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Intervention of Absorptive Capacity on the Relationship between Foreign Direct Investment and Economic Growth: A Systematic Approach

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Foreign Direct Investment (FDI) is one of the prominent determinants that controls the growth of one country both directly and indirectly. Though FDI is well known to exerts positive impact in economic productivity, there is several factors that control the impact of FDI towards economic growth which can also be called absorptive capacity. Hence, in order to understand the relationship between FDI and economic growth in Malaysia, this research paper conceptualized the relationship between FDI and economic growth with the presence of absorptive capacity as the moderating variables which consists of human capital, financial development, and trade openness. These variables encapsulate the relationship between FDI and economic growth in the overall economic environment. This paper included a comprehensive literature searching of FDI, economic growth and absorptive capacity in the Scopus database for the year 2014 until 2018. The current method used for the paper review is the PRISMA flow diagram. Therefore, the conclusions explained the relationship between FDI and economic growth, which then can be tested in empirical studies. This paper brings significant contributions to the literature of the area of study, whereas exploring the intervention of absorptive capacity on the relationship between FDI and economic growth and the visualisation framework can explain the relationship of it. Plus, this research paper serves as a reference for policy makers and FDI investor to gain positive economic advantages.

Key words: *Foreign Direct Investment, economic growth, absorptive capacity, human capital, financial development and trade openness.*

Introduction

Malaysia's economic index has been increasing well significantly in spite of having external economic problems (International Monetary Fund, 2017). As Malaysia is a country that practices open economy, other external sectors facing the impacts, including the oil crises in the 1970s, downturn of electronic industry in the mid 1980s, and especially during the Asian financial crisis of 1997 where it was still felt in the early twenty first century (Karimi & Yusop 2009). Foreign Direct Investment (FDI) plays an important role in bringing back the economic stability of Malaysia. FDI and its causal relationship with Gross Domestic Product (GDP) can attract foreign investors. Hence, foreign investors would be more attracted to a country that has a good environment and is favourable for them to maximize the benefits from their investments. Though, the host country also is in the same position as they also receive a lot of benefits from the foreign investment, including promoting their economic growth (Solomon et al. 2015). It will also increase economic performance mainly to the host country.

The main concern of this paper is to answer the question of the effects of absorptive capacity on FDI and economic growth. The relationship between FDI and economic growth can be weighted by using several factors, which are known as absorptive capacity. In the end, the results of this research will be contributed in the knowledge area of the study and to the policy improvement of Malaysia's economy in the context of FDI inflows and readiness of country before the FDI inflows.

Review Methodology

The relationship between FDI and economic growth depends on the absorptive capacity of the host country. It moderates the relationship between FDI and economic growth. The absorptive capacity factor studied consisted of human capital financial development and trade openness. Therefore, this study reviewed the literature on the effects of absorptive capacity on the relationship between FDI and economic growth. Scopus is used for the search engines to ensure the coverage of publications and quality of the sources. The following criteria is used to search these sources and selected papers:

- Keywords: Foreign direct investment, economic growth, human capital, financial development, trade openness is used to search the titles and abstracts of the papers.
- Conference papers. Master thesis's, doctoral dissertations, textbooks and unpublished papers were excluded because academics and practitioners generally use journals to acquire information and disseminate new findings. Hence, journal

articles are used to represent the highest level of research available (Nord and Nord, 1995).

- Different types of journal publications such as peer-reviewed, published and in press texts that are available in the English full text version were all included. It is noteworthy that the decision to include non-peer reviewed papers was important as it recognized the value of editorial and invited commentaries in shaping the research within discipline.

Figure 1. PRISMA flow diagram.

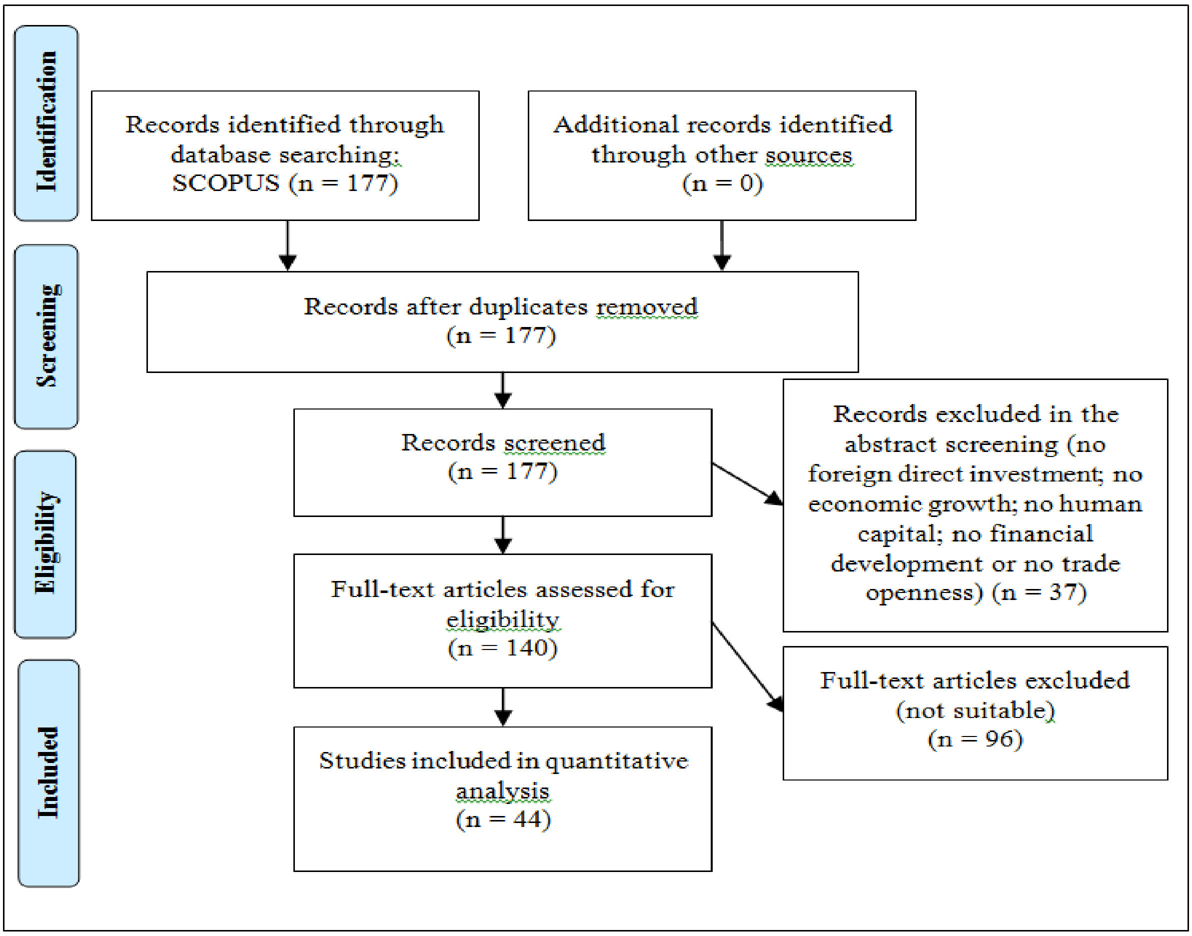


Figure 1 shows the flow diagram of articles reviewed for this research, known as the PRISMA flow diagram. The PRISMA flow diagram acts as a tool for this review process. This research technique resulted in the use of 177 related articles that were published between 2014 and 2018. The full texts of these articles were carefully studied. 96 of these articles were omitted from the list because their main topics did not concern the relationship between FDI and economic growth. Finally, 44 articles were selected for classification.

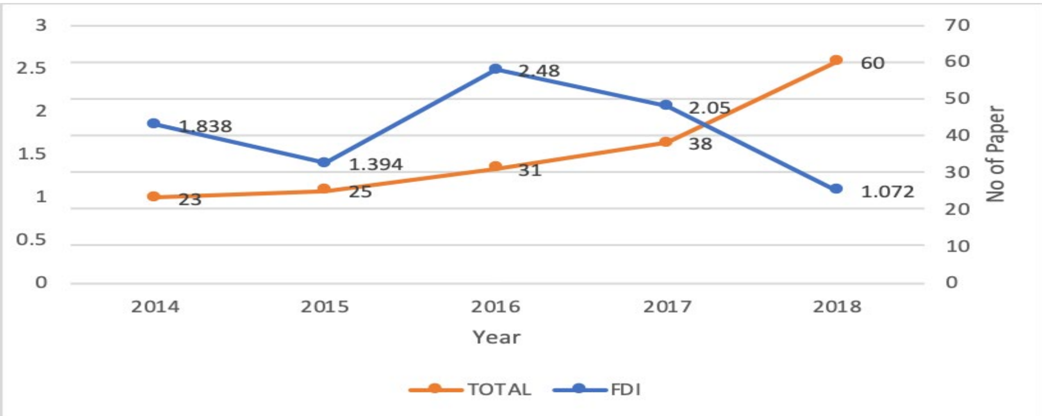
Results and Discussion

As discussed in the earlier section, further analysis was undertaken to understand how the articles were distributed by year of publication, journal publication and geographic region, and the topic area. This analysis will provide an insight into the effect of absorptive capacity on the relationship between FDI and economic growth as an area of scholarship, with a view of identifying key trends and insights that will foster future research opportunities.

Distribution by year of publication

Between the years of 2014 and 2018, the distribution of articles is shown in Figure 1. Figure 1 shows that there was an increasing trend in the studies involving the effect of absorptive capacity which consists of human capital, financial development and trade openness on the relationship between FDI and economic growth. However, FDI flows show that ther are descending trends starting from 2017 and 2018. Thus, much attention given in this area of study regarding the decreasing trends of FDI flows. This shows that scholars show increasing trends in this topic area even though the decreasing FDI flows. These interesting subjects suggest that this topic of FDI and growth will be regognised as an important area of research. The reliable data sources of FDI flows are imported from the World Development Indicators website and the distribution of papers are extracted from Scopus Journal.

Figure 1. Distribution of papers and FDI by year



Distribution by journal

Table 1 represents the most published articles on the FDI-Economic growth relationship. The Journal of International Trade and Economic Development produce 8 articles on this subject which was the journal who produced the most articles on this topic.

Table 1: Distribution of papers by journal

Journal	**Number of Papers**	**%**
Journal of International Trade and Economic Development	8	4.519774011
Sustainability (Switzerland)	7	3.954802
International Journal of Education Economics and Development	6	3.389831
International Journal of Economics and Financial Issues	6	3.389831
Iranian Economic Review	5	2.824859
Applied Economics	5	2.824859
Renewable and Sustainable Energy Reviews	4	2.259887
Economic Modelling	4	2.259887
Journal of the Asia Pacific Economy	3	1.694915
International Journal of Social Economics	3	1.694915
International Journal of Energy Economics and Policy	3	1.694915

Segmentation

Foreign Direct Investment

Foreign Direct Investment, which also known as a globalization, is a key element in growing in the international market. Foreign direct investment creates a direct, stable and long-lasting link between economies and also act as the moving factors for the development of local enterprise, as well as enlightening the competitiveness of the host and home countries economy. Moreover, FDI promotes the transfer of technology and know-how between economies and gives an advantage for the host countries to enter the global market and promoting their products internationally. In the meantime, FDI also acts as the important source of capital for the host and home country (OECD Benchmark Definition of Foreign Direct Investment, 2008).

According to the World Investment Report 2007, FDI is defined as a long-term relationship and providing a lasting interest that is controlled by the direct investor known as host country in a foreign country other than its country which known as home country. Host countries have the rights to influence and make decisions in the management of the company in the home country. Foreign Direct Investment can be categorized in three mechanisms which is equity capital, reinvesting earning and intra-company loans. In equal capital, foreign direct investor's purchase shares of an enterprise in other country. Next, as for reinvested earnings, the shares earn by direct investor's, it is not classified as dividends by affiliates. The retained profits by affiliates are reinvested. Lastly, intra-company loans are defined as the short- or long-term processes of borrowing and lending funds between the owners of the host country and the home country. As the World Investment Report 2007 defines, FDI provides lasting interest, the International Monetary Fund (2003) defines lasting interest as the formation of manufacturing facilities, bank premises, warehouses and other permanent organizations overseas, and the operation of mobile equipment.

Economic Growth

According to Celebi et al. (2015), economic growth is a process of improvement in total production levels, measured by direct and relative increases or actual production per capita. Besides, economic growth is also related to the development of production capacity and known as GDP which is considered as one of the indicators of growth. The economic growth of a country can be measured by its level of GDP. GDP is defined as the total value of goods and services produced in a specific period of time after the deduction of the cost of goods and services are used up in the production process (Department of Statistic Malaysia, 2016). GDP was commonly used when representing the growth of a country.

Absorptive Capacity

According to Adler (1965), the reason for the absorptive capacity that was proposed originally was to understand the capacity of an economy to absorb investments. Suryandari (2014), explains that the notion of absorptive capacity arose from the view that an economy needs investment in the development process to promote attempts to accumulate funds, create infrastructure, and construct financial activity. Investment alone, however, was not enough. The economy needed the ability to use the investments to produce value, and this capacity was conceived as an absorptive capacity. Absorptive capacity was associated with the efficiency or productivity of the capital invested, and was defined as the acceptable rate of return on an investment in a specific economy.

Tang and Zhang (2016), concluded that absorptive capacity in the host country determines the benefits from FDI. Absorptive capacityhas been mentioned as being linked with a country's FDI policy, human capital, R&D, and also the country's infrastructure quality. Therefore, the dependency of a host country's absorptive capacity throughout the whole FDI process is significant.

Human capital

Organization for Economic Co-operation and Development defines human capital as knowledge, skills, competencies and attributes of one person that enable the formation of personal, social and economic welfare. Similarly, Goldin (2014) defines human capital as the skills owns by the labour forces which resulting increased of an individual's productive capacity as it increased. The World Bank (2018), also define human capital similarly which is individual skills, heath, knowledge and resilience. Plus, it highlights the importance of human capital investment which due to technological change it caused nature of work to evolve.

Nguyen et al. has developed a model which is known as Photosynthesis model which stated that in order to receive benefits from FDI process, the host country is required to own a sufficient absorptive capacity related to human capital resources, absorptive capacity of domestic firm, financial system, physical infrastructure, technological, and institutional development. This model proves the importance of human capital as one of absorptive capacity.

Therefore,there has been a number of research works undertaken by researchers to study the importance of human capital in the economy and how it can affect a countries economic growth and FDI. Kottaridi and Stengos (2010), in their research, confirmed that human capital has a nonlinear effect on economic growth even in the presence of FDI, which means that the changes of value in human capital does not correspond with the constant changes in economic growth. On the other hand, Baharumshah & Almasaied (2014), who explore the role of FDI in economic growth in Malaysia, found that by cooperating FDI with human capital the result is a positive effect of growth in both the short and long term. It explains that educational system allows the country to receive more from the positive spill over effect of FDI. The researchers also stated that the factors of Malaysia’s remarkable economic growth records over the past three decades was partly due to the contributions of the education and financial institutions.

Financial development

According to Calderon and Liu (2003), the relationship between the financial development and growth is important as it has affected the development policy, even though the causal relationship remains unclear. In order to gain the positive growth effect of the FDI, financial development is one of factors that could lead to a positive growth effect. FDI and financial development are both important in complimenting elements to promote economic growth for a country. As claimed by Nguyen et al. (2009), financial development plays an important role as an absorptive capacity factor. Even though financial development can cause positive effects, as a part of the absorptive capacity, the impact of financial developments towards

FDI on growth is fragile as it could possibly result in different outcomes (Bahri et al., 2018). As stated by Almfraji and Almsafir (2014), suitable levels of financial development, alongside with human capital and open trade regimes, can promote a positive effect on the relationship between FDI and economic growth. Thus, an appropriate level of financial development controls the results of the impacts of financial development on economic growth. Similarly, research conducted by Hermes and Lensink (2003), also mentions that a financial system can boost the FDI inflow as it provides a more developed system that contributes to technological diffusion. Therefore, financial development is known as the influencing factors between the relationship between FDI and economic growth. According to the seminal research from Gurley and Shaw (1960), without the presence of the appropriate financial development system, one country cannot achieve positive growth. Jayaraman, Choong and Ng (2017), examine the existence of a long-term relationship between FDI and economic growth with the presence of financial sector development have resolved the answer, whereas the FDI and financial sector development was confirmed to contribute to the growth of the economy, and financial sector development is complementary to FDI.

Trade Openness

A study conducted by Iamsiraroj and Ulubasoglu (2015) that focused on over 140 countries during the i period of 1970 to 2009, has concluded that economic growth is positively affected by FDI. Plus, trade openness was found as a more suitable absorptive capacity factor (Ulubasoglu, 2015). Omri et al. (2015) in their study, revealed that there is an interrelated relationship between both economic growth and trade openness, which is that the increase in trade openness will decrease economic growth. Supported by Kyophilavong et al. (2015), who revealed that trade openness helps in increasing economic activity and leads to positive economic growth, and it is returned in economic growth that leads to trade openness. Similarly, Baharom et al. (2008), also proved a positive and significant relationship of trade openness on economic growth both short and long run relationship.

FDI leads in increasing economic growth. In order to attract the inflows of FDI, the government has make several moves which are the changes in regulatory regimes on a foreign country (Solomon 2011). To support this statement, Zhang (2001), has researched 11 countries in East Asia and Latin America, and stated that the policy regimes that are open to both capital flow and foreign trade have led to an increase in the FDI in East Asia. Through this openness, foreign firms can reduce their liability in the trade transactions. Thus, this will increase the number of FDI in the host country and will increase the growth of the economic performance of countries. As stated by Baharom et al. (2008), trade openness has influenced the economic growth and it was proven to have a significant result. Whereby, trade openness was measured by dividing the total of import and export data with the GDP.

Intervention of the Absorptive Capacity between FDI and Economic Growth

The relationship between FDI and economic growth have unclear issues with the presence of absorptive capacity. Hytenget's cross-country analysis (2014), found a lack of prior research with studies that integrate absorptive capacity on FDI and economic growth,which resulted in vagueness in the research. Ensuing the study into this ambiguous topic led to an increasing belief that FDI may not directly influence GDP. Instead, they serve together with other variables such as infrastructure, trade openness, human capital, economic development, and good economic governance to foster growth. These factors are commonly recognized as supporters of FDI's beneficial growth effect. The study is consistent with the study by Awad and Hagad (2017), that mentioned that a host country's absorptive capacity is determined in the results of FDI which spill over on economic growth. Thus, this explains that absorptive capacity plays an important role in determining the relationship between FDI and economic growth.

Figure 1 shows the upwards trends of the research topics published, this topic is considered as an important topic and is currently getting a lot of attention. Therefore, this study is meaningful to shed light on the effects of absorptive capacity on the relationship between FDI and economic growth. Hence, Figure 2 describe the proposed construct to this research study.

Figure 2. Conceptual framework on the relationship between FDI, economic growth and absorptive capacity.

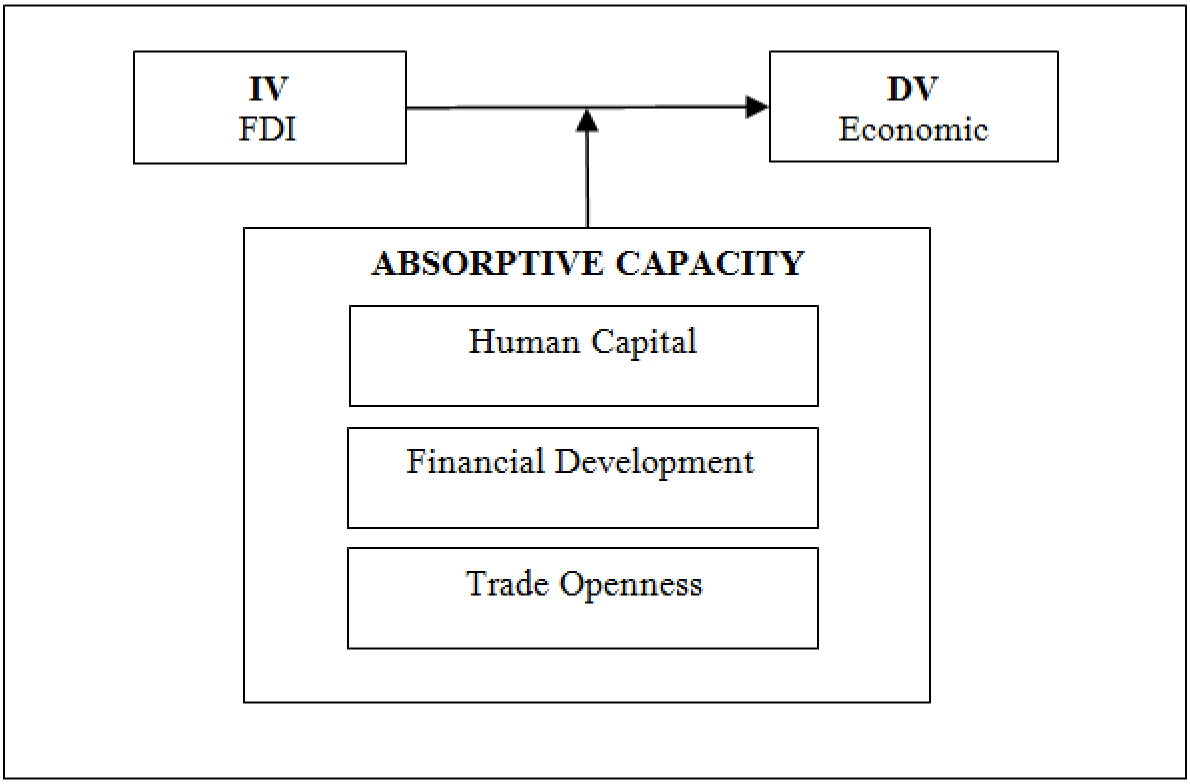


Figure 2 shows the three constructs that have the important drive on the relationship between FDI and economic growth. These three constructs are namely human capital, financial development and trade openness, classified as absorptive capacity.

Conclusion

This study reviewed 44 research papers which were published from the years of 2014 until 2018. The topic covered included the effects of absorptive capacity on the relationship between FDI and economic growth. After examining this paper in detail, the studies found that the effects of absorptive capacity on the relationship between FDI and economic growth were different for every factor that were included in the absorptive capacity as the moderating factors.

Previous researchers have studied the relationship between FDI, economic growth and influencing factors which includes; human capital, trade openness and financial development. But they only tested the included influencing factors individually and the research in this area is scarce. There isn't any research that has tested the factors altogether and tested it as a moderating factor. Therefore, this research will close the gap by analysing the technology transfer success factors as the moderating factors altogether towards the relationship between FDI and economic growth. The results will show whether the moderating variables affect the relationship between FDI and economic growth. In addition, the results will also show which moderating variables influence the relationship between FDI and economic growth of Malaysia the most.

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