment location choice and it’s implication on Karnataka state. The main objective of the study is to find the main determinant considered by the foreign investors in location choice. The output magnitude will enable the identification of key drivers of attractiveness.

2) Who is carrying out this study?

This study is the part of thesis conducted by PhD candidate Devesh Singh, at the university of Kaposvár, Hungary, Faculty of economic science, regional economic department under the supervision of professor GáI Zoltán, Head of Department, Regional Economics & Statistics Faculty of Economics.

3) Who can participate in this study?

Any firm in Karnataka state which funded by the foreign investor.

4) How much time this questioner will take to fill completely.

Questioner will take 17 minutes to fill completely.

5) Can I withdraw from this study?

This study is completely voluntary you are not under any obligation.

6) Will this study ask any confidential information about the firm?

No, this study will not ask the any confidential information about the firm. This study will ask the general information and participant views. If participant feel any question number asking the confidential information. Participant can escape that question.
7) Will this study disclose participant and firm information publicly?

No, all detail will be confidential. However, the result of this study submitted for publication, but individual participant and firm name will not be identifiable in such report.

8) Will I receive the final report?

Yes, and it is free of cost, to receive the final report participant can write the email id in comment section of questioner.

9) Will this study benefit me?

This depend of how the individual and participant can utilize the result. Firm can use the result to improve the location choice facility to impress the foreign investors.

10) Can I tell other people about this study?

Yes, this study is public and free. You can discuss with your co-workers about this study, but this study will not mention any firm and participant name in report.

11) Can I share this study?

Yes, you are more than welcome to share this study to encourage other counterpart to participate in this study.

NOTE: Contact for any information and concerns

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Phone: +36 702689579

Or his Supervisor

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University of Kaposvár
Email: gal.zoltan@ke.hu,
Phone: +36 30 7199 448
Fax: +36 82 505 896
13.5 Abbreviation

KEONICS  Karnataka founded the Karnataka State Electronics Development Corporation

SIA  Secretariat for Industrial Assistance

GST  Goods and Service Tax

IFDI  Inward Foreign Direct Investment

FEMA  Foreign Exchange Management Act

FERA  Foreign Exchange Management Act

OGL  Open General License

MNCS  Multi-National Enterprises

FDI  Foreign Direct Investment

MRTP  Monopolistic and Restrictive Trade Practice Act.

ILP  Industrial licensing policy

WIR  World Investment Report

BOT  Balance of Trade

IB  International Business

SDP  State Domestic Product

ILP  Indian Licensing Policy

ROI  Return on Investment

LSAs  Location Seeking Advantages

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