

The Role of FDI in A Digital Economy

Author's Details:

- ⁽¹⁾ Philip Agyei Peprah-School of Finance and Economics - Jiansu University Zhenjiang 212013 PR China
⁽²⁾ Yao Hongxing-Jiansu University, Zhenjiang 212013-PR China

Abstract

The digital economy has a deep impact on the landscape of international trade. It has been a major reason behind the emergence of new multinational enterprises (MNEs) and industries. International investment is experiencing a decent retrieval with a forecast for coming years are warily positive. Increasing financial growth anticipation throughout major regions, a continuation of progress in trade and retrieval of business profitability are supporting a slight increase in foreign direct investment (FDI). The digital economy has been transforming into one of the most important aspects of the international economy. It has been transforming the way of commerce, and it has significant implications for FDI. The conventional drive behind FDI is being challenged by digital technologies and open a new way for a new set of contributing factors. For digital MNEs, this has turned into a change of motivation towards global investment from substantial market driven and resource-driven FDI to knowledge-seeking, financial and light FDI. There is a limited number of studies that are directed towards the implications of digital policies and digital economy for international investment and investment policy. This research paper intends to contribute towards a better understanding of the role of FDI in a digital economy.

Keywords: FDI, digital economy, MNEs

Introduction

The digital economy has a deep impact on the landscape of international trade. It has been a major reason behind the emergence of new multinational enterprises (MNEs) and industries (Hoskisson, et al., 2013). According to Teece (2010), the digital economy has evolved trade models in the traditional business. It has been a key aspect that reinforced global value chains (GVCs) that have restructured the organisation of the international economy. According to the United Nations Conference on Trade and Development (UNCTAD) World Investment Report 2017 (2017), international investment is experiencing a decent retrieval with a forecast for coming years are warily positive. Increasing financial growth anticipation throughout major regions, a continuation of progress in trade and retrieval of business profitability are supporting a slight increase in foreign direct investment (FDI) (Beck, 2016). In its World Investment Report 2017, UNCTAD (2017) stated that international flows are predicted to go up by approximate 1.3 trillion to 1.4 trillion in coming years; however, this will still less than the peak of 2007. Vague policies and geopolitical threats can obstruct the retrieval and the alterations in the tax policies and can have a substantial impact on the investment made across the borders (Firger & Gerrard, 2010). Acosta et al. (2008) also presented that the prospects for FDI are reasonably positive in most of the global regions other than the Caribbean and Latin America.

Emerging economies are anticipated to gain an approximate 10 percent growth in a collective manner (Fehske, et al., 2011). This involves a considerable growth in emerging Asia where an enhanced viewpoint in most of the economies is highly likely to improve the confidence of investors (Aizenman & Lee, 2008). According to Devarajan and Kasekende (2011), FDI to Africa region has also been anticipated to rise along with the modest anticipated increase in the prices of oil and developments in the regional integration. In contrast to FDI in Africa, anticipations for FDI in the Caribbean and Latin America are subdued along with an ambiguous policy outlook and macroeconomy (Acosta, et al., 2008). Flows to transition economies are more likely to make progress further after their economies reached the lowest mark in 2016 (Geissdoerfer, et al., 2017). According to UNCTAD (2017), flows to developed economies are anticipated to hold a steady state.

The digital economy has been transforming into one of the most important aspects of the international economy. It has been transforming the way of commerce, and it has significant implications for FDI. According to YEUNG (2009), the MNEs are one of the fundamental actors in the international economy with its significance matching and exceeding that of a number of state federations. Out of the 100 biggest

international economies, 42 are MNEs and not state federations with a revenue of more than gross domestic products (GDPs) of countries (Eden, 2016). There has been above 0.1 million MNEs, and every MNE possesses nine international associates on an average, which means that there is a total of 0.9 million international associates in host countries (UNCTAD, 2011). According to Maurer & Degain (2012), international trades within the MNEs through related party transaction makes above 33 percent of total international exports.

The digital economy has created a few innovative challenges for the global investment policy community. Some of the digital policies such as requirements for data sharing and digital localisation would appear to establish performance benchmarks for a new digital era (Dini, et al., 2008). Despite these and further interlinks between global investment routine and the digital economy, there is a limited number of studies that are directed towards the implications of digital policies and digital economy for international investment and investment policy. This research paper intends to contribute towards a better understanding of the role of FDI in a digital economy.

Literature Review

According to Eden (2016), by the end of the 20th century, two fundamental forces emerged to transform the competitive setting faced by multinational enterprises. Both of these forces shaped new areas of competition for the present MNEs. The first force of revolution was from the “rise of the rest,” which means the influence of MNEs approaching from the countries with developing economies (Eden, 2016). The second force of revolution was technological, which has been identified as the digital economy (Eden, 2016). According to Hilbert (2011), digital economy entails social and financial actions that are empowered through the platforms of internet and mobile technology and ubiquitous devices, provide with an environment that is rich in information, established on international and real-time flows of the information, offer 24 x 7 accessibility regardless of physical location and support a number of virtually connected networks. According to Terzi (2011), the digital economy is comprised of commerce based on digital technologies that assist with the business of products and services via e-commerce. Despite the different definitions of the digital economy in the literature, Eden (2016) suggested that there has been a mutual agreement over the fact that the digital economy has been driven by a number of different disruptive technological advancements, which have transformed the global markets. Eden (2016) further identified these disruptive technological advancements as advanced materials, mobile internet, cloud computing, Internet of Things (IoT), automation of working knowledge, and 3D printing. Innovations in the technology create a procedure of innovative destruction that provides with better opportunities as well as serious challenges.

The two fundamental forces of transformation defined by Eden (2016) are identified to have a profound impact over MNEs and foreign direct investment (FDI), and consequently, have an impact over FDI policies at both national and global levels. The progress of developing markets and the emergence of developing market multinationals from countries such as Brazil, China and India have been identified as one the most substantial revolutions since the start of 1990 (Eden, 2016). Since 1992, the United Nations Conference on Trade and Development (UNCTAD) started to publish the list of biggest MNEs around the globe positioned according to the size of their foreign assets (Casella & Formenti, 2018). Since 1995, UNCTAD also started publishing the list of top 50 biggest MNEs from the developing markets which has now been increased to top 100 (Eden, 2016). When UNCTAD initially published the list of biggest MNEs around the globe, no MNE from the developing markets could make it to the top 100 (Casella & Formenti, 2018). By the year 2000, there were five MNEs from the emerging market that made it to the UNCTAD’s list top 100 MNEs around the globe (Eden, 2016). By the year 2013, eight MNEs from the emerging market made it to the UNCTAD’s list top 100 MNEs around the globe and seven out of them were from Asia (Casella & Formenti, 2018).

It is commonly debated that digitalisation has led to a sanctuary in FDI due to the fact that it has empowered MNEs to function on an international level and expand their reach to markets across the border without having a physical presence in international markets (Cadestin, et al., 2018). As incentives for traditional market-seeking FDI and tangible resource-seeking FDI have been partially destabilised by digitalisation, further forms of FDI has gained more significance (Casella & Formenti, 2018). These other forms of FDI may include knowledge-seeking FDI, and financial and tax-driven FDI to some extent (Cadestin, et al.,

2018). These forms of investment had an impact over global production footprints of MNEs with substantial implications for progress in host countries (Casella & Formenti, 2018). Precisely, MNEs within highly digitalised divisions are anticipated to have a lighter global footprint as compared to other MNEs that are associated with creating greater sales volumes internationally through investing comparatively less in useful assets along with holding the biggest interests in their home countries, which are developed countries. Most of the contemporary FDI from transitioning and developing market economies come from the previously state-owned enterprises (SOEs) (Eden, 2016). According to Eden (2016), the “Go Global” policy of China encouraged outgoing FDI by its SOEs is possibly the most acknowledged instance where home country government encouraged outgoing FDI. Partial denationalisation of previous SOEs during the 90s has also been known for encouraging this pattern (Buckley, et al., 2008).

The digital economy had played a significant role in creating new businesses in the form of information and communications technology (ICT) companies as well as finding new ways of doing business that have an impact on all kinds of companies (Eden, 2016). This includes the rise of cloud computing business that empowered companies to utilise a unified and shared substructure of software and servers over the internet allowing them to collect, save, assess and make use of large volumes of data (Eden, 2016). This has been highly critical for success in the present world and created new ICT companies such as cloud computing providers as well as resulted in innovative ways for data handling such as buyers of cloud computing services (Eden, 2016). According to Eden (2016), the three fundamental features that can be considered as the best categories of the digital economy include the use of big data, mobility, and network impact. When it comes to mobility, the cost of manufacturing and delivering to customers is low once the outline has been drafted (Martinez, et al., 2010). Low cost of reproduction comparative to production cost indicates the presence of bigger supply-side economies of scale and scope (EOSS) because of digitalisation forces down the marginal costs comparative to the fixed costs (Eden, 2016). Reproduction can be performed at a location where the cost is lowest and automation of the production also contributes to lowering the cost (Martinez, et al., 2010). In addition to that, considering that the cost of shipping and storage for a digital product is near zero, the geographic movement of digital products is substantially greater as compared to the conventionally manufactured products (Eden, 2016). A contemporary business environment on the basis of implantation, utilisation, and popularity of ICT across all stage of the value chain has followed (Eden, 2016). The aspect of digitalisation advocates that technology is going to become an increasingly more significant aspect of production associated with the workforce, investment, and natural resources (Eden, 2016). Value addition is mainly spawned at the point where the outline is drafted and intellectual property rights are held instead of the location of manufacturing units (Martinez, et al., 2010). Strategies for successful businesses are based on diversity and modernisation instead of cost savings (Eden, 2016).

According to Eden (2016), network effects ascend from the point where the value of a product for the consumers is increased with the number of further consumers of the product. Network effects are a relatively old term that has been previously applied to outdated telephone companies, railways, and telegraph service providers (Eden, 2016). When it comes to digital markets, network effects tend to rise more frequently (Rysman, 2009). In a digital market, the rising popularity of a platform appeals to a large number of consumers as well as other business groups such as application developers and marketers (Eden, 2016). Social networking websites such as Facebook, Twitter, etc. are the most common examples of the network effect, which achieved fame among their users with a large number of users (Eden, 2016). Network effects are known for creating EOSS on the demand side of demand and supply infrastructure (Rysman, 2009). Increasingly popular networks are consensual networks that allow two groups of increasingly common interests to interact with each other (Eden, 2016). E-commerce websites such as eBay, Amazon, etc. are the most common examples (Eden, 2016). EOSS at both aspects of demand and supply infrastructure can be underpinning such as lower cost of production with increasing sales and increasing value for the consumers (Rysman, 2009). Network effects can produce a winner take all kind of results which is a state in which all the consumers choose the product of a single company (Casadesus-Masanell & Ricart, 2011). This indicates the possibility that enterprises that make the early move can enjoy the benefit of making the first move and can create a monopoly for a limited period of time (Eden, 2016). Reduced cost of reproduction also means that followers can imitate the products by both legal and illegal means subject to the protection of the product through intellectual property rights and patents, which indicates that monopoly may not last for a longer duration (Casadesus-Masanell & Ricart, 2011). This recommends that the competitive dynamics of

the industries creating digital products come from swiftness, branding, and network effects. Eden (2016), argued that the competition within a digital economy functions at a rapid speed which benefits continuous revolution while making it highly challenging for an enterprise to obtain substantial market power. Active competition on the basis of persistent rounds of revolution, growth, and disruption is of extreme importance within the digital economy (Casadesus-Masanell & Ricart, 2011).

The increasing significance of data, produced by the ICT companies that are continually working to reduce the costs of obtaining, storing, and assessing data, is the third feature of a digital economy (Eden, 2016). With the rise of Big Data (increasing volume of data) and reduced costs of data management, the cost of research, monitoring, negotiations, and market enforcement also reduced eventually reducing the natural limitations in the trade and creating greater prospects for profitable exchanges (Eden, 2016).

The transformation of the international economy is encouraged by revolutions in manufacturing and consumption (Jovane, et al., 2008). Considering that restrained positivity powers economic salvage, a technological revolution is transforming the ways being adopted for the manufacturing of products, paving the trail towards a fourth industrial revolution that is going to have a great impact on the society (Morrar, et al., 2017). The digital economy has gradually become a substantial part of this revolution (Eden, 2016). This can be defined as the implementation of the internet-based technologies to the manufacturing and trade of products and services (Morrar, et al., 2017). This has an impact on the daily lifestyle of a large number of consumers and also become a substantial part of the international economy (Eden, 2016). The internet businesses contribute to approximately four percentage points to GDP in the developed markets that collectively contribute to 70 percent of the global GDP (Casella & Formenti, 2018). This is also prevalent in the acts of making the trade (Jovane, et al., 2008). With the ever-increasing number of online sales and purchase by the small and medium-sized enterprises (SMEs), it has been predicted that the overall value of online business to business (B2B) transactions only is three folds greater as compared to the overall business to consumer (B2C) transactions (Casella & Formenti, 2018).

Along with the rapid progress of the digital economy, the significance of the digital and technological MNEs within global manufacturing has also surged radically (Fu, et al., 2011). The swift progress of technological MNEs has been an indication of one of the most substantial trends within the domain of international mega-corporations during the past few years (Lehrer & Behnam, 2009). During the period of 2010 to 2015, the number of technology firms in the list of top 100 global MNEs by UNCTAD increased from four to 10 (Casella & Formenti, 2018). Technological MNEs have obtained prominence in the domain of the biggest international MNEs and also termed as the most dynamic market players to date (Steenkamp, 2019). During the same time period, the assets of top technological MNEs surged by 65 percent and their overall operating profits and number of employees increased by approximately 30 percent as compared to the trends of flat growth for MNEs in other categories (Steenkamp, 2019).

The existence of MNEs is based on limitation within and across markets which offer revenue-generating prospects to the organisation that attempt to expand their market reach across borders (Cadestin, et al., 2018). There is a natural market limitation which emerges from limited or missing market circumstances including uncertainty, insufficient evidence, public properties, and missing or weak organisations (Kingsley & Graham, 2017). Then there are market limitations levied by the government including tax rate variations, tariffs, and control over exchange rate (Eden, 2016). Both lead to revenue-generating prospects for MNEs to assume markets across borders. These advantages of operating in international markets support the companies to overcome the costs of operating in foreign countries including both costs of operations at a distance and obligation associated with internationalism (Cadestin, et al., 2018). The fundamental advantages of operation in multiple across border markets is also termed as internationalisation advantages due to the fact that they are obtained by companies establishing internal transactions or related-party trade (Eden, 2016).

According to Casella & Formenti, (2018), flexibility, knowledge, arbitrage, and integration are the four advantages for the firms going global and is openly associated to the motivation of an MNE to take part in global manufacturing through FDI. The primary objective of MNEs is to maximise the international after-tax revenues of the MNE setup or the group of associated companies (Casella & Formenti, 2018). The main objective behind taking part in offshore activities to add value to the business is to increase the international revenues of the enterprise by maximising the advantages of being a multinational firm (Cuervo-Cazurra, et al., 2018). FDI can be in the form of a new investment also called greenfield investment, acquisition or

acquisition along with major restructuring also identified as brownfield investment, or through either major or minor equity or agreement forms (Eden, 2016).

Methodology

This research paper is based on a qualitative methodology. A qualitative method for research is reasoned with the investigative and inductive way of research (Neuman & Robson, 2014). This has been used to identify the research gap directed towards the implications of digital policies and digital economy for international investment and investment policy. The research paper has enlightened the present day role of FDI in the digital economy. A total of three relevant studies and further supporting literature is discussed in detail to provide a theoretical overview of the contribution of FDI in the digital economy. This research paper is based on the systematic review of researched literature of theoretical studies on the digital economy and the contribution of FDI. Interdependency, gradation, and attention to detail provided a holistic view of the subject being studies and presented a comprehensive image of its overall nature (Mallett, et al., 2012). The literature research was limited to the studies available in the English language and from the period of 2008 to 2018. The results obtained from the search were further filtered on the basis of their titles. The selection was further reduced by overviewing the abstract of the studies. Further assessment of the full text was conducted. From a total of 15 studies, three articles made it to the final selection on the basis of relevance to the role of FDI in the digital economy.

Discussion

The first study selected discussed the future of multinational enterprises (MNEs) and repercussions for the global investment system. In this study, Eden (2016) argued that two trends of change including multinationals from the developing markets and the digital economy are disrupting the conventional understanding of MNEs and FDI. According to Eden (2016), the higher significance of family owned and state-owned MNEs in developing market has a greater influence on their motivations towards location decisions and FDI. Simultaneously, the digital economy has paved the new ways for by default international organisations and micro-multinationals into the international economy specifically within their home countries with exceptional ICT infrastructure (Eden, 2016). According to Eden (2016), the increasing heterogeneity of organisations and investors is an indication that that one size fits all approach is no longer applicable. Eden (2016) argued that the current system of global investment is itself a partial patchwork of consensual and regional contracts which should represent this higher heterogeneity when the system is intended to support countries to accomplish their goals of sustainable development.

The next study selected was conducted in the context of the World Investment Report 2017 by UNCTAD (2017). The study attempted to fill some of the literature gaps and to offer a drive for studies in the future. This study by Casella and Formenti (2018) projected an innovative framework for the digital economy and created a broad sample of digital MNEs and ICT firms and outlined their global functions. According to Casella and Formenti (2018), the framework by UNCTAD for representing the digital economy is the first endeavour to mark the players in the digital economy in detail. It is categorised by three building block including ICT companies at the base and digital companies at the core.

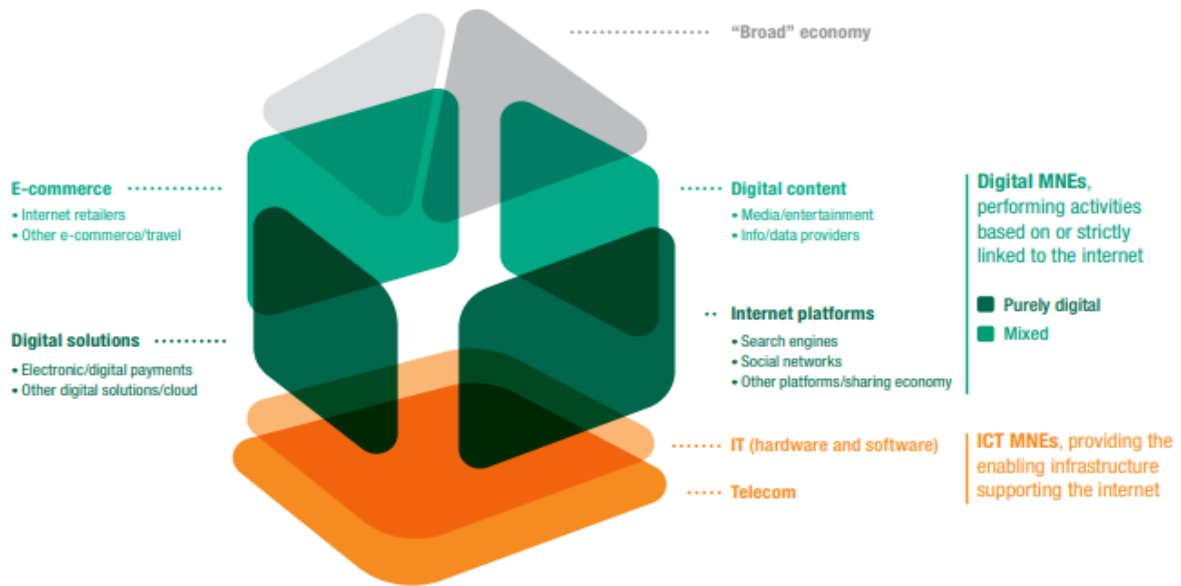


Figure 1: UNCTAD Digital Economy Framework, Source: World Investment Report 2017

According to Casella and Formenti (2018), wide-ranging economy rests on digital content and infrastructure during the course of digitising conventional operations. In this framework, the digital organisation included pure digital companies such as digital solution providers and internet companies which function purely in a digital setup and hybrid companies including digital content providers and e-commerce websites that blends physical business with a noticeable digital aspect. According to Casella and Formenti (2018), FDI lightness indicator is an innovative primary indicator established by UNCTAD to analyse the global trial of digital MNEs. At specific MNE level, Casella and Formenti (2018) defined this as “the ratio between the shares of sales produced by international partners and the resultant share of international assets (p. 107).” This identified the magnitude to which an enterprise is capable of producing global sales provided its stock of global assets. According to Casella and Formenti (2018), the establishment of FDI lightness indicator engages combined data on sales and assets of international associates testified by the publicly listed MNEs. Casella and Formenti (2018) build the approach for their study on the recognised approach followed by UNCTAD to evaluate its list of top 100 non-financial MNEs. According to Casella and Formenti (2018), to develop FDI lightness indicator, it demanded that database of financial reports of every enterprise include a collection of the shares of assets and sales produced by the international affiliates.

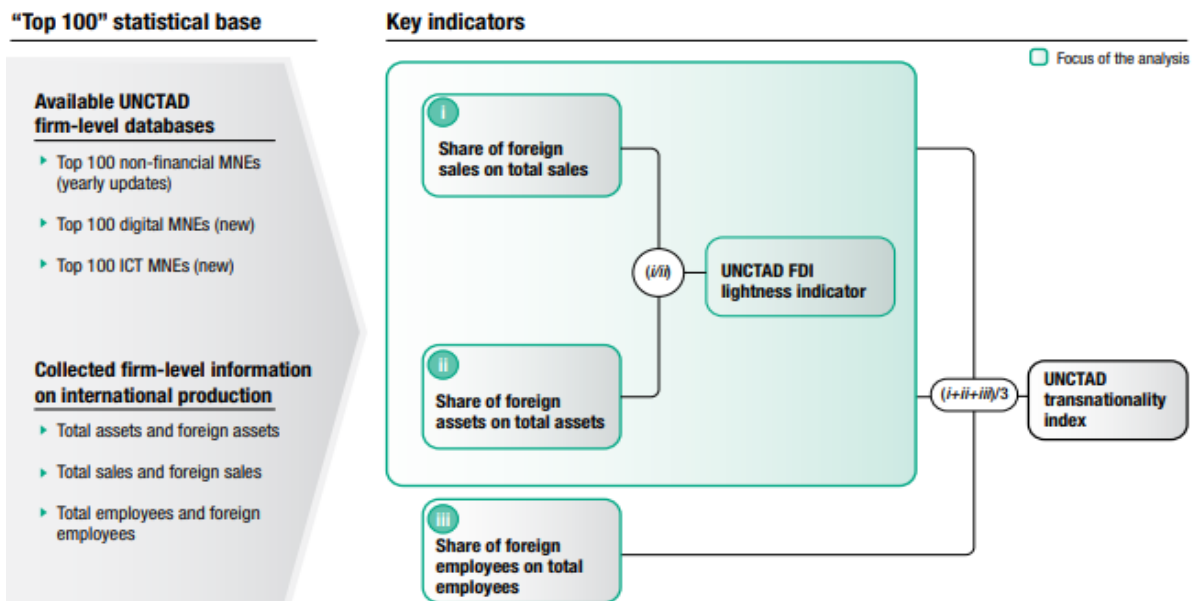


Figure 2: FDI Lightness Indicator, Source: Gestrin and Staudt (2018)

It clearly represented a surge in the FDI lightness ratio because the standing of enterprise on the internet intensity matrix progressed to operating and distribution models categorised by higher internet intensity. It also indicated that this pattern is not ruled by only a few big enterprises, but the outcomes remained consistent even after the weighted values of FDI lightness indicator were replaced. This pattern of FDI lightness indicator assures a connection between the lightness of investment and magnitude of digitalisation, which has also been the major trend recognised and discussed in World Investment Report 2017 by UNCTAD (2017).

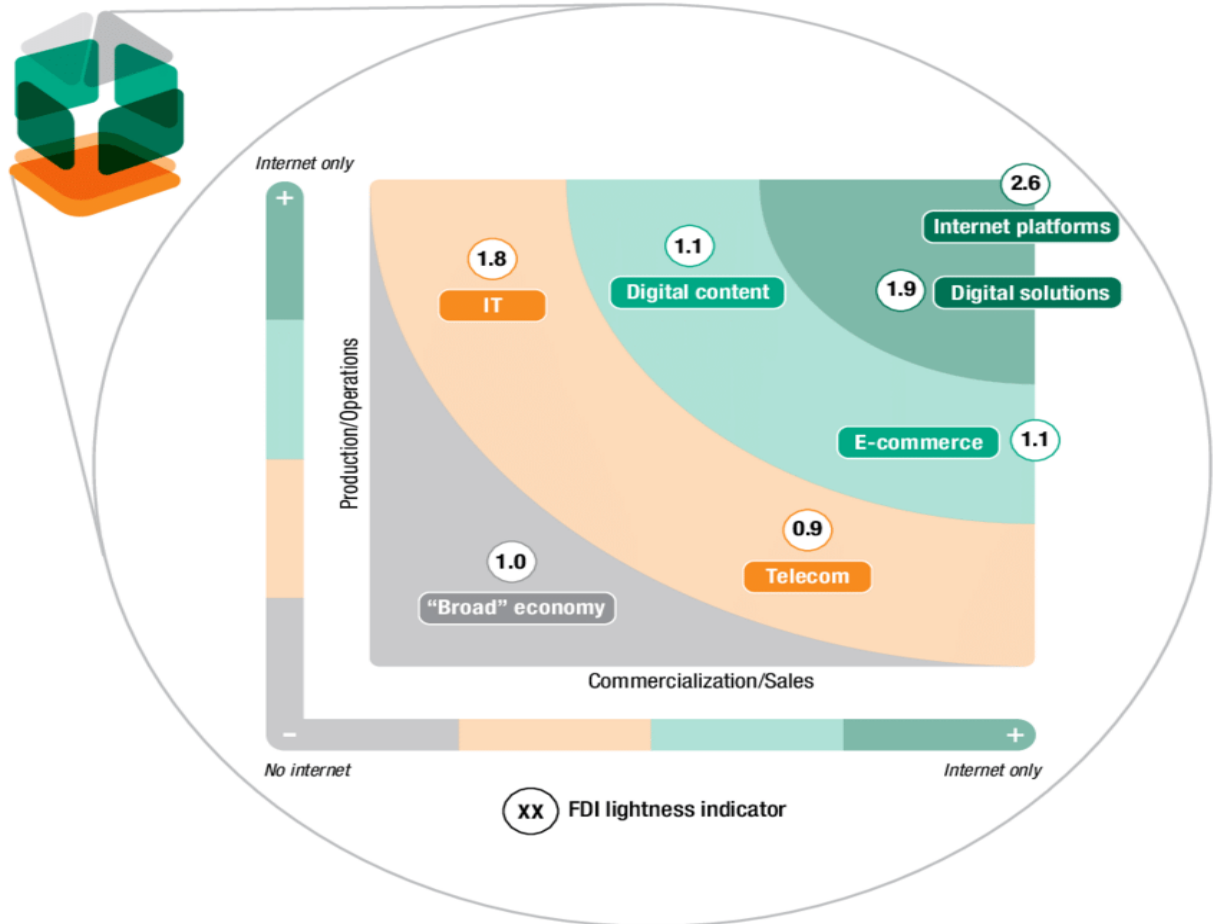


Figure 3: FDI Lightness Indicator and Internet Intensity Matrix, Source: World Investment Report (2017)

The next study selected further explained the building block of the digital economy as digital infrastructure, digital technologies, and digital data (Gestrin & Staudt, 2018). According to Gestrin and Staudt (2018), digitalisation is associated with the transformation of sound, shapes, information, etc. into a digital format that can be reproduced infinitely with least possible storage cost. According to Gestrin and Staudt (2018), digital data has laid the foundation for innovative business models in a number of conventional industries and has paved the way for new industries as well. Gestrin and Staudt (2018) argued that the digital economy had lowered the requirement of physical presence to operate in international markets by supporting the delivery of products and services in a digital format, for instance, publications, media, and services ranging from merchandising to an architectural plan. From the outlook of international investment, the major repercussion is that the transaction between exporting and market-seeking FDI as market entry modes for product distribution to host countries may shift towards exporting (Gestrin & Staudt, 2018). Similarly, World Investment Report 2017 by UNCTAD (2017) determined that both market-seeking FDI and efficiency-seeking FDI are partly challenged by digitalisation. According to Gestrin and Staudt (2018), digital economy has contributed to the fact that capability of organisations to reach foreign markets with comparatively small assets footprint has been related to the rise of self-proclaimed micro-multinationals and the by default international firms which instantly achieved international reach with very little foreign investment. Gestrin and Staudt (2018) further argued that the influence of the digital economy on the patterns of foreign investment had distressed the increasing significance of the digital infrastructure of the nations to attract

FDI. Similar to the major role that digital economy played in supporting the rise and expansion of global value chains, the capability of nationals to deliver the necessary digital infrastructure for large number of digital intensive global manufacturing network is anticipated to gain higher importance as a new determining factor in MNEs' location-based judgments (Gestrin & Staudt, 2018). According to Gestrin and Staudt (2018), a major disruption in global investment trends including decreasing use of FDI as a market access mode by the enterprises still needs to be observed even though the digital economy will continue to have disruptive and transformative repercussions for enterprises. Gestrin and Staudt (2018) further argued that the digital technologies had paved the way for innovative trades and global business models which have empowered a few enterprises to create international existence without the need of substantial amounts of FDI; however, FDI still reinforces the internationalisation approached of enterprises within conventional brick and mortar industries. According to Gestrin and Staudt (2018), this has revealed by the participation of digital companies in general foreign investment flows. According to Gestrin and Staudt (2018), digital enterprises produced 153 billion in international merger and acquisitions (M&A) during 2017. Moreover, top 100 MNEs in digital economy accounted for 20 billion in international M&As during 2017. Although most of the digital economy MNEs are following business models based on comparatively light FDI footprints, they are still developing their international physical presence quickly (Gestrin & Staudt, 2018).

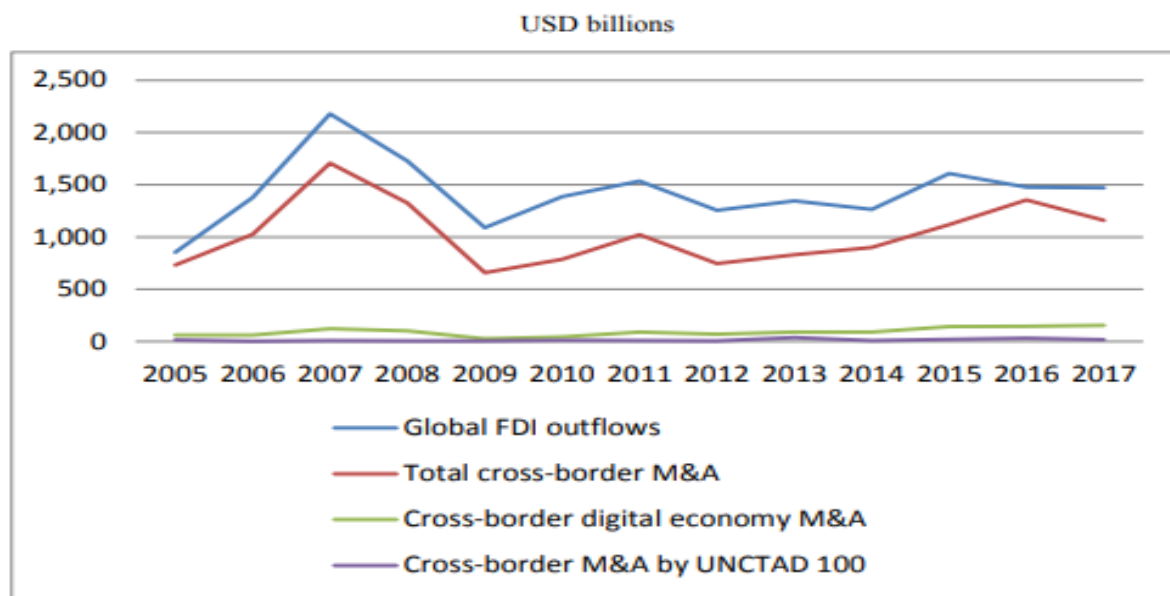


Figure 4: Global FDI and M&A flow, 2005-2017, Source OECD FDI database, Dealogic M&A Analytics database, and Word Investment Report 2017.

Conclusion

The digital economy has evolved trade models in traditional business and has been a key aspect that reinforced global value chains (GVCs) that have restructured the organisation of the international economy. The digital economy has been transforming into one of the most important aspects of the international economy. It has been transforming the way of commerce and it has significant implications for FDI. The conventional drive behind FDI is being challenged by digital technologies. This opened a new way for a new set of contributing factors. For digital MNEs, this has turned into a change of motivation towards global investment from substantial market driven and resource-driven FDI to knowledge-seeking, financial and light FDI. Putting the aspect of cost benefits to its best use has been substituted by the accessibility to fundamental intangible resources as the central force behind the international investment. These forms of investment had an impact over global production footprints of MNEs with substantial implications for progress in host countries. Precisely, MNEs within highly digitalised divisions are anticipated to have a lighter global footprint as compared to other MNEs that are associated with creating greater sales volumes internationally through investing comparatively less in useful assets along with holding the biggest interests in their home countries, which are developed countries. Most of the contemporary FDI from transitioning and developing market economies come from the previously state-owned enterprises (SOEs).

Micro-econometric analysis can be carried out to support the explanation of motivations behind digital FDI in an empirical manner. Indicators of the global footprint can be utilised to model particular scopes of FDI in

the digital economy for example global market outreach also identified as international sales share, the extent of internationalisation of functions such as global assets shares or a number of subsidiaries, locations, the home country of owners, etc. Two fundamental forces emerged to transform the competitive setting faced by the multinational enterprises included “rise of the rest,” which means the influence of MNEs approaching from the countries with developing economies and technological, which has been identified as the digital economy. These two fundamental forces of transformation are identified to have a profound impact over MNEs and foreign direct investment (FDI), and consequently, have an impact over FDI policies at both national and global levels.

It has been commonly debated that digitalisation has led to a sanctuary in FDI due to the fact that it has empowered MNEs to function on an international level and expand their reach to markets across the border without having a physical presence in international markets. Flexibility, knowledge, arbitrage, and integration are the four advantages for the firms going global and is openly associated with the motivation of an MNE to take part in global manufacturing through FDI. FDI can be in the form of a new investment also called Greenfield investment, acquisition or acquisition along with major restructuring also identified as brownfield investment, or through either major or minor equity or agreement forms

As incentives for traditional market-seeking FDI and tangible resource-seeking FDI have been partially destabilised by digitalisation, further forms of FDI has gained more significance. These other forms of FDI may include knowledge-seeking FDI, and financial and tax-driven FDI to some extent. Digital enterprises and sectors have witnessed a rapid growth during the last 10 years and had influenced the international economy in a transformative manner. Still, at the same time, limited evidence has been found regarding the transformative force of digital enterprises and sectors towards global investment structure. Even though a few digital enterprises have internationalised at a fast pace, they have commonly accomplished this on the basis of light FDI footprints and organisations within more conventional sectors still accounts for the most of the biggest MNEs and FDI around the world. The incorporation of digital information and technologies into the functions and business model of conventional MNEs has been gaining speed in recent years and digital companies have started to make a shift towards more conventional industries further. These developing hybrid models for business can open a whole new domain of investment internationalisation and the business dynamics which have until recently been limited to the digital economy would expand more widely in the economy.

References

- i. Acosta, P., Calderon, C., Fajnzylber, P. & Lopez, H., 2008. *What is the impact of international remittances on poverty and inequality in Latin America?. World Development*, 36(1), pp. 89-114.
- ii. Aizenman, J. & Lee, J., 2008. *Financial versus monetary mercantilism: long-run view of large international reserves hoarding. World Economy*, 31(5), pp. 593-611.
- iii. Beck, T., 2016. *Regulatory cooperation on cross-border banking—Progress and challenges after the crisis. National Institute Economic Review*, 235(1), pp. R40-R49.
- iv. Buckley, P. et al., 2008. *Historic and emergent trends in Chinese outward direct investment. Management International Review*, 48(6), pp. 715-748.
- v. Cadestin, C. et al., 2018. *Multinational enterprises and global value chains: New Insights on the trade-investment nexus. OECD Science, Technology and Industry Working Papers*, 2018(5), pp. 1-36.
- vi. Casadesus-Masanell, R. & Ricart, J., 2011. *How to design a winning business model. Harvard business review*, 89(1/2), pp. 100-107.
- vii. Casella, B. & Formenti, L., 2018. *FDI in the digital economy: A shift to asset-light international footprints. Transnational Corporations*, Volume 25, pp. 101-130.
- viii. Cuervo-Cazurra, A., Mudambi, R. & Pedersen, T., 2018. *The boundaries of the firm in global strategy. Global Strategy Journal*, 8(2), pp. 211-219.
- ix. Devarajan, S. & Kasekende, L., 2011. *Africa and the global economic crisis: Impacts, policy responses and political economy. African Development Review*, 23(4), pp. 421-438.
- x. Dini, P. et al., 2008. *Beyond interoperability to digital ecosystems: regional innovation and socio-economic development led by SMEs. International Journal of Technological Learning, Innovation and Development*, 1(3), pp. 410-426.

- xi. Eden, L., 2016. *Multinationals and Foreign Investment Policies in a Digital World*, Geneva: WEF.
- xii. Fehske, A., Fettweis, G., Malmodin, J. & Biczok, G., 2011. *The global footprint of mobile communications: The ecological and economic perspective*. *IEEE Communications Magazine*, 49(8), pp. 55-62.
- xiii. Firger, D. & Gerrard, M., 2010. *Harmonizing climate change policy and international investment law: Threats, challenges and opportunities*. *Yearbook on international investment law & policy*, Volume 11.
- xiv. Fu, X., Pietrobelli, C. & Soete, L., 2011. *The role of foreign technology and indigenous innovation in the emerging economies: technological change and catching-up*. *World development*, 39(7), pp. 1204-1212.
- xv. Geissdoerfer, M., Savaget, P., Bocken, N. & Hultink, E., 2017. *The Circular Economy—A new sustainability paradigm?*. *Journal of cleaner production*, Volume 143, pp. 757-768.
- xvi. Gestrin, M. V. & Staudt, J., 2018. *The digital economy, multinational enterprises and international investment policy*, Paris: OECD.
- xvii. Hilbert, M., 2011. *The end justifies the definition: The manifold outlooks on the digital divide and their practical usefulness for policy-making*. *Telecommunications Policy*, 35(8), pp. 715-736.
- xviii. Hoskisson, R. E., Wright, M., Filatotchev, I. & Peng, M. W., 2013. *Emerging multinationals from mid-range economies: The influence of institutions and factor markets*. *Journal of Management Studies*, 50(7), pp. 1295-1321.
- xix. Jovane, F. et al., 2008. *The incoming global technological and industrial revolution towards competitive sustainable manufacturing*. *CIRP annals*, 57(2), pp. 641-659.
- xx. Kingsley, A. & Graham, B., 2017. *The effects of information voids on capital flows in emerging markets*. *Journal of International Business Studies*, 48(3), pp. 324-343.
- xxi. Lehrer, M. & Behnam, M., 2009. *Modularity vs programmability in design of international products: Beyond the standardization–adaptation tradeoff?*. *European Management Journal*, 27(4), pp. 281-292.
- xxii. Mallett, R., Hagen-Zanker, J., Slater, R. & Duvendack, M., 2012. *The benefits and challenges of using systematic reviews in international development research*. *Journal of development effectiveness*, 4(3), pp. 445-455.
- xxiii. Martinez, V., Bastl, M., Kingston, J. & Evans, S., 2010. *Challenges in transforming manufacturing organisations into product-service providers*. *Journal of manufacturing technology management*, 21(4), pp. 449-469.
- xxiv. Maurer, A. & Degain, C., 2012. *Globalization and trade flows: what you see is not what you get!*. *Journal of international commerce, economics and policy*, 3(03), p. 1250019.
- xxv. Morrar, R., Arman, H. & Mousa, S., 2017. *The fourth industrial revolution (Industry 4.0): A social innovation perspective*. *Technology Innovation Management Review*, 7(11), pp. 12-20.
- xxvi. Neuman, W. L. & Robson, K., 2014. *Basics of social research*. Toronto: Pearson Canada.
- xxvii. Rysman, M., 2009. *The economics of two-sided markets*. *Journal of economic perspectives*, 23(3), pp. 125-143.
- xxviii. Steenkamp, J., 2019. *Global Versus Local Consumer Culture: Theory, Measurement, and Future Research Directions*. *Journal of International Marketing*, p. 1069031X18811289.
- xxix. Teece, D., 2010. *Business models, business strategy and innovation*. *Long range planning*, 43(2-3), pp. 172-194.
- xxx. Terzi, N., 2011. *The impact of e-commerce on international trade and employment*. *Procedia-Social and Behavioral Sciences*, Volume 24, pp. 745-753.
- xxxi. UNCTAD, 2011. *World Investment Report 2011: Non-Equity Modes of International Production and Development*, Geneva: United Nations.
- xxxii. UNCTAD, 2017. *World Investment Report 2017*, Geneva: United Nations.
- xxxiii. YEUNG, H., 2009. *Transnational corporations, global production networks, and urban and regional development: A geographer's perspective on Multinational enterprises and the global economy*. *Growth and Change*, 40(2), pp. 197-226.